Maternal and Child Survival Program

End-of-Project Report

March 17, 2014 – December 31, 2019

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Maternal and Child Survival Program

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The Maternal and Child Survival Program (MCSP) is a global, $560 million, 5-year cooperative agreement funded by the United States Agency for International Development (USAID) to introduce and support scale-up of high-impact health interventions among USAID's 25 maternal and child health priority countries, as well as other countries.

MCSP is focused on ensuring that all women, newborns, and children most in need have equitable access to quality health care services to save lives. The project supports programming in maternal, newborn and child health, immunization, family planning and reproductive health, nutrition, health systems strengthening, water/sanitation/hygiene, malaria, prevention of mother-to-child transmission of HIV, and pediatric HIV care and treatment. MCSP will tackle these issues through approaches that also focus on household and community mobilization, gender integration, and digital health, among others.

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December 2019

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Abbreviations

AA	Associate Award
ADMSA	advanced distribution of misoprostol for self-administration
AFRO	Regional Office for Africa
AGES	Asia Gestational age Estimation Study
ANC	antenatal care
ART	antiretroviral therapy
ASRH	adolescent sexual and reproductive health
bCPAP	bubble continuous positive airway pressure
BEmONC	basic emergency obstetric and newborn care
BFCI	Baby Friendly Community Initiative
BFHI	Baby-Friendly Hospital Initiative
CBNC	community-based newborn care
CCA	Clean Clinic Approach
CDC	US Centers for Disease Control and Prevention
CECAP	cervical cancer prevention
CHPS	community-based health planning and services
CHW	community health worker
CHX	chlorhexidine
CoP	community of practice
CSO	civil society organization
DHIS2	District Health Information System 2
DHS	Demographic and Health Survey
DRC	Democratic Republic of the Congo
DTP3	third dose of the diphtheria-tetanus-pertussis vaccine
EBF	exclusive breastfeeding
ECD	early childhood development
ECEB	Essential Care for Every Baby
ECSB	Essential Care for Small Babies
EmONC	emergency obstetric and newborn care
ENAP	Every Newborn Action Plan
ENC	essential newborn care
EPI	Expanded Programme on Immunization
EPMM	Ending Preventable Maternal Mortality
EQuiPP	Enhancing Quality iCCM through PPMVs and Partnerships
ESC	Eastern and Southern Caribbean
EVD	Ebola virus disease
FIGO	International Federation of Gynecology and Obstetrics
ForoLAC	Reproductive Health Supplies Coalition LAC Forum
FP	family planning
FP2020	Family Planning 2020
FTYP	first-time young parent
GA	gestational age
GBV	gender-based violence
GDA	Global Development Alliance
GIS	geographic information system
Global Fund	Global Fund to Fight AIDS, TB and Malaria
GMNHC	Global Maternal and Newborn Health Conference
GTR	LAC Regional Task Force for the Reduction of Maternal Mortality (*Grupo de Trabajo Regional para la Reducción de la Mortalidad Materna)*
HBB	Helping Babies Breathe
HBS	Helping Babies Survive

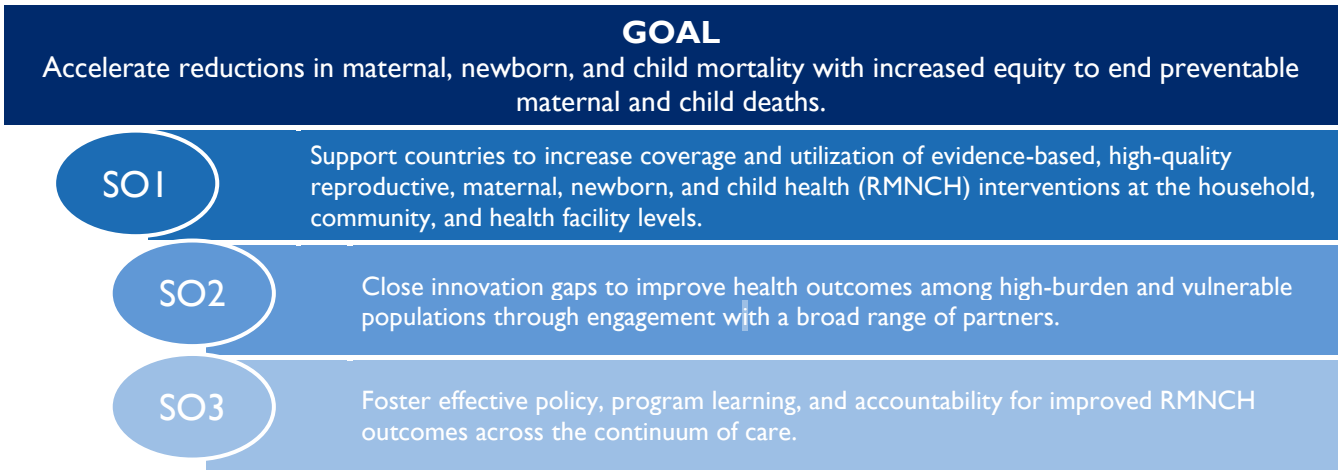
HIS	health information system
HMIS	health management information system
HSS	health systems strengthening
HTS	HIV testing services
iCCM	integrated community case management
ICFP	International Conference on Family Planning
ICHC	Institutionalizing Community Health Conference
IFA	iron-folic acid
IMCI	integrated management of childhood illness
IMNCI	integrated management of newborn and childhood illness
IPC	infection prevention and control
IPTp	intermittent preventive treatment of malaria in pregnancy
IPTp3+	three or more doses of intermittent preventive treatment of malaria in pregnancy
IPTp-SP	intermittent preventive treatment of malaria in pregnancy using sulfadoxine-pyrimethamine
IUD	intrauterine device
IYCF	infant and young child feeding
KMC	kangaroo mother care
KPC	knowledge, practices, and coverage
LAC	Latin America and the Caribbean
LAM	lactational amenorrhea method
LARC	long-acting reversible contraception
LBW	low birthweight
LDHF	low-dose, high-frequency
LMIC	low- and middle-income country
LNG-IUS	levonorgestrel intrauterine system
LRP	learning resource package
MAMA	Mobile Alliance for Maternal Action
MCH	maternal and child health
MCHIP	Maternal and Child Health Integrated Program
MCSP	Maternal and Child Survival Program
MDG	Millennium Development Goal
MDSR	maternal death surveillance and response
M&E	monitoring and evaluation
MgSO4	magnesium sulfate
MH	maternal health
MiP	malaria in pregnancy
MIYCN	maternal, infant, and young child nutrition
MMEL	measurement, monitoring, evaluation, and learning
MMR	maternal mortality ratio
MNCH	maternal, newborn, and child health
MNH	maternal and newborn health
MOH	ministry of health
MPDSR	maternal and perinatal death surveillance and response
NGO	nongovernmental organization
NMCP	National Malaria Control Program
PAHO	Pan American Health Organization
PDSR	perinatal death surveillance and response
PE/E	pre-eclampsia/eclampsia
PEPFAR	President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PMI	US President's Malaria Initiative
PMTCT	prevention of mother-to-child transmission
PNC	postnatal care
PPH	postpartum hemorrhage

PPFP	postpartum family planning
PPMV	patent and proprietary medicine vendor
PSBI	possible serious bacterial infection
PSE	pre-service education
PSI	Population Services International
PY	program year
QI	quality improvement
RBM	Roll Back Malaria
REC-QI	Reaching Every Child/Community Using Quality Improvement
RED	Reaching Every District
RED/REC	Reaching Every District/Reaching Every Child
RHS	Restoration of Health Services
RI	routine immunization
RMC	respectful maternity care
RMNCAH	reproductive, maternal, newborn, child, and adolescent health
RMNCH	reproductive, maternal, newborn, and child health
RR	Raedat Refiat [in Egypt]
SDG	Sustainable Development Goal
SMGL	Saving Mothers, Giving Life
SNL	Saving Newborn Lives
SP	sulfadoxine-pyrimethamine
TWG	technical working group
UBT	uterine balloon tamponade
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	US Agency for International Development
WASH	water, sanitation, and hygiene
WG	working group
WHO	World Health Organization
WHO MNCH Quality of Care Network	WHO Network for Improving Quality of Care for Maternal, Newborn, and Child Health
ZIKV	Zika virus

Overview and Executive Summary

The Maternal and Child Survival Program (MCSP) was the United States Agency for International Development (USAID) Bureau for Global Health's flagship maternal, newborn, and child health (MNCH) project from 2014–2019. Designed to accelerate country journeys to self-reliance and building on gains achieved by USAID's predecessor flagship, the Maternal and Child Health Integrated Program (MCHIP), MCSP introduced and supported scale-up of high-impact health interventions among USAID's 25 maternal and child health (MCH) priority countries, as well as other countries, contributing to improved health services in communities with a population totaling over 200 million people. MCSP's overall goals were to increase maternal and child survival in partnership with countries and contribute to achievement of the Sustainable Development Goals (SDGs). MCSP's scope expanded beyond that of MCHIP to reflect a changing global reproductive, maternal, newborn, child, and adolescent health (RMNCAH) landscape, and shifts in USAID's own priorities. Figure 1 displays how MCSP's three strategic objectives supported the overall goal of accelerating reductions in maternal, newborn, and child mortality.

Figure 1. MCSP's goal and three strategic objectives

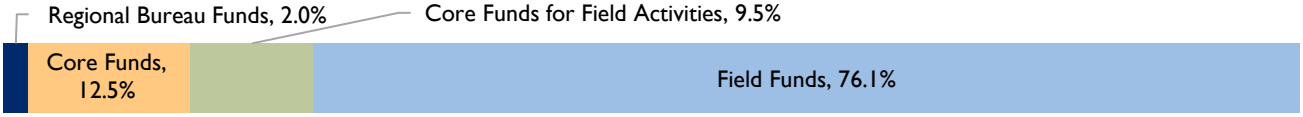


MCSP was implemented by a consortium of organizations led by Jhpiego in partnership with Save the Children, John Snow Inc., PATH, ICF, Results for Development, Population Services International (PSI), CORE Group, Johns Hopkins Bloomberg School of Public Health's Institute for International Programs, Avenir Health, the Communications Initiative, and Broad Branch Associates.

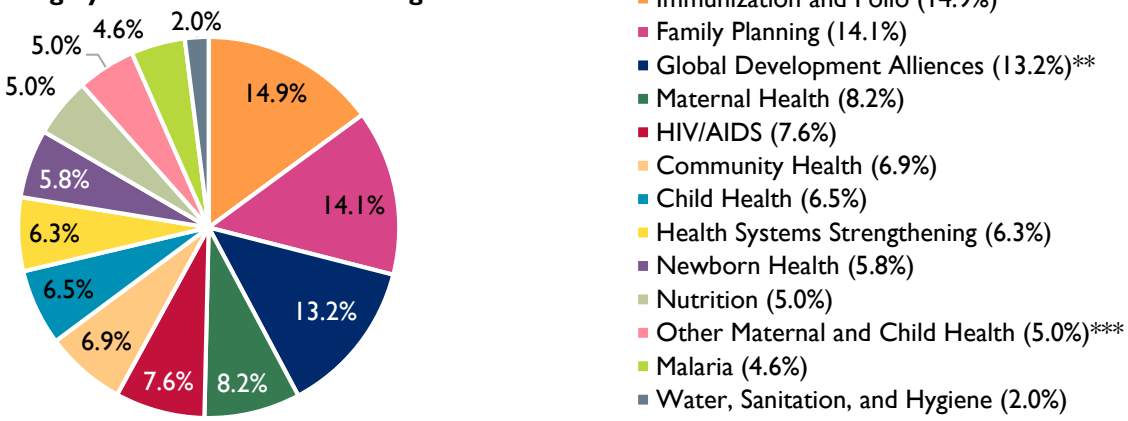
MCSP's team comprised technical leaders in RMNCAH, with cross-cutting expertise in health systems strengthening (HSS), human capacity development, equity and gender, scale-up, digital health, social and behavior change communication, quality, community health, monitoring and evaluation (M&E), learning, and external communications. Originally designed to provide technical assistance in USAID's MCH priority countries in 2014, MCSP managed a diverse portfolio that expanded to a total of 52 programs in 32 countries by 2019 (Figure 2). This portfolio ranged from large technical assistance programs focusing on policy formulation, HSS, human capacity development, quality improvement (QI), community engagement, and strengthening service delivery in Democratic Republic of Congo (DRC), Ethiopia, Ghana, Haiti, India, Liberia, Kenya, Mozambique, Rwanda, Madagascar, Nigeria, and Tanzania, to smaller, targeted programs in countries including Indonesia, South Africa, and Nepal, among others. In addition, many country programs focused on one or two technical areas, such as Uganda, Malawi, and India. Figure 3 reflects MCSP's total funding by technical area and source. Field funding comprised 76% of the total funding.

Figure 2. MCSP across 52 programs in 32 countries from 2014–2019 (see Annex 1 for more information)[1]

Figure 3. MCSP funding summary (see Annex 3 for more information)

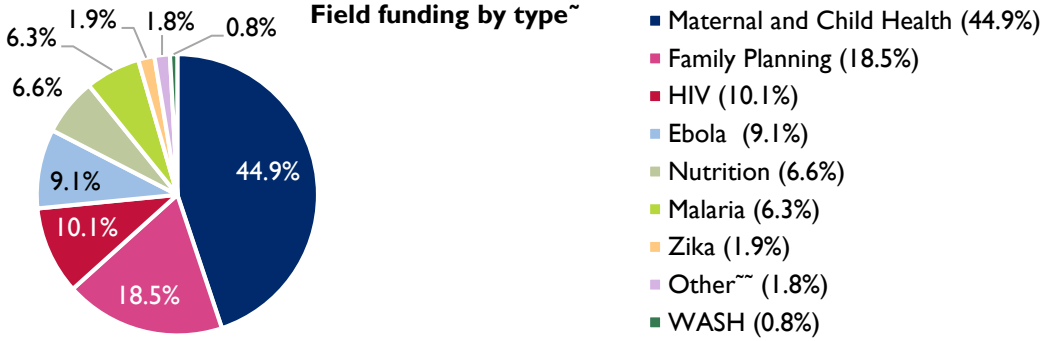


Core funding by technical or cross-cutting area*



* This figure does not include core funds which was used for field programs, such as Ebola, Zika, Displaced Children and Orphans Fund, and plague funding
** The Global Development Alliances included mPowering, the Mobile Alliance for Maternal Action, Saving Mothers Giving Life, Survive and Thrive, and Helping Babies Breathe. Details about the alliances can be found throughout this report, as well as their own products, linked in this document.
*** "Other Maternal and Child Health" includes funding to support dissemination events, the Lives Saved Tool, USAID's Acting on the Call report, and monitoring and evaluation activities (i.e. the RMNCH Scorecard).

Field funding by type˜



˜ This figure includes core funds which were used for field programs, such as Ebola, Zika, Displaced Children and Orphans Fund, and plague funding
˜˜ "Other" in this figure includes funding for education, program design and learning, Displaced Children and Orphan's Funding, gender-based violence, plague, tuberculosis, and neglected tropical diseases

[1] MCSP has operated full programs in 32 countries (including five Zika response programs in the Eastern and Southern Caribbean) and provided core-funded technical assistance in 13 additional countries. Additional information can be found in Annex 1.

Due to its geographic scope and wide-ranging technical expertise, MCSP was able to quickly and effectively support partner governments in the face of emergent global health threats. With funding from the Office of US Foreign Disaster Assistance and existing relationships with ministries of health (MOHs), MCSP rapidly initiated Ebola response and recovery efforts in Guinea, Liberia, and Ghana. Similarly, when the Zika virus (ZIKV) emerged in the Caribbean region, MCSP quickly mobilized to assess needs, share global guidance, and ensure that affected countries received tailored technical assistance. MCSP also supported efforts to combat other emergent global health security threats, including the plague in Madagascar, dengue in Burkina Faso, and vaccine-derived polio outbreaks in DRC, Madagascar, and Tanzania. In addition to its emphasis on RMNCAH, MCSP was strategically designed to respond to emerging priorities, including urban health in India and Kenya, and early childhood development (ECD) in Ghana, and—in response to the Zika outbreak—Barbados, St. Lucia, Guyana, Trinidad, and Grenada.

MCSP By the Numbers

Women, children, and health systems reached with high-impact reproductive, maternal, newborn, child, and adolescent health interventions supported by MCSP over 5 years

IMPROVING QUALITY OF HEALTH SERVICES ACROSS THE CONTINUUM OF CARE IN 45 COUNTRIES

Adolescents/Pre-Pregnancy

OVER 147,000

young people ages 10 to 24 accessed **adolescent-friendly health care** in 3 countries

Pregnancy and Antenatal Care

OVER 673,000

pregnant women received at least 90 **iron/folic acid supplements** during ANC in 4 countries

OVER 748,000

pregnant women received **IPTp2** during ANC to prevent malaria in 5 countries

Labor and Birth

OVER 2,237,000

women **gave birth in a labor and delivery-supported facility** in 14 countries

OVER 1,702,000

women were given a **uterotonic** in the third stage of labor to prevent postpartum hemorrhage in 12 countries

OVER 410,000

postpartum women received a **contraceptive method** in 11 countries

Postnatal Care

OVER 1,342,000

babies born at the health facility were **put to the breast** within one hour of birth in 9 countries

OVER 23,000

newborns were admitted to facility-based **Kangaroo Mother Care** in 5 countries

OVER 37,000

newborns not crying or breathing at birth were **successfully resuscitated** in 7 countries

Infancy and Childhood

OVER 4,585,000

children under 5 were reached with **nutrition programs** in 4 countries

OVER 4,146,000

children aged 0-12 months received **3 doses of DPT/Penta** vaccine in 10 countries

OVER 569,000

cases of child diarrhea were treated with **ORS/zinc** supplements in 10 countries

OVER 436,000

cases of child pneumonia were treated with **antibiotics** in 9 countries

STRENGTHENING HEALTH SYSTEMS TO IMPROVE RMNCAH SERVICES

12 DIGITAL HEALTH SOLUTIONS
were used to improve performance of health systems or support service delivery in 9 countries

OVER 488,000 TRAINED
on RMNCAH topics in 28 countries

23 HEALTH INNOVATIONS
were introduced with MCSP support in 21 countries

OVER 120 POLICIES
strategies, or guidelines were developed with MCSP support

Overarching Key Accomplishments

Advancing the Sustainable Development Goals

As the world transitioned from the Millennium Development Goals (MDGs) to the SDGs in 2015, MCSP adapted and supported the shift to establish global targets for the post-2015 maternal and newborn health (MNH) strategies. For example, in 2015, MCSP played a critical role in developing global goals for the World Health Organization (WHO)'s Strategies toward Ending Preventable Maternal Mortality (EPMM) and Every Newborn Action Plan (ENAP) by helping define priority indicators that would allow for global monitoring and reporting. To better track progress toward global RMNCAH goals and USAID priorities, MCSP contributed to improved globally recommended RMNCAH metrics, tools, and measurement guidelines and processes that are discussed later in the report.

MCSP bridged global and national policy efforts to help ensure that country experiences inform the global policy dialog, and vice versa. At the global level, MCSP, with support from USAID, collaborated with global health authorities such as WHO, USAID, UNICEF, the African Union, and Gavi, contributing cutting-edge technical leadership and rich, country-level experience to influence effective global health policies. As a result, global policies were grounded in country realities and reflect the needs and health aspirations of frontline health workers and the women and children they serve, which facilitates countries' readiness to adopt and adapt evidence-based global policy frameworks. At the country level, MCSP supported MOHs to align their policies, strategies, and guidelines with new global recommendations. For example, MCSP collaborated with WHO to translate and widely disseminate global policy recommendations into short, focused briefs that support operational guidance for decision-making at the country level. Please see Strategic Objective 3 in Section 1 for detailed examples of how MCSP's inputs were grounded in country experiences and resulted in evidence-based revisions or development of global guidance.

MCSP helped advance USAID priorities by leading or co-leading various global health technical working groups (TWGs). As secretariat of the Child Health Task Force, MCSP coordinated activities that resulted in 12 countries leveraging over $800 million in new financing from the Global Fund to Fight AIDS, TB, and Malaria (Global Fund) for integrated community case management (iCCM) of childhood illness, as well as a revised indicator guide for routine monitoring of iCCM that informed a new community case management module in the District Health Information System 2 (DHIS2). As leader of the postpartum hemorrhage (PPH) implementation Community of Practice (CoP), MCSP fostered knowledge exchange and collaboration among clinical, metrics, health systems, program implementation, research, and commodity stakeholders. As co-leader of the Maternal, Infant, and Young Child Nutrition (MIYCN)-Family Planning (FP) and FP-Immunization Integration working groups (WGs), MCSP advanced the global conversation and evidence base for integrating FP across the continuum of care and helped produce integration toolkits. In its role as the Monitoring WG co-chair of the WHO Network for Improving Quality of Care for Maternal, Newborn, and Child Health (WHO MNCH Quality of Care Network), MCSP collaborated with WHO and UNICEF to design the WHO monitoring framework, including a set of 15 common priority maternal and newborn indicators that are now being measured in all first-wave quality of care countries.

Strategic Objective 1: Support countries to increase coverage and utilization of evidence-based, high-quality RMNCAH interventions at the household, community, and health facility levels.

To contribute to the first Strategic Objective, MCSP supported QI and scale-up of high-impact interventions. For those high-impact interventions prioritized in national plans but not yet part of routine services, MOHs need to achieve both high effective coverage of the population in need and institutionalization of key systems supports to sustain these expanded services. For those high-impact interventions that were already part of routine services, such as antenatal care (ANC) and intermittent preventive treatment of malaria in pregnancy (IPTp), MCSP supported countries to implement QI approaches. For those high-impact interventions that were prioritized in national plans but not yet in widespread use, MCSP supported the country to scale them up. Both approaches used similar principles and strategies, and required supports for delivering the interventions embedded in country systems.

Scaling Up High-Impact RMNCAH Interventions

Aligned with national health goals, MCSP supported country-led efforts to scale up high-impact interventions to reach more women and children with lifesaving services (see select examples of high-impact interventions in Box 1). MCSP's support to countries focused on achieving high effective coverage of the population in need and institutionalization of key systems supports to sustain those expanded services. MCSP synthesized learning across 32 country programs to develop simple tools, templates, and guidelines; help MOHs conduct situation analyses; develop detailed, costed, and benchmarked national scale-up strategies and district-level operational plans; and track progress of scale-up implementation and outcomes.

Box 1. Country examples where MCSP supported scale-up of high quality, equitable care:

- Chlorhexidine for umbilical cord care in Nigeria and Liberia
- Improved labor management and newborn care practices, including birth asphyxia prevention and management, in Rwanda, Madagascar, Nigeria, and Tanzania
- Postpartum family planning in DRC, Ethiopia, Guinea, Haiti, India, Kenya, Liberia, Madagascar, Malawi, Mozambique, Nigeria, Rwanda, Tanzania, and Zambia
- Integrated community case management of childhood illness, linked to facility-based integrated management of childhood illness in DRC, Guinea, Haiti, Kenya, Mozambique, Rwanda, and Uganda through private-sector patent and proprietary medicine vendors in Nigeria
- Social accountability approaches in Malawi
- Community-based care, including Community-Based Health Planning and Services in Ghana, HIV testing and counseling in Namibia, and newborn care in Ethiopia
- Advanced distribution of misoprostol for self-administration in Mozambique

MCSP focused on a subset of high-impact interventions to identify how countries can systematically scale up to achieve high coverage and institutionalization of high-impact interventions, including advanced distribution of misoprostol for self-administration (ADMSA) for PPH prevention for home births, as part of wider efforts to increase total uterotonic coverage in **Mozambique**; postpartum FP (PPFP), including long-acting reversible contraception (LARC) up to 48 hours postpartum in hospitals and health centers in **Rwanda**; application of chlorhexidine (CHX) gel to the umbilical cord at birth to prevent newborn infection in **Liberia** and **Nigeria**; a practice improvement package to prevent and manage birth asphyxia in **Rwanda**; and iCCM in **DRC**. MCSP provided intensive technical assistance for countries to achieve several major milestones along the scale-up process, thus contributing to substantial improvements through the last several years, as detailed in Table 1.

Table 1. MCSP support to countries along the scale-up process for select high-impact interventions

Intervention: Chlorhexidine in Liberia		
2013	**MCSP role**	**2019**
The Ministry of Health and Social Welfare adopted a national policy for CHX in 2013, but progress from a 2013–2014 pilot was halted due to Ebola epidemic. In 2015, CHX and information, education, and communication materials to support use of CHX were not readily available in most facilities.	• Supported Ministry of Health and Social Welfare to develop and validate a fully costed plan for CHX scale-up. • Conducted trainings for health workers and provided monthly supportive supervision in health facilities. • Built capacity of health facility staff to ensure adequate CHX supply through forecasting and requisitions, and supported Ministry of Health and Social Welfare transition toward routine mechanisms for CHX distribution. • Built capacity of health facility staff to monitor uptake using facility wall charts, developed a scale-up dashboard, and advocated for inclusion of a CHX indicator in the HMIS.	Liberia achieved 76% national coverage for facility births by early 2018, exceeding the target laid out in the national scale-up plan. A CHX indicator was added to the HMIS. Standards for CHX cord care were adopted for inclusion in the national Joint Integrated Supportive Supervision tool.

Intervention: Chlorhexidine in Nigeria		
2015	**MCSP role**	**2019**
A successful CHX pilot was completed in two states, and CHX was added to the pre-service curriculum, in-service training packages, and policy documents. Local pharmaceutical manufacturers had only recently been granted regulator approval to provide CHX in-country.	• Supported the Federal MOH to convene all 36 states and the Federal Capital Territory to develop operational plans, share progress, and create a platform for peer learning. • Supported Kogi and Ebonyi states to develop operational and monitoring plans for CHX scale-up. • Conducted continuous outreach to all state reproductive health coordinators using mobile messaging. • Provided technical support to three of the main domestic manufacturers of CHX, along with the Federal MOH, the US Pharmacopeial Convention, and other stakeholders. • Supported the Federal MOH Child Health Unit to collect and analyze CHX scale-up indicators from states, and successfully advocated for a CHX indicator in national HMIS.	100% coverage was achieved for births in MCSP-supported facilities in Kogi State, and 74% coverage was achieved in MCSP-supported facilities in Ebonyi State in late 2018. National coverage is estimated to be in the 10–15% range. The National Strategy for Scale-Up of CHX in Nigeria was launched with support from USAID. CHX operational plans were developed by all states; 29 states included and funded CHX in their 5-year State Strategic Health Development Plans. Twenty states procured CHX in 2018 through various funding sources. The Federal MOH committed to add the CHX indicator in registers and the national HMIS. Gaps in local pharmaceutical companies' production capacities were addressed to ensure that CHX would not need to be imported. Indeed, the three major manufacturers reported exporting over 100,000 units to Zambia, Mali, Republic of Benin, Mozambique, Ghana, and Niger.
Intervention: Essential Newborn Care/Helping Babies Breathe in Rwanda		
2015	**MCSP role**	**2019**
Essential Newborn Care (ENC)/Helping Babies Breathe (HBB) was implemented nationwide, but with poor quality. Neonatal deaths due to asphyxia were the leading cause of neonatal death at four per 1,000 live births. The MOH committed to phased rollout of low-dose, high-frequency (LDHF) training, mentorship, and QI to improve quality of care for ENC/HBB.	• Conducted a situational analysis, co-facilitated an MOH-led national scale-up planning workshop, and supported subsequent development of national plans for ENC/HBBP scale-up. • Participated in the MOH-led national scale-up management team and supported the MOH to convene semiannual learning workshops and national stakeholder workshops. • Conducted a costing exercise for ENC/HBB that showed the resources needed to scale and maintain the intervention across all districts. • Supported the MOH to revise and develop new indicators on birth asphyxia into the national health management information systems (HMISs).	Neonatal deaths due to asphyxia decreased to 2.6 per 1,000 live births in 2018 and were no longer the leading cause of neonatal death. The enhanced ENC/HBB package was implemented in over half of the country. ENC/HBB progress, including data review, is a standing agenda item for the MOH-led Newborn Sub-TWG and for district coordination meetings. LDHF training and mentorship were included in the 2018–2024 Health Sector Strategic Plan. Districts have begun including the intervention in their strategic plans.
Intervention: Postpartum Family Planning in Rwanda		
2015	**MCSP role**	**2019**
PPFP counseling and immediate predischarge PPFP were generally unavailable in the Rwandan health	• Conducted a situational analysis, co-facilitated an MOH-led national scale-up planning workshop, and supported subsequent development of national plans for PPFP scale-up.	Immediate predischarge PPFP uptake increased to 45% in public facilities in 10 MCSP-supported districts in 2017, with an increasing percentage of postpartum women opting for long-acting or permanent methods and over 90% of clients receiving

system. The MOH committed to expand PPFP to reduce unmet need, with a phased rollout strategy that included competency-based training and mentorship for PPFP.	• Participated in the MOH-led national scale-up management team and supported the MOH to convene semiannual learning workshops and national stakeholder workshops. • Conducted a costing exercise for PPFP that showed the resources needed to scale up and maintain the intervention across all districts. • Supported the MOH to integrate new PPFP indicators into the national HMIS.	PPFP counseling. PPFP was scaled up to 29 of 30 districts as of 2019, with national immediate PPFP uptake of 32% in 2018. PPFP was included in strategic documents, such as the RMNCAH and FP/adolescent sexual and reproductive health (ASRH) strategies, 2018–2024 Health Sector Strategic Plan, and district strategic plans.
Intervention: Integrated Community Case Management in DRC		
2014	**MCSP role**	**2019**
The integrated community case management (iCCM) strategy was adopted in 2004 as the community component of integrated management of newborn and childhood illness (IMNCI). As of 2014, there was no national strategic or costed plan for scale-up of community care sites delivering iCCM. There was relatively weak coordination between the Ministry of Public Health and partners, and iCCM training was done in a vertical manner with different curricula used by different programs.	• Supported the IMNCI/Child Health TWG to include scale-up activities for iCCM in three major health sector initiatives and programs: the 2017–2021 National IMNCI Strategic Plan, the National Community Health Strategic Plan, and the Global Financing Facility investment case. • Supported the development of an iCCM/IMNCI dashboard and website, and supported integration of key iCCM indicators in the national HMIS.	The number of health zones with iCCM increased from 119 in 2014 to 402 in 2017; the number of community care sites increased from 1,197 to 6,968 over the same period. Two MCSP-supported provinces expanded malaria community case management supported by the US President's Malaria Initiative (PMI) to include diarrhea and pneumonia treatment, with increases in both facility and community treatment of iCCM target conditions. The iCCM training package was harmonized, and tools, job aids, and an iCCM implementation guide were updated. A costed national IMNCI Strategic Plan was launched and mapping of existing and needed community care sites conducted. Finally, the National Community Health Strategic Plan was used to inform the development of a DRC Community Health Roadmap as part of the global Community Health Roadmap initiative with UNICEF and other partners.
Intervention: Advanced Distribution of Misoprostol for Self-Administration in Mozambique		
2015	**MCSP role**	**2019**
The MOH prioritized advanced distribution of misoprostol for self-administration (ADMSA) and set a vision for stepwise introduction and rollout in the launch of its national Strategy for the Prevention of PPH at the Community Level.	• Supported the MOH to develop a national strategy for prevention of PPH (support began under MCHIP). • Supported the Mozambican Association of Obstetricians and Gynecologists to train community and facility personnel involved in misoprostol distribution across all 10 provinces. • Supported the MOH to convene a national stakeholder workshop on lessons learned from the 35 pilot districts, construct and analyze coverage indicators from available data, and share facilitating factors from high-performing districts.	ADMSA was implemented in 35 priority districts across all 10 provinces of Mozambique. MCSP's direct implementation support achieved high estimated access and coverage (up to 100% of home births) in high-priority districts in MCSP-supported provinces (Nampula and Sofala). MCSP also supported national leadership to understand and address barriers to scale up, assessing the scale-up environment and barriers and facilitators to institutionalizing access to PPH prevention at home births in Mozambique.

Improving Quality of Care at Scale

MCSP collaborated with global stakeholders, governments, and partners in over 30 countries to improve the coverage and quality of high-impact, person-centered RMNCAH care.

Providing Global Leadership on Quality of RMNCAH Care

MCSP collaborated closely with WHO to support the design of the multicountry WHO MNCH Quality of Care Network and promoted the introduction and adaptation of the MNH Quality of Care framework, which provided the foundation for the creation of the *Standards for Improving Quality of Maternal and Newborn Care in Health Facilities*. Building on this momentum, MCSP played a critical role in the development and launch of WHO's *Standards for Improving the Quality of Care for Children and Young Adolescents in Health Facilities* and *Improving the Quality of Paediatric Care: An Operational Guide for Facility-Based Audit and Review of Paediatric Mortality*. As co-chair of the M&E WG for the network, MCSP contributed to development of its monitoring framework, including a flexible list of MNCH quality of care measures that can be used by policymakers, managers, and frontline health workers.

Fostering Quality Leadership at the National Level

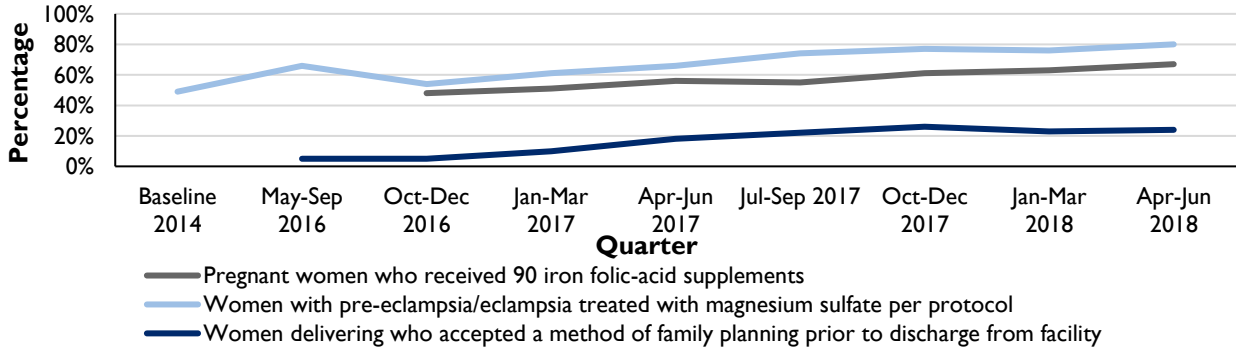
MCSP worked with 20 country governments to update national RMNCAH guidelines and, in a subset of countries, advanced quality policies, strategies, and leadership structures. In **Rwanda**, MCSP supported the MOH to revise and finalize the National Policy for Quality and Accreditation of Healthcare System. In **Tanzania**, MCSP fostered development of the National Strategic Plan for Improving Reproductive, Maternal, Newborn, and Child Health (RMNCH) 2015–2020 (One Plan II). In **Ethiopia**, MCSP assisted the Federal MOH Quality Directorate to develop the National Health Care Quality Strategy, and create and implement MNH quality of care self-assessment and improvement tools in facilities. In **Mozambique**, MCSP supported the development and oversight of the national quality policy and strategy, leading to the operationalization of the National Strategy for Quality and Humanization of Care 2017–2023. MCSP and partner advocacy contributed to the creation of a national Quality Assurance and Management Directorate by the MOH with the mandate to lead implementation of the national quality policy.

Improving Quality of RMNCAH Services at the Subnational Level and Frontlines of Care

MCSP worked closely with subnational managers, professional associations, health workers, community members, and other stakeholders to design and support implementation of RMNCAH QI interventions based on national and local priorities, targeting critical quality gaps and leveraging existing health system and community resources.

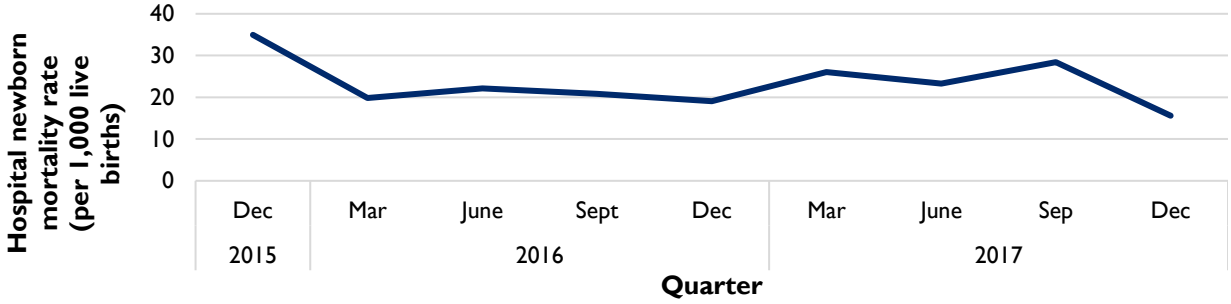
In **Uganda**, MCSP supported the MOH's Quality Assurance Division to apply QI best practices to a broad range of public health services, including the adaptation and expansion of the Reaching Every Child Using QI (REC-QI) approach to strengthening immunization services to a broader set of RMNCAH interventions. In **Mozambique**, MCSP supported health workers and community members in 86 facilities in Nampula and Sofala regions to improve delivery of high-impact, integrated antenatal, childbirth, and postpartum interventions for women and newborns. Facilities measured improvements in antenatal, intrapartum, and postnatal interventions (Figure 4).

Figure 4. Improved quality of antenatal and childbirth care for mothers and newborns in 86 MCSP-supported facilities in Mozambique



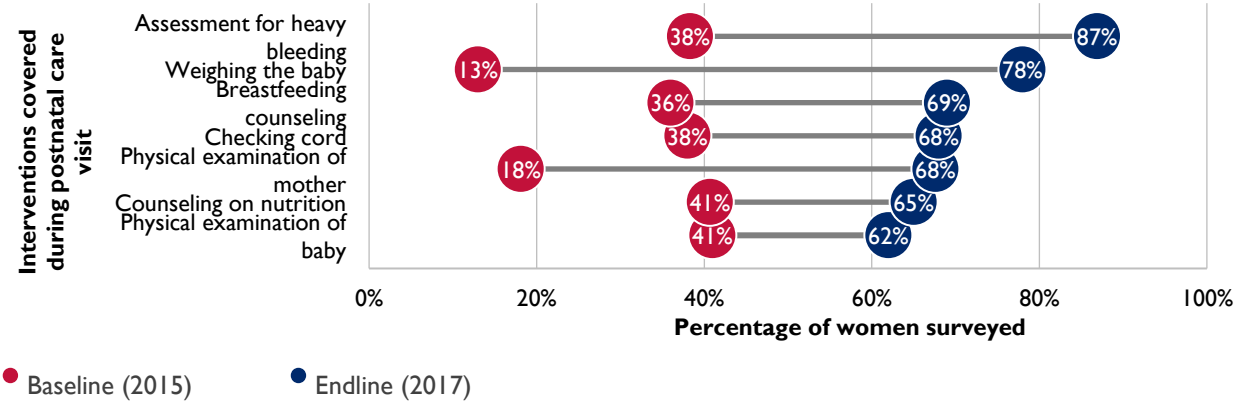
In **Madagascar**, MCSP supported regional and district Ministry of Public Health managers to work with facility health workers to strengthen organization of ANC and childbirth services, and to introduce standard laminated poster and electronic data dashboards of facility quality measures. Over 500 MCSP-supported primary health centers measured improvements in high-impact integrated maternal and newborn interventions across the antenatal, intrapartum, and postnatal care (PNC) continuum from 2015 to 2018 (Figure 5).

Figure 5. Decreasing hospital predischarge newborn mortality rate in Madagascar (N = 9,321 live births; 211 predischarge newborn deaths in five regional hospitals)



In **Ethiopia**, the quality of integrated home PNC visits for mother and baby within 48 hours of birth improved after MCSP supported the implementation of a multifaceted community-level intervention to improve coverage and quality of home PNC visits, in support of the government's scale-up of a community-based newborn care (CBNC) program that included a home PNC visit package (Figure 6).

Figure 6. Improving provision of high-impact MNH interventions during home PNC visits in Ethiopia (n = 153 mothers interviewed at baseline; n = 243 mothers interviewed at endline)



Measuring Quality of Care

To foster prioritization and regular collection, calculation, and analysis of quality indicators to guide action and improve care, MCSP collaborated with WHO and UNICEF to prioritize and define a number of RMNCAH quality measures. For example, MCSP convened a multiagency measurement committee under the PPFP CoP to recommend facility PPFP indicators appropriate for routine measurement in a national HMIS. MCSP developed and implemented data use capacity-building resources in multiple countries to strengthen use of data for clinical, QI, management, and program decision-making. MCSP collaborated with country stakeholders to define quality and health outcome targets, prioritize quality indicators, incorporate RMNCAH data elements into national HMISs, and build capacity of managers and health care workers to use local data to calculate, track, and act on trends in quality indicator results. MCSP participated in TWGs in **Nigeria**, **Rwanda**, and **Mozambique** to incorporate new actionable RMNCAH data elements into their national HMIS. MCSP also used its suite of data use capacity-building materials to orient subnational managers and frontline health workers in **Nigeria**, **Mozambique**, **Madagascar**, **Rwanda**, **Tanzania**, **India**, and **Ethiopia** to use data dashboards to collect, visualize, and track trends in RMNCAH quality measures.

Strengthening Health Systems

To support MCSP's RMNCAH mandate, its approach to HSS focused on addressing barriers most connected to service delivery to scale up and sustain high-impact interventions. MCSP moved beyond providing system inputs to driving system performance improvements by purposely managing interactions between different parts of the system and changing policies, organizational structures, and behaviors that drive performance to improve equity, coverage, quality, and efficiency.

Building Resiliency in Response to Emerging Global Health Threats

MCSP worked with MOHs in rapidly changing country contexts to update policies, guidance, and training in response to emerging global health threats. For example, MCSP collaborated with local nongovernmental organizations (NGOs), professional associations, and subnational health authorities in the Latin America and the Caribbean (LAC) region in response to the rising ZIKV epidemic to build capacity for local clinical mentorship and for data generation and use. MCSP developed and disseminated capacity-building materials for providers (including briefers, job aids, and training packages) that filled critical gaps related to Zika prevention and management. MCSP also addressed gaps in ECD programming in six LAC countries, developing a psychosocial support package for caregivers. To build resilience and restore critical health systems functions in **Guinea**, **Liberia**, and **Ghana** after the Ebola epidemic of 2014–2016, MCSP built capacity for infection prevention and control (IPC) to stop the spread of the virus, and worked to restore essential RMNCAH services and revitalize health systems to be better prepared for future shocks.

Fostering Self-Reliance by Supporting Local Partners

In support of country self-reliance and sustainability of program gains, MCSP built the technical, organizational, and financial capacity of local partners, including national and subnational governments, the private sector, and faith- and community-based organizations and networks. For example, MCSP supported national and subnational governments to improve financial planning and helped generate evidence for domestic resource mobilization to sustain RMNCAH plus nutrition services in six countries. In **Ghana**, MCSP provided capacity-building, technical assistance, and funding to five partner regional health management teams, six midwifery schools, the Nursing and Midwifery Council, the Ghana College of Nurses and Midwives, and the Policy Planning and M&E Division to improve community-based health service delivery, IPC, and pre-service education (PSE). USAID's investment in regional partners in Ghana led to improved service delivery and strengthened local ownership of program outcomes. Regions leveraged funding to greatly exceed program targets and reported improved ability to negotiate training costs directly with districts. In addition, community health management teams and community members took a greater role in community mobilization, demand generation, and facility maintenance. In Bauchi and Sokoto states of **Nigeria**, MCSP supported an innovative financing plan for routine immunization (RI), designed by the Bill & Melinda Gates Foundation, to sustainably improve immunization coverage. MCSP built the capacity of state governments to technically and financially sustain the RI program as state contributions increased over time, while donors' contributions were gradually phased out. To institutionalize sound management and clinical practices at facilities in **Haiti**, MCSP provided financial support to 10 regional health offices for governance activities and site support, and built the technical and financial capacity of 32 local NGOs that focus on service delivery and technical assistance.

MCSP strengthened subnational management capacity for planning, managing, monitoring, and supervising health activities at the facility and community levels in **Guatemala**, **Guinea**, **Haiti**, **Kenya**, **Mozambique**, **Nigeria**, **Rwanda**, and **Tanzania**, supporting local decision-makers to identify health system bottlenecks and to leverage, mobilize, and coordinate local health system resources using management tools and approaches. MCSP integrated subnational management strengthening efforts into national planning standards where possible to ensure their sustainability. A summary of MCSP's work with subnational managers is captured in a forthcoming brief and in the HSS section of this report.

Developing Human Capacity

MCSP prioritized human resources for health through innovative models of education and clinical skills maintenance (brief forthcoming). To build capacity for improved service delivery, QI, and management, MCSP applied evidence-

based approaches across the competency development and maintenance continuum that resulted in sustained improvements to health worker knowledge and skills and to clinical outcomes (Figure 7). To ensure institutionalization of capacity-building approaches into national health systems, MCSP worked with governments to develop pre-service curriculum, training, and mentorship guidelines; aligned job descriptions with mentorship responsibilities; and incorporated successful approaches into country health sector plans.

Figure 7. MCSP's approach to human capacity development along the continuum of skills development and maintenance.

- MCSP worked with 12 countries to improve the five key components which comprise the foundation of a health care worker's competence during PSE—curriculum, clinical practice sites, students, teachers/tutors/preceptors, and infrastructure and management—and developed PSE operational guidance, summarizing the evidence on best practices in PSE.
- MCSP supported alternative approaches to in-service training to build and reinforce competencies in 20 countries. Examples of this work included self-learning, onsite trainings, mobile mentoring, and onsite supervision in **Madagascar**; Learning and Performance Improvement Centers in **Burma**; and LDHF training—which aims to make content easier to learn and retain through the use of smaller training modules and frequent opportunities to practice new skills—in **Egypt, Ethiopia, Kenya, Liberia**, **Madagascar, Mozambique**, **Nigeria, Rwanda**, and **Zambia**, coupled with supportive supervision and mentorship visits. Best practices are summarized in MCSP's operational guidance for in-service training.
- To ensure competent workplace performance and provide ongoing professional development in 20 countries, MCSP incorporated mentorship and supportive supervision into human capacity development activities, often combined with on-the-job training, yielding promising improvements in provider knowledge and skills. Mentorship is the process through which an experienced and empathetic person—proficient in her/his content area (mentor) and often a member of the MOH, a professional organization, or a partner organization—teaches and coaches another individual or group of individuals in person and/or virtually to ensure competent workplace performance and provide ongoing professional development. Supportive supervision is a process of helping staff to improve their own work performance continuously. It is primarily carried out by MOH staff in a respectful and nonauthoritarian way, with a focus on using supervisory visits as an opportunity to improve knowledge and skills of health staff. MCSP synthesized learning on mentorship across its country programs and produced mentoring guidance and recommendations.

Reaching the Underserved through Equitable Approaches

Reaching the most underserved populations is critical to achieving RMNCAH and universal health coverage goals. The final report of the Countdown to 2015 found that systematic pro-rich inequalities exist for virtually all coverage indicators. USAID's *Acting on the Call 2016* report brought an explicit focus on equity, including analysis of lives saved if the population in the bottom two wealth quintiles had equal access to health interventions compared to the rest of the population. A meta review of strategies to close equity gaps published in *The Lancet* in 2012 highlighted three

priority strategies for reaching the underserved: shifting delivery channels, using private providers to expand access, and reducing financial barriers to access.

To spur discussion and action, MCSP created country equity dashboards that analyze disparities in coverage by wealth, education, and urban/rural residence for selected high-impact interventions across MCSP technical areas to inform country-level discussions for equity-focused programming. MCSP also developed tools and guidelines to support national and subnational managers to target underserved populations, including the health equity toolkit *A Practical Guide to Addressing Equity in RMNCH Programs*, training materials on using the socioeconomic status profile tool to analyze program beneficiaries, and validating a simplified set of asset indicators to evaluate the equity impact of health interventions. MCSP emphasized equitable program design and monitoring by incorporating data on the economic status of beneficiaries to inform and improve targeting of underserved or impoverished populations in select contexts. In **Kenya**, **Mozambique**, **Nigeria**, and **Tanzania**, MCSP incorporated asset questions into knowledge, practice, and coverage household surveys to construct a socioeconomic profile of beneficiaries and assess differences in knowledge, practice, and coverage among socioeconomic groups.

Building on MCSP's emphasis on community health, health worker, and lay worker capacity-building, MCSP partnered with 16 countries to design and implement pro-equity interventions to reach the underserved by shifting services to the community level and/or relying on service delivery by workers with less formal training. Table 2 summarizes the implementation of these approaches; further information can be found in the HSS summary.

Table 2. Implementation of pro-equity interventions by country

Approach	Countries
Reaching Every District/Reaching Every Child	Haiti, India, Kenya, Liberia, Madagascar, Malawi, Mozambique, Nigeria, Pakistan, Tanzania, Uganda, Zambia
Advanced distribution of misoprostol for self-administration	Haiti, Mozambique,
Community use of chlorhexidine	Ethiopia, Liberia, Mozambique
Integrated community case management	DRC, Guinea, Haiti, Kenya, Mozambique, Nigeria, Rwanda, Uganda

Strengthening the Coordination of Care and Referral Systems

In **Haiti, India, Kenya, Liberia, Malawi, Mozambique, Nigeria, Rwanda, and Tanzania,** MCSP improved the coordination of services to increase coverage of high-impact RMNCAH interventions as well as access to emergency care needed to prevent maternal, newborn, and child deaths. Strong coordination and continuity of RMNCAH services contribute to the dual goal of achieving improved health outcomes while enhancing the efficiency of service delivery systems and resource use. MCSP's key areas of support included service integration or horizontal referrals, vertical referrals, and client tracking. By improving the coordination of care, MCSP helped increase appropriate use of routine and emergency RMNCAH services in these nine countries. For example, integration of MIYCN and FP services in two regions of **Tanzania** helped increase rates of early initiation of breastfeeding, exclusive breastfeeding, and modern FP use. In Nampula province in **Mozambique**, MCSP worked with the MOH to establish and manage eight integrated care, referral, and counter-referral networks, which covered 214 health facilities and 580 communities. Among other results, this led to a 350% increase in the number of referred patients between January and September 2018, a substantial reduction in the transport time during emergency referrals, and a commitment by the MOH to continue the network's scale-up.

Fostering Gender-Transformative RMNCAH Programming

MCSP worked at global and country levels to mitigate gender inequalities that act as barriers to optimal health outcomes for women and girls. MCSP spearheaded global discussions that resulted in the development and dissemination of gender policies, standards, and other resources. For example, MCSP advanced the global dialog on gender by publishing a review on the role of gender inequalities in mistreatment during childbirth and sharing findings during expert consultations and global conferences. As co-chair of the Male Engagement Taskforce of the USAID Interagency Gender WG, MCSP facilitated global dialog and exchange of best practices on engaging men as clients,

partners, and champions for change in programming for HIV, RMNCAH, violence prevention, child marriage, and economic empowerment. To advance standard measurements of gender equality and empowerment in RMNCAH, MCSP developed a set of comprehensive tools to assess respectful maternity care (RMC) and factors driving mistreatment, including questions around gender-based attitudes, norms, and practices that affect both clients and providers (see Appendices 4-7 in the draft RMC Operational Guidance). In addition, MCSP developed gender modules for the knowledge, practices, and coverage household survey, which includes questions related to who decides to use key RMNCAH services, as well as measures of gender norms. It is the first comprehensive survey module that includes specific questions on gender roles and dynamics in relation to RMNCAH.

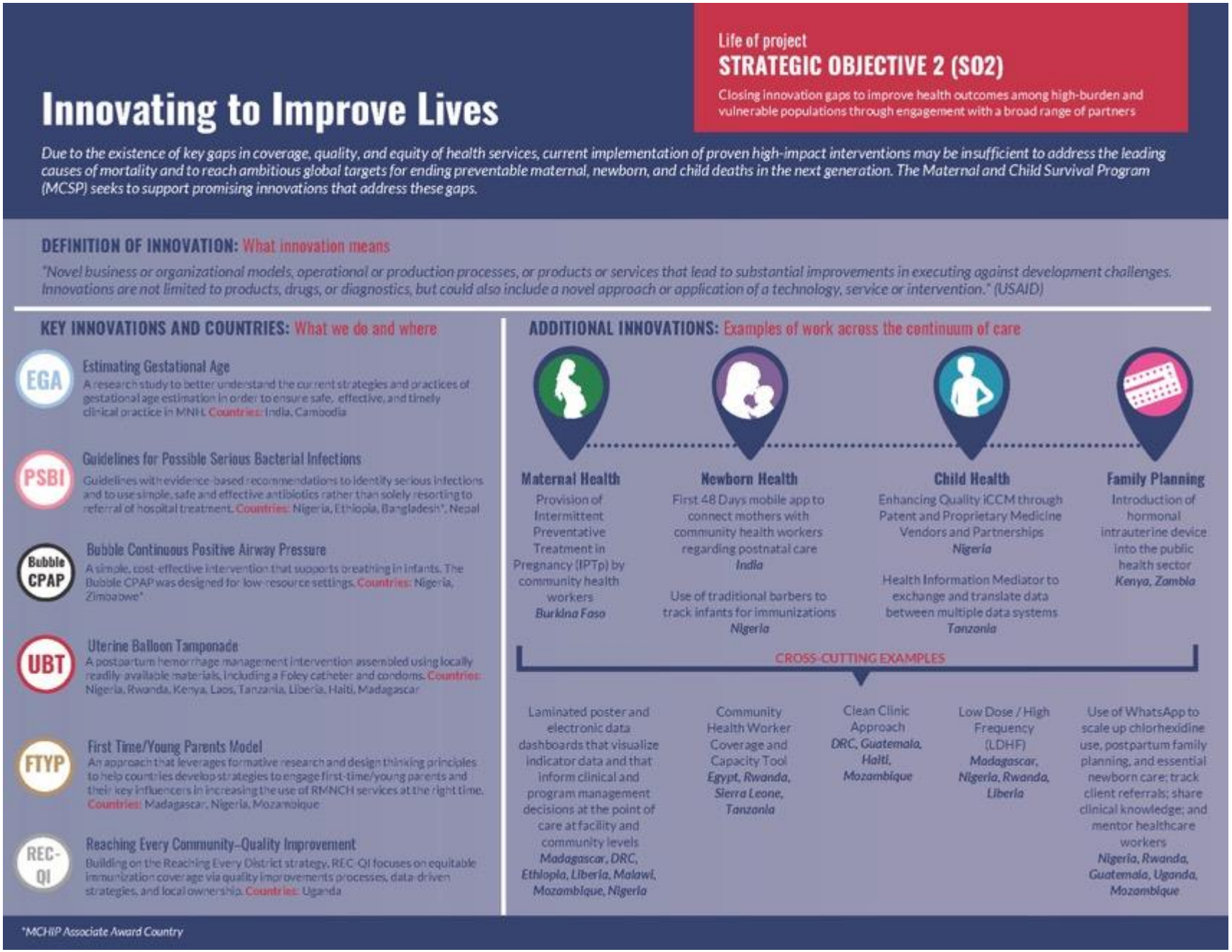
Ministries of Health in **Ghana**, **Nigeria**, **Mozambique**, and **Tanzania** institutionalized and scaled up MCSP-developed gender tools and strategies into national health programs, strategies, training packages, and QI tools. Please see the Gender summary for details on MCSP's country-level work to address gender inequality and promote gender-sensitive health services by focusing on gender-based violence (GBV) in **Ghana**, **Guinea**, **Haiti**, **Madagascar**, and **Rwanda**; encouraging male engagement and joint health decision-making among couples in RMNCAH services in **Madagascar**, **Mozambique**, **Nigeria**, **Rwanda**, and **Tanzania**; working with facilities and providers to ensure equal access to high-quality, gender-sensitive, and respectful services for clients of any gender in **India**, **Nigeria**, **Mozambique**, **Rwanda**, and **Tanzania**; and empowering female health workers in **Nigeria** and **Liberia**.

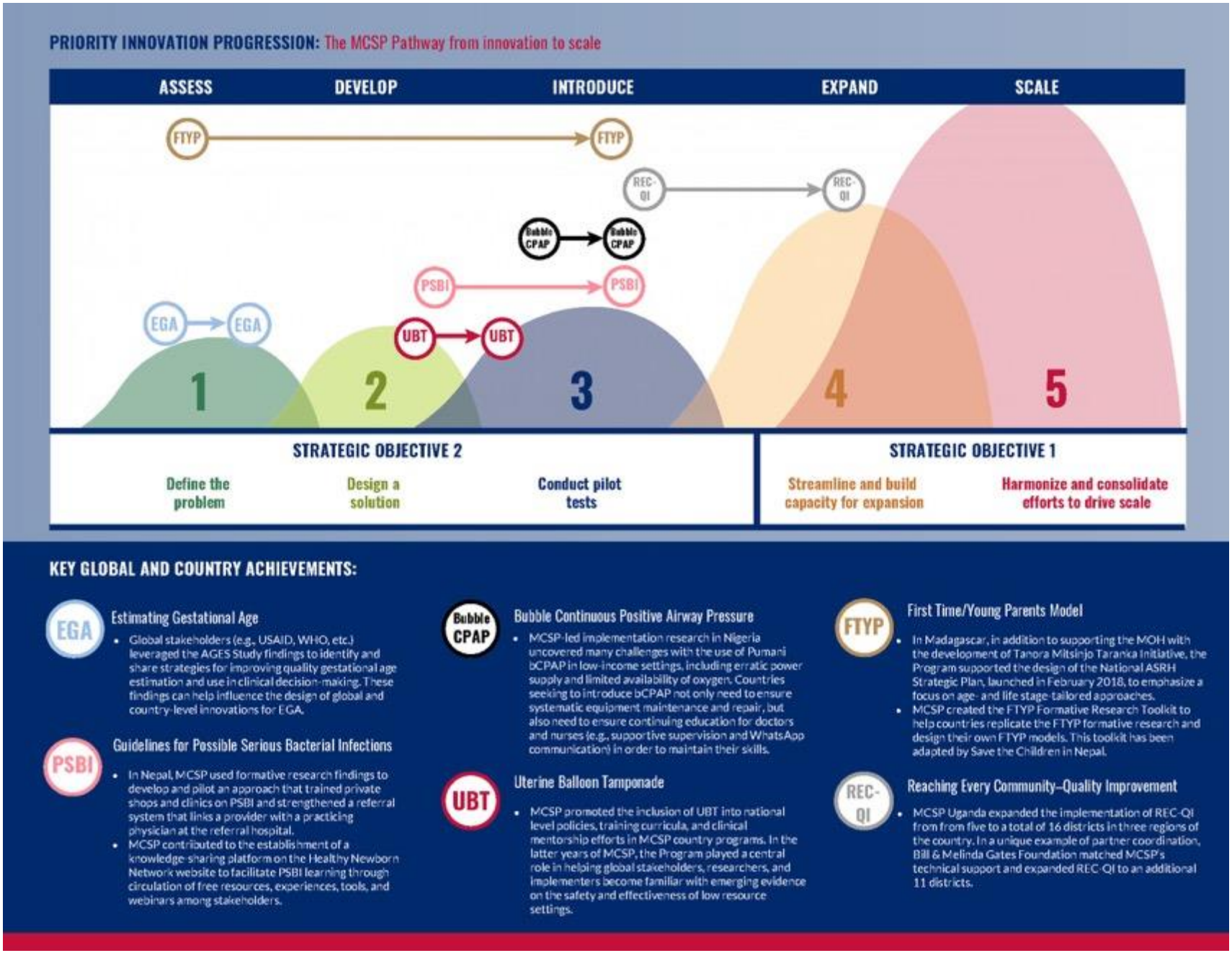
Institutionalizing Community into National Health Systems

Recognizing the potential of community-level health interventions in accelerating maternal and child mortality reductions, and the vital role that civil society and communities play in advancing equity and achieving primary health care for all, MCSP supported governments to institutionalize community health and civil society engagement as an integral component of strengthened country health systems. MCSP helped pave the way to set the dialog around community health systems, including more than just community health workers (CHWs). The 2017 Institutionalizing Community Health Conference (ICHC) was a pivot in advancing this conversation. MCSP worked with WHO, UNICEF, and other stakeholders to advance and promote learning around pertinent issues affecting community health systems, including community health information systems (HISs); digital tools for community health; CHW resources, including the new WHO guideline; social accountability; and community-level data use. In addition, MCSP assisted countries to develop evidence-based national policies or strategies that institutionalize community health programs in **DRC**, **Egypt**, **Ethiopia**, **Ghana**, **Guinea**, **Haiti**, **Mozambique**, **Namibia**, **Rwanda**, and **Tanzania**.

In support of pro-poor programming, MCSP built capacity of CHWs to allow for shifting service delivery from the facility to community levels across technical areas. MCSP worked at the global level to design the innovative CHW Coverage and Capacity Tool that supports national CHW workforce planning and optimization, and applied the tool at subnational levels in **Egypt**, **Rwanda**, and **Tanzania**. In 14 countries, MCSP worked with MOHs to build the technical, organizational, management, and communications capacity of CHWs and community groups. To further engage communities and community players as essential partners in achieving health for all in **Rwanda**, **Ethiopia**, **Guinea**, **Haiti**, and **Mozambique**, MCSP promoted participation and empowerment of community members and frontline CHWs in decision-making, service delivery, and monitoring quality of services.

MCSP supported scale-up of community-level interventions to increase coverage of high-impact RMNCAH services in households and communities in **Burma**, **Burkina Faso**, **DRC**, **Egypt**, **Ethiopia**, **Guatemala**, **Guinea**, **Haiti**, **India**, **Kenya**, **Malawi**, **Mozambique**, **Namibia**, **Nigeria**, **Rwanda**, **Tanzania**, and **Uganda**. MCSP's approaches to scaling up high-quality community-level health interventions spanned all technical areas and included capacity-building for CHWs and/or local civil society organizations (CSOs), CHW policy and planning, demand generation and social and behavior change communication, social accountability, government-civil society partnerships, and support for community HMISs. For more details on MCSP's work supporting community-level interventions and institutionalizing community health in national health systems, please refer to the Community Health summary of this report


Life of project
STRATEGIC OBJECTIVE 2 (SO2)
Closing innovation gaps to improve health outcomes among high-burden and vulnerable populations through engagement with a broad range of partners
Innovating to Improve Lives
Due to the existence of key gaps in coverage, quality, and equity of health services, current implementation of proven high-impact interventions may be insufficient to address the leading causes of mortality and to reach ambitious global targets for ending preventable maternal, newborn, and child deaths in the next generation. The Maternal and Child Survival Program (MCSP) seeks to support promising innovations that address these gaps.
DEFINITION OF INNOVATION: What innovation means
"Novel business or organizational models, operational or production processes, or products or services that lead to substantial improvements in executing against development challenges. Innovations are not limited to products, drugs, or diagnostics, but could also include a novel approach or application of a technology, service or intervention." (USAID)
KEY INNOVATIONS AND COUNTRIES: What we do and where
EGA
Estimating Gestational Age
A research study to better understand the current strategies and practices of gestational age estimation in order to ensure safe, effective, and timely clinical practice in MNH. Countries: India, Cambodia
PSBI
Guidelines for Possible Serious Bacterial Infections
Guidelines with evidence-based recommendations to identify serious infections and to use simple, safe and effective antibiotics rather than solely resorting to referral of hospital treatment. Countries: Nigeria, Ethiopia, Bangladesh*, Nepal
Bubble CPAP
Bubble Continuous Positive Airway Pressure
A simple, cost-effective intervention that supports breathing in infants. The Bubble CPAP was designed for low-resource settings. Countries: Nigeria, Zimbabwe*
UBT
Uterine Balloon Tamponade
A postpartum hemorrhage management intervention assembled using locally readily available materials, including a Foley catheter and condoms. Countries: Nigeria, Rwanda, Kenya, Laos, Tanzania, Liberia, Haiti, Madagascar
FTYP
First Time/Young Parents Model
An approach that leverages formative research and design thinking principles to help countries develop strategies to engage first-time/young parents and their key influencers in increasing the use of RMNCH services at the right time. Countries: Madagascar, Nigeria, Mozambique
REC-QI
Reaching Every Community–Quality Improvement
Building on the Reaching Every District strategy, REC-QI focuses on equitable immunization coverage via quality improvements processes, data-driven strategies, and local ownership. Countries: Uganda
ADDITIONAL INNOVATIONS: Examples of work across the continuum of care
Maternal Health
Provision of Intermittent Preventative Treatment in Pregnancy (IPTp) by community health workers
Burkina Faso
Newborn Health
First 48 Days mobile app to connect mothers with community health workers regarding postnatal care
India
Use of traditional barbers to track infants for immunizations
Nigeria
Child Health
Enhancing Quality iCCM through Patent and Proprietary Medicine Vendors and Partnerships
Nigeria
Health Information Mediator to exchange and translate data between multiple data systems
Tanzania
Family Planning
Introduction of hormonal intrauterine device into the public health sector
Kenya, Zambia
CROSS-CUTTING EXAMPLES
Laminated poster and electronic data dashboards that visualize indicator data and that inform clinical and program management decisions at the point of care at facility and community levels
Madagascar, DRC, Ethiopia, Liberia, Malawi, Mozambique, Nigeria
Community Health Worker Coverage and Capacity Tool
Egypt, Rwanda, Sierra Leone, Tanzania
Clean Clinic Approach
DRC, Guatemala, Haiti, Mozambique
Low Dose / High Frequency (LDHF)
Madagascar, Nigeria, Rwanda, Liberia
Use of WhatsApp to scale up chlorhexidine use, postpartum family planning, and essential newborn care; track client referrals; share clinical knowledge; and mentor healthcare workers
Nigeria, Rwanda, Guatemala, Uganda, Mozambique
*MCHIP Associate Award Country

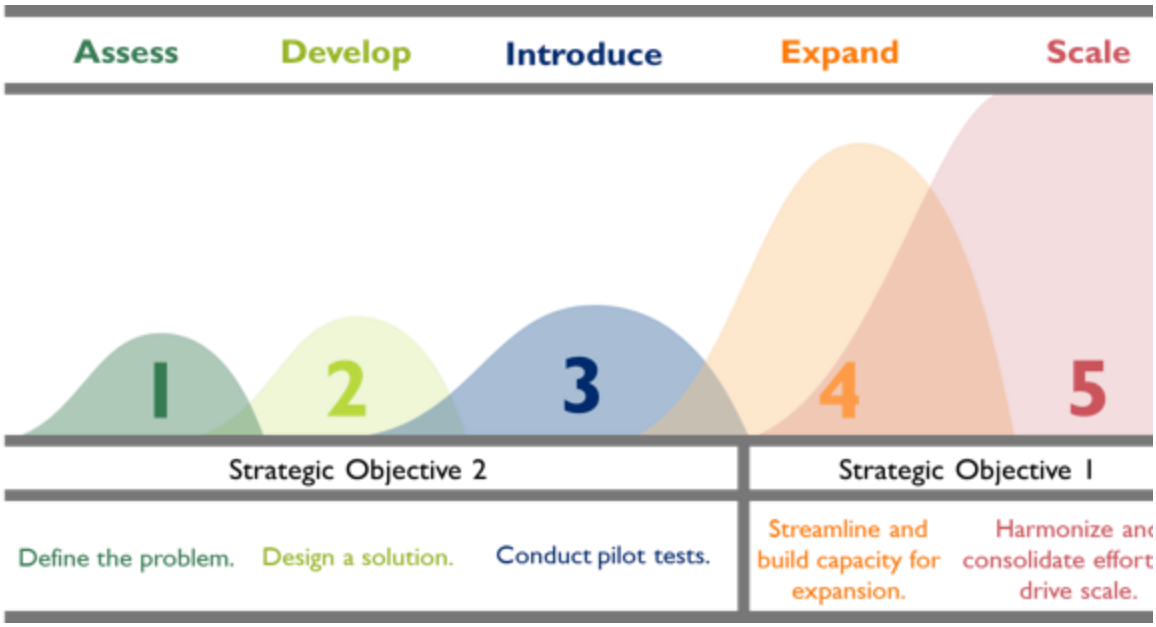

PRIORITY INNOVATION PROGRESSION: The MCSP Pathway from innovation to scale
ASSESS
DEVELOP
INTRODUCE
EXPAND
SCALE
FTYP
FTYP
REC-QI
REC-QI
Bubble CPAP
Bubble CPAP
PSBI
PSBI
EGA
EGA
UBT
UBT
1
2
3
4
5
STRATEGIC OBJECTIVE 2
Define the problem
Design a solution
Conduct pilot tests
STRATEGIC OBJECTIVE 1
Streamline and build capacity for expansion
Harmonize and consolidate efforts to drive scale
KEY GLOBAL AND COUNTRY ACHIEVEMENTS:
EGA
Estimating Gestational Age
Global stakeholders (e.g., USAID, WHO, etc.) leveraged the AGES Study findings to identify and share strategies for improving quality gestational age estimation and use in clinical decision-making. These findings can help influence the design of global and country-level innovations for EGA.
PSBI
Guidelines for Possible Serious Bacterial Infections
In Nepal, MCSP used formative research findings to develop and pilot an approach that trained private shops and clinics on PSBI and strengthened a referral system that links a provider with a practicing physician at the referral hospital.
MCSP contributed to the establishment of a knowledge-sharing platform on the Healthy Newborn Network website to facilitate PSBI learning through circulation of free resources, experiences, tools, and webinars among stakeholders.
Bubble CPAP
Bubble Continuous Positive Airway Pressure
MCSP-led implementation research in Nigeria uncovered many challenges with the use of Pumani bCPAP in low-income settings, including erratic power supply and limited availability of oxygen. Countries seeking to introduce bCPAP not only need to ensure systematic equipment maintenance and repair, but also need to ensure continuing education for doctors and nurses (e.g., supportive supervision and WhatsApp communication) in order to maintain their skills.
UBT
Uterine Balloon Tamponade
MCSP promoted the inclusion of UBT into national level policies, training curricula, and clinical mentorship efforts in MCSP country programs. In the latter years of MCSP, the Program played a central role in helping global stakeholders, researchers, and implementers become familiar with emerging evidence on the safety and effectiveness of low resource settings.
FTYP
First Time/Young Parents Model
In Madagascar, in addition to supporting the MOH with the development of Tanora Mitsinjo Taranka Initiative, the Program supported the design of the National ASRH Strategic Plan, launched in February 2018, to emphasize a focus on age- and life stage-tailored approaches.
MCSP created the FTYP Formative Research Toolkit to help countries replicate the FTYP formative research and design their own FTYP models. This toolkit has been adapted by Save the Children in Nepal.
REC-QI
Reaching Every Community–Quality Improvement
MCSP Uganda expanded the implementation of REC-QI from from five to a total of 16 districts in three regions of the country. In a unique example of partner coordination, Bill & Melinda Gates Foundation matched MCSP's technical support and expanded REC-QI to an additional 11 districts.

Strategic Objective 2: Close innovation gaps to improve health outcomes among high-burden and vulnerable populations through engagement with a broad range of partners.

Supporting Countries to Introduce or Scale Up Innovations

Proven high-impact interventions may be insufficient in addressing the leading causes of mortality due to emerging gaps in health service coverage, quality, and equity. To accelerate desired outcomes and progress toward global goals, MCSP sought to foster promising innovations that address these gaps. MCSP-supported countries worked toward full scale-up of innovations along the MCH continuum of care (Figure 8) and expanded the technical and programmatic evidence base for these innovations by leading implementation research and documenting best practices, lessons learned, and outcomes.

Figure 8. The pathway from innovation to impact at scale



Originally mandated to broaden the evidence base for six priority innovations, MCSP expanded its scope to document findings for 17 additional innovative products or practices. Table 3 summarizes how MCSP studied or supported countries to move the six priority innovations along the scale-up pathway (from assessing, developing, introducing, expanding, and bringing to scale) and its efforts to facilitate MOH ownership and context-sensitive adaptation of these innovations.

Table 3. MCSP priority innovations

Innovation	Rationale	Key Findings and Results	Country Institutionalization and Global Leadership
First-Time/Young Parents (FTYPs) Approach An approach that helps countries develop strategies to engage FTYPs and their key influencers in increasing the use of RMNCAH services at the right time. Country: Nigeria, Mozambique, Madagascar	Globally, women under age 20 are two times more likely than their elder peers to die from pregnancy- and childbirth-related causes. Similarly, their children have a 34% higher risk of dying before 4 weeks of age and 26% higher risk of dying before 5 years. Health systems often neglect young mothers by lacking adolescent-friendly clinical services, including ANC. MCSP created solutions that engaged FTYPs and their key influencers in increasing the use of RMNCAH services at the right time.	In Madagascar, the innovation progressed from assessment to introduction phases along the scale-up pathway. Monthly ANC visits by adolescent females, monthly community-based distribution of family planning to adolescent clients, and number of male partners accompanying young mothers for ANC or delivery services increased. In Nigeria, first-time adolescent parents were reached with information and skills building; male partners were more engaged, though social barriers to participation remained; and facility staff reported improved counseling skills and better youth-friendly RMNCAH care.	MCSP created the FTYP formative research toolkit to help countries replicate the FTYP formative research and design their own FTYP models. Since its development, the toolkit has been adapted in Nepal under a non-MCSP-funded project. In Madagascar, in addition to supporting the Ministry of Public Health with the development of the Tanora Mitsinjo Taranka Initiative, MCSP supported the design of the National Adolescent Sexual and Reproductive Health Strategic Plan to emphasize a focus on age- and life stage-tailored approaches. The plan was launched in February 2018.
Estimating Gestational Age (GA) A two-country study to understand the current strategies and practices of GA estimation and documentation, designed to inform the development of innovations to improve estimation of GA. Country: India, Cambodia	The capacity to provide appropriate, time-sensitive interventions for improving maternal and newborn outcomes in the context of ANC and intrapartum care depends upon the clinically appropriate use of accurate and precise GA information. However, the landscape of solutions, utilization rates, and strategies to improve GA assessment in low-resource settings are major research gaps.	In Cambodia, among women who brought ultrasound records with them to the hospital, about 35% did not have those records reviewed. For those with time-sensitive interventions (e.g., induction of labor), only 56% had ultrasound records available. In India, ultrasound-based GA was available for only 3% of ANC clients <14 weeks. Rational introduction and use of obstetric ultrasound should be preceded by broad consideration of overall health system priorities and referral pathways, appropriate cadres, training needs, equipment maintenance capacity, and safe environment of care for equipment and infection control.	MCSP led the Technical Consultation on Improving the Quality of GA Estimation in Low-Resource Settings event that included representatives from MCSP, USAID, WHO, UNICEF, the Pan American Health Organization, and various academic institutions on May 30, 2019. These global stakeholders leveraged study findings to discuss potential strategies for improving quality GA estimation and use in clinical decision-making, and opportunities to increase access to rational ultrasound use, including country support requirements and priorities for health system strengthening.

Innovation	Rationale	Key Findings and Results	Country Institutionalization and Global Leadership
Uterine Balloon Tamponade (UBT) A device to manage PPH due to uterine atony. MCSP introduced this product as one element of the comprehensive approach to PPH management. Country: Haiti, Kenya, Laos, Liberia, Madagascar, Tanzania, Nigeria, Rwanda	In its 2012 PPH guidelines and 2017 *Managing Complications in Pregnancy and Childbirth* manual, WHO identified UBT as one component of a comprehensive approach to managing PPH. UBT has been historically underutilized in low-resource settings due to multiple factors, including the exclusion of UBT from national PPH guidelines; curricula, cost, and supply chain barriers for commercial UBT devices; and a lack of familiarity with UBT among policymakers, educators, providers, and other stakeholders.	Throughout the first years of the project, MCSP promoted the inclusion of UBT into national-level policies, training curricula, and clinical mentorship efforts in MCSP country programs. MCSP incorporated the use of UBT as part of a comprehensive PPH treatment package into training, supervision, and mentoring activities in health centers and hospitals. Where UBT was not included in national PPH policies or guidelines (Nigeria, Rwanda), MCSP focused efforts on stakeholder orientations, sensitization, and advocacy around updating evidence-based PPH treatment guidelines.	In the later years of the project, emerging evidence from implementation research on the safety and effectiveness of UBT in low-resource settings prompted a global discussion on appropriate and safe use of UBT for PPH management. MCSP familiarized global stakeholders, researchers, and implementers with use of UBT in low-resource settings and fostered exchange around the implications and considerations for continued programming and global guidance.
Bubble Continuous Positive Airway Pressure (bCPAP) A device that supports breathing in infants, currently in wide use in high-income countries. Country: Nigeria	Prematurity and acute respiratory infections are the leading causes of child mortality globally and often lead to difficulty in breathing for affected babies. bCPAP is a widely used device in high-income countries that supports breathing in infants. To support the introduction of this lifesaving product in low-resource settings, MCSP aimed to study the feasibility of using this equipment and learn the factors that facilitate or inhibit its implementation in Nigeria.	The Pumani-brand bCPAP was introduced in seven hospitals across three states in Nigeria. A total of 76 patients were cared for on the equipment and enrolled in a pilot study. MCSP uncovered and addressed many challenges with the use of bCPAP in low-income settings, including facility infrastructure (erratic power supply and limited availability of oxygen), human resources (varying quality of step-down trainings across champion providers, which impacted the quality of the bCPAP services), equipment (lost or incompatible nasal prongs and tubes, rendering providers unable to start babies on the device), and financing (high cost of oxygen, which patients have to pay for).	MCSP addressed key challenges with the introduction of the Pumani bCPAP and shared findings with in-country stakeholders to inform future programming. However, for more effective use of bCPAP, countries seeking to introduce bCPAP need to ensure not only systematic equipment maintenance and repair but also continuing education for doctors and nurses (e.g., supportive supervision and real time communication via the mobile application called WhatsApp) to maintain their skills. MCSP facilitated bCPAP market assessments in two countries (India and Bangladesh) that contributed to the design of a strategy to introduce and scale up bCPAP in public and private health facilities in the two countries.

Innovation	Rationale	Key Findings and Results	Country Institutionalization and Global Leadership
Guidelines for Managing Possible Serious Bacterial Infections (PSBIs) Programmatic guidance on the role of community health workers and home visits in identifying signs of serious infections in newborns and young infants, and clinical guidance on the simplest safe and effective antibiotic regimens for outpatient treatment of clinical severe infections and fast breathing (pneumonia) in children 0–59 days old. Country: Nigeria, Ethiopia, Nepal	Infection is a leading cause of neonatal death globally. MCSP aligned global stakeholders around a long-term vision for management of PSBI, based on the 2015 WHO guidelines. At the start of the project, many in-country stakeholders expressed discomfort with allowing lower-level health workers to diagnose and treat PSBI using simplified antibiotic regimens. Nevertheless, MCSP recognized the potential for newborn health programs to introduce, expand, and scale up PSBI programming in contextually appropriate ways, and for existing PSBI efforts to strengthen broader newborn and child health programming.	In Nepal, the innovation progressed with the private sector from assessment to introduction phases on the scale-up pathway. A majority of Nepal's private-sector providers care for sick young infants, nearly half of medicine shops were unregistered, and a notable proportion of private providers surveyed had not been trained in the latest protocols for caring for sick young infants. From June 2018 through February 2019, 222 sick young infants were reported by 30 providers, and of these, 43% were identified with PSBIs. None of the medicine shops or clinics adhered to the complete protocol for treatment of the PSBI cases. However, several promising learnings emerged from the study related to how to better motivate, train, and support private providers to manage PSBIs per national protocol.	MCSP helped establish a knowledge-sharing platform on the Healthy Newborn Network website, which facilitates PSBI learning through circulation of free resources, experiences, tools, and webinars among stakeholders. MCSP facilitated south-to-south learning between Ethiopia and Bangladesh (both have strong PSBI management platforms) to discuss best practices, challenges, and lessons learned. In Ethiopia, MCSP supported the Federal Ministry of Health-led "visioning exercise," which led to the development of a national strategic vision for a multisectoral life course approach to newborn and child health and development.
Reaching Every Child Using Quality Improvement (REC-QI) QI tools and concept to strengthen the capacity of local health managers to implement the effective REC approach. Country: Uganda	The Reaching Every District and REC approaches have been integral in strengthening immunization services for more than a decade. However, uptake of the approaches has been hampered by operational challenges, such as difficulties in accurately estimating target populations. MCSP aimed to strengthen the capacity of local health managers to implement REC and improve the reach, quality, and utilization of immunization services by leveraging QI tools and concepts.	MCSP expanded the implementation of REC-QI from five to an additional 11 districts in three regions of Uganda and a total of 400 health care facilities. From April 2016 to April 2018, in Bulambuli and Mitooma districts, the number of villages identified as needing immunization services increased by 68%, and the number reached with immunization increased by 60%, from 774 to 1,237 villages.	MCSP worked closely with the Uganda National Expanded Program on Immunization to update the Immunization in Practice reference guide and national immunization standards, among other tools and training materials, to include elements of the REC-QI approach. In a unique example of partner coordination, the Bill & Melinda Gates Foundation matched MCSP's technical support and expanded REC-QI to an additional 11 districts. MCSP also worked with the national child health program to adapt and pilot the REC-QI approach to improve the management, quality and coverage of IMNCI.

In addition to these global priorities, MCSP continued to innovate at the grassroots level, designing and implementing innovations to address local needs. For example:

- MCSP provided global technical leadership in the area of digital health innovations, promoting investments in digital health at the country level and leading development of global resources, such as the WHO Digital Health Atlas. MCSP also supported countries to introduce and sustainably scale up new or existing digital health interventions and provided technical assistance on a range of activities, from behavior change messaging to eLearning, mMentoring, and development of key components of national digital health architectures. For example, MCSP supported the introduction of the Mobile Alliance for Maternal Action (MAMA) approach in **Bangladesh**, **South Africa**, **India**, and **Nigeria**, which directs age- and stage-based messaging to pregnant women, new mothers, and families to foster behavior change and improve health outcomes. MCSP also supported the use of WhatsApp by facilities, providers, and governments to track client referrals, share clinical knowledge, mentor other cadres of health care workers, and coordinate the scale-up of high-impact interventions in **Nigeria**, **Mozambique**, **Guatemala**, **Uganda**, **Kenya**, and **Rwanda**. Additional details on MCSP's other digital health work can be found in section 2 of this report.
- MCSP applied the LDHF training approach to in-service training as an alternative to traditional classroom-based approaches in **Egypt, Ethiopia, Kenya, Liberia, Madagascar, Mozambique, Nigeria, Rwanda, and Zambia** . The LDHF approach consists of short, structured, interactive learning activities that are delivered to a team in the workplace with practice sessions repeated over time. Optimal LDHF includes brief, ongoing activities (e.g., skills practice, drills, and games) at the job site to sustain learning and support decision-making.
- MCSP developed the 10-step Clean Clinic Approach (CCA) and worked with **DRC**, **Guatemala** (case study forthcoming), **Haiti**, and **Mozambique** to develop criteria for health care facilities to achieve a "clean clinic" status, and supported facilities with making incremental improvements to attain this status.
- In **Nigeria**, patent and proprietary medicine vendors (PPMVs) often provide treatment for sick children. MCSP built PPMVs' capacity to provide quality iCCM services within the private sector but with public-sector oversight, ensuring joint planning, supervision, and monitoring of community-level PPMV iCCM services.
- MCSP supported facilities and communities to use laminated poster or electronic data dashboards (report forthcoming) to display indicators that inform clinical and program management decisions at the point of care in **Madagascar**, **DRC**, **Ethiopia**, **Liberia**, **Malawi**, **Mozambique**, and **Nigeria**.
- In **India**, MCSP supported national and subnational government to use a risk stratification approach through preset screening criteria to identify high-risk postnatal mothers and newborns delivered in facilities to ensure they receive targeted attention, counseling, and PNC at all levels of the health system.

Learning for Improved Policy and Implementation

Life of Project

STRATEGIC OBJECTIVE 3 (SO3)

Fostering effective policy, program learning, and accountability for improved RMNCH outcomes across the continuum of care

The Maternal and Child Survival Program (MCSP) supports both implementation and learning and is designed to facilitate the development and dissemination of best practices for addressing system bottlenecks to accelerate progress toward achieving high coverage, quality and equity for high impact reproductive, maternal, newborn and child health (RMNCH) interventions, which in turn contributes toward making sustainable progress in preventing child and maternal deaths.

POLICIES

At the global level, **MCSP undertook a policy analysis across 26 countries**, including USAID priority countries, to describe the RMNCAH policy environment and how MCSP's work addressed policy gaps across a variety of elements. Illustrative findings included that the existence of national-level, costed plans was found to be generally high across components of RMNCAH, but still a large gap in child health, along with the absence of more comprehensive and integrated RMNCAH plans. The resulting policy dashboard can inform future projects in targeting efforts to foster supportive policy environments.

To help move the global child health agenda forward, MCSP supported the development and launch of the *WHO standards for improving QoC for children and young adolescents in health facilities* and the *WHO Improving the quality of paediatric care: an operational guide for facility-based audit and review of paediatric mortality*. MCSP supported 12 country delegations to formulate plans to incorporate the newly launched child health quality standards into their existing programs.

MCSP worked with WHO to revise and publish the second edition of Managing Complication in Pregnancy and Childbirth (MCPC): A guide for Midwives and Doctors, and supported five countries to update national policy, pre-service education, training, and maternal and newborn programming materials accordingly.

MCSP INFLUENCED OVER 120 RMNCAH POLICIES OVER THE LIFE OF THE PROJECT. EXAMPLES INCLUDE:

RWANDA

In **Rwanda**, MCSP supported development of two national five-year strategies based global evidence aligned with Rwanda's strategic vision; the Family Planning/Adolescent Sexual and Reproductive Health Strategic Plan 2018-2024, and the MNCH Strategic Plan 2018-2024, provide a road map of effective approaches to accelerate reductions in mortality.

BURMA

In **Burma**, MCSP conducted an assessment of antenatal care (ANC) services to better understand prevention and treatment of malaria in pregnancy (MIP) during ANC. MCSP used the findings, along with an earlier review of MIP guidelines and training materials, to successfully advocate with the Ministry of Health and Sports to establish a national framework and guidelines for ANC in Burma.

DRC

In **DRC**, MCSP played a major role in development of the 2019-2022 National Community Health Strategic Plan, which aims to reinforce community oversight and participation in health. To operationalize the plan, MCSP revised community health worker health promotion tools, trained national trainers, and revised a management toolkit. The MOH is now mobilizing resources for additional plan roll-out.

MOZAMBIQUE

In **Mozambique**, MCSP supported the development and oversight of the national quality policy and strategy, leading to the operationalization of the National Strategy for Quality and Humanization of Care, 2017-2023. Advocacy by MCSP and partners contributed to the creation of a national Quality Assurance and Management Directorate by the MOH with the mandate to lead implementation of national quality policy.

EGYPT

In **Egypt**, MCSP worked closely with the Ministry of Health and Population to develop a strategy for its 14,000 community health workers. In support of this new strategy, MCSP facilitated a workshop for two governorates in which MCSP's Community Health Worker Coverage and Capacity tool was used to help national ministry staff, governorate-level leadership, and community health worker supervisors to prioritize tasks and target populations.

LEARNING: GENERATING EVIDENCE FOR IMPROVED RMNCH

TESTING INNOVATIVE APPROACHES TO HUMAN CAPACITY DEVELOPMENT

NIGERIA

In **Nigeria**, MCSP conducted a study to compare effectiveness and cost of a facility-based, onsite, low-dose high frequency (LDHF) and mobile mentoring training approach against the currently widely used offsite group-based training approach, to improve knowledge and skills of maternal and newborn care providers. The LDHF/m-mentoring approach was found to be effective and cost effective, and will continue with partner support beyond MCSP to inform future approaches to capacity building.

GHANA

In **Ghana**, as part of comprehensive support to improve pre-service education in nursing and midwifery training colleges, MCSP equipped skills labs with medical equipment and anatomical models, trained tutors on management of skills labs with a focus on use of models and effective teaching methods, and integrated the use of skills labs into course syllabi and student practical sessions. Results showed dramatic improvements in student competencies, as well as a 35 percentage point increase in the Nursing and Midwifery Council's licensure exam pass rate. With stakeholders, MCSP identified remaining barriers to maximizing the potential gains from skills labs (e.g. high student to tutor ratios, accessibility for students, and proper care of anatomical models) to inform MOH program planning.

ENGAGING WITH PRIVATE SECTOR TO IMPROVE QUALITY OF CARE

NEPAL

In **Nepal**, serious infection is a leading cause of death for newborns. In collaboration with partners, MCSP conducted a survey to assess quality and appropriateness of private sector care for newborns and young infants, and used findings to design a pilot to improve quality of care for possible serious bacterial infection (PSBI) management. The approach included training and equipping private providers, and strengthening links to practicing physicians for mobile consultations. The pilot identified promising learnings on how to better motivate, train, and support private providers to manage PSBI per the national protocol. Results are under discussion with national stakeholders to inform future programs.

NIGERIA

In **Nigeria**, Private sector Proprietary Medicine Vendor (PPMV) outlets are a significant source of treatment for childhood illness. To address concerns about sub-optimal quality of care, MCSP designed an approach with government and private sector stakeholders aimed at sustainably supporting PPMVs to provide quality iCCM services with public sector oversight. Results showed dramatic and sustained increases in the availability of relevant medicines and commodities, and in the proportion of sick children that PPMVs appropriately assessed, treated, and counseled or referred for higher-level care. The Federal MOH has now accepted trained PPMVs as community resource persons and incorporated them into the national integrated community case management guidelines.

STRENGTHENING REFERRAL AND INTEGRATION OF SERVICES FOR IMPROVED CARE

LIBERIA

In **Liberia**, building on gains from a 2012 pilot, MCSP supported the MOH to scale up integrated family planning and immunization services to additional counties, after adjustments to strengthen and monitor immunization services. Clients and providers expressed the that the integrated services improved efficiency of services, and trends indicated slight increases in family planning uptake in intervention facilities, with no negative impact on immunization services. The MOH included the approach in its Family Planning Costed Implementation Plan for 2018-2022.

MOZAMBIQUE

In Nampula province in **Mozambique**, MCSP supported the MOH to establish and manage integrated care, referral, and counter-referral networks through training providers on reporting tools, improved communication through mobile technology, provider mentoring, and community health committee mapping of emergency transport options. Community health committees also developed community banks to cover emergency transport costs. The MOH committed to continue this promising approach, which saw an over three-fold increase in number of referred patients, nearly a third of referrals appropriately completed, and an almost three fold increase in the proportion of clients arriving to referral facilities from satellite facilities in under two hours.

TANZANIA

In **Tanzania**, MCSP conducted a study to understand and test new approaches at facility and community levels for improving maternal, infant, and young child nutrition (MIYCN) and postpartum family planning (PPFP) practices. Trends revealed increases in the total number of family planning users (with a higher proportion using lactational amenorrhea method) and exclusive breastfeeding. Qualitative results demonstrate the feasibility of a multi-channel integrated approach to improve MIYCN and PPFP outcomes, and point to areas where adjustments could further strengthen outcomes, including remaining gaps around perceived risk of pregnancy and timeliness of postpartum contraceptive uptake after childbirth. MCSP disseminated results with national and regional working groups and met with bilateral projects to carry these learnings forward.

ACCOUNTABILITY AND DATA FOR ACTION

MCSP conducted an analysis of RMNCH data elements available in national health management information systems (HMISs) in **24 USAID priority countries**, revealing significant gaps. Findings informed revisions to globally recommended metrics in fora including the Every Newborn Action Plan/Ending Preventable Maternal Mortality core metrics group, the WHO Quality, Equity and Dignity Network, the Postpartum Family Planning Community of Practice, and the 2017 Africa Regional Workshop on Improving Routine Data for Child Health in National Health Information Systems. At country level, findings were used to advocate for inclusion of critical indicators in registers. MCSP also tested new RMNCH indicators to inform revisions to national HMISs in **Madagascar**, **Rwanda**, **Nigeria**, and **Tanzania** to improve data use for decision-making and drive accountability.

MCSP conducted an assessment of barriers and facilitators to subnational maternal and perinatal death surveillance and response (MPDSR) implementation in **Nigeria**, **Rwanda**, **Tanzania**, and **Zimbabwe**. The assessment identified gaps including incorrect assignment of causes of death, and incomplete or inadequate formulation and follow up of action plans. To address these, MCSP collaborated with the World Health Organization and global MPDSR Technical Working Group to develop an MDSR capacity-building module, and UNICEF adapted this into a PDSR module. At country level, MCSP worked with local stakeholders to strengthen MPDSR implementation in nine countries. Rwanda and Tanzania MOHs, for example, updated their respective national guidelines to incorporate recommendations from the assessment.

Strategic Objective 3: Foster effective policy, program learning, and accountability for improved RMNCAH outcomes across the continuum of care.

Using Measurement and Data for Action and Accountability

Progress in RMNCAH outcomes cannot be achieved without robust measurement, improved data collection, visualization, and timely use of information. Guided by the seven strategic actions outlined in the 2015 *The Roadmap for Health Measurement and Accountability*, MCSP provided global leadership and country support to advance the measurement and collection of robust RMNCAH data that can be used to improve health outcomes. With 52 programs in 32 countries, MCSP helped to bridge country to global metrics efforts, grounding global discussions in country needs and translating global evidence and resources for efficient uptake at country level.

At the global level, MCSP contributed to improved tracking of service quality and health outcomes through collaborations with WHO and other international bodies and with M&E WGs, including the ENAP/EPMM Metrics WG, the Community M&E WG of the Health Data Collaborative, the Roll Back Malaria (RBM) M&E Reference Group, the Child Health Task Force M&E subgroup, and the WHO/UNICEF WG on immunization data quality and use. MCSP leveraged its engagement with these WGs to contribute to the development of improved RMNCAH metrics. For example, MCSP collaborated with the ENAP/EPMM core metrics group to help design a multicountry study of new routine MNH indicators for national HMISs and develop a core set of maternal health (MH) indicators for global tracking (see the papers on phase 1 and phase 2 of this work for additional details).

MCSP worked with countries to strengthen their HISs and to promote analysis, visualization, and use of routine data by districts, health facilities, and communities. MCSP collaborated with **Tanzania**'s and **Namibia's** Ministries of Health to increase the interoperability of their national HISs through improved data exchange and development of a Master Facility List, respectively. To build national and subnational capacity for data visualization and use, MCSP developed routine RMNCAH data visualization and use resource materials for health facility providers and district-level supervisors. Components of this resource package were adapted and used in **Rwanda**, **Nigeria**, **Liberia**, **India**, **Guatemala**, **Barbados**, **Guyana**, and **St. Lucia**.

Collaborating with MOH partners, MCSP strengthened the content and functioning of national HMISs in **DRC**, **Egypt**, **Namibia**, **Rwanda**, **Nigeria**, **Madagascar**, and **Uganda**, and community HMISs in **DRC**, **Egypt**, **Namibia**, and **Uganda**. MCSP promoted the use of meaningful measures of RMNCAH services through the validation and assessment of several new indicators. This included testing the feasibility, acceptability, and usefulness of new indicators on the content of care in **Madagascar** and **Nigeria**. MCSP also advanced learning on the effective use of process indicators within RI systems by exploring health facilities' and district staffs' understanding and utilization of a set of process indicators to identify mechanisms that enable the use of such indicators for decision-making in **Malawi**, **Nigeria**, and **Uganda**. The results informed revisions to the Reaching Every District (RED) guide and will inform global guidance developed by the WHO Strategic Advisory Group of Experts on Immunization. To improve data quality and use at the community level, MCSP supported countries to strengthen community HISs and documented country experiences in planning, implementing, strengthening, and institutionalizing community HISs into the broader health system.

MCSP contributed to broader efforts to hold governments accountable for implementing cost-effective, lifesaving RMNCAH interventions and to engage civil society in social audit activities. For example, MCSP developed and applied subnational and national RMNCAH scorecards in **Tanzania**, **Nigeria**, and **Ghana** to benchmark progress, track performance, and serve as advocacy tools. In **Malawi and Nigeria**, MCSP supported community-led monitoring of child immunization coverage rates through introduction of the My Village My Home tool. As a result, communities used the tool to review the data and to identify and reach defaulters with immunization services. In **Tanzania** and **Mozambique**, MCSP supported implementation of the Community Score Card approach, a participatory process for planning, monitoring, and evaluating services at facility and community levels. As a result, facility staff, community members, and local leaders collaboratively identified priority areas for QI and developed action plans to address gaps.

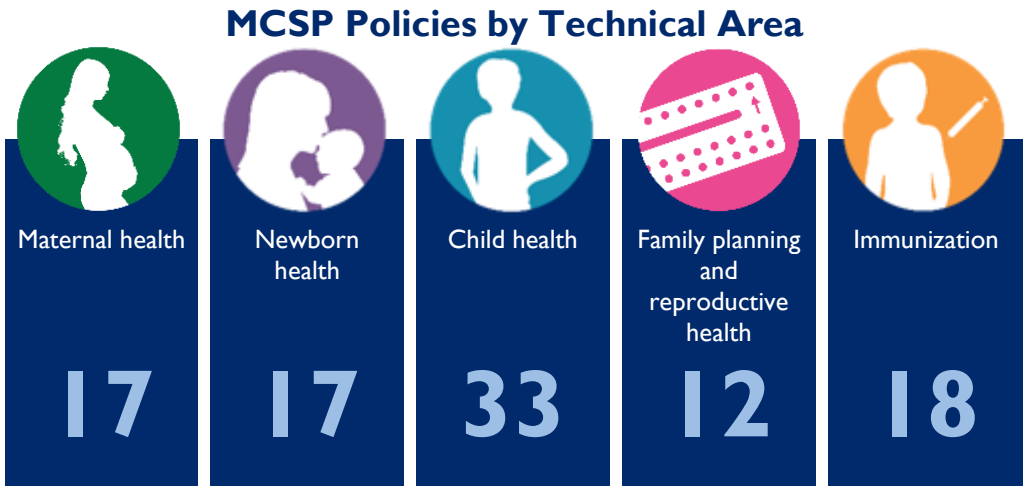
Contributing to Global and National RMNCAH Policies and Programming

To help countries realize their maternal and child survival goals, MCSP contributed to the development, dissemination, and update of critical global health guidance in priority RMNCAH areas. MCSP represented USAID's strategic interests and helped set the global MNCH agenda in collaboration with WHO and other UN agencies. Uniquely positioned with both a seat at the global table and a presence in 32 countries, MCSP informed global discussions of best practices with evidence from its country programs and helped countries to adopt global guidance. For example:

- MCSP worked with WHO to revise and publish the second addition of *Managing Complication in Pregnancy and Childbirth* and widely disseminated a joint WHO/MCSP summary brief on it in four languages. In **Nigeria**, **Haiti**, **Rwanda**, **Mozambique**, and **Madagascar**, MCSP supported governments and country stakeholders to begin to update national policy, PSE, training, and maternal and newborn program materials based on revised guidance in the second edition.
- To help move the global child health agenda forward, MCSP supported the development and launch of WHO's *Standards for Improving Quality of Care for Children and Young Adolescents in Health Facilities* and *Improving the Quality of Paediatric Care: An Operational Guide for Facility-Based Audit and Review of Paediatric Mortality*. In April 2018, MCSP helped 12 country delegations formulate plans to incorporate the newly launched child health quality standards into their existing programs.
- With Africa Bureau funding, MCSP conducted a four-country assessment of facility-level maternal and perinatal death surveillance and response (MPDSR) systems that informed national MPDSR policy and guideline development or updates in **Nigeria**, **Rwanda**, **Tanzania**, and **Zimbabwe**. The assessment also led MCSP to collaborate with WHO and the global MPDSR TWG to develop a package of capacity-building materials to address identified gaps identified, which was field tested by the Ministry of Health, Community Development, Gender, Elderly, and Children and MCSP in the Mara and Kagera regions of **Tanzania**. In addition, MCSP worked with WHO and WHO's Regional Office for Africa (AFRO) to develop a conceptual framework that will be made available to inform QI and MPDSR work in WHO MNCH Quality of Care Network countries.
- MCSP conducted a systematic review that identified barriers to exclusive breastfeeding (EBF) and discussed program implications for strengthening breastfeeding counseling and support in 25 low- and middle-income countries (LMICs), which informed the development and uptake of practical guidance and counseling aids to address problems and challenges experienced by women in the first 6 months in **Haiti**, **Kenya**, and **Mozambique**.
- MCSP supported the revision of WHO AFRO's RED strategy for vaccination to include a greater focus on equity, integration, and community engagement. MCSP tools developed in **Uganda**, **Malawi**, and **Nigeria** were included in the revised guide. Before revisions to the guide were finalized, MCSP helped to pilot the revised guide and adapt it to country contexts in **Kenya** and **Malawi**, informing final revisions to the guide. MCSP helped WHO AFRO to roll out the guide by facilitating 13 East and Southern Africa countries (**Botswana**, **Eritrea**, **Ethiopia**, **Kenya**, **Lesotho**, **Malawi**, **Mozambique**, **Namibia**, **Nigeria**, **Seychelles**, **South Sudan**, **South Africa**, and **eSwatini**) to adapt the guide to their own national contexts, providing more intensive follow-up support to **Mozambique**, **Tanzania**, and **Zambia** through MCSP's country programs.

At the national level, MCSP supported the development or revision and implementation of over 120 national health policies in 17 countries on topics including governance and planning, quality of care, human resources, essential drugs, financing, HISs, community and civil society, and gender. MCSP made meaningful contributions not only to policy implementation in countries but also to policy evaluation, agenda setting, formulation, and adoption. As a participant in global WGs and CoPs, MCSP was informed of new developments with policy implications and was well placed in countries to assist governments to effectively and efficiently operationalize and iteratively refine their polices, considering results from initial policy implementation. MCSP's contributions to both global and country-level policy development span the full continuum of RMNCAH services (Figure 9).

Figure 9. National policies developed or revised with MCSP assistance by specific technical area*



*This figure represents a subset of the over 120 national policies developed or revised with MCSP assistance which fall into common technical areas.

MCSP also undertook a policy analysis across 27 USAID priority countries to describe the larger RMNCAH policy environment and examine how MCSP's work addressed policy gaps. The results of this policy analysis are fully captured in an interactive policy dashboard and a summary brief. Please refer to Annex 2 for a full list of policy changes contributed to by MCSP.

Bringing Together Stakeholders Around Common Priority Themes

To share lessons learned and draw attention to the impact of USAID's investment in the health of women and their families, MCSP executed a strategic documentation and dissemination strategy throughout the 5-year project. During the last 2 years of the project, MCSP convened the global health community during a series of dissemination events, each highlighting one of MCSP's cross-cutting priority areas, such as HSS, quality, scale, innovations, measurement and data use, community, equity, and gender. The series of events critically engaged thought leaders on MCSP's learning in an effort to move global discourse forward.

Over the course of the project, MCSP utilized conferences and other events as opportunities to advance global discussions based on gaps in RMNCAH policies, programming, and dialog. The project leveraged these events as opportunities to share learning from its programs and inform action plans to move technical agendas forward at the country level. While a full list of global conferences and events is provided in Annex 7A and 7B, some highlights include:

- **October 2015, Global Maternal Newborn Health Conference, Mexico City, Mexico:** As a convening partner for the first Global Maternal Newborn Health Conference, MCSP helped shape the focus of the conference on three themes that are critical to MCSP's work: integration, quality, and equity. MCSP's attendance included representatives from 13 countries and resulted in a roadmap for MNH in the post-2015 era that comprised of 10 critical actions. To maintain momentum from the Global Maternal Newborn Health Conference and build up to the 2016 Women Deliver Conference, MCSP hosted a follow-up event in Washington DC in April 2016, emphasizing the importance of looking at data within context, moving beyond mortality to morbidities and development, and bringing together multi-sector stakeholders.
- **March 2017, ICHC, Johannesburg, South Africa:** MCSP played a central leadership role in the coordination, planning, and execution of ICHC in collaboration with USAID, UNICEF, WHO, and the Bill & Melinda Gates Foundation. The global gathering of health leaders from 44 countries advanced community health as a critical element of primary health care that should be integrated into national and local health policies and systems. Outcomes of the conference included development of the 10 critical principles for institutionalizing community health to advance understanding of the opportunities and challenges for institutionalizing viable and resilient platforms for community health investments. Countries developed action plans with activities that ranged from developing policies around community health to looking at longer-term financing options. Following the

conference, MCSP provided technical support to develop global guidance on data use at the community level, supported **DRC** to develop a national community health strategy and **Egypt** to apply the CHW Coverage and Capacity Tool, and facilitated cross-country learning and sharing through a series of webinars addressing challenges to institutionalizing community health.

- **September 2017, Africa Regional Workshop on Improving Routine Data for Child Health in National HISs, Johannesburg, South Africa:** Building on momentum from ICHC to advance community health data systems, MCSP convened a 3-day workshop with 90 participants from 15 countries to address gaps in routine national HISs to ensure that child health and nutrition data are available, accessible, of high quality, and used for real-time program management. During the workshop, six country delegations developed action plans to address gaps in their HIS, and after the workshop, MCSP continued to work with representatives from **Mozambique**, **DRC**, and **Nigeria** to implement activities outlined in their action plans.
- **October 2018, Improving Nutrition Services in the Care of the Ill and Vulnerable Newborn and Child, Accra, Ghana:** MCSP collaborated with USAID, UNICEF, and WHO to convene nutrition, child health, and newborn stakeholders from multiple countries to discuss barriers and opportunities for strengthening nutrition services during the routine management of childhood illness at household, community, and primary facility levels. The workshop was attended by 115 participants from 12 countries, including seven country delegations that developed country action plans to strengthen nutrition services overall; nutrition care for sick newborns, infants, and children; and nutrition counseling to their caregivers. MCSP worked closely with the seven country delegations to develop their action plans and transitioned follow-up support to USAID's Advancing Nutrition project as MCSP country activities closed out.
- **November 2018, International Conference on Family Planning (ICFP), Kigali, Rwanda:** MCSP has been a significant player in the ICFP conference series starting in 2016. In 2018, MCSP leveraged this global opportunity to disseminate program learning on FP and PPFP through nearly 40 presentations. In addition, MCSP co-convened the Accelerating Access to PPFP workshop with Family Planning 2020 (FP2020) to highlight how **Rwanda** scaled up PPFP and to share successful advocacy techniques. Over 120 donor representatives, MOH members, and PPFP advocates attended the event from 18 countries that prioritized PPFP in their FP2020 commitments. As a result, delegations developed country action plans that can be used going forward by FP2020 to track advancements in national PPFP commitments and policies through their in-country focal points and regional workshops.

Learning for Action

MCSP designed a project-wide learning agenda to help countries determine how best to achieve their national health goals related to coverage, scale, quality, and equity of high-impact interventions. The project's learning agenda produced actionable, context-specific, or generalizable information to drive better practices by addressing system bottlenecks and to accelerate progress toward reducing maternal, neonatal, and child mortality. The action-oriented learning agenda concentrated on seven themes closely related to its system-oriented implementation approaches and goals: scale-up, QI, equity, HSS, community action for health, innovations, and measurement and data use. MCSP collaborated with global and local stakeholders to create technical and country-specific learning agendas to produce actionable information and expand the evidence base for specific approaches. The learning agenda included 35 multicountry studies of global significance (e.g., study of MPDSR implementation), 15 studies in single countries of global significance (e.g., testing the facility-perinatal mortality indicator), and 13 country studies primarily of local significance. MCSP also conducted formative and baseline studies to inform program design. Lessons and recommendations that emerged from MCSP's global learning efforts have been taken up at the global and country levels to scale up or improve programming, and are highlighted throughout this report and in Annex 5.

MCSP's landscape analysis of RMNCAH data elements available in national HMISs in 24 USAID priority countries was particularly noteworthy. The review revealed significant gaps in the availability of data elements for high-impact RMNCAH interventions and MNCH outcomes. For example, only 67% and 25% of the 24 countries track cause of maternal death and cause of newborn death, respectively, in their facility registers. Findings from this analysis were used to inform revisions to globally recommended metrics through MCSP's participation in global for a, including the ENAP/EPMM core metrics group; the WHO Quality, Equity, and Dignity Network; the PPFP CoP; and the 2017 Africa Regional Workshop on Improving Routine Data for Child Health in National HISs (September 2017 in

Johannesburg, South Africa). At the country level, findings were used to advocate for inclusion of critical indicators in registers and reporting forms. MCSP also tested new RMNCAH indicators to inform revisions to national HMISs in **Madagascar**, **Mozambique, Rwanda**, **Nigeria**, and **Tanzania**. All this work helped improve the use of data for decision-making and drive accountability in more self-reliant systems.

To address falling immunization coverage rates in **Malawi**, MCSP studied the effect on coverage and timeliness of infant vaccinations of involving village leaders in newborn tracking and monitoring of the vaccination status using the My Village My Home tool. The approach empowered village heads to monitor the immunization status of individual children in their communities, resulting in improved immunization coverage in addition to increasing the use of community-based FP services and rates of EBF. Findings from the study informed updates to Malawi's national RED guide and MCSP's support to the implementation of similar strategies in **Nigeria** and **Tanzania**. The findings were also shared with 17 countries in the Eastern and Southern Africa subregion and included in the adapted regional RED guide.

MCSP carried out a study on community-based delivery of IPTp in three high malaria transmission districts in **Burkina Faso**, targeting women in rural areas who had trouble reaching ANC and receiving IPTp. Results showed that CHWs were able to increase coverage of the third and fourth doses of IPTp and ANC attendance, dispelling assumptions that the approach would reduce ANC attendance. Burkina Faso intends to expand the approach to fully cover the three high-transmission districts. This single-country study generated globally significant evidence on increasing IPTp coverage rates through community-based distribution, providing novel data to inform updates to regional policy recommendations.

Further information about MCSP's learning activities and their impact can be found throughout this report and in Annex 5.

Strategic Communications

MCSP continued to build on efforts to execute a robust communications plan and a strategic, multipronged, project-wide dissemination strategy that leveraged existing platforms within the global health community to communicate the work of MCSP, highlight its impact, disseminate resources, collaborate with like-minded organizations, and share knowledge and lessons learned. The ultimate goals were to promote USAID's flagship MCSP investments and strategically interact with key audiences. MCSP's dissemination strategy celebrated key "moments in time" in which we shared learning (informal/formal) from the project around emerging themes within the global health community, including HSS, scale-up, quality, innovation, data for decision-making, community, and equity, including gender. Thematic "moments" were celebrated via an integrated communications campaign to include:

MCSP has employed many communications dissemination platforms to share its work:

- E-communications
- Website
- Digital media
- Traditional news media
- Events and conferences
- Key technical and information collateral

- A dissemination event and additional external-facing media activities and opportunities to brief offices of US Members of Congress
- A themed digital and social media push to build momentum and raise awareness
- A curated monthly newsletter on the various themes featuring publications, blogs, videos, and expert interviews
- A legacy webpage dedicated to key publications, event summaries, success stories, and expert interviews

MCSP has leveraged multiple high-level international conferences, workshops, and events to disseminate program work across its technical and cross-cutting areas. Over the life of project, MCSP has hosted or co-hosted over 160 external facing communications events, meetings, conferences and workshops and staff made over 300 presentations at international conferences and events (see Annexes 7A and 7B for details). Global conferences were crucial opportunities to promote MCSP, present on work, distribute high-priority technical and advocacy resources, and facilitate media engagement relating to MCSP's legacy. These global conferences included the Global Maternal and Newborn Health Conference, ICHC, the Global Symposium on Health Systems Research, the World Congress of Gynecology and Obstetrics, ICFP and Women Deliver. Other strategic events included a 3-part event series in partnership with Woodrow Wilson Center on the topics of HSS, scale, and quality; jointly hosting an event with USAID's flagship Health Finance and Governance Project to showcase the power of collaboration and partnership; and celebrating the launch of an MCSP journal supplement on nutrition-health integration, which seeks to have a global impact on nutrition programming and provide high visibility for the broader work done by MCSP. MCSP also partnered with Christian Connections in Health to host a pre-conference workshop at the 2019 African Christian Health Associations Platform Biennial Meeting to educate and reflect on how continued engagement of faith-based organizations can contribute to improved MNH outcomes along the continuum of care.

MCSP maintained a dynamic website, which will continue to serve as a knowledge sharing hub for the project. Since its launch in December 2014, the site has been viewed more than 640,000 times by users in nearly all countries, and grown to include 294 total pieces of collateral (105 blogs, 126 success stories, and 63 events announcements—see Annex 6 for details). The site also features "legacy" pages on the themes of HSS, scale-up, innovations, quality, data for decision-making, community, equity, and gender which feature related resources, photo essays, success stories, social media toolkits, event recordings, and MCSP expert videos. Since launching its monthly e-news in September 2016, MCSP increased its subscriber list by 86% to 10,964 recipients. MCSP produced over 450 core-funded and over 470 field-funded technical products (case studies, toolkits, manuals, briefs, etc.) and published 135 articles in peer-reviewed journals. MCSP disseminated these products digitally via email, the MCSP website, and on social media, and at virtual and in-person meetings, events, and conferences held globally, regionally, and in-country.

MCSP employed several means via online engagement to increase visibility, including social media, online digital campaigns, external placements, and electronic communications to the external mailing list. MCSP's work also garnered external attention at the local and global levels. By developing and maintaining strategic relationships with

external news outlets, partner blogs/outlets, and international media organizations, MCSP's work was shared and picked up widely more than 480 times. Outlets included *Health Affairs*, STAT News, New Security Beat, AllAfrica.com, Voice of America, *The Guardian*, Global Moms Challenge, Gates Optimist blog, US State Department website, Girls' Globe, Global Health NOW, Maternal Health Task Force, UN Foundation, Devex, Kaiser Foundation, The Huffington Post, CNBC, and more. As USAID's flagship project, MCSP's work was highlighted in more than 20 USAID e-blasts (going out to a listserv of 135,000-plus subscribers), including e-blasts from the Global Health Bureau, Water Currents, Global Health Science and Practice, and MCH Matters. Types of content promoted include World Pneumonia/Prematurity/Malaria days, US Father's Day, International Day of the Midwife, World Breastfeeding Week, International Day to End Obstetric Fistula, Global Handwashing Day, 16 Days of Activism Against Gender-Based Violence, International Women's Day, and Saving Lives at Birth DevelopmentXChange recap.

MCSP also facilitated photo and success story capture trips and built a photo library on flickr.com with over 10,000 photos, including albums featuring country work in DRC, Ethiopia, Ghana, Guatemala, India, Madagascar, Mozambique, Nigeria, and Zambia country programs. Collectively these have been viewed over 3 million times. Many of these photos have been regularly used by USAID for agency e-blasts and communications, including the annual Acting on the Call report. Additionally, MCSP has produced and posted nearly 200 videos to its YouTube channel with over 96,000 views from over 30 countries.

MCSP social media sites increased in influence over the life of project. On Facebook, MCSP grew to have over 12,800 fans and over 18,000 followers on Twitter. This means that MCSP has a total online reach of nearly 42,000 people (to include e-communications subscribers), which is substantial for a USAID global health project. 45 countries have represented our audience on Facebook and Twitter with our 18.1 million impressions. MCSP regularly participated in partner and donor campaigns for such key advocacy days such as World Health Workers Week, World Immunization Week, World Malaria Day, World Polio Day, World Population Day, etc. MCSP has hosted or cohosted Twitter chats for HSS, scale, innovations, quality, and more; partnered with Global Moms Challenge and UN Foundation for live Facebook chats; and led digital campaigns on CHWs, engaging men in FP, combating Zika, highlighting results from USAID's Acting on the Call reports and the significant USAID Transforms initiative.

Technical and Cross-Cutting Achievements under MCSP

Maternal Health

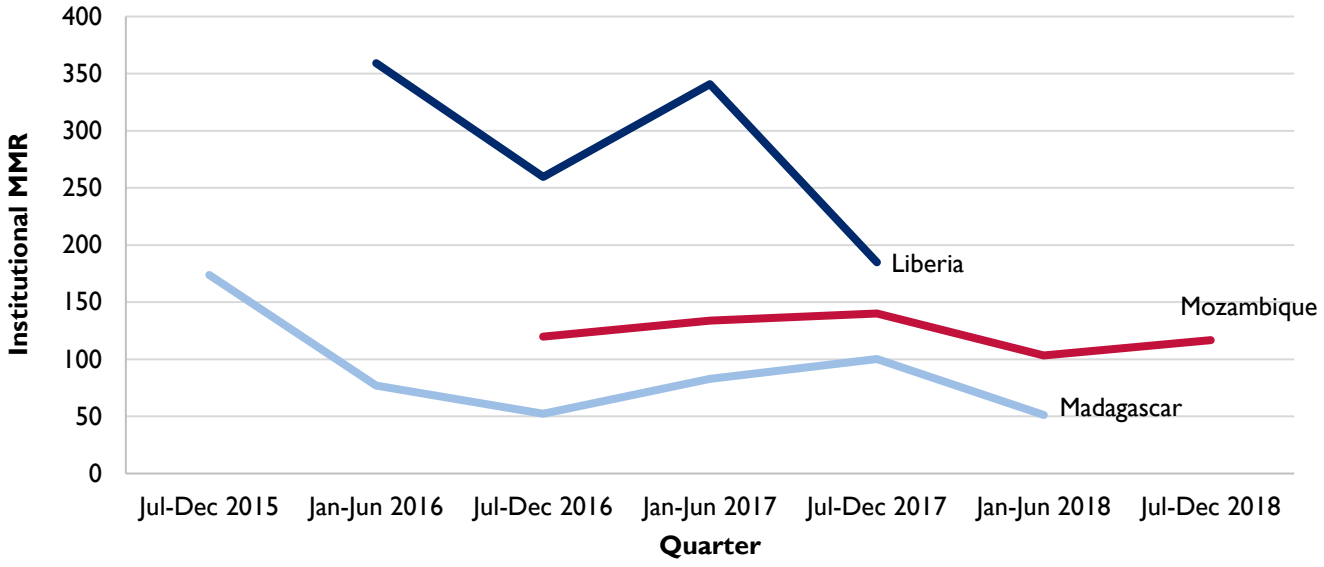
Areas of Focus - Maternal Health

- Strengthening coverage and quality of respectful, high-impact care across the antenatal, intrapartum, and PNC continuum in MCSP-supported countries
- Advancing global technical leadership for strategic MH priorities, including dissemination and uptake of evidence-based MH guidance, refinement and dissemination of MH measures, and promotion of RMC

Highlights of MCSP's Legacy

MCSP worked with WHO and other global stakeholders to update, distil, and disseminate evidence-based MH guidance, including publication of an extensively updated second edition of the WHO *Managing Complications in Pregnancy and Childbirth* manual.	MCSP helped advance person-centered RMC in multiple countries, published operational guidance to help country programs incorporate RMC into comprehensive MNH programs, and supported the first stages of implementing this guidance in Guatemala and Nigeria.	MCSP contributed to improved coverage and quality of high-impact MH services for routine and complications care, as demonstrated by many improvements in quality of care measures, including a reduction in the institutional maternal mortality ratio (MMR), in project-supported sites in Liberia, Mozambique, and Madagascar (see Figure 1.1).

Figure 1.1. Reductions in institutional maternal mortality ratio in MCSP-supported sites in three countries*



*In individual countries, the number of sites at a specific point in time varied during the period of MCSP support. For further detail, see country-specific appendixes.

Maternal Health

Introduction

Despite encouraging reductions in maternal mortality in the MDGs era, the rate of reduction remains too slow in most LMICs to reach the SDGs 2030 targets for maternal mortality. Over the life of the project, MCSP worked closely with government and other stakeholders in 20 countries to improve coverage and quality of high-impact MH services for both routine and complications care. At the global level, MCSP brought technical expertise grounded in country experience to inform and strengthen multiple global and regional MH technical guidelines, resources, and initiatives in partnership with WHO, the United Nations Population Fund, and many other global stakeholders and partners. At the country level, MCSP worked closely with MOHs and other counterparts to update national and subnational policies, strategies, clinical guidelines, and training curricula, incorporating the latest global evidence and guidance adapted to the local context. In 16 countries, the project worked closely with subnational managers (regional/district) and frontline health workers to improve quality and coverage of MH care. Activities included strengthening health worker clinical and QI skills via pre- and in-service human capacity development, supporting improved organization of care, and implementing districtwide continuous QI, including regular monitoring of MH indicators to guide local action (e.g., women's experience of care, percentage of women receiving high-impact MH interventions, incidence of complications, obstetric case fatality, and institutional maternal mortality). Over the life of the project, approximately 1.3 million women gave birth in MCSP-supported sites.

Key Accomplishments and Results

Antenatal Care

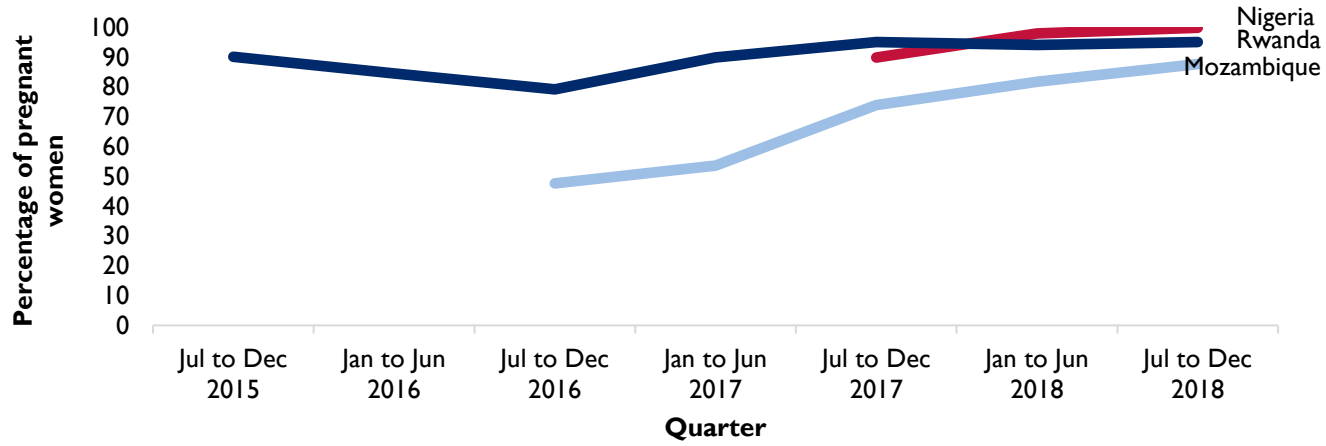
Global

- **Promotion of ANC best practices through development and dissemination of global recommendations and other products to support improved ANC:** MCSP developed multiple technical resources and tools to support dissemination and uptake of global recommendations for quality ANC in USAID-assisted countries. The project contributed to the development of the 2016 *WHO Recommendations on ANC for a Positive Pregnancy Experience* and to the extensively updated second edition of the WHO *Managing Complications in Pregnancy and Childbirth* manual. The project developed and disseminated a WHO/MCSP brief summarizing the WHO 2016 ANC recommendations, including programmatic considerations for implementing these recommendations in low-resource settings, along with a suite of MCSP ANC briefs on a range of topics, including promotion of nutrition best practices, and prevention and management of malaria in pregnancy (MiP). The project developed an ANC QI support tool outlining evidence-based, high-impact ANC interventions and quality of care measures (e.g., input, process, and outcome) by phase of pregnancy to help policymakers, program managers, and health workers update policy, design ANC programs, and improve and monitor quality of ANC. In collaboration with PMI, MCSP developed the Toolkit to Improve Early and Sustained Uptake of Intermittent Treatment of MiP to promote uptake of and adherence to the 2012 WHO IPTp using sulfadoxine-pyrimethamine (IPTp-SP) recommendations. As noted above, MCSP supported governments in multiple countries (including **Burma, Madagascar, Mozambique, Nigeria, Rwanda, and Zambia**) to incorporate new global ANC guidance and materials into national policies, pre- and in-service training curricula, supervision, and QI processes and tools.

Country

- **Coverage and quality of ANC:** MCSP contributed to improved coverage and quality of ANC services (e.g., systematic measurement of blood pressure) in over 15 countries, including **Burma, DRC, Ethiopia, Guatemala, Haiti, Kenya, Liberia, Madagascar, Mozambique, Nigeria, Rwanda, Tanzania, and Zambia**. MCSP provided a range of technical support to country counterparts, including updating of ANC guidelines and training curricula to reflect WHO guidelines, building manager and provider ANC capacity (e.g., training, supervision, and mentoring), and strengthening local health systems to address critical gaps (e.g., stock-out of essential commodities). For example, in **Mozambique, Nigeria, and Rwanda**, MCSP contributed to significant improvements in iron-folic acid (IFA) supplementation during ANC, increasing the percentage of women receiving IFA during pregnancy. See Figure 1.2.

Figure 1.2. Improved quality and coverage of high-impact ANC interventions: increasing the percentage of pregnant women who received at least 90+ iron-folic acid tablets in Mozambique, Nigeria, and Rwanda*



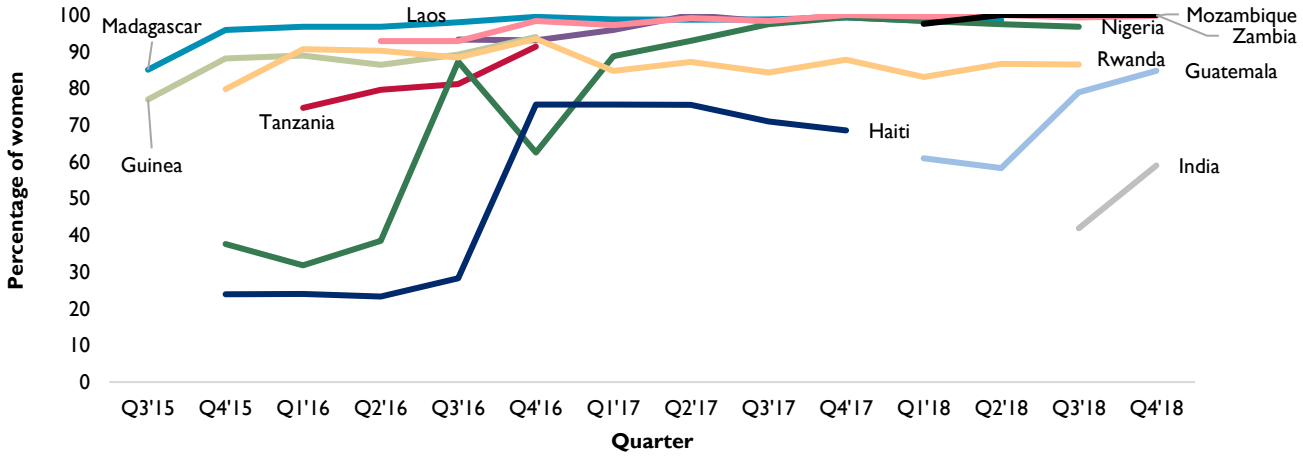
*In individual countries, the number of sites and women beneficiaries at a specific point in time varied during the period of MCSP support. For further detail, see country-specific summaries.

Routine Intrapartum and Postnatal Maternal Health Care as Part of Integrated Maternal and Newborn Health and Postpartum Family Planning Services

Country

- **Quality of intrapartum and postnatal MH care:** MCSP worked closely with counterparts in MCSP-supported countries to improve the coverage and quality of routine, integrated intrapartum and postnatal maternal and newborn care, the period of highest mortality for both mothers and newborns. MCSP-supported sites in 12 countries achieved or sustained 90% or more women receiving an immediate postpartum prophylactic uterotonic for PPH prevention, the leading direct cause of maternal mortality and an essential element of routine maternal care on the day of birth. See Figure 1.3. The project developed and supported the use in many countries of an integrated PNC Pre-Discharge Poster and Checklist to help health care workers systematically assess for danger signs and provide integrated, high-impact PNC for the mother-baby dyad, including linkages to postdischarge PNC for women and newborns.

Figure 1.3. Percentage of women receiving a prophylactic uterotonic to prevent PPH, which improved and remained consistently high in MCSP-supported sites in 12 countries*



*In individual countries, the number of sites at a specific point in time varied during the period of MCSP support. For further detail, see country-specific appendixes.

Obstetric Complications

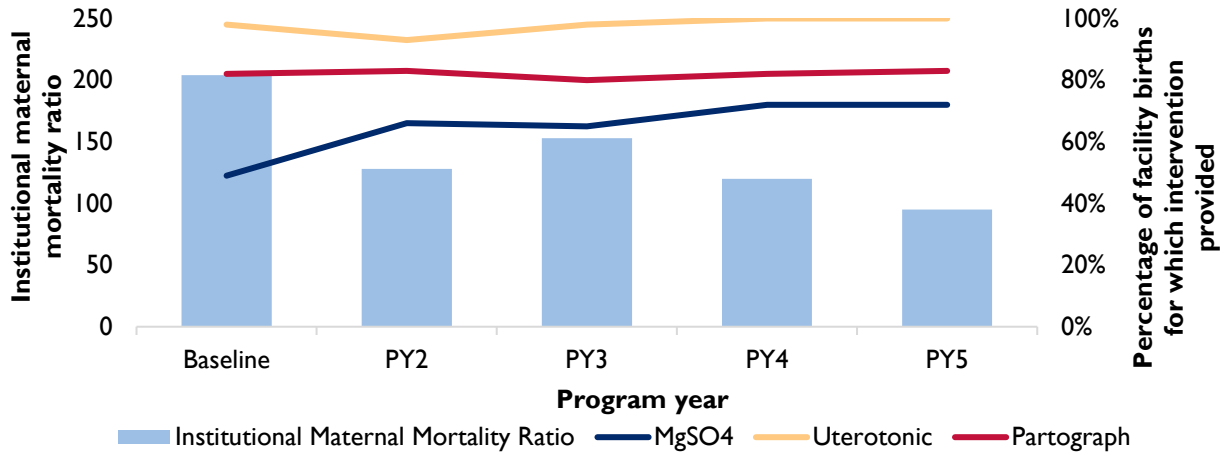
Global

- **Global initiatives and guidance to improve the detection and management of obstetric complications:** MCSP helped to advance many global guidelines and initiatives to improve early detection and management of obstetric complications, including the WHO multicountry MNCH Quality of Care Network, the global MPDSR TWG, the EPMM TWG, and the MCSP-led PPH Implementation CoP. MCSP collaborated closely with WHO to extensively revise and produce the 2017 second edition WHO *Managing Complications in Pregnancy and Childbirth* manual accompanied by technical orientation materials, including a summary brief and PowerPoint, for country-level policymakers, program implementers, and health workers. The project also contributed to the development and dissemination of multiple updated WHO clinical recommendations for management of maternal complications, including use of IV tranexamic acid to treat PPH and prevention and treatment of peripartum maternal infections (*co-funded with Africa Bureau. In process; will insert link when published*). MCSP developed and disseminated a suite of briefs summarizing global evidence for prevention and management of common infections in pregnant and postpartum women, including sexually transmitted infections, obstetric infections (e.g., endometritis), and nonobstetric infections (e.g., pyelonephritis, pneumonia), that cause serious maternal morbidity and mortality. (*In process; will insert link when published.*) MCSP regularly disseminated updated global guidance to MOH counterparts in project-supported countries and other stakeholders, and promoted the adaptation and incorporation of this guidance into updated national policies and country-specific supervision, mentoring, and professional development materials and training curricula.
- **PPH Implementation CoP:** In discussion with USAID, MCSP established the PPH Implementation CoP as a forum for global and country stakeholders to disseminate updated PPH-related guidance and materials, and to exchange ideas, information, and learning. Over the life of the project, CoP members received regular updates on PPH research and global guidance, participated in moderated virtual discussions, and shared program learning and research results during quarterly webinars and annual in-person meetings. MCSP's leadership of the PPH Implementation CoP created a common platform for regular shared learning and helped foster collaboration among stakeholders with a range of expertise (e.g., commodities, clinical, metrics, health systems) essential for reducing PPH morbidity and mortality. Multiple members of the PPH Implementation CoP contributed to the PPH Implementation Framework, a high-level snapshot of essential factors to consider when designing and implementing PPH programs in low-resource settings. This framework drew extensively on learning from MCSP country programs and pressing areas of unmet PPH implementation needs. The framework has been used by country stakeholders and partners supporting PPH programs and research, including by partners supporting PPH implementation research in **Malawi and Madagascar** as part of the USAID Advancing PPH project.

Country

- **Country-level efforts to improve the detection and management of obstetric complications:** MCSP's country-level programming contributed to reductions in institutional maternal mortality in **Liberia, Madagascar, and Mozambique** (see Figure 1.4), and to improvements in the early detection and evidence-based management of obstetric complications in multiple countries, including **Ethiopia, Haiti, Kenya, Laos, Liberia, Madagascar, Mozambique, Nigeria, Rwanda, Tanzania, and Zambia**. For example, in Mozambique, Rwanda, and Madagascar, human capacity development and QI efforts resulted in improved detection and management of PPH and pre-eclampsia/eclampsia (PE/E.) Figure 1.4 demonstrates a reduction in institutional maternal mortality in 86 facilities in Mozambique, associated with improvements in PE/E treatment with magnesium sulfate (MgSO4), PPH prevention with a uterotonic, and the systematic use of the partograph for labor management.

Figure 1.4. Increased coverage of high-impact practices and associated reductions in maternal mortality in 86 supported health facilities in Mozambique*



*PY5 only reflects data from Nampula for October–December 2018.

World Health Organization Network for Improving Quality of Care for Maternal, Newborn, and Child Health

Global

- **Global technical leadership in the WHO MNCH Quality of Care Network:** MCSP made significant contributions to the development of the WHO quality of care standards for improving maternal and newborn care in facility-based childbirth and to the design, launch and subsequent leadership of the WHO MNCH Quality of Care Network in ten first-phase countries. MCSP participated in the expert group convened by the WHO to develop the maternal and newborn quality standards, quality statements, and measures for routine and complications care, published as the *WHO Standards for Improving Quality of Maternal and Newborn Care in Health Facilities*. MCSP worked closely with the WHO and a small number of experts to design and launch the network in 2017. As a member of the network global secretariat and the implementation working group, and as co-chair of the monitoring working group, MCSP continued to provide close support to network activities throughout the life of the program, including the development of resources and the planning and execution of multi-country WHO MNCH Quality of Care Network meetings in Malawi, Tanzania, and Ethiopia.

Countries

- **Implementation of WHO MNCH Quality of Care Network activities:** In addition to intensive support of the WHO MNCH Quality of Care Network global technical leadership, including the metrics components, MCSP contributed to implementation of network activities at the country level, incorporating network strategies, approaches, and materials to improve quality of MH care in MCSP country programs including in **Madagascar, Mozambique, Nigeria, and Rwanda.** (See the country programs' summaries for more information.)

Respectful Maternity Care

Global to Country

- **Global and country-level learning for high-quality RMC:** MCSP supported improvements in RMC in multiple countries, including **Ethiopia, Guatemala, Mozambique, Nigeria, and Tanzania**, and made lasting contributions to global efforts to promote RMC and reduce mistreatment. At the global level, MCSP contributed to global initiatives and WGs focused on strengthening RMC, including the Global RMC Advisory Council convened by the White Ribbon Alliance and the WHO MNCH Quality of Care Network. As co-chair of the multicountry WHO MNCH Quality of Care Network metrics WG and as a regular participant in Mother and Newborn Information for Tracking Outcomes and Results meetings, MCSP advanced global efforts to strengthen measurement and monitoring of women's experience of care as part of comprehensive MNH programs. To

address the absence of practical guidance for program implementers, MCSP developed process-oriented flexible "operational guidance" to inform the design, implementation, and monitoring of efforts to strengthen RMC and eliminate mistreatment as part of comprehensive MNH programs (a common barrier to institutional delivery and a violation of women's rights). The operational guidance, *Moving RMC into Practice in Comprehensive MCSP Maternal and Newborn Programs*, was disseminated widely to RMC stakeholders and program implementers and is publicly available for adaptation and use. The guidance was used in MCSP country programs (**Guatemala, Nigeria**) as part of a multistep process of engaging local stakeholders to understand and address contextual manifestations and contributors to mistreatment and person-centered care of women in childbirth. Formative assessments in Nigeria and Guatemala that triangulated qualitative and quantitative data from multiple sources (women, providers, community members, managers) revealed the mistreatment experienced by women giving birth in facilities and by the health workers who work in these facilities. In Guatemala, a multistakeholder consultation brought together community members, facility health workers, and regional managers to review findings from the formative assessment, explore local drivers of mistreatment and person-centered care, and prioritize a set of local interventions to reduce mistreatment of women and health workers, and improve respectful care for all women giving birth in facilities.

Measurement and Metrics for Maternal Health

MCSP made substantial contributions to global and country-level MH measurement efforts, from achieving consensus on priority MH indicators to advancing local measurement of coverage and quality of MH services as part of routine HISs and population-based surveys.

Global

- **Measurement of cause of maternal death to inform local MH programming:** MCSP's HMIS review in 24 countries found that only 13 of 24 USAID priority countries (54%) were able to monitor aggregated causes of maternal death in their routine HIS at subnational level. To address this gap, MCSP worked with EPMM and MNCH Quality of Care Network leaders to include cause of maternal death as a priority EPMM phase I indicator and as one of 15 MNCH Quality of Care Network common measures (along with newborn cause of death). The project addressed widespread gaps in accurate diagnosis and assignment of cause of maternal death by developing a user-friendly International Classification of Diseases-Maternal Mortality job aid as part of a maternal death surveillance and response (MDSR) capacity-building module introduced in several countries to strengthen district and facility MDSR activities (see the Africa Bureau section for more details). MCSP applied the MDSR capacity-building module to build the skills of district managers and health workers in over 10 countries to monitor local trends in causes of maternal death (based on HMIS and MPDSR data) to strengthen design, implementation, and monitoring of MH program activities.
- **Measurement of quality of maternal care and outcomes (health and experience of care):** As co-chair of the WHO MNCH Quality of Care Network metrics WG, MCSP co-led the development of the network monitoring framework, which targets the measurement needs of distinct actors across health system levels (national, subnational, service delivery) and includes four components: 1) a flexible menu ("catalog") of QI measures for use by frontline service delivery teams working to improve specific care processes; 2) district performance measures for use by district managers (e.g., human resources, commodities); 3) 15 "common measures" for all network stakeholders to promote shared learning within and across countries and focus measurement on important MNH measures; and 4) network implementation milestones for use by country network focal points. MCSP supported the introduction and use of the monitoring framework in phase I network countries and in several MCSP country programs.
- **Population-level MH measurement in the Demographic and Health Survey (DHS):** MCSP led a multistakeholder expert technical consultation in collaboration with WHO to develop and submit evidence-based recommendations for a revised set of maternal indicators and questions in version 8 of the DHS (DHS-8) woman's core module and optional maternal module. Recommendations emphasized the addition of newly validated indicators of antenatal and postnatal content of care, women's experience of care, and RMC.

Country

- **MH measurement for action in MCSP-supported countries:** Weak HMIS and health worker capacity, and poor quality of data impede local efforts to monitor and improve coverage and quality of maternal care and outcomes in USAID-assisted countries. In multiple countries, MCSP supported revisions to the HMIS to capture priority MH measures in facility registers, patient records, and district reports, and to strengthen health worker capacity to document, calculate, monitor, and improve trends in antenatal, intrapartum, and postnatal services for women and newborns (including in **Ethiopia, Guatemala, Haiti, Indonesia, Kenya, Liberia, Madagascar, Mozambique, Nigeria, Rwanda, Tanzania, and Zambia**).

Recommendations for the Future

Important progress has been made in recent years to expand coverage and quality of MH services in low-resource settings but many gaps persist. MCSP-supported countries demonstrated many important improvements in MH outcomes and quality of care in project-supported areas. The project's investment in local systems necessary for the delivery of high-quality RMC (e.g., actionable information systems, skilled human resources) contributed to these measured improvements. Continued investments by country governments and donors, however, are critical to advance and sustain gains to eliminate preventable mortality and achieve high-quality, person-centered maternal care for all women.

- **Coordinate care across the system.** Country-centered and -led efforts must promote evidence-based policy, strengthen local health systems (e.g., availability of essential commodities), and deliver high-impact MH care (including referrals and transport) for all women, including timely and definitive management of obstetric complications.
- **Respond to local needs and priorities.** Information systems must be strengthened to regularly monitor local causes of maternal mortality and morbidity, quality of maternal care (routine and complications care), and women's experience of care to inform the design and implementation of fit-for-purpose MH services and program interventions that are responsive to local burden of disease and community priorities and needs.
- **Focus on women's experience of care.** Experience of care is a key determinant of women's use of health care services, and respectful, compassionate care is a right of all women everywhere. Programs must prioritize improvements to their experience of care as a central component of comprehensive MNH, tailored to the local context and priorities. Local health systems must learn ways to regularly monitor women's experience of care to determine whether care is improving from the perspective of women. The RMC operational guidance developed by MCSP can guide local efforts.
- **Emphasize shared learning.** All MH program efforts will benefit by emphasizing regular implementation learning and linkages to shared learning platforms (within and across countries) to accelerate progress for all women.

Newborn Health

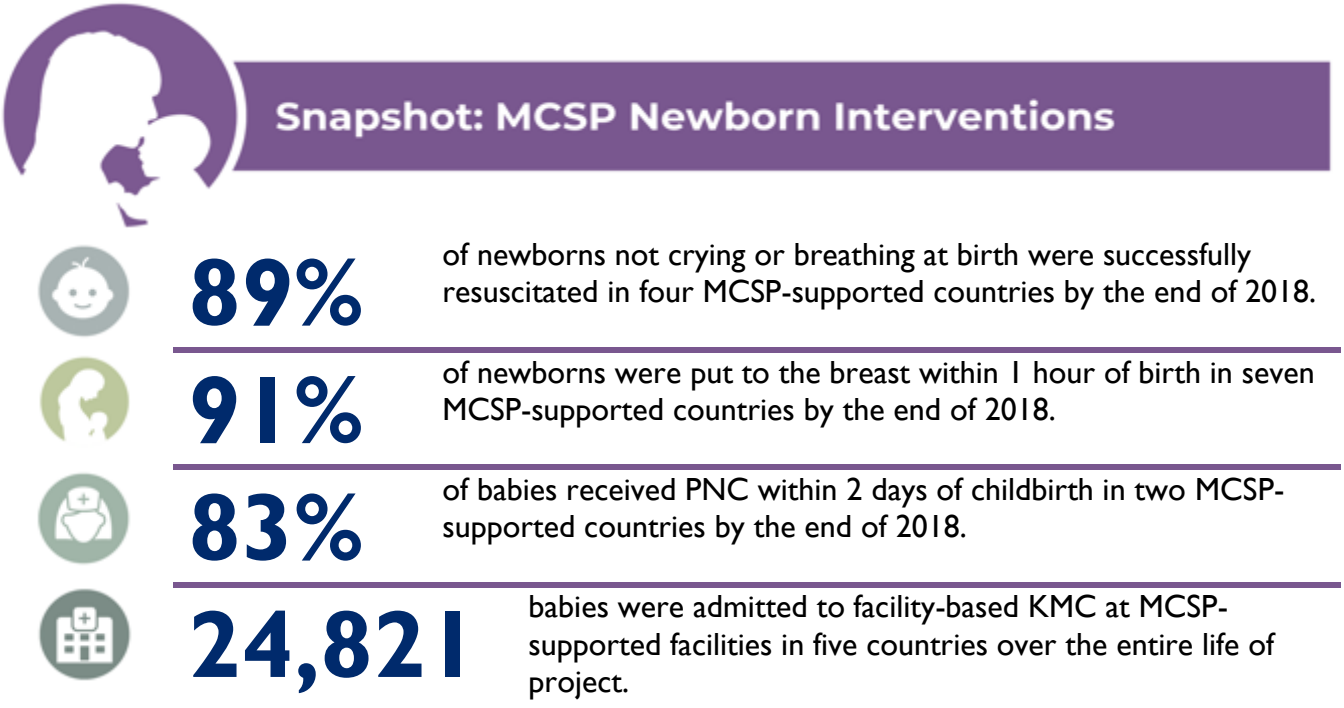
Areas of Focus - Newborn Health

- Improving coverage, quality, and use of high-impact newborn health interventions in 28 countries to address the leading causes of newborn death
- Supporting country, regional, and global stakeholders to integrate newborn health into broader RMNCAH policies, programs, and metrics

Highlights of MCSP's Legacy

MCSP improved the coverage and quality of ENC, including newborn resuscitation, in 18 countries through the use of evidence- and competency-based materials and approaches, such as Essential Care for Every Baby, Helping Babies Breathe (HBB), and the LDHF approach.	MCSP advanced global and country-level action to improve PNC, including developing an innovative risk stratification approach to identify high-risk mothers and newborns for PNC in India and launching the Global Health eLearning module on PNC.	MCSP helped catalyze action on improving the quality of care for small and sick newborns through the Kangaroo Mother Care (KMC) Acceleration Partnership, multicountry situation analyses of inpatient care, and by contributing to the development of WHO standards of care and country case studies on nurturing care.

Figure 2.1. Results of MCSP's newborn interventions*



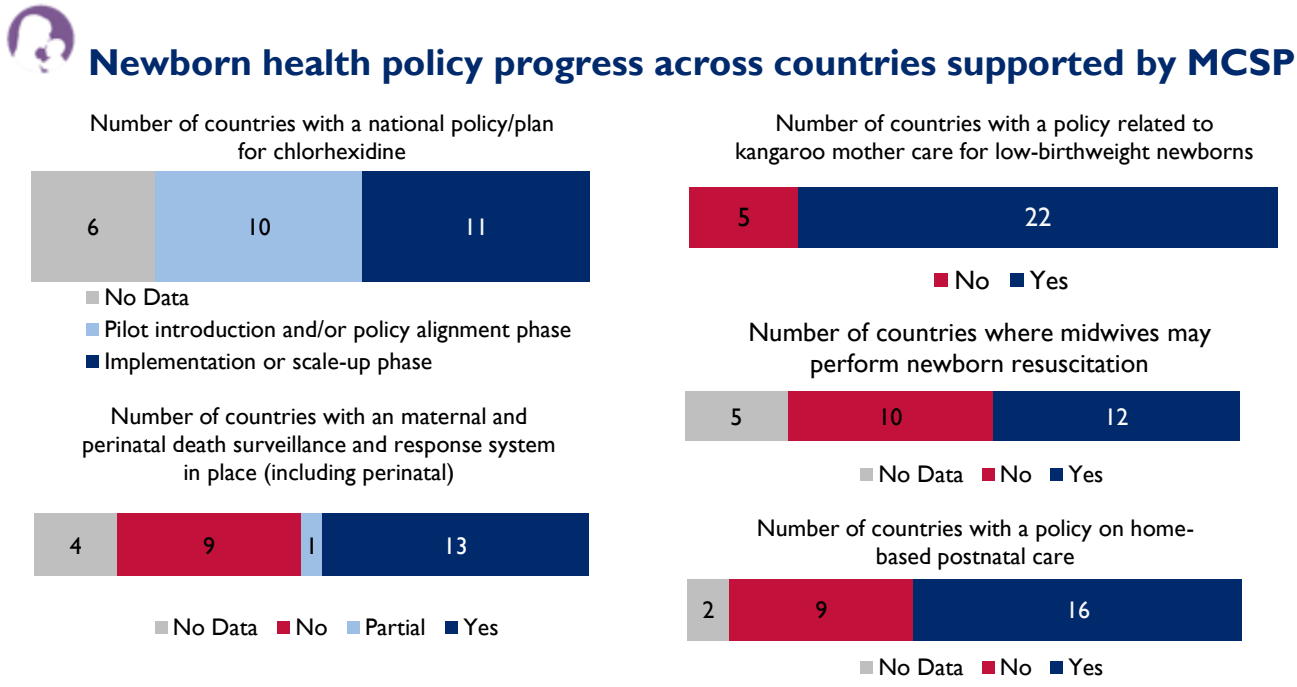
*All figures include achievements from the inception of MCSP activities in areas of the countries where the project supported interventions.

Newborn Health

Introduction

While neonatal mortality has declined significantly since 1999, many countries continue to face high rates of largely preventable newborn deaths. Globally, newborn deaths account for approximately 45% of under-5 mortality. To address this burden, SDG 3 includes a target no higher than 12 neonatal deaths per 1,000 live births in every country by 2030. Over the past 5 years, MCSP has supported 28 countries to progress toward these ambitious and important targets by improving the coverage and quality of evidence-based, high-impact newborn health interventions. Taking the implementation learning from these countries, MCSP provided technical leadership to advance global and regional dialog and action on newborn health. At the country level, MCSP worked with MOHs, professional associations, and other partners to introduce, expand, and strengthen newborn health services at facility and community levels, and to ensure the inclusion of newborn health components within broader RMNCAH policies, strategies, clinical guidelines, and tools. At regional and global levels, MCSP advanced critical dialog and action on newborn health, working closely with USAID, UNICEF, WHO, Saving Newborn Lives (SNL), the ENAP Country Implementation Group, and other newborn health stakeholders. The project shaped global initiatives by grounding them in country implementation experiences and provided technical leadership to the development of newborn health guidelines, standards, and other technical materials for broad dissemination globally. MCSP's newborn health legacy includes contributions to country success, incorporating evidence-based newborn health interventions and approaches into national RMNCAH and ENAP policies and plans. These successes, as reported in *MCSP's Contribution to Critical Policies*, are reflected in the number of MCSP-supported countries that adopted evidence-based newborn health policies with the project's technical assistance (Figure 2.2, MCSP's *Contribution to Critical Policies* can be found in Annex 2.)

Figure 2.2. Contributions to evidence-based newborn health policies



Key Accomplishments and Results

Essential Newborn Care

ENC—which includes hygiene, thermal management, breastfeeding, and (if needed) resuscitation—mitigates common threats to every newborn's well-being after birth. Many national RMNCAH plans and budgets include ENC as a critical element of care for every newborn, yet coverage and the quality of implementation remain unacceptably

low. MCSP supported MOHs and partners to strengthen the implementation of ENC at scale in 13 countries (plus three MCHIP AA countries) and the LAC region, and via technical leadership at the global level.

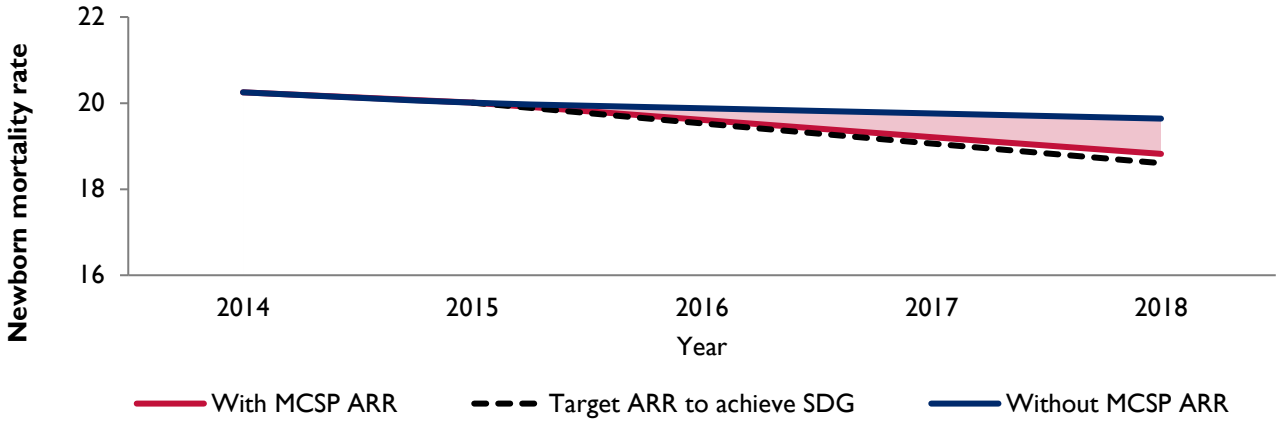
Global

- **Updates to global newborn health packages and resources:** In 2017, MCSP led the development of an eLearning course, Essential Steps for Improving Newborn Survival, on the Global Health eLearning Center platform. The course provides learners with the latest evidence and best practices for newborn health, development, and survival. As of June 2019, the course had been taken by over 2,300 people from 76 countries. MCSP provided support to revise, adapt, and implement HBS in the LAC region. In addition, MCSP translated Essential Care for Small Babies (ECSB) into French, supported the use of the translated materials in **Haiti and DRC**, and disseminated the materials more broadly in the West Africa region through the Inter-Agency ENAP Forum for Western and Central Africa regional workshop in 2016.

Country

- **Policy and program support for CHX scale-up:** WHO recommends CHX application for all home births in high neonatal mortality settings to reduce the incidence of umbilical cord stump infection and subsequent neonatal sepsis. While institutional deliveries have increased in many countries, rates of home deliveries remain high. MCSP supported the implementation of CHX in **Liberia, Madagascar, Mozambique, and Nigeria, and in Pakistan** through the MCHIP AA. Furthermore, MCSP contributed to the development of national CHX scale-up plans in Liberia and Nigeria. MCSP also successfully advocated for CHX to be included in Nigeria's revised HMIS, which helps to ensure that CHX is formally integrated as part of the national health system, contributing to the sustainability of implementation and tracking of the intervention. The process of developing the Liberia plan was informed by Nigeria's experience of the same and included south-to-south learning between the countries. In addition, MCSP shared learning from these countries with the global CHX TWG to inform and strengthen the development of global CHX operational guidelines.
- **Increased health worker capacity for ENC:** MCSP supported scale-up of ENC interventions and improved the quality of newborn care by increasing health worker knowledge and skills. In **Laos**, MCSP supported mentoring for MNH providers in 10 districts of Luang Prabang and Sayaboury provinces (out of a total 16 provinces in the country). A wide range of MNH providers were included in this effort, which introduced a sustainable approach to building providers' capacity that did not take them away from their day-to-day clinical responsibilities. The initiative improved the quality of maternal and newborn care around the time of birth. Notably, early initiation of breastfeeding (within 90 minutes) increased from 34% to 99%, and newborns placed skin-to-skin immediately after birth for at least 90 minutes increased from 36% to 99%. Mentorship activities will continue beyond the end of MCSP in December 2019 through MOH institutionalization and partner support in Luang Prabang, and activities are additionally now focused on expanding mentorship to community-based MNH service providers. In **Rwanda**, MCSP focused on improving the prevention and management of newborn asphyxia through an LDHF training and mentorship model to build providers' clinical skills and confidence, particularly around ENC, newborn resuscitation, and facility QI efforts. MCSP partnered with the Rwanda Paediatric Association to mentor district providers on neonatal and pediatric care; district-based mentors in turn conducted monthly mentorship support to health center staff. Monitoring data reflected improvements in skills retention and performance of newborn resuscitation. MCSP co-facilitated the MOH-led national scale-up planning workshops and supported the development of a national plan for scale-up of HBB/ENC practice improvement. MCSP's impact modeling analysis revealed that Rwanda achieved a 0.6% annual newborn mortality rate reduction before the start of MCSP, far from the 2.4% annual reduction it needed to meet national target goals. Within 2 years of MCSP start-up, in 10 districts (out of 30 total in the country), the estimated reduction in newborn mortality accelerated to 2.0% per year, very close to the target (Figure 2.3).

Figure 2.3. Impact modeling: reduced national neonatal mortality in Rwanda



ARR: annual rates of reduction, SDG: Sustainable Development Goal

- **Integration of newborn health content within broader MNCH packages:** MCSP contributed evidence for how to incorporate and strengthen newborn health within integrated MCH training and implementation approaches, and supported countries to strengthen this integration. In **Ethiopia and Nepal**, MCSP conducted a mixed-methods study to assess integrated versus standalone MNH training and the effect of integration on the quality of training, health worker knowledge, and skill gains. The study revealed gaps in both routine and emergency obstetric and newborn care (EmONC) manuals that had been used to provide integrated MNH training. Major gaps included nonalignment of messages and clinical information, inadequate content and time for newborn health during theoretical and practical sessions, and differences in educational methodologies. In both countries, MCSP shared findings and recommendations with MOHs, USAID, and other national stakeholders. In Ethiopia, study findings were used to align the content of training materials where misalignment had been identified; the Federal MOH also plans to use the study tools to conduct a similar assessment of training for other technical areas. *[Manuscript in progress]* MCSP also assessed newborn health content in IMNCI and iCCM materials in **DRC, Ethiopia, Mozambique, Nepal, Nigeria, Rwanda, and Zambia**. The assessment reviewed and analyzed elements of predischarge care and referral care, focusing on ENC, PNC, PSBI management, and care for low-birthweight (LBW) babies. MCSP found that IMNCI modules and iCCM materials in the seven countries are largely aligned with the WHO/UNICEF guidance (IMNCI 2014 and iCCM 2011), and that aspects of pre-referral care and referral of sick young infants are the most extensively integrated. However, the lack of differentiation in the provision of care by CHWs versus primary health care facilities may undermine the timeliness of care provided in these cases. Findings from the assessment were shared through multiple global channels, including at the 2018 Improving Nutrition Services workshop, and through a webinar targeting a diverse audience of partners, including the ENAP Country Implementation Group *[planned for December 2019]*. Finally, in **Burma**, MCSP supported the integration of Essential Care for Every Baby (ECEB), ECSB, and early ENC into the national package for integrated management of childhood illness (IMCI). This resulted in a nationally endorsed package of IMNCI modules with strengthened newborn health components.

Care of Small and Sick Newborns

About 80% of newborn deaths occur in LBW newborns, two-thirds of whom are preterm and one-third of whom are small for gestational age (GA). These babies face greater risk of infections, feeding difficulties, and developmental challenges. To prevent newborn deaths and reach ENAP and SDG targets, significant progress is needed to advance care of small and sick newborns. The Every Newborn Global Milestones and Results Framework 2017–2018 served as the roadmap of key activities for MCSP to support countries to accelerate progress in newborn health. Relevant components of MCSP's activities were reflected in the framework and tracked by the country implementation group. One of the activities outlined in the results framework is the development of Standards of Care for Small and Sick Newborns, which complements the standards for improving quality of maternal and newborn care in health facilities and standards for improving quality of care for children and young adolescents in health facilities. In support of this and in collaboration with WHO, USAID, UNICEF, SNL, and other partners at global and country levels, MCSP supported efforts to assess and improve the quality of care of small and sick newborns.

Global

- **Improved care for small and preterm babies:** KMC is an evidence-based high-impact intervention that reduces mortality and improves long-term physical and neurodevelopmental outcomes in small babies. However, lack of awareness among providers, inadequate social and family support, and the financial burden on families from longer facility stays are among the factors hindering the uptake and scale of this intervention. As co-lead of the KMC Acceleration Partnership, MCSP collaborated with SNL to engage global and country stakeholders to convene three regional CoP meetings (in Bangladesh and Rwanda in 2016, and Malawi in 2017). These workshops included clinical and program experts and champions from the global community and 10 countries: **Bangladesh, Ethiopia, India, Malawi, Nigeria, and Rwanda**, and including four observer countries: **China, Kenya, Uganda, and Burma**. Each of the KMC Acceleration Partnership CoP meetings provided opportunities to learn about and share experiences in KMC and care of small and sick newborns more broadly. As part of the KMC Acceleration Partnership initiative, MCSP contributed to a mapping of the status of KMC implementation in 22 countries and a series of country briefers on implementation challenges and lessons learned in the seven KMC Acceleration Partnership focus countries. The materials were disseminated globally through MCSP channels, the Healthy Newborn Network, and the Knowledge Gateway. At the close of MCSP, leadership of the KMC Acceleration Partnership was transitioned fully to Save the Children; discussions are ongoing on the future of the partnership and how to best to utilize this platform to advance discussions and action on care of small and sick newborns.
- **Global resources on quality care for small and sick newborns:** MCSP supported the development of global guidance to improve quality of care of small and sick newborns, building on the WHO MNCH Quality of Care Framework. This included four interlinked components: standards, quality statements, and measures (*forthcoming in 2020)*; a roadmap for newborn nursing capacity (*forthcoming in 2020*); country case studies that were included in the Every Preemie—SCALE evidence review on nurturing care; and a technical summary brief on implementation considerations for promoting, protecting, and supporting breastfeeding in newborn care units in LMICs. Together, these resources, along with learning generated from the country assessments of inpatient care for newborns and young infants (see details below), informed the global dialog on strengthening nurturing care and human resources for newborn nursing competencies of the global standards to advance quality of care of small and sick newborns. In addition to MCSP's technical leadership to advance global dialog on quality of care of small and sick newborns, the project supported related learning and programmatic activities across its country portfolio.

Country

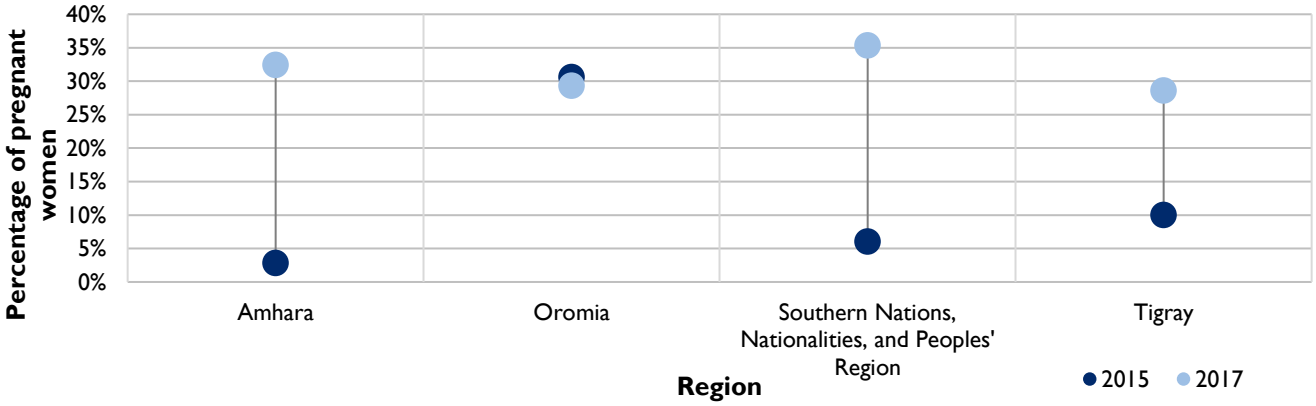
- **Accelerated action on KMC:** Following the KMC Acceleration Partnership CoP meetings, MCSP supported the development and finalization of national KMC operational guidelines in **Nigeria** to ensure that LBW babies receive appropriate care at health facilities and are referred for higher-level care when required. These guidelines have served as an instructional reference for initiation and strengthening of KMC services. The project reported an increase in the number of babies admitted to KMC units at facilities in Kogi and Ebonyi, from approximately 200 in 2016 to 900 in 2018. Learning from the KMC Acceleration Partnership CoP global meeting was also applied in **Burma**, where neonatologists and policymakers recognized KMC as a high-impact intervention, yet the country had no documentation on the feasibility and acceptability of implementing KMC. MCSP conducted a study on the feasibility and acceptability of KMC at the neonatal unit of Women and Children Hospital in Taunggyi. The study found that KMC is highly acceptable to parents, and providers believe KMC is feasible and effective to implement in their setting. MCSP not only supported improved care of small babies but also eliminated the use of breast milk substitute for very LBW babies, promoting breast milk feeding. The government is using the learning from MCSP's study to draft a national standard operating procedure manual to guide scale-up of KMC in other hospitals in the country. More information can be found in the Burma country summary.
- **Barriers to caring for LBW babies:** In **Ethiopia,** while identification and provision of extra care to LBW babies is part of the national CBNC training package, MCSP found that very few LBW babies were identified and cared for at health centers. MCSP conducted a study to better understand barriers and facilitators to the identification and care of LBW babies in Amhara and Oromia to inform future training and implementation efforts. The study found that health extension workers have theoretical knowledge on how to identify an LBW/premature baby but lack practical experience—more than half of the health extension workers interviewed had never identified an

LBW baby over the course of their career. Study findings were shared with in-country newborn and child health partners as part of the broader dissemination of MCSP's lessons learned and were incorporated into the country's newborn and child health visioning exercise (more detail provided below and in the Ethiopia country summary). Together with operations research findings from other partners in Ethiopia, the MCSP LBW study findings will inform the development of guidelines on the management of LBW/premature newborns in Ethiopia.

- **Quality of inpatient care for small and sick newborns:** MCSP collaborated with USAID, Every Preemie–SCALE, UNICEF, WHO, University Research Co./ASSIST, SNL, the London School of Hygiene and Tropical Medicine, and the Global Health Supply Chain Program to assess the status of inpatient care of newborns and young infants ages 0–59 days in several countries. The assessments aimed to help fill an evidence gap in understanding the state of inpatient care for the most vulnerable babies to inform the development of global and country-level guidance and health system planning. MCSP conducted the assessment in **Nepal and Rwanda**, and provided technical assistance to the assessment in **Tanzania**, which was led by USAID's Boresha Afya bilateral project. These assessments examined components of policy, implementation strategy, service readiness, systems to support quality services and clinical practices, and experience of care to understand the strengths and weaknesses of the health system and the quality of services being provided in the care of small and sick newborns. In **Rwanda**, preliminary results of the assessment were disseminated during a workshop led by the MOH and convened at the Rwandan Paediatric Association's Annual Scientific Conference in September 2018, during which participants generated recommendations and strategic actions in response. These recommendations and action plans will inform operational and strategic planning by the MOH. In Nepal *(report forthcoming)*, preliminary findings note the efforts of the Government of Nepal to expand inpatient newborn and young infant care to peripheral settings. However, KMC, which is considered a basic component of care for small babies, is not being practiced due to lack of infrastructure and skilled health providers. In addition, while the government has endorsed a policy for free newborn care, out-of-pocket expenditures continue to be a barrier for families with babies in district special newborn care units, especially in cases where babies are hospitalized for prolonged periods.
- **Facilitators and barriers to bubble continuous positive airway pressure (bCPAP) implementation:** Recognizing that prematurity and acute respiratory infections are the leading causes of child mortality globally and often lead to breathing difficulty in affected newborns, MCSP supported the introduction of bCPAP for newborns with respiratory distress in **Nigeria.** There, MCSP encountered challenges with the adoption of bCPAP and subsequently conducted a review to understand the facilitators and barriers to uptake. Findings were shared with in-country stakeholders to inform future program and health service design. MCSP also implemented solutions to overcome the most critical barriers, including conducting step-down trainings, leading supportive supervision, and providing oxygen concentrators to facilities. At the request of USAID Center for Innovation and Impact, MCSP also facilitated bCPAP market assessments in two countries (**India and Bangladesh**); these assessments contributed to the design of a strategy to introduce and scale up bCPAP in public and private health facilities in the two countries.
- **National and subnational MPDSR:** To better understand the implementation status and the barriers and enablers of implementation of MPDSR, MCSP conducted two studies in the African region: a multicountry assessment in four countries (**Rwanda, Zimbabwe, Tanzania, and Nigeria**) and a landscaping assessment in Nigeria. These learning activities enabled better understanding of the scope and functionality of perinatal death reviews at the facility and subnational levels. The assessment in Nigeria was done in collaboration with SNL. It examined past and current maternal and perinatal death audit processes, including their operational enhancers and challenges, to serve as a baseline for monitoring the implementation of the new national MPDSR guidelines. The assessment revealed that there was very little integration of stillbirths and neonatal deaths into data collection and notification, and almost no review of the care received before these deaths. One facility key informant noted: "You don't regularly hear about stillbirths [during reviews]. They are considered not as grievous." (More information can be found in the Africa Bureau section.) MCSP also led the development of a policy brief summarizing the WHO perinatal death audit guidelines, which was disseminated as part of the WHO launch of the guidelines and related materials. Finally, measurement of intrapartum and neonatal death that occurs in the facility setting provides information on improving quality of intrapartum care. In this vein, MCSP conducted a study in Tanzania to validate the sensitivity and specificity of the facility perinatal mortality indicator for perinatal outcomes compared to gold-standard audit in the study facilities. The indicator provided a new and important measure for facilities to track potentially preventable perinatal deaths.

- **Improved care and feeding of small and sick newborns through Baby-Friendly Hospital Initiative (BFHI) revitalization:** In recognition of the persistent challenges in ensuring optimal feeding of small and sick babies, MCSP conducted a bottleneck analysis in **Malawi** and adapted the ENAP bottleneck analysis tool to focus on issues related to the care and feeding of small and sick newborns, specifically in the context of BFHI strengthening efforts. The analysis found that the BFHI "Ten Steps" offer a platform through which many of the major bottlenecks could be addressed, particularly at the facility level, including ensuring the availability of trained staff, up-to-date clinical protocols and job aids, and strengthening facility-to-community linkages for the follow-up of small and sick newborns. Findings have been documented in a report and manuscript *(forthcoming)* and were shared with national and global stakeholders to inform discussions around improving the feeding practices of these vulnerable newborns.
- **PSBI programming to strengthen systems for newborn health:** In recognition of the potential for newborn health programs to operationalize the 2015 WHO guidelines on PSBI and for leveraging existing PSBI platforms to reinforce broader newborn health efforts, MCSP supported government and private-sector partners to strengthen PSBI programming.
  - **Ethiopia:** MCSP supported the Federal MOH in Ethiopia to scale up the CBNC package in four regions, which included introducing management of PSBI for sick young infants at the community level. Project results showed that health extension workers in *kebeles* where MCSP's demand creation strategy was implemented were able to identify and treat more cases of PSBI compared with health extension workers in *kebeles* without a demand creation strategy. Furthermore, through an impact modeling exercise using the Lives Saved Tool, MCSP support of the CBNC package in Ethiopia was found to have made a significant contribution to improving newborn mortality reduction in three of the four regions. The one exception was Oromia, where civil unrest interrupted not only MCSP activities but also much of the government's programming through its public health system. One of the high-impact interventions that was both a major focus of MCSP support and contributed to the reduction of newborn mortality in the model was case management of PSBI. Figure 2.4 shows a 20–30% increase in case management of newborn sepsis and pneumonia in three out of the four program regions from the baseline to the endline knowledge, practice, and coverage household survey. Subsequently, MCSP supported the Federal MOH in the development of a long-term national strategic vision for newborn and child health *(forthcoming)*. The vision follows a life course approach and takes into consideration key health systems issues and nonhealth determinants (including social, demographic, environmental, and community) that contribute to the survival of newborns and children, and to helping them attain their full potential. This strategic vision document reflects the many lessons learned through the MCSP Ethiopia project. More information can be found in the Ethiopia country summary.

Figure 2.4. Pregnant women whose last baby was treated for serious illness at home by bringing the health provider to the home or by taking advice of a health provider (baseline vs. endline, in MCSP-supported regions)



- **Nepal**: MCSP conducted a national survey and a pilot study focused on improving the quality of PSBI management by private providers through coordination with national- and district-level health divisions and health associations. The survey identified several key challenges with quality of care and found that although a large proportion of private-sector providers are caring for young infants, many had not been trained in the latest protocols, and appropriate referral and follow-up care were lacking. Building on the survey findings, MCSP conducted a pilot study to test a training and onsite coaching program to standardize the clinical practice of private-sector individual service providers in Kavre District. Over the course of the pilot (June 2018–February 2019), 222 sick young infants were reported by 30 private providers; of these, 43% were identified with PSBI. The study yielded important learnings about how to better motivate, train, and support these private providers to manage PSBI according to the national protocol to help ensure quality and continuity of care for sick young infants. Notably, although none of the medicine shops or clinics included in the pilot adhered to the complete protocol for treating PSBI, 100% of the participating private-sector outlets reported that they were committed to continuing in the PSBI management improvement initiative after the end of the pilot. The study highlighted that while it is commonly thought that private providers were motivated by monetary profit, the providers included in this study were motivated by their ability to provide lifesaving care to newborns and by strengthening their own professional linkages to pediatricians and the referral hospital. The findings from the MCSP-supported survey and pilot will help the Government of Nepal and other global partners develop strategies for improving the management of sick young infants in the private sector. Finally, MCSP also coordinated country-to-country learning of PSBI experience with teams from Nepal and Nigeria to allow countries to share experiences, which would serve to further strengthen private-sector engagement. More information can be found in the Nepal country summary.

Expansion of and Improvements to Postnatal Care

Despite improvements in maternal and newborn care globally, PNC lags behind. Most mothers and infants die in the first six weeks after birth. It is a period of high risk, but also of opportunities to influence longer-term outcomes for both mothers and infants. MCSP strengthened PNC for mothers and newborns through the development of technical resources and by investing in country-level implementation and learning to improve coverage and quality of PNC.

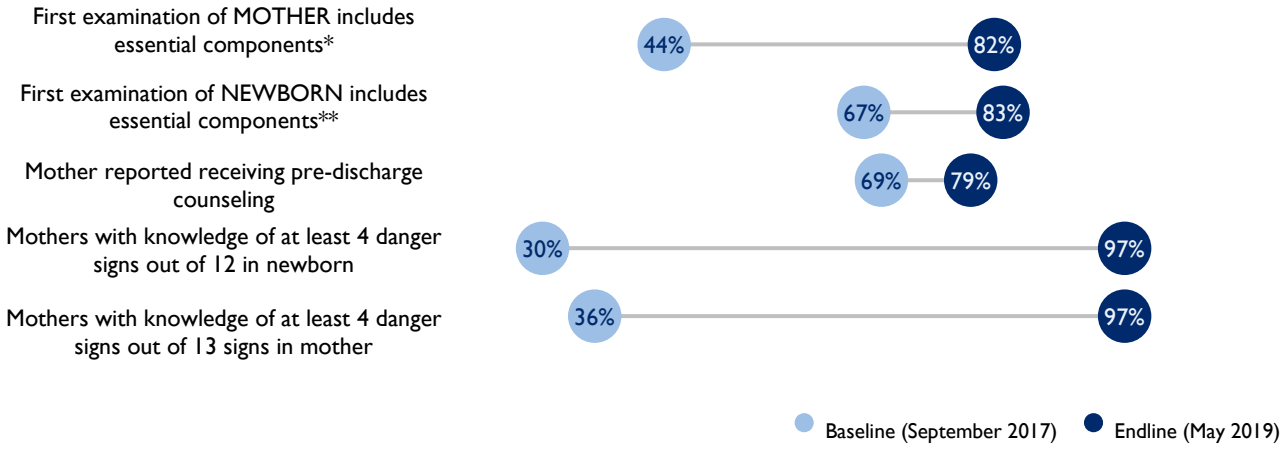
Global

- **Resources to improve knowledge and action on PNC:** MCSP collaborated with K4Health to launch the Global Health eLearning Center platform's PNC eLearning module in February 2019. Based on the original 2006 Global Health eLearning Center platform course on postpartum care, the update incorporated the latest evidence and recommendations on PNC for mothers and newborns. The course also features case studies from MCSP country programs to provide learners with a more comprehensive understanding of implementation and policy considerations. As of June 2019, less than 4 months after being published, the PNC course had been completed by over 200 people from 36 countries. In 2017, MCSP launched *PNC, with a Focus on Home Visitation*, a guide that was developed by MCSP and SNL in collaboration with USAID, WHO, and UNICEF. The guide reviews evidence from published literature and lessons drawn from program experience, focusing particularly on home visitation strategies.

Country

- **A risk-based approach for PNC:** In **India,** MCSP built on the Odisha State government's innovative approach of identifying high-risk mothers during the antenatal period and extended the approach to the postnatal period to identify high-risk mothers and newborns. The risk stratification approach and accompanying mHealth application developed through the study contributed to measurable improvements in the coverage and quality of PNC for the most vulnerable mothers and newborns. Through the HSS and continuum of care approach implemented by MCSP, improvements were seen in several key indicators (Figure 2.5). More information can be found in the Asia Bureau section.

Figure 2.5. India postnatal care study: changes in PNC examination, predischarge counseling, and knowledge of danger signs



*An exam for a mother was counted as including essential components when it included four or more of the following essential components: inquiry about excessive bleeding, pads, and abdominal pain, and examination for blood pressure, pulse, and temperature.

**An exam for a newborn was counted as including essential components when it included four or more of the following essential components: examination of skin, cord, weight, temperature, breathing, and counseling that included information on breastfeeding, warmth, and danger signs.

- **Care seeking and service provision for mothers and newborns:** In **Ethiopia**, MCSP supported the scale-up of the CBNC package, which included promotion of PNC for mother and baby, and efforts to improve recognition of and care seeking for newborn danger signs. The endline survey demonstrated that the proportion of women and newborns who benefited from a first (3 days) and second (7–14 days) PNC home visit increased significantly over the course of the program. The largest improvements were for the percentage of mothers reporting a second PNC home visit for themselves (52% to 84%) and a second PNC home visit for their newborns (51% to 93%).
- **Predischarge care for mothers and newborns:** In Nyaguru District, **Rwanda**, MCSP strengthened predischarge PNC through MCSP-developed job aids and strengthened follow-up home-based PNC for mothers and newborns through the innovative community action cycle approach. This effort helped improve the utilization of PNC services by mothers and their newborns in the community action cycle implementation district as compared to the nine MCSP-supported districts where the approach was not implemented.

Newborn Health Metrics and Measurement

Global

- **Review of MNH content in country HMISs:** In 2018, MCSP published its review of MNH content in national HMISs in 24 countries. The review examined MNH-related data elements in registers. It found that immediate breastfeeding was included in more than half of the countries' HMISs, but other important newborn health indicators were less common, including immediate skin-to-skin contact (five out of 24 countries), diagnosis of birth asphyxia, and newborn resuscitation (six of 24). Findings were used to inform the development and revision of national MNH HMIS systems. More information can be found in the Measurement, Monitoring, Evaluation, and Learning (MMEL) section. MCSP also conducted a review to understand the degree to which country HMIS newborn health indicators in 24 USAID priority countries aligned with indicators recommended by ENAP. Findings from this exercise were shared with global partners, including the ENAP metrics group, thereby contributing to discussions about identifying and institutionalizing newborn health indicators for national HMISs.
- **Contributions to improving DHS newborn health indicators:** MCSP collaborated with USAID and SNL to provide technical leadership on the development of recommendations on newborn health indicators for the DHS-8. MCSP hosted a consultative workshop in January 2019 to convene experts from the newborn health and measurement fields, present and discuss findings from a review of the existing indicators and evidence around measurement in newborn health, develop recommendations on improved newborn health indicators, and subsequently submit them to the DHS Program. The recommendations reflected current evidence on the validity

of newborn care indicators to more accurately capture PNC coverage for newborns, and to improve the harmonization across the Multiple Indicator Cluster Survey and DHS and between the MNH sections of the questionnaire. If the recommendations are accepted, it will improve the quality and validity of newborn health coverage data, and the ability to compare data across the Multiple Indicator Cluster Survey/DHS.

Partnerships with Professional Associations and the Private Sector

MCSP built strong relationships with professional associations and the private sector, most notably through its engagement with the Survive & Thrive Global Development Alliance (GDA) and its support to the LAC Neonatal Alliance.

Global

- **Global partnerships to support sustainable advancements in newborn health:** In addition to administering USAID funding to three central Survive & Thrive GDA partners (American Academy of Pediatrics, American College of Nurse-Midwives, and American College of Obstetricians and Gynecologists), MCSP contributed to the development and application of the HBS training materials. This suite of materials has been implemented across several MCSP and MCHIP AA country programs, contributing to improved capacity of providers at different levels of the health system. The GDA's partnerships between professional associations in the US and MCSP-supported countries also facilitated peer-to-peer learning between practicing clinicians, allowing for the transfer of skills and best practices. The final GDA report, *Guiding the Way Forward*, includes eight country case studies that highlight how MCSP and MCHIP leveraged GDA investments, partnership, and learning resource packages (LRPs) to advance MNH **in Bangladesh, Burma, DRC, Mozambique, Nigeria, Pakistan, Rwanda, and Zimbabwe**. More information can be found in the GDA section.

Regional

- **Support to advance newborn health commitments and action in LAC:** As a member of the LAC Neonatal Alliance executive committee, MCSP provided leadership and coordination support for countries to form new national newborn alliances (**Guatemala**) and strengthen those already in existence (**Paraguay, Peru, El Salvador, the Dominican Republic, and Haiti**). MCSP's support helped to strengthen the LAC Neonatal Alliance as a platform through which members learn about emerging global priorities and evidence-based practices in newborn health, and receive support to adopt new approaches and adapt policies. The alliance supports the development and strengthening of national neonatal alliances, in partnership with country governments, giving them a sustainable voice at the national level. Through its work with pediatric associations in the LAC region, MCSP also influenced the regional agenda through efforts to promote ECEB and ECSB to be adopted and adapted by MOHs. More information can be found in the LAC Bureau section.

Recommendations for the Future

MCSP made substantial progress in advancing the global newborn health agenda, contributing to reductions in newborn morbidity and mortality, and supporting sustainable, country-led platforms for newborn health. The project's strong partnerships—with the ENAP community at the global level, and with national and subnational governments and partners at country level—will help sustain MCSP's newborn health legacy over time. However, significant work remains to ensure that all newborns survive and thrive, including an increased focus on holistic programming across the health, nutrition, and ECD sectors.

- **Support nurturing care across all levels of the health system.** Inpatient care of small and sick newborns, including "nurturing care" and optimizing breast milk feeding, is an area receiving increased emphasis and attention. Interventions designed to enhance nurturing inpatient care will require further investment at the global, regional, and country levels.
- **Continue to strengthen and improve quality of care for newborns and their mothers.** This should be done across the continuum of care, with particular focus on the subnational implementation of these interventions.
- **Support improvements to perinatal death surveillance and response (PDSR).** As countries move forward to address improved quality of care, MPDSR should be considered an integral component of the quality of care Framework. However, this will require careful support, especially the "P" component of MPDSR, as well as stillbirths, which have often lagged.

- **Strengthen PNC and follow-up of mothers and newborns across the continuum, from facility to community to home.** Additional innovative approaches will be needed to ensure that small and sick newborns receive the specialized PNC required to enhance their health and development.
- **Increase investment and attention to community mobilization, community capacity strengthening, civil society engagement, and efforts to enable social accountability for newborn health outcomes.** These strategies can help contribute to stronger, higher-quality health services for newborns.
- **Ensure that validated, appropriate newborn health indicators are added to national HMISs.** This will allow MOHs and other stakeholders to effectively track country progress in achieving newborn health goals.

Child Health

Areas of Focus - Child Health

- Preventing deaths of children under 5 in 14 countries
- Providing global leadership in expanding child health programming so that children can survive, thrive, and transform
- Supporting national governments in developing and implementing comprehensive, evidence-based child health plans
- Bringing interventions and treatments to the places with high rates of under-5 mortality and where children need it most

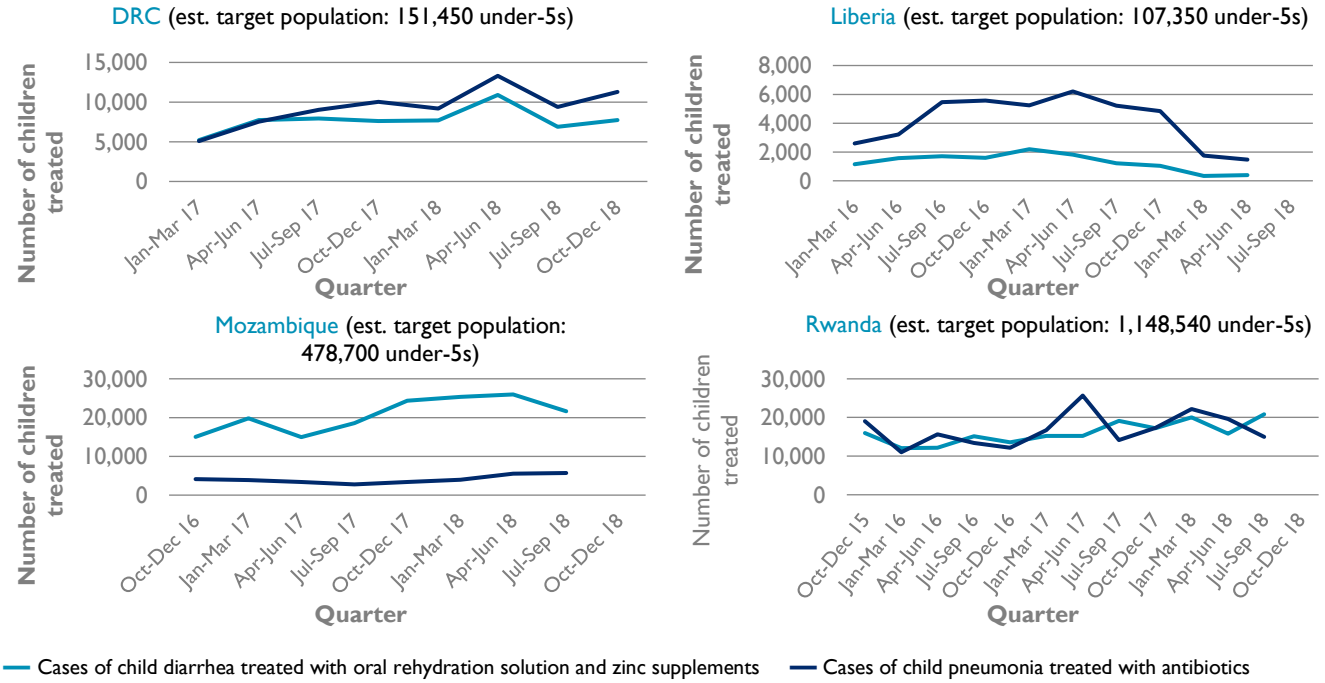
Highlights of MCSP's Legacy

With USAID, MCSP helped develop and launch WHO's *Standards for Improving the Quality of Care for Children and Young Adolescents in Health Facilities* and *Improving the Quality of Paediatric Care: An Operational Guide for Facility-Based Audit and Review of Paediatric Mortality*, which have brought a focus to quality of care for children.

The MCSP-commissioned study Mapping Global Leadership in Child Health informed the WHO-led review of IMCI and the expansion of the iCCM Task Force's mandate, subgroups, donors, and membership to create the Child Health Task Force in order to reduce fragmentation, address the needs of the whole child, and promote the "survive, thrive, transform" agenda.

MCSP brought attention to child health metrics and measurement through the *Review of Child Health and Nutrition Indicators in National HMISs across 24 Countries* and the 2017 Africa Regional Child Health Data Workshop that informed global data collection platforms and improvements to multiple countries' HMISs.

Figure 3.1. Cases of child diarrhea and pneumonia treated across four countries



Child Health

More than half of early childhood deaths are preventable with cost-effective and simple interventions.[2] Globally, significant progress has been made in reducing mortality in children under 5 years of age. The number of child deaths has declined, from 12.7 million in 1990 to 5.9 million in 2015, but not all countries were able to achieve the MDG of a two-thirds reduction in the 1990 under-5 mortality rate. To reach the even more ambitious SDGs and bring under-5 mortality to 20 or fewer deaths per 1,000 live births by 2035, countries will not only have to achieve more equitable coverage with high-impact child health interventions but also make sustainable improvements in the quality of care provided at all levels of the health system. MCSP contributed to ongoing global discussions and worked directly with national governments and partners to develop and implement comprehensive, evidence-based child health policies and programs. To end preventable and treatable child deaths, MCSP worked at global and country levels to promote a holistic approach to child health by making high-impact strategies, such as iCCM, IMCI, and emergency triage, assessment, and treatment, equitably available from the household to the hospital level; integrating sick-child management with preventive and promotive health services; improving leadership, coordination, policy, and advocacy to advance child health; improving the quality and increasing the coverage of evidence-based child health services; improving child health measurement and data use; and promoting a robust learning agenda.

Key Accomplishments and Results

Leadership, Coordination, Policy, and Advocacy to Advance Child Health

Global

MCSP played a key role in shaping the global dialog around child health, highlighting the issues of fragmentation, poor quality of care, commodity insecurity, and measurement challenges, and bringing renewed attention to the holistic needs of the child.

- **Mapping Global Leadership in Child Health study:** Commissioned by MCSP in 2016 at USAID's request, the Mapping Global Leadership in Child Health study led to a better, more holistic understanding of the evolution of child health as a global health issue and its current network of stakeholders and leaders. The study's recommendations focused on how leadership might be strengthened and child health repositioned by the global community to achieve better outcomes. It informed the WHO-led strategic global review of IMCI taking place at the same time and led to the creation of the global Child Health Task Force described below.
- **Harmonization and amplification of the efforts of global and country stakeholders in global iCCM and Child Health Task Forces:** MCSP (and MCHIP before it) served as the secretariat for the global iCCM Task Force from its creation in 2010 until it was restructured and rebranded in fall 2017 as the Child Health Task Force. This change in name and mandate were in response to the findings of the MCSP Mapping Global Leadership in Child Health study, the WHO-led *Towards a Grand Convergence for Child Survival and Health: A Strategic Review of Options for the Future Building on Lessons Learnt from IMNCI,* and the Child Health Moment of Reflection meeting (Florence, Italy, January 2017). The desire was to move beyond community-based care for sick children to a more holistic approach to child health programming. In the secretariat role for both groups, MCSP contributed to global discussions and helped shape the work of task force subgroups.
    - **iCCM Task Force:** MCSP hosted the steering committee, coordinated the activities of seven subgroups,[3] managed a dedicated website and electronic resource center, and registered over 300 task force members. Taking advantage of the Global Fund's New Funding Model, the task force worked with the UNICEF-led iCCM financing task team to advocate for the integration of malaria, diarrhea, and pneumonia case management to maximize the impact of malaria programs and reduce the overuse of antimalarial drugs. Thereafter, the iCCM Task Force members and their organizations worked with countries to develop concept notes for the Global Fund's New Funding Model's 2014–2017 funding cycle. Of the 28 countries that requested the Global Fund's support for iCCM, there were 12 successful submissions that leveraged over $80 million in new financing for iCCM. The iCCM M&E subgroup completed the revision of the *Indicator Guide:*

[2] WHO. 2018. Children: reducing mortality. WHO website. https://www.who.int/news-room/fact-sheets/detail/children-reducing-mortality.

[3] Costing and Financing, Demand Generation and Social Mobilization, Monitoring and Evaluation, Nutrition, Operations Research, Supply Chain Management, and Workforce Issues

Monitoring and Evaluating iCCM (developed under MCHIP) to provide a short list of indicators for routine monitoring of iCCM. The University of Oslo used this updated list of indicators to create a DHIS2 community case management module that is now available to all countries that use the electronic DHIS2 platform.

- **Child Health Task Force:** Officially constituted in fall 2017, the Child Health Task Force aims to reduce fragmentation in child health programming and go beyond child survival, to the more ambitious "survive, thrive, and transform" agenda of the SDGs. With over 500 registered members, the task force serves as a CoP (the first of its kind) for child health and brings together international donors, governments, implementing partners, and individual technical experts. The goal of the task force is to strengthen equitable and comprehensive child health programs—focused on children aged 0 to 19 in line with Global Strategy for Women's, Children's, and Adolescents' Health (2016-2030)—through primary health care, inclusive of community health systems. Members collaborate through10 subgroups[4] and have access, along with the public, to a resource library of tools, guidelines, lessons learned, and best practices for child health programming on the Child Health Task Force website, which was developed by MCSP and launched in October 2018. Task force subgroups are building on and expanding work started by the iCCM Task Force. For example, the M&E subgroup, in coordination with WHO's Child Health Accountability Tracking Technical Advisory Group, developed a robust set of recommendations to the DHS Program for consideration when updating the DHS-8 child health questionnaires and indicators. Over the next several years, the expectation is that these revisions will improve the monitoring of evidence-based child health interventions and care-seeking patterns in countries that implement the DHS. MCSP also secured co-funding for the Child Health Task Force from the Bill & Melinda Gates Foundation to develop a new model for country-driven technical assistance using a human-centered design approach. This effort was ongoing in Nigeria and DRC at the close of MCSP.

- **Meetings to bring together global, regional, and country stakeholders to address priority child health programming topics:**
  - **Africa Regional Workshop on Improving Routine Data for Child Health in National HISs conference:** Hosted by USAID and MCSP in Johannesburg, South Africa, on September 19–22, 2017, the invitation-only Africa Regional Workshop on Improving Routine Data for Child Health in National HISs conference focused on ensuring that child health and nutrition data from national HISs are available, accessible, of high quality, and used by managers at all levels for decision-making. Over 90 participants from 15 countries attended, including a unique group of child health, HISs/HMISs, digital health, and program experts and stakeholders to reflect on the current state of routine child health and nutrition data systems, share lessons learned, and identify recommendations to scale up successful models and approaches. Six country delegations developed action plans to address gaps in their HISs during the workshop. After the workshop, MCSP continued to work with teams in **Mozambique, DRC, and Nigeria**, specifically, to implement activities outlined in their action plans. MCSP supported the Mozambique MOH to introduce child health indicators, registers, and reporting forms; worked with the DRC Ministry of Public Health to develop a Web-based dashboard for child health indicators; and contributed to the development of the community HMIS in Nigeria. The Child Health Metrics and Health Information Systems section below provides more details.
  - **Improving Nutrition Services in the Care of the Ill and Vulnerable Newborn and Child workshop:** The importance of nutrition throughout the life course of a child, from infancy through early childhood and adolescence, is gaining more attention globally and in countries. In this context, there is significant concern related to the integration of interventions focusing on nutrition and the management of childhood illness. To help chart a way forward, USAID, in collaboration with UNICEF, WHO, and MCSP, convened the Improving Nutrition Services in the Care of the Ill and Vulnerable Newborn and Child workshop in Accra, Ghana, on October 30–November 2, 2018, bringing together nutrition, child health, and newborn stakeholders from multiple countries to discuss key barriers and opportunities for strengthening nutrition services during the routine management of childhood illness at household, community, and primary facility levels. The workshop was attended by 115 participants from 12 countries, including seven country delegations

[4] Digital Health and Innovation, Commodities and Supply Chain Management, Emergencies and Humanitarian Settings, Expansion of the Child Health Package, Financing and Resource Planning, Institutionalizing iCCM, Implementation Science, Monitoring and Evaluation, Nutrition, and Private-Sector Engagement

that developed country action plans to strengthen nutrition services overall; nutrition care to sick newborns, infants, and children; and nutrition counseling to their caregivers. MCSP worked closely with the seven country delegations to develop their action plans and transitioned their follow-up support to USAID's Advancing Nutrition project as MCSP country activities closed out.

- **Additional MCSP contributions to global child health technical leadership:** MCSP, working in conjunction with USAID, developed two eLearning courses on Pneumonia (launched April 2017) and Case Management of Childhood Illness (launched January 2018) to bring attention to child health and enhance the knowledge and skills of program managers. To date, 3,357 individuals from 95 countries have completed the courses, which equip public health program managers and professional staff who do not have a medical background with a basic understanding of pneumonia-specific case management and case management of childhood illnesses in general along the continuum of care. MCSP also completed a *Review of Newborn Health Content of IMNCI and iCCM Training Materials and Job Aids in Seven MCSP Countries*, including the ECEB and PSBI interventions (described in detail in the Newborn Health section of this report). The review findings will contribute to global and national-level discussions and revisions to newborn content in standard guidelines for primary health service delivery.

Country

- **Child health policies in MCSP-assisted countries:** MCSP supported countries to adapt global evidence and child health policy recommendations, develop plans for the coordinated rollout of new and revised policies and strategies, and monitor and institutionalize gains in quality and utilization of child health services. Over the life of MCSP, more than 30 child health policies were developed or revised across eight countries.[5] In **Liberia**, MCSP worked with the MOH to draft a national strategy for institutionalizing IMNCI by delegating critical IMNCI tasks to different areas of the health facility, providing the individuals working in these areas with necessary job aids and training resources while reducing reliance on frequent and costly large-scale IMNCI training activities. This strategy is now incorporated into Liberia's national IMNCI training package. In **Mozambique,** MCSP worked with the MOH and other health partners during annual forecasting and procurement exercises to get amoxicillin dispersible tablets (the first line antibiotic for pneumonia in children) into the essential medicines kits for health facilities and for Mozambique's government-supported CHWs. Mozambique's national clinical guidelines for care of the sick and well child and its new neonatal care guidelines were also updated with support from MCSP. In **Nigeria,** MCSP successfully advocated with other partners for policy changes that included the deregulation of amoxicillin dispersible tablets, which are now available over the counter and included on the PPMV Essential Medicines List. MCSP also supported Nigeria's Federal MOH to update the National Child Health Policy, finalize a new National Child Health Advocacy and Strategic Plan, and revise the national iCCM guidelines and training materials to reflect the role of PPMVs as community resource persons (Nigeria's cadre of CHWs).
- **Child health TWGs:** In **DRC**, MCSP assisted the Ministry of Public Health and its partners to scale up and improve the effectiveness of the national iCCM program through the national Child Health TWG. Revitalized with MCSP's support, the TWG developed the National Strategic Plan for IMNCI, a broad plan that provides for a continuum of quality care from household to hospital level. As an extension of the national TWG, MCSP revitalized provincial child health TWGs in Tshopo and Bas-Uélé provinces, and facilitated iCCM scale-up. In **Guinea,** MCSP leveraged the existing National Steering Committee on IMNCI to lead the rebuilding of child health services after the Ebola epidemic. With the support of the steering committee, MCSP led a review of current iCCM programs and determined that support was needed at health posts where the majority of sick children were being seen but health providers had not been trained in IMNCI. MCSP supported the development of a child health training program to meet this need. In **Rwanda,** MCSP supported the national Child Health TWG, which provided expertise and guidance to all actors operating in the country, reviewed the status of child health indicators every quarter, and supported health districts to improve their performance. MCSP was successful in strengthening IMCI in Rwanda largely because of the regular meetings of the strong national Child Health TWG led by the government, where lessons learned from the field were shared, discussions were held, and informed decisions were made to further the work of IMCI in Rwanda.

[5] MCSP policy review—refer to Annex 2.

Quality and Coverage of Child Health Services

While the coverage of child health interventions increased and child mortality declined in most countries, the quality of care provided to sick children remains a critical obstacle to further reducing child deaths, especially in hard-to-reach areas or within vulnerable populations. The private health sector in most countries is also significant and could help achieve global targets in reaching more children with quality services. MCSP played an instrumental role at the global level and across multiple countries in advancing the quality and coverage of health care provided to young children.

Global

- **WHO pediatric quality of care standards and guidelines:** In close coordination with USAID, MCSP played a critical role in the development and launch of the *Standards for Improving the Quality of Care for Children and Young Adolescents in Health Facilities* and *Improving The Quality of Paediatric Care: An Operational Guide for Facility-Based Audit and Review of Paediatric Mortality*. These new WHO documents set the quality standards for recommended, evidence-based care at health facilities for the most common acute and chronic conditions affecting children and adolescents. Going beyond infectious health conditions, the *Standards for Improving the Quality of Care for Children and Young Adolescents in Health Facilities* draws attention to children's overall well-being and seeks to improve children's and their families' experience of care by demanding that they be respected, protected, supported emotionally, and actively involved in the care they receive. Building on the momentum of the WHO *Standards for Improving Quality of Maternal and Newborn Care in Health Facilities* and the Quality, Equity, Dignity network of countries, the child health standards were officially launched in Entebbe, Uganda, April 23–25, 2018. USAID, through MCSP, served as a major sponsor of the launch, which was attended by health experts from 12 countries, including the 10 countries in the WHO MNCH Quality of Care Network and two additional MCSP-nominated countries (Mozambique and Rwanda). During the launch, country delegations shared their efforts to improve quality of care for children and young adolescents, and discussed how to weave the new standards into their existing programs.

Figure 3.2 Clinic and community site achievements

Over the last 5 years, in clinics and community sites receiving USAID's support through MCSP:

2 million cases of malaria confirmed through rapid diagnostic tests were treated

440,000 cases of pneumonia were treated

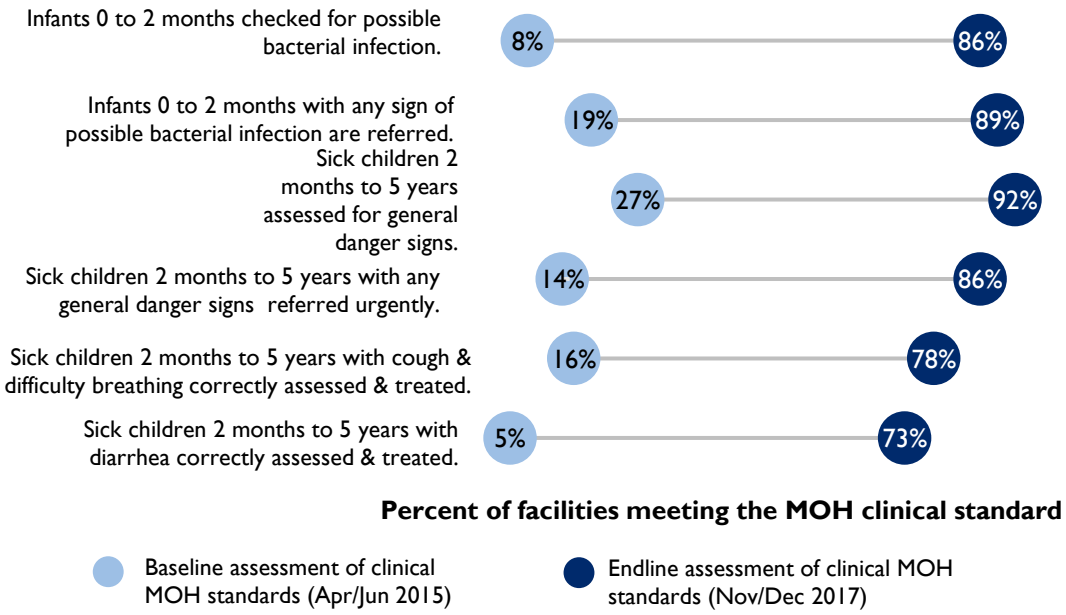
585,000 cases of diarrhea were treated

Country

- **Improvements to child health service in multiple countries with MCSP support:** MCSP worked with **Uganda's** MOH to adapt and integrate the new global pediatric quality of care standards into a national Maternal and Newborn Standards Assessment Tool that will be used to assess and launch MNCH QI initiatives in Uganda. Starting in 16 learning districts with support from the World Bank's Global Financing Facility, these initiatives are part of Uganda's larger Global Financing Facility-funded RMNCAH program. Also in Uganda, MCSP revitalized the implementation of IMNCI strategy and, in collaboration with the WHO country office and the MOH, field-tested and evaluated two alternative training models for IMNCI to roll out the essential child health care package, taking into consideration feasibility and acceptability of the models in Uganda and cost-effectiveness. This pilot helped prioritize interventions to address child mortality. In **Burma**, six new objective structured clinical examination tools were developed and used to assess the ability of doctors and nurses to correctly manage cases of anemia, jaundice, convulsions, diarrhea, newborn complications, and difficult breathing. These knowledge assessments of clinical staff informed further scale-up of facility based-IMNCI[6] in Burma and confirmed that township-level hospital staff need enhanced skills and confidence to appropriately manage serious childhood illnesses. To rebuild demand for child health services post-Ebola in **Liberia**, MCSP supported three counties to provide integrated RMNCAH services from the primary health care to hospital level. This included conducting large-scale IMNCI training for health care providers with frequent supportive supervision and mentoring that strengthened preventive and promotive aspects of the IMNCI package (see Figure 3.3).

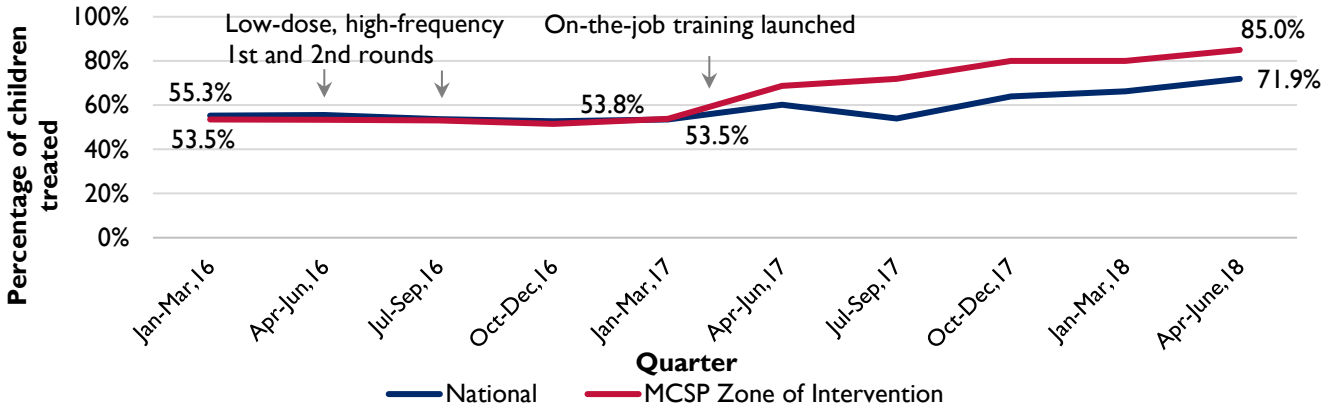
[6] Facility-based IMNCI is comparable to emergency triage, assessment, and treatment in other countries.

Figure 3.3. Quality of IMNCI care in Liberia before and after introduction of MCSP-supported approaches



MCSP also improved the quality of case management for sick children seen at health facilities in **Rwanda** (Figure 3.4). Routine data showed that the percentage of sick children treated according to the national IMCI protocol in the 10 MCSP-supported districts increased by 32% between January 2016 and June 2018, compared to an average increase of 17% nationally during the same period. MCSP first established a network of 56 district trainers and mentors, and then enrolled 933 care providers in a combination of LDHF and on-the-job training approaches to optimize IMCI care in health facilities (see MCSP case study here).

Figure 3.4. Trends in percentage of children treated according to the IMCI protocol

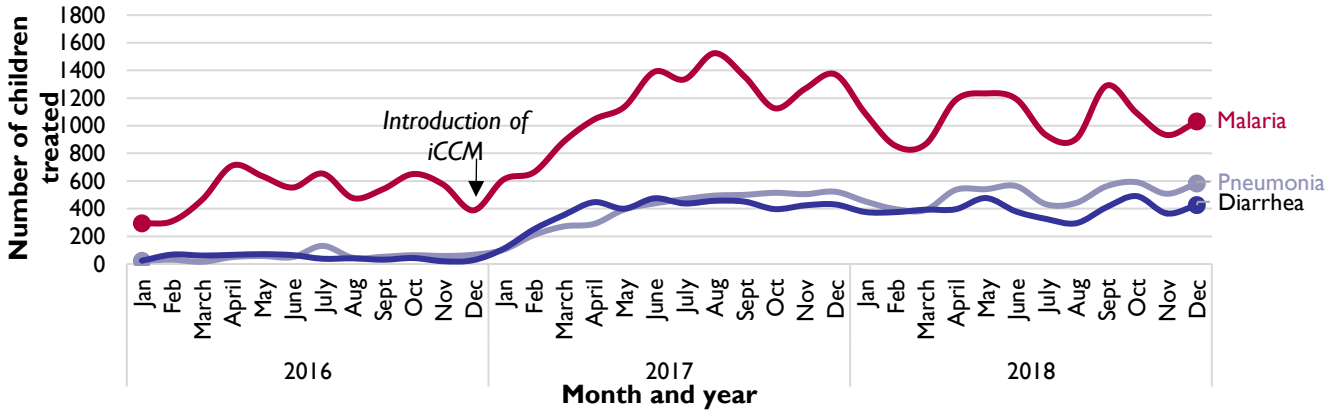


Source: DHIS2 system of the Rwanda national HMIS

Finally, MCSP improved the quality of care for women and children in **Zambia** by establishing 28 multidisciplinary mentorship teams in four provinces. MCSP trained district staff in IMCI and QI approaches to identify gaps in the quality of their services. Staff implemented QI projects based on the findings of their service assessment. For example, they may have learned that they did not follow the IMCI algorithm when assessing sick children, affecting their ability to make a disease classification and provide correct treatment. This learning process led to improved clinical skills and accuracy in diagnosing and treating children. Staff also requested more IMCI chart booklets and wall charts from the district mentors. These materials were included for purchase in the 2019 planning and budgeting cycle using the continuum of care grants provided by USAID.

- **Integrated services for sick children at facilities and in communities:** MCSP worked with Tshopo and Bas-Uélé provincial health authorities in **DRC** to expand integrated services for sick children at facilities and in communities where CHWs had been providing only malaria detection and case management. In late 2016 to early 2017, the provincial health authorities and MCSP introduced a complete package of iCCM in communities and reinforced IMNCI at health centers through training, supervision, and providing child health commodities at all levels. At the community level, the number of cases of childhood diarrhea and pneumonia treated increased over eightfold after the introduction of iCCM, and malaria cases treated doubled (see Figure 3.5). At health centers, there was a fourfold increase in cases of diarrhea and pneumonia, and a significant increase in the cases of childhood malaria treated (data not shown).

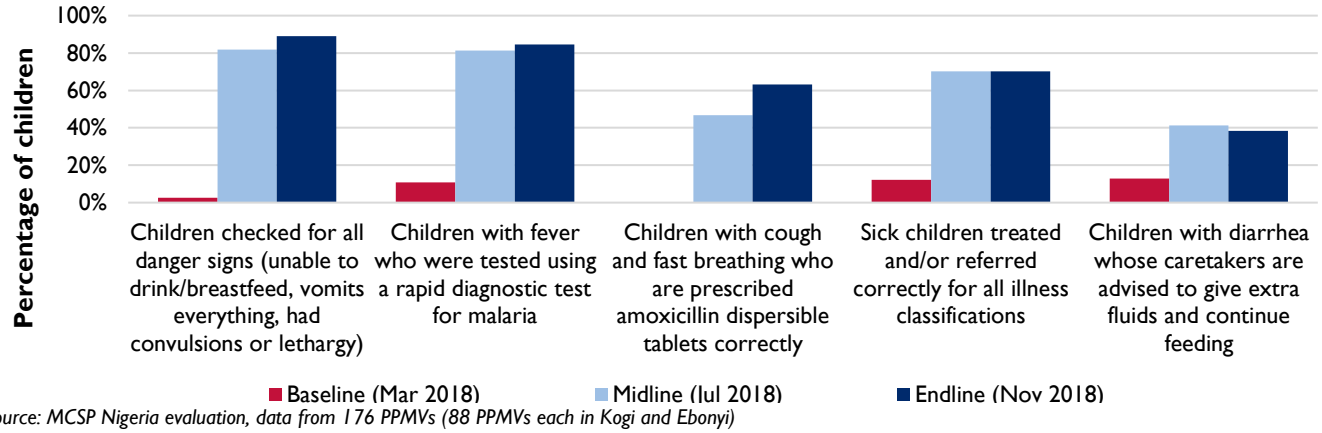
Figure 3.5. Children under 5 treated for malaria, pneumonia, and diarrhea in Bas-Uélé and Tshopo provinces, DRC, before and after introducing iCCM at MCSP-supported community sites (n= 54)*



* Data analyzed and shown only for 54 community sites that had minimal threshold of complete data for malaria reporting in 2016–2018 out of 119.

- **Private-sector Enhancing Quality iCCM through PPMVs and Partnerships (EQuiPP) pilot in Nigeria:** Private-sector PPMV outlets are a significant source of treatment for childhood illness in Nigeria. However, the Federal MOH and others have raised concerns about the suboptimal quality of care provided by PPMVs. MCSP, together with the government and private-sector stakeholders, designed the EQuiPP approach as a potentially sustainable way of supporting PPMVs to provide quality iCCM services with public-sector oversight. The model built on existing public and private systems to ensure that joint planning, supervision, and monitoring of PPMVs would continue after MCSP. Midline and endline audits of PPMV outlets showed dramatic and sustained increases in the availability of iCCM drugs and commodities, and in the percentage of sick children that PPMVs appropriately assessed, treated, and counseled or referred for higher-level care (see Figure 3.6). Based on EQuiPP's demonstration that PPMVs can provide quality services for children, the Federal MOH has accepted trained PPMVs as community resource persons and incorporated them into the national iCCM guidelines.

Figure 3.6. QI during EQuiPP implementation in assessment, treatment, and counseling for sick children under 5 years of age



Source: MCSP Nigeria evaluation, data from 176 PPMVs (88 PPMVs each in Kogi and Ebonyi)

- **MCSP support to the systematic scale-up of high-impact interventions in three countries:**
  - **DRC:** Findings highlighted a strong consensus of the relevance of iCCM in DRC, a consistent commitment by all actors, and Ministry of Public Health leadership as key factors enabling iCCM scale-up. On the other hand, the study showed that differing donor priorities and the complexity of the intervention itself made iCCM difficult to scale up in a sustainable way across a large and diverse country like DRC. Uncertainties linked to political factors, insecurity, weak capacity at the provincial and health zone levels, supply chain, and difficult access to iCCM sites for supervision were all identified as significant barriers to scale-up. The findings of the scale-up study showed increased and improved Ministry of Public Health coordination with partners and an emerging culture of data use. They also highlighted the need to find sustainable solutions to ensure that affordable (and preferably free) drugs and commodities are always available at health facilities and community care sites.
  - **Kenya:** In Kenya, where volunteer CHWs must refer suspected pneumonia cases in children to the nearest health facility for confirmation and treatment, MCSP supported the expansion of community-based malaria case management in Migori County to include care for diarrhea, sick newborns, and malnourished children, and the referral of suspected cases of pneumonia to nearby health facilities. After the expansion, 15% more children received treatment for diarrhea with zinc and oral rehydration solution in their communities, and more children were referred for other conditions, as compared to the previous year before iCCM was introduced. Early in the program, MCSP completed the Feasibility Study of the Implementation of iCCM in Bondo: Leveraging Existing Systems. This 18-month study informed iCCM implementation in other counties throughout the country and fueled advocacy for community case management of suspected pneumonia by showing that referral does not necessarily lead to timely and effective case management.
  - **Namibia:** MCSP worked to strengthen the CHW platform in Namibia beyond its focus on HIV testing and counseling through activities such as the promotion of early care seeking and recognition of danger signs through home visits and group education, and advocacy for the inclusion of iCCM into the CHW platform. In addition, MCSP and UNICEF jointly supported the Ministry of Health and Social Services to conduct an external evaluation of the CHW Program (formerly known as the Health Extension Program). The ministry is using the evaluation's results to improve the quality and coverage of community-based primary health care through the CHWs.
- **Care-seeking behaviors and the role of gender in household decision-making in Nigeria:** Care-seeking for sick children is suboptimal in Nigeria, and the private sector is a major source of care in some states. MCSP conducted a household survey and qualitative study to better understand care-seeking practices, gender norms, and household dynamics to inform child health programming and messaging. The quantitative and qualitative findings indicate that female caregivers are the most likely family members to recognize that a child is sick and to initiate discussions with the child's father on the need to seek care. While cultural norms dictate that female caregivers are responsible for the physical well-being of a sick child, fathers are financially responsible for health care costs and ultimately decide whether a child receives treatment outside the home. Care for sick children is

influenced by the severity of illness and often follows attempts to treat at home through herbal remedies or leftover drugs, then drug shops, and lastly, resorting to health centers or hospitals for unresolved or severe illness. The studies' insights on care-seeking patterns informed the strategy and messages used in Ebonyi and Kogi states to generate increased demand for sick-child care. The methods and findings from these studies in Nigeria have been published, adding to the limited global evidence base on how gender norms and household dynamics affect care seeking for sick children.

Child Health Metrics and HISs

Countries have extensive experience collecting routine data for child health, but there is limited global guidance for standard indicator definitions or methods to monitor child health services. Country systems vary greatly in how they define and collect data for these services, especially at the community level. MCSP played a strategic role in the global dialog and advocacy to improve metrics for child health, especially for routine service delivery.

Global

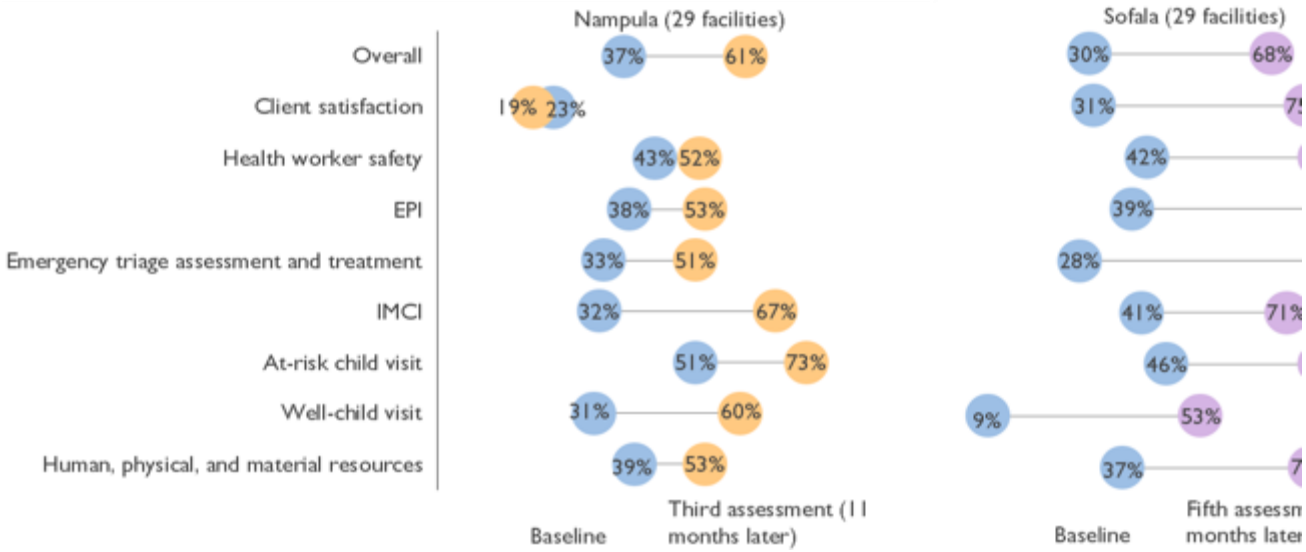
- **Global dialog for improved child health metrics:** As part of its work on the iCCM and Child Health Task Force, MCSP led revisions to recommendations for routine iCCM indicators that formulated a global DHIS2 community module and submitted recommendations to improve child health indicators in the next version of the DHS. The Africa Regional Workshop on Improving Routine Data for Child Health in National HISs conference facilitated the exchange of best practices among experts in child health programming, HIS strengthening, digital health, and M&E from country, regional, and global levels to strengthen measurement of routine child health data (see more information above).
- **Review of child health and nutrition data elements in 24 countries' HMISs:** MCSP's review of 24 countries' HMISs examined the data elements at community and facility levels that are related to the prevention and management of childhood illness and malnutrition, primarily in USAID MCH priority countries. The review found that the treatment of childhood illnesses (including pneumonia, diarrhea, and malaria) is infrequently summarized at the facility level and inconsistently reported through national HMISs. The review has been influential at the global level. The Every Breath Counts Metrics WG, including UNICEF, WHO, and other stakeholders, used this review to make informed recommendations for routine pneumonia indicators. MCSP also used findings from individual countries and groups of countries to advocate for more appropriate child health indicators and data points in registers and reports that feed into the DHIS2.

Country

Countries improved routinely collected child health data and data use in different ways with MCSP support.

- **DRC:** In DRC, MCSP assisted national-, provincial-, and local-level program and data managers to strengthen the functionality and use of the national HMIS. In Tshopo and Bas-Uélé, MCSP developed the capacity of providers and managers to improve the quality and timeliness of their reporting through the DHIS2. MCSP also worked with the national Child Health TWG to develop the prototype for a dedicated database and Web portal to monitor the implementation of the National IMNCI Strategic Plan and the scale-up of iCCM services. The platform will make real-time data accessible on the locations of health clinics and community care sites, commodity availability, utilization of child health services, and other variables. Linked to the national DHIS2 system, this platform will allow the government and partners to monitor and adjust implementation. While developing this database and Web portal, MCSP also built the capacity of Ministry of Public Health staff to continuously update, maintain, and use them.
- **Mozambique:** The development and nationwide rollout of new child health indicators, registers, and reporting forms is a key MCSP legacy in Mozambique. Child health registers function as data collection tools and job aids, guiding health workers at the point of care. The reporting forms and systems are making routine child health data available to managers for program planning, monitoring, and evaluation of program efforts. The Mozambique MOH is committed to sustaining the high level of provider performance and improvements in the quality of care (see Figure 3.7) achieved with MCSP's support.

Figure 3.7. Improvements in adherence to child health standards in Mozambique*



*Nampula's client satisfaction scores dropped when health facilities discontinued use of client comment boxes that fell apart because of poor structural integrity with no immediate replacement options. Health worker safety scores remained low in Nampula because of ongoing infection prevention and control commodity shortages.

- **Nigeria:** The Federal MOH in Nigeria is developing a national community HMIS to reduce fragmentation of community data. MCSP worked with the Federal MOH to pilot its community HMIS tools and proposed systems, as well as newly developed logistics management information system tools for the community level, within the EQuiPP approach that supported PPMVs to provide iCCM services. Program partners, including MCSP and state government agencies, trained and supported PPMVs to use these new tools, tracked their service data, and used these data with stakeholders to solve problems and improve services. Stakeholders in the states agreed upon reporting roles and responsibilities, data flow, and timelines for community HMIS. The pilot demonstrated for the first time that it is possible to capture iCCM data from the private sector, with the potential for private-sector data to be incorporated into the public-sector national HMIS data flows in the future. Based on these results, the Federal MOH integrated modules on community HMIS and logistics management information system into the national iCCM training curriculum.

Recommendations for the Future

Over the past 5 years, MCSP highlighted the unfinished agenda in child health and contributed to its advancement through improved leadership, coordination, policy changes, and advocacy. The project contributed to defining and setting standards for quality of care, increased the coverage of evidence-based child health services, promoted a holistic approach to child health, improved child health measurement and data use, and facilitated country-to-country exchanges and engagement between countries and global decision-makers to further the child health agenda.

- **Integrate services for children.** To reach to goal of reducing child mortality to 20 deaths per 1,000 live births or below by 2035, child health programs need to integrate technical areas (e.g., maternal, newborn, nutrition, immunization, and child health) and cross-cutting areas (e.g., equity, quality), and collaborate with other sectors (e.g., education, security[7]) as suggested in USAID's new five-year Children in Adversity strategy to holistically address children's health. RMNCAH plus nutrition programs should reduce silos and encourage an integrated health systems approach.
- **Assess and adapt to demographic and epidemiologic contexts as well as social and environmental determinants of health.** Countries with high mortality from infectious diseases (e.g., malaria, pneumonia, and diarrhea) should focus on strengthening health systems and improving the quality of services. As infections claim

[7] See also USAID's five-year Children in Adversity strategy which signals a strong commitment to providing the integrated assistance required to ensure that children not only survive, but thrive.

a smaller proportion of morbidity and mortality, countries should prepare programs to tackle other significant causes of child deaths, such as injuries, traffic accidents, and noncommunicable diseases. As more and more children survive past their fifth birthday, health programs will need to ensure that children also thrive into adulthood, incorporating programmatic aspects of ECD.

- **Strengthen child health metrics for program management and investment decisions.** High-quality data, including measurement of coverage and quality, are needed to better target investments and interventions in child health and for program management. Develop and validate standard routine child health indicators and guidance on definitions, tools, and systems to collect and use these indicators. Coordinate these efforts with the recently formed Child Health Accountability Tracking Technical Advisory Group, and draw from the expertise within the Child Health Task Force's M&E subgroup.
- **Push for stronger global leadership in child health.** The Child Health Task Force contributed to reduced fragmentation in child health, addressed the health needs of the whole child, and highlighted the "survive, thrive, and transform" agenda. This task force is an important mechanism for convening, coordinating, and harmonizing global and country-level child health partners. USAID's support for the task force is critical in raising the profile of child health, directing attention to the needs of the "whole" child, and creating a platform for stakeholders to share knowledge, develop innovative solutions, and develop new tools that country partners can use to translate evidence into stronger child health programs, enabling children to survive and thrive.

Immunization

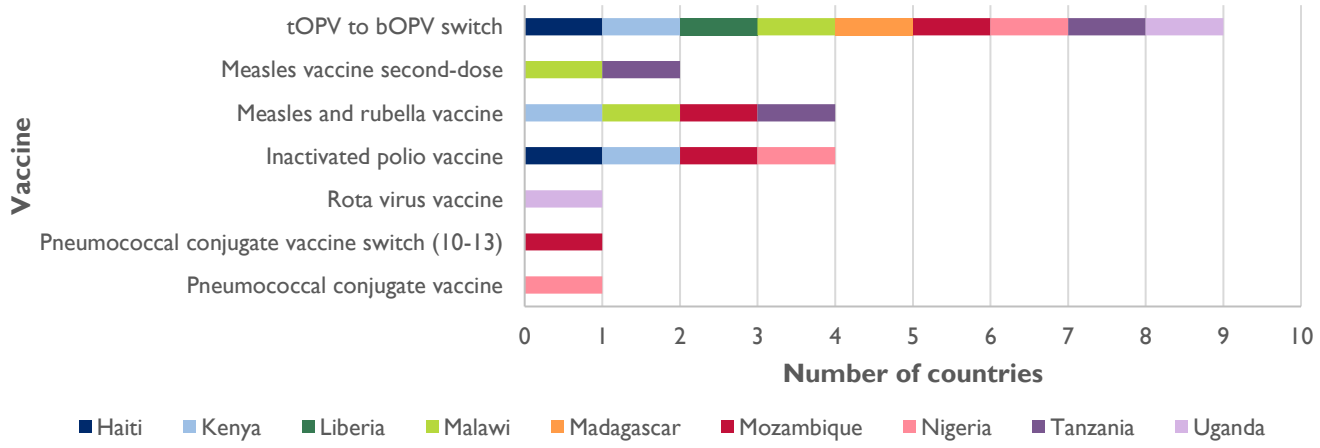
Areas of Focus - Immunization

- Influencing the global immunization direction; making policies, strategies, guidelines, and plans reflect country realities; and ensuring they are better tailored for use in countries
- Supporting 9 MCSP countries to increase coverage and equity of RI services by adapting tools and tailoring approaches to plan, manage, and monitor performance at all levels
- Moving toward a polio-free world with technical support for high-quality outbreak risk assessments and promotion of real-time data generated through polio activities to strengthen RI and other health interventions

Highlights of MCSP's Legacy

MCSP's findings on facilitators and barriers to urban immunization in Kenya and Nigeria, and participation in the UNICEF/Gavi-led Global Urban Immunization WG led to new urban-specific global, regional, and national strategies.	MCSP's iterative learning on generation, quality, and use of RI data is helping to shape decision-making and improved the strength of RI systems in MCSP 9 countries.	MCSP, in coordination with key partners, including WHO, UNICEF, and Gavi, provided in-depth technical assistance to introduce 23 new vaccines in 9 Gavi-eligible countries and to scale uptake at the subnational levels.

Figure 4.1. MCSP, in coordination with key partners, including WHO, UNICEF, and Gavi, provided in-depth technical assistance to introduce 23 new vaccines in 9 Gavi-eligible countries



MCSP, in partnership with the MOHs, supported new vaccine introduction by providing technical input into Gavi applications, updating comprehensive multiyear plans, developing introduction strategies, monitoring the process, and conducting post-introduction evaluations.

tOPV: trivalent oral polio vaccine, bOPV: bivalent oral polio vaccine

PCV: Countries decide, based on their local evidence and resources, which of the PCV vaccines to introduce and use. Countries may change this based on their local epidemiology and prevalent pneumococcal strains. In Mozambique, MCSP supported the switch from the PCV 10 vaccine to PCV 13 vaccine. In Nigeria, MCSP supported the phased rollout of PCV10.

Immunization

Between 1990 and 2018, global vaccination coverage rates increased from 75% to 86%, with approximately 116.3 million infants immunized with the third dose of the diphtheria-tetanus-pertussis vaccine (DTP3) in 2018[8,9]. Despite this impressive performance, after increasing for more than two decades, RI coverage rates began to stagnate again around 2010, and in some of the world's largest countries, immunization programs have not been able to keep up with population growth. In addition, huge inequities still exist between and within countries, and immunization programs have become increasingly complex, with one in five children still not vaccinated.

In an effort to reach the Global Vaccine Action Plan target of 90% or more DTP3 vaccination coverage at the national level and 80% or more in all districts in all countries, MCSP supported national immunization programs to increase coverage rates, close equity gaps, bolster RI systems to absorb new and underutilized vaccines, strengthen immunization systems, and ensure managers have the capacity to manage their increasingly complex immunization programs. Focusing on sustaining high, timely, and equitable immunization coverage, MCSP worked at the global and country levels to:

- Influence and shape global and regional strategies, guidelines, plans, and tools that are country-centric, practical, and results-oriented, with the aim to improve national immunization systems' ability to reach every child with immunization services.
- Build the capacity of health personnel at all levels to manage and deliver high-quality immunization services in an increasingly complex immunization program.
- Reach underserved and vulnerable populations with immunization services more equitably while building stronger immunization systems that deliver and sustain quality services.

These principles guided MCSP's work at the global level and in 9 countries to improve leadership, coordination, and policy to advance immunization; improve quality and coverage of RI services; and enhance country engagement at regional and global levels to influence policies, strategies, guidelines, and plans.

Key Accomplishments and Results

Leadership and Coordination to Shape Strategies, Guidelines, and Tools That Improve National Immunization Systems' Ability to Reach Every Child with Immunization Services

With increasingly complex immunization programs, new technology to improve service delivery, and new evidence, MCSP played a pivotal role in the creation of guidance, strategies, and tools, working closely with WHO, UNICEF, the US Centers for Disease Control and Prevention (CDC), and other partners to develop these global approaches. The project helped shaped the global agenda by providing grounded firsthand country realities through consultation, involvement of country Expanded Programme on Immunization (EPI) managers, and documentation of best practices. MCSP contributed particularly in the areas of cold chain equipment, implementation of immunization programs, maximization of opportunities for vaccination at every contact with the infant, and updating strategies for district managers to reach every child. This new guidance is reshaping approaches to reaching every child with immunization services and putting new tools in the hands of national immunization program managers to strengthen their programs and handle emerging issues.

Table 4.1. Global and regional guidance, strategies, and tools

- *Immunization in Practice: A Practical Guide for Health Staff*
- *Planning Guide to Reduce Missed Opportunities for Vaccination*
- USAID eLearning course, Immunization Essentials
- *The Polio Endgame Strategy 2019–2023: Eradication, Integration, Certification and Containment*
- WHO modules on vaccine and cold chain management, including: *How to Use Passive Containers and Coolant-Packs for Vaccine Transport and Outreach Operations*, *How to Calculate Vaccine Volumes and Cold Chain Capacity Requirements*, and *How to Develop*

[8] WHO Global and regional immunization profile
[9] WHO Immunization coverage fact sheet

Global

- **Redefinition of regional policies and strategies to support more equitable and sustainable national immunization programs:** In collaboration with WHO and partners, MCSP supported the development of an Addis Declaration on Immunization roadmap to increase political, financial, and technical investments in country immunization programs. As a result, several countries have dedicated funding for immunization services, including in Uganda, Nigeria, and Kenya. MCSP also supported the development of a revised RED strategy for vaccination in the African region. The strategy now includes a greater focus on equity, integration, and community engagement, and has been adapted and rolled out in 13 Eastern and Southern Africa countries. (See Africa Bureau for additional details.)
- **Gavi Joint Appraisal and portfolio planning processes:** The Gavi Joint Appraisal and portfolio planning processes are annual, in-country, multistakeholder reviews of Gavi-supported assistance. To improve these processes, MCSP surveyed staff in MCSP countries about their experiences in 2016, 2017, and 2018, and shared this information with USAID and Gavi. This feedback contributed to better planning, transparency, and increased partnership engagement each subsequent year, enriching the review processes and outcomes.
- **Advocacy for a greater focus on strengthening RI during measles supplemental immunization activities:** Through participation in the Gavi Measles Rubella TWG, MCSP contributed actively to the development of a guidance document to assist countries in developing applications for Gavi Measles Rubella funding that work toward improving routine first and second doses of measles-containing vaccine by strengthening the RI system. MCSP provided technical assistance, participated in the multi-agency visits to Zambia and Lesotho to pilot this new guidance, and supported the countries to develop applications for Gavi Measles Rubella funding that reoriented measles control efforts to more effectively strengthen RI and away from having a strong reliance on campaigns. The visits focused on reviewing and interpreting national and subnational data to understand measles rubella vaccination coverage, as well as challenges and strengths of the RI system; identifying best strategies and activities to respond to coverage gaps and system obstacles; and drafting their applications, considering the country context and existing investments in national EPI programs and ongoing Gavi HSS support. These visits and the application processes will serve as a model for subsequent applications for Gavi Measles Rubella funding from other countries seeking support. Furthermore, lessons learned from the Zambia and Lesotho experience will inform the rollout of the new process to other countries. Finalization of the application is ongoing, with expectations for submission to Gavi in September 2019.

Country

- **Country-level immunization policies, strategies, and guides:** Ten countries with MCSP immunization support updated their comprehensive, multiyear plans to chart the path forward for immunization. MCSP also worked with countries on another 16 immunization policies and strategies, including the National Immunization Policy in **Malawi,** the Vaccine Management Information System Web-based data management tool in **Tanzania**, and the **Nigeria** Strategy for Immunization and Primary Health Care System Strengthening.

Quality and Equity of Immunization Services for Underserved and Vulnerable Populations

MCSP strengthened the management and quality of immunization services and promoted their utilization, tailoring immunization-strengthening approaches to each country's context to close gaps in equity.

Global and Country

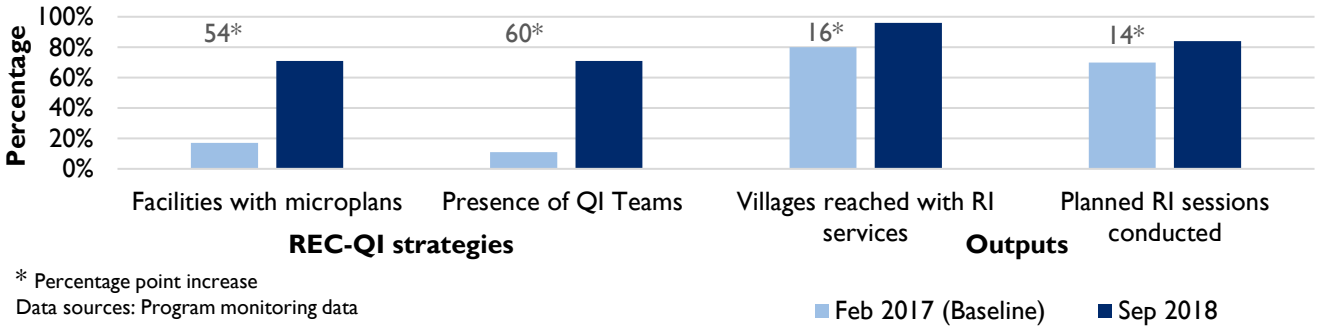
- **Missed opportunities for vaccination:** Reducing missed opportunities for vaccination is a strategy to increase immunization coverage, improve delivery, and promote synergy between programs. Working closely with WHO and partners, MCSP provided support at the global level for the development of practical country-level guidance to identify and develop actionable solutions to reduce missed opportunities for vaccination:
  - MCSP contributed to resource guides, including the *Planning Guide to Reduce Missed Opportunities for Vaccination*, the *Methodology for the Assessment of Missed Opportunities for Vaccination*, and the *Intervention Guidebook for Implementing and Monitoring Activities to Reduce Missed Opportunities for Vaccination*. MCSP supported missed opportunities for vaccination assessments in **Kenya, Uganda, Zimbabwe, Malawi, and Nigeria,** which identified common problems, ranked them by priority, and shaped action planning to address the findings.

- MCSP conducted implementation research on strategies to increase opportunities for FP and immunization uptake in **Tanzania, Liberia, and Malawi**. Integration of FP and immunization services did not negatively affect immunization outcomes and in some cases increased use of FP methods. The learning highlighted the importance of grounding design of integrated interventions in formative research, with a focus on the experiences of providers, clients, and their influencers, and was shared in the MCSP co-hosted FP-Immunization Integration WG on reducing missed opportunities for comprehensive care in December 2017. The WG advanced the global conversation around service integration, provided evidence on integrated programming, and resulted in the development of the FP and Immunization Integration Toolkit. (See the Family Planning section for more details.)

- **New vaccine introduction:** Alongside other partners, MCSP supported the introduction and uptake of 23 new vaccines in 9 Gavi-eligible countries, including the historic global switch from trivalent oral polio vaccine to bivalent oral polio vaccine (see figure 4.1). For all new vaccine introductions, MCSP participated in planning and drafting training, monitoring, and other tools; training government staff to use the tools; and providing support for the transition to the new vaccines at the national level. At the subnational level, MCSP assisted with launches, monitored the introduction process, and participated in post-introduction evaluations. Vaccines introduced included inactivated polio vaccine, pneumococcal conjugate vaccine, combination measles and rubella vaccines, and measles second dose vaccine during the second year of life. See program brief, *Experiences in New Vaccine Introduction*, for more details.

- **RED/Reaching Every Child (REC) with immunization services:**[10] The RED/REC approach is a management approach with five interrelated components aimed at improving immunization services, maximizing the use of available resources, and guaranteeing sustainable and equitable immunization coverage for every eligible person. All 11 MCSP-supported countries provided technical support to subnational immunization partners to implement this approach. Key examples include:
  - **Uganda:** MCSP provided technical assistance to 11 districts to implement REC with additional QI tools to improve districts' capacity to manage and coordinate the immunization program, ensuring equity, addressing persistent challenges, and sharing learning for sustainability and scale-up. The introduction of REC-QI practices built health worker capacity in over 400 health facilities in mapping and planning RI services, strengthened program management and community follow-up of children, facilitated local resource mobilization, increased ownership and prioritization of immunization by civil authorities and local leaders, and contributed to equity by extending services to an additional 644 villages. In the process, MCSP and the Uganda National Expanded Program on Immunization improved immunization data and their use for action by strengthening data collection, recording, and reporting at health facility and district levels (Figure 4.3). To learn more about REC-QI, please see the Uganda country summary along with the following documentation: REC-QI How-to-Guide, REC-QI Mapping brief, and the REC-QI Learning brief.

Figure 4.3. Improvement in MCSP-supported REC-QI strategies and outputs in four districts[11] of Uganda (Mbarara, Bushenyi, Pallisa, Mayuge)



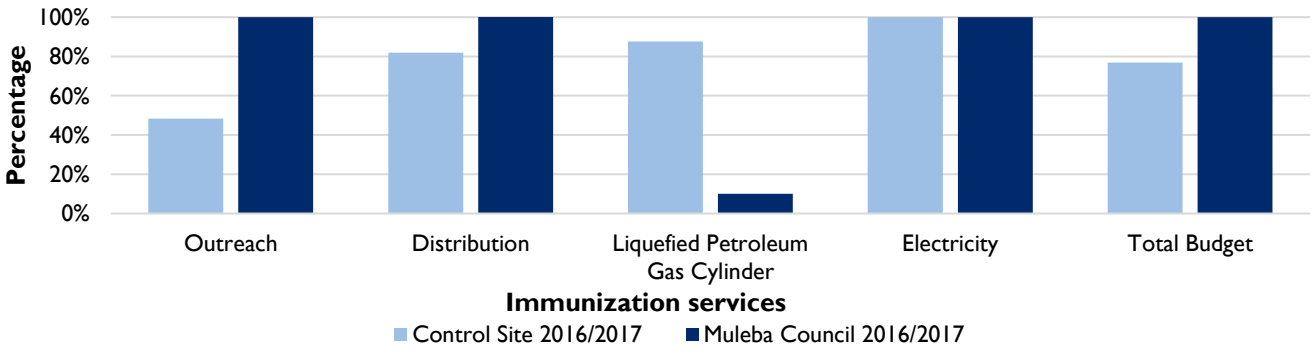
* Percentage point increase
Data sources: Program monitoring data

[10] While WHO AFRO identifies this approach as RED, the choice of whether to call it RED or REC is left to the countries to decide. Some countries have renamed it the REC approach to reflect country contexts where immunization services reach every district but may not be reaching every child.
[11] Figure 4.3 represents data from the four districts where REC-QI was introduced in program year 3 using a modified version and incorporated learning from the other seven districts where REC-QI was introduced initially during program year 1 and 2.

- **Nigeria:** To address the lack of knowledge and awareness around the importance of RI for newborns and children, service delivery challenges, and distrust in a weak health system, MCSP supported a new approach to community engagement—a key component of the RED/REC approach—and engaged traditional barbers to identify and refer newborns for RI in Bauchi and Sokoto states. By country closeout, MCSP trained 2,858 traditional barbers in Bauchi (2,058) and Sokoto (800), who then tracked and referred 43,380 newborns; of these, 39,416 (91%) were reported to have received vaccination in both states. The approach and some tools are now being used by other partners (e.g., CDC) and have been included in the national community engagement framework and the overarching community engagement strategies in Bauchi and Sokoto. See the Nigeria country summary for additional details.
- **Malawi:** To address immunization coverage decline in Dowa and Ntchisi districts, MCSP provided technical support to the districts and engaged 1,800 village heads to register all infants in their communities using the My Village My Home tool, a chart used to list infants in a village and monitor their vaccination status. Assessment of this community engagement intervention showed that over 90% of the village heads tracked the infants for about 1 year; 77% of infants received immunization on time, 21% received immunization but after the recommended period, and only 2% did not commence vaccination. This approach empowered village heads to monitor the immunization status of individual children in their communities and has been incorporated into the national immunization guidelines. See the Malawi country summary, documentation specific to REC in Malawi, and cross-country community monitoring documentation for additional details.
- **Application of the RED/REC approach to other RMNCAH technical areas in Haiti, Kenya, Mozambique, and Uganda:** MCSP promoted the use of RED tools and processes, such as microplanning and mapping, to support the adaptation and integration of the RED/REC approach beyond immunization, including child health, MH, community health, FP, and nutrition. MCSP documented program experiences using the RED/REC approach to improve the delivery of other health interventions at country level, noting that adaptation of the approach to nutrition in Mozambique and Uganda resulted in increased vitamin A coverage, for example. See the technical brief, *Exploring the Adaptation of the RED/REC Approach to Other RMNCH Areas in Haiti, Kenya, and Uganda,* for more details.

- **Comprehensive Council Health Plan in Tanzania:** MCSP supported the Ministry of Health, Community Development, Gender, Elderly, and Children to strengthen the Comprehensive Council Health Plan process of planning and ownership of plans by incorporating stakeholders' inputs, improving the link between health facility plans and the Comprehensive Council Health Plan, and ensuring budgeting of sufficient levels of operational funding for immunization into the plan. Use of the adapted microplanning tool at 42 Muleba health facilities resulted in improved budgeting for immunization for the 2016/2017 financial year at the council level, where all budget requirements were comprehensively covered (Figure 4.4). Meanwhile, in the control site (Ngara), allocations fell significantly short of requirements for almost all program components (Figure 4.4). Since the pilot in Muleba, an additional five district councils (Ngara, Bukoba, Karagwe, Kyerwa, and Missenyi) adopted the microplanning tool in planning the Comprehensive Council Health Plan, additional regions scaled the use of the tool, and 19 councils in four regions were using the microplanning tool in 2017/2018 planning of the Comprehensive Council Health Plan with MCSP support. See the report, *Strengthening Comprehensive Council Health Planning to Increase Immunization Coverage*, and the Tanzania country summary for additional details.

Figure 4.4. Percentage of required budget allocated for immunization services in control sites and Muleba Council, Tanzania, 2016/2017



- **Use of innovative geographic information system (GIS) tools to address immunization challenges in Nigeria:** MCSP worked with the State Primary Health Care Development Agency in Bauchi and Sokoto states to use GIS tools to more efficiently and accurately capture population numbers, establish processes and tools for using GIS to improve microplanning, and produce maps for 272 health facilities. The experience from these two states is contributing to new ways of accurately defining health catchment areas for better planning of immunization programs. The two states have now scaled up the use of GIS to all of the 43 local government areas. See the journal article, *From Paper Maps to Digital Maps: Enhancing Routine Immunisation Microplanning in Northern Nigeria*, as well as the Nigeria country summary for additional details.
- **Equity gaps and new evidence around RI among urban poor in Kenya and Nigeria:** MCSP conducted an assessment in Kisumu County, Kenya, to understand the RI situation in poor areas of the city, challenges faced by health facilities providing services in slums, and barriers faced by the urban poor when accessing services. The findings are invaluable for achieving equitable coverage among different populations in Kisumu City and other Kenyan cities. MCSP adapted this methodology in Nigeria and conducted an urban immunization assessment in the Bauchi metropolitan area. The State Primary Health Care Development Agency now implements daily vaccination services and additional integrated outreach in response to MCSP's findings. Experiences in both countries contributed to the development of urban-specific strategies with global, regional, and national policymakers through the UNICEF/Gavi-led Global Urban Immunization WG. Given the need to close all equity gaps, the learning and cross-fertilization on tools and methods between Gavi and USAID efforts have helped to better shape urban immunization in several additional countries. See the assessment report and blog for additional details.
- **Revisions in pre-service immunization education to improve the capacity of frontline workers:** As a follow-on to the support MCHIP provided for the development of an immunization prototype curriculum aimed at improving the teaching of immunization in health training institutions in the African region, MCSP supported the uptake of pre-service immunization education in **Kenya, Liberia, Malawi, and Tanzania**. These countries faced major challenges, including inadequately trained pre-service teachers for EPI, lack of updated EPI reference materials, lack of detailed lesson plans, lack of supervision of students at the clinical placement sites, and failure to update the pre-service training curricula with changes to the EPI.[12] MCSP conducted an evaluation of the immunization pre-service uptake in Kenya and found that nursing graduates using the updated EPI prototype curriculum finished pre-service training with all requisite knowledge, skills, and attitudes to successfully vaccinate children. The study also identified factors critical for improving EPI pre-service training, which will be useful for other countries looking to strengthen EPI pre-service training using the updated curriculum. A report, *Evaluation of the Initiative to Strengthen Nurses' Expanded Programme on Immunization Pre-Service Training in Kenya*, with additional details is available, as well as a journal article, *Outcomes of the Expanded Programme on Immunization Pre-Service Training Initiatives in Kenya: A Mixed Methods Study*.

Quality and Use of Immunization Data to Strengthen the Routine Immunization System in All MCSP-Supported Countries

In every MCSP country with immunization programming, MCSP works to increase the generation, quality, and use of immunization data to strengthen the RI system. MCSP carried out two iterative studies to better understand this work in-country and to gather key lessons learned to support other countries as they approach similar challenges. For additional information across the nine countries with immunization programs plus Pakistan and Zimbabwe, see the full report *Generation, Quality and Use of Routine Immunization Process Indicators in Strengthening Immunization Systems*.

Country

- **Improved generation, quality, and use of RI data:** MCSP conducted key informant interviews with MCSP staff in 11 countries and government counterparts in **Madagascar, Mozambique, Nigeria, Tanzania, and Uganda**. Countries reported similar data challenges, including unreliable denominators, frequent stock-outs of data collection tools, lack of training or motivation of staff, and staff shortages. MCSP addressed these problems in a number of innovative ways. In Bauchi State (Nigeria), MCSP established data management teams, intensified mentoring and supportive supervision, implemented data quality spot- and cross-checks, and piloted the use of

[12] Juma M et al. 2015. Technical Competencies of Nurse Lecturers on the Expanded Programme on Immunization in Kenya Medical Training College.

GIS tools to improve catchment area mapping and targeting. Between October 2017 and August 2018, these activities resulted in greatly improved data quality (Figure 4.5.a). Furthermore, in four districts in Uganda, MCSP supported training on data reporting, regular data review meetings, and data quality self-assessments to improve consistency across the tally sheets and child registers used to record DTP3 vaccinations. At baseline, the discrepancy between these two forms was high (38%). With technical support from MCSP, data inconsistency reduced significantly, to 8%, by the end of 2018 (Figure 4.5.b).

Figure 4.5.a. Trends in reported number of children immunized with specific antigens and data quality accuracy ratio, Bauchi State

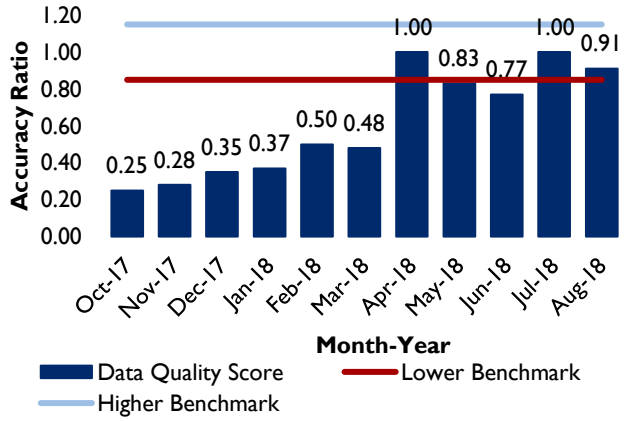
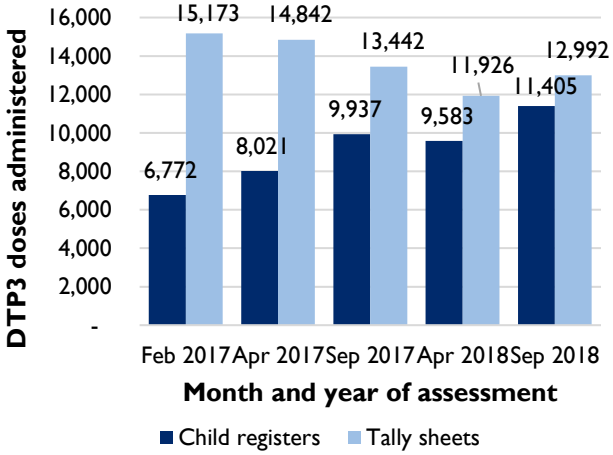


Figure 4.5.b. Data quality self-assessment: reduced discrepancies across data sources and improved recording in child registers in four districts in Uganda



- **Process indicators to support decision-making:** While immunization coverage rates are important for assessing levels of population protection from vaccine-preventable diseases, coverage indicators are often inaccurate and of poor quality. In addition, coverage indicators are not suitable for assessing the health of the immunization system, and indicators are needed to identify specific challenges and immediate corrective actions that can be taken to improve the system. The WHO AFRO RED Guide proposes several input, process, and output indicators for immunization that could address this need. MCSP collected two rounds of data on process indicators in **Malawi, Nigeria, and Uganda**, observing trends over time in each country's routine monitoring data and interviewing health workers on relevance, usefulness, feasibility, acceptability, reliability, and accuracy of the indicators. Results show improvement across most indicators, and health workers largely reported finding the process indicators easy to use and useful for understanding the RI system.

Progress Toward a Polio-Free World with Technical Support for High-Quality Outbreak Response and Promotion of Key Lessons Learned from 30 Years of Polio Eradication

MCSP played a pivotal role in strengthening polio programing in the remaining polio endemic countries and countries experiencing vaccine-derived polio outbreaks over the life of the project. A full summary of MCSP's polio communication program can be found on the project's website.

Global

- **Emerging challenges in polio communication:** MCSP championed greater representation in peer-reviewed literature from seldom-heard perspectives of those working directly in the field through 13 published papers (see this paper on polio vaccine refusals in Karachi [**Pakistan**]). It completed original research projects on understanding attitudes to polio vaccination and immunization in northern **Nigeria** and analyzing conversations on polio, vaccine, and RI on social media in the **Ukraine**. MCSP shared views and opinions on emerging polio communication issues through editorials by more than 40 leaders in the field (see the Hopes and Fears series).

- **Collaboration and sharing of polio communication lessons learned:** MCSP increased collaboration and sharing of lessons between agencies working on communication for polio and immunization through workshops on research methodology and approaches to using social media. It facilitated meetings to identify lessons from polio from USAID-funded projects for dissemination to others working in health communication and high-level roundtable discussions focused on outbreak response in **Ukraine**. MCSP ensured polio communication had a significant platform at the Social and Behavior Change Communication Summit in 2018.
- **Development of a database to collate polio communication information:** MCSP created a publicly accessible knowledge database on polio communication on an easy-to-navigate polio website that received an average of 164 pages views from 68 users per day, for a total of 284,049 page views by March 31, 2019, linked to and further disseminated through two newsletters with large subscriber bases of 11,000 and 47,000.
- **Polio communication learning at global fora:** MCSP documented these lessons in the report *Word of Mouth: Learning from Polio Communication and Community Engagement Initiatives* and shared it in many global fora, including the Planning for a Post-Polio World forum (May 2017), International Social and Behavior Change Communication Summit in Indonesia (April 2018), the Global Immunization Meeting in Rwanda (June 2018), the MCSP-hosted webinar "The Polio Journey: 30 Years of Experience" (July 2018), and side events during the Partnership for MNCH Partners' Forum in New Delhi, India (December 2018), and the Women Deliver 2019 Global Conference in Vancouver, Canada (June 2019).

Country

- **Stronger polio communication programming in endemic and outbreak countries:** MCSP provided expert technical advice to 11 technical advisory group meetings (**Pakistan and Afghanistan**), five communication reviews (Pakistan and Afghanistan), and six outbreak response teams (**Madagascar, Laos, and the Horn of Africa**). MCSP has led on the communication elements of these technical groups, and recommendations have been incorporated into national polio action plans and used to guide annual polio communication planning, and as indicators of country progress on outbreaks for global and regional oversight bodies. See, for example, this technical advisory group report from June 2018, this Afghanistan communication review report from October 2013, and this report from the February 2016 outbreak response team in February 2016.
- **Improved quality of polio campaigns in DRC:** In DRC, MCSP supported the vaccine-derived polio outbreak response in DRC, providing seven technical experts who worked closely with the Ministry of Public Health and partners in 16 health zones to plan, coordinate, and improve the quality of polio campaigns between April 2018 and February 2019. MCSP's consultants, Ministry of Public Health officials, and other partners trained national and provincial supervisors, supervised vaccinators and local supervisors, supported stock management, enhanced communication with local authorities and community members, and contributed to the M&E that accompanied each campaign. As a result, DRC's polio response successfully reduced the numbers of unimmunized, missed children and helped to build community trust. MCSP also helped to institutionalize the new surveillance guidelines in both public and private health facilities (forthcoming).
- **Eradication of polio in Madagascar:** Between 2014 and 2015, Madagascar had 11 confirmed cases of vaccine-derived poliovirus,[13] signifying challenges with the RI system that urgently needed attention. MCSP supported the polio outbreak response in Madagascar by analyzing polio campaign and routine oral polio vaccine data, and conducting direct training and supervision to strengthen community-based polio surveillance. Madagascar made steady progress and received its polio eradication certification from the Regional Certification Commission, a major milestone for the country and region in June 2018.

Recommendations for the Future

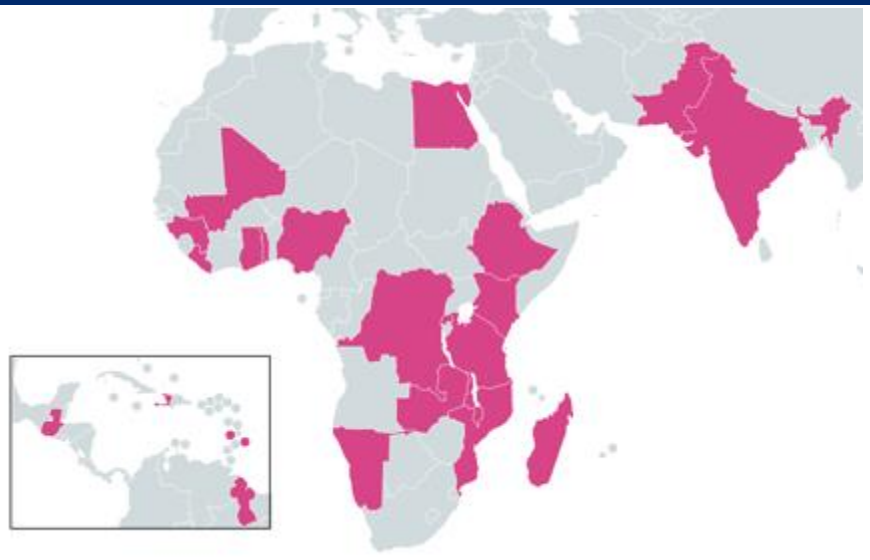
While global and country immunization programs have made important gains in recent decades, and several countries have better capacity to manage immunization programs, more support is needed to ensure that RI systems are capable of providing timely, safe, and effective vaccination to all children, particularly the unreached. As countries advance on their journey to self-reliance, some are initiating new financing approaches and innovative partnerships to increase

[13] WHO. 2015. Statement on the Seventh IHR Emergency Committee meeting regarding the international spread of poliovirus. WHO website. http://www.who.int/mediacentre/news/statements/2015/ihr-ec-poliovirus/en/. Accessed August 27, 2018.

domestic resources for cost of vaccines and service delivery. In some instances, the progress has been slow and plagued by underlying weak health systems, conflict, and poor capacity; these challenges will require greater support and innovative approaches to move these countries forward. Building on immunization system strengthening approaches, MH, child health, and nutrition program managers and service providers will need to be able to adapt; provide quality, client-oriented services; and adroitly integrate these services to increase coverage. As the landscape changes and immunization programs become more complex, there is a need now, more than ever, to sustain the gains made by USAID in immunization and achieve the goal of preventing maternal and child deaths through strong, resilient RI systems that protect against preventable diseases.

- **Adapt RED and integrate the immunization platform for other health areas.** In the next decade, adapting RED for other health areas and using immunization platforms to increase their uptake will be an important area of focus. MCSP's experience applying the RED approach beyond immunization in Haiti, Mozambique, Kenya, and Uganda provides key lessons learned and promising practices that will guide scale-up of the adaptation of the approach in new settings and to new areas.
- **Develop new partnerships, tools, and approaches to reach older vaccination clients.** The recent shift to life course vaccination requires using contacts in older age groups—such as in the second year of life, adolescents, and pregnant women—to provide vaccinations. This will require new and broader health partnerships, and new tools and ways of working that are yet to be fully defined.
- **Create new approaches to close equity gaps, particularly in urban, conflict-affected, and hard-to-reach areas.** While efforts to close equity gaps are ramping up, they are still not keeping pace with underserved populations in rapidly growing urban areas or conflict-affected and hard-to-reach areas. The global immunization community is set to ensure a country-centered focus. Context-specific, differentiated, and innovative approaches are at the forefront of the new global strategy and essential to overcoming emerging and long-standing challenges.
- **Develop new strategies for domestic resource mobilization and financing models.** Though countries are moving forward on their journey to self-reliance and have been able to introduce several new lifesaving vaccines, domestic resource mobilization and new financing models will be critical to ensure that adequate resources are in place to continue to improve immunization outcomes and access to new vaccines.
- **Support country uptake of emerging policies and guidelines:** In the future, technical assistance should continue to be provided for country uptake of the new Gavi guidelines to increase measles coverage and strengthen the RI system. Learning from this experience should be systematically documented and shared to increase the evidence for this new approach.

Family Planning



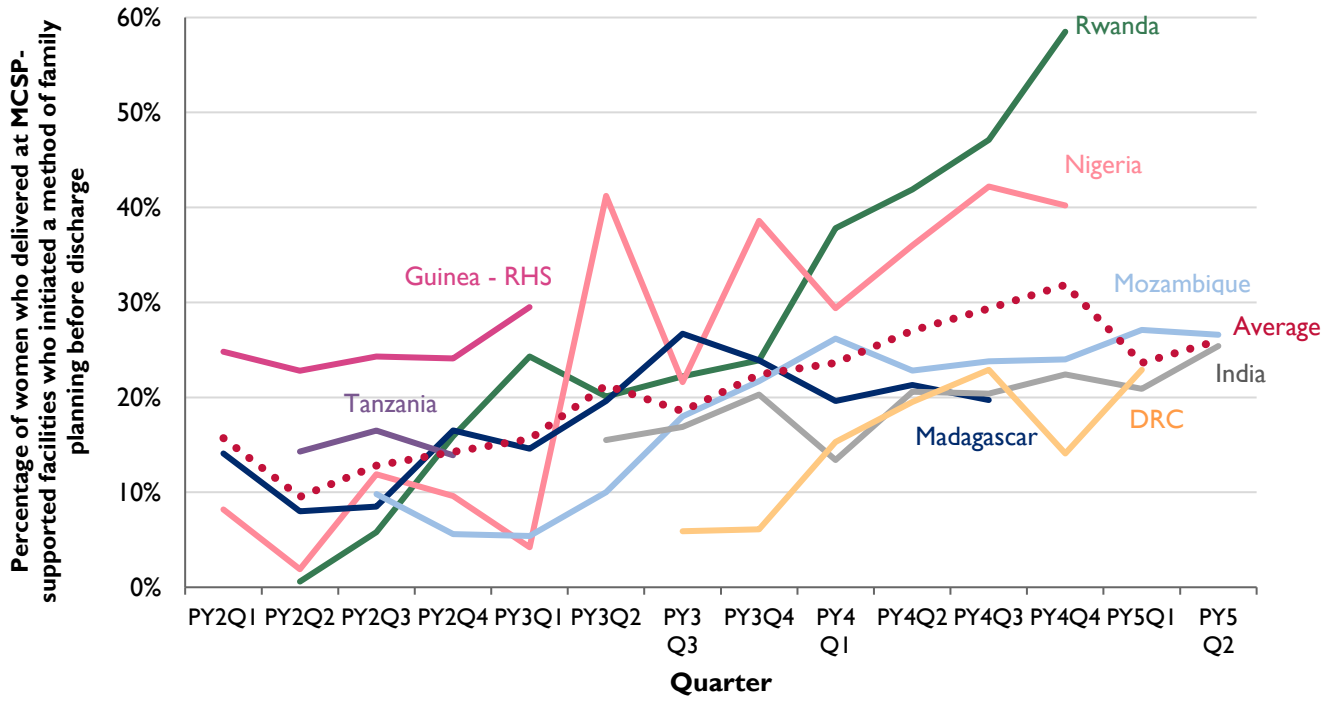
Areas of Focus - Family Planning

- Expanding PPFP services through partnerships with governments to introduce, improve, or scale up services; dissemination of programmatic learning; and global technical leadership and advocacy
- Increasing the range of contraceptive method options available to women and couples
- Advancing proven approaches and innovating to improve access to and quality of services, including for men and first-time young parents (FTYPs)

Highlights of MCSP's Legacy

Over its life-of-project, MCSP's support helped bring PPFP to scale in several countries, with services offered in hundreds of facilities. Still lots of progress to be made!	MCSP supported 12 countries to expand contraceptive method choice for a wide range of options, including short-acting, long-acting, and permanent methods.	MCSP facilitated holistic service provision across the RMNCAH continuum for FTYPs in Madagascar, Mozambique, and Nigeria.

Figure 5.1. Large increases in predischarge PPFP uptake in MCSP-supported facilities*



*PPFP data collection usually started well after services initiated, so preintervention baselines are not available.

Family Planning

Introduction

In 2012, the global community came together at the London Summit on FP to galvanize new commitments and resources for voluntary FP and to set ambitious goals for addressing unmet need in the world's LMICs. USAID and its partners were key influencers in setting this global agenda. As a global USAID flagship project, MCSP's strategic approach to FP accelerates achievements toward reducing maternal and child mortality by preventing unintended pregnancies, with a focus on those linked with poorer MNCH outcomes. To achieve this goal, MCSP's FP work centered on increasing access to PPFP, expanding contraceptive options, advancing proven approaches to improving FP care and outcomes, and innovating new strategies to improve access to and quality of services. Through its collaboration with other global stakeholders, such as FP2020, leadership of WGs and CoPs, program learning, and expertise in service implementation and scale-up, MCSP helped MOHs around the world to revitalize their voluntary FP programs and increase method uptake at critical points along the reproductive continuum of care. Additionally, MCSP's ability to bring lessons from the subnational levels of countries' health care systems to the global conversation helped to ensure that new FP initiatives, guidelines, and programs are rooted in the on-the-ground reality of FP service provision.

USAID Missions have taken full advantage of the ability to integrate FP with MNCH and nutrition activities. As a result, 17 countries provided FP field support, and both Ebola-funded country programs Liberia and Guinea) included integrated FP programming. Several additional countries addressed FP services indirectly, such as Egypt, which strengthened the CHW platform that promotes FP as part of their job description, and Namibia, which supported a local NGO to provide holistic services to adolescents, including FP. Lastly, MCSP invested in an Ouagadougou Partnership country, Togo, to increase learning around male engagement. In total, MCSP implemented FP activities in 21 countries.

Key Accomplishments and Results

Access to Postpartum Family Planning

MCSP capitalized on the integrated nature of the project to prioritize attention to postpartum women's unmet need for FP at global and country levels.

Global

- **Advocacy to mainstream PPFP within the global community:** Leveraging Bill & Melinda Gates Foundation funding to Jhpiego, MCSP advocated for greater prioritization of PPFP as a new strategy to accelerate progress toward FP2020 goals, given higher unmet need among this population of women. In 2015, the project co-convened a high-level meeting in Chiang Mai with FP2020's secretariat, USAID, and the Bill & Melinda Gates Foundation and established their coordination role going forward. MCSP supported global efforts in PPFP, with an active role in advocacy through support to FP2020-led webinars and a joint MCSP/FP2020 side event at the 2018 ICFP that capitalized on Rwanda's commitment and achievements to spur additional efforts from countries that have chosen to include PPFP in their country action plans or commitments. MCSP also encouraged voluntary PPFP in Francophone West Africa, including the development of a scale-up strategy in **Togo** and guidance provided to the implementation and dissemination of a landscape assessment in all nine countries of the Ouagadougou Partnership.
- **Indicator testing and consensus building around predischarge PPFP indicators:** Several MCSP country programs tested approaches to routinely collect predischarge PPFP data along with two formal indicator testing studies. A measurement learning brief captured countries' experiences and informed three consultations of a subcommittee to develop recommendations for indicators to recommend for national HMISs. The committee included representatives from USAID, WHO, UNICEF, FP2020, AvenirHealth/Track20, Advance Family Planning, MEASURE Evaluation, and other organizations, whose contributions were augmented by respondents to an online survey representing 11 countries. A final version of the recommendations included three indicator recommendations and definitions. MCSP worked with the FP2020 secretariat, the Advance Family Planning project, to disseminate these recommendations through a number of channels, including a webinar on April 3,

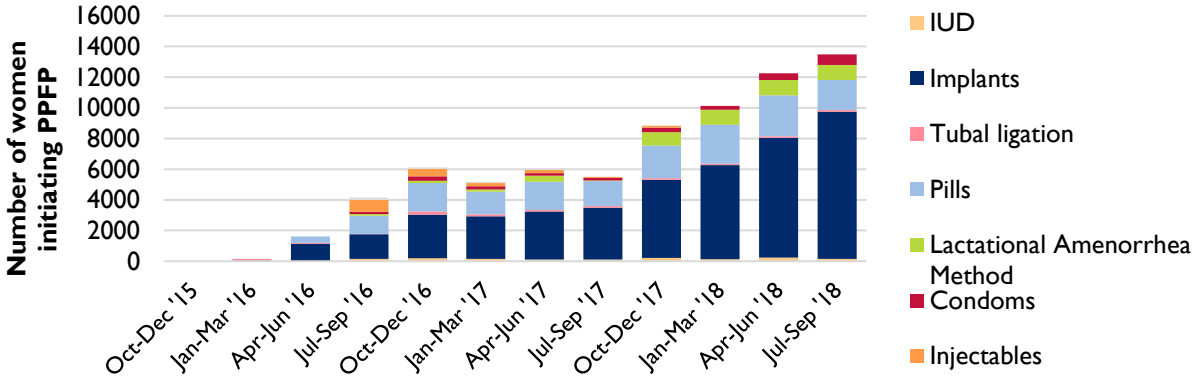
2019. At the December 2018 meeting, WHO announced that it will include the PPFP Measurement Committee recommendations in indicators listed in its new HMIS guidance and test them further in 2019.

- **MIYCN-FP and FP-Immunization Integration WGs:** MCSP co-led the MIYCN-FP Integration and FP-Immunization Integration WGs. Each group met approximately twice per year—including two joint WG meetings—to share country experiences, advance subcommittee action plans, and discuss relevant themes, including HSS, M&E, operationalization of service integration, and reduction of missed opportunities for care. Accomplishments under both groups include the development and update of the FP-immunization integration and the MIYCN-FP integration toolkits hosted on K4Health. The groups also advanced the global conversation around service integration and provided the impetus and/or evidence base for other projects and organizations to incorporate it into their own programming. For example, results from MCSP's integration learning activities in **Ethiopia and Tanzania**, which aligned with the groups' evidence generation agendas, were presented at WG meetings and incorporated into the toolkits. Over the past few years, MCSP has steered the separate but related MIYCN-FP and FP-Immunization WG agendas toward one that is more holistic to reduce missed opportunities for MIYCN, voluntary FP, and immunization service provision from a client-centered perspective. In January 2019, stakeholders from both groups convened to chart a path forward and recommended merging into one joint CoP that will apply a life cycle approach to integration of services. Through these WGs, MCSP has been an influencer in the larger community of implementing partners, advocating for using and generating new evidence and program learning in priority areas.

Country

- **Scale-up for predischarge PPFP in multiple countries:** As a result of MCSP's activities, providers in 630 facilities in 16 regions of **Madagascar**, 637 public and private facilities in two states of **Nigeria,** and 86 facilities of two provinces in **Mozambique** strengthened their PPFP counseling and clinical skills. Starting from low initial levels, voluntary uptake of predischarge PPFP rose in all countries to peaks between 20% and 40% of women who deliver in a facility, even during gradual scale-up. A subset of 91 facilities in Nigeria benefited from QI support, which resulted in an even higher percentage of women counseled during facility births and higher uptake: 74% on average. In **Rwanda**, the program's high level of commitment to scaling up PPFP resulted in full coverage of facilities in 10 districts, with overall predischarge uptake of 59% in the final quarter. Additional targeted support was given to other districts to replicate the MCSP training and mentorship model. This systematic approach to scale-up paid off: In 2018, Rwanda secured direct funding and Bill & Melinda Gates Foundation and United Nations Population Fund funding to replicate MCSP's work in all remaining districts. Furthermore, MCSP also introduced PPFP within support to overall FP in 24 health zones of DRC with no donor-supported FP, showing that an integrated approach to strengthening PPFP within a broader FP mandate can work. MCSP's legacy demonstrates that women will adopt PPFP early in the postpartum period when they are appropriately counseled and services are integrated. Establishing the expectation that all women should be counseled during their stay in maternities is feasible at scale, with appropriate policy and health system support.

Figure 5.2. Trends in predischarge PPFP uptake in Rwanda by method[14]



[14] Method mix of voluntary predischarge PPFP varies across MCSP programs that collected method-disaggregated data. This example is from Rwanda and is striking in the popularity of implants.

- **Adaptation of PPFP training approaches to meet country needs and move learning on site:** In **Guinea**, MCSP's Restoration of Health Services (RHS) project tested innovations to improve the efficient use of training resources by breaking up the traditional PPFP LRP into on-the-job modules, and oriented 28 trainers to support providers and facilities to complete the training in short segments over 1–3 months. This innovation carried over into the new bilateral and has become a norm in Guinea. MCSP has responded to Ministry of Health and Public Hygiene limits on offsite training in **Madagascar** by adapting their FP training approach to allow for onsite training, building up pools of regional and district trainers to take on these challenges. Finally, **Rwanda** supplemented traditional training with a clinical mentorship approach that capitalized on high-performing PPFP providers to take on this additional role. All these country innovations also informed efforts under core funds to develop more flexible LARC learning materials.
- **Evidence advanced of what works to integrate PPFP at multiple health system contacts:** MCSP supported a robust learning agenda to deepen the evidence on strategies to increase opportunities for PPFP uptake in the immediate and extended postpartum period.
  - **Ethiopia:** MCSP's quasiexperimental implementation research study in Ethiopia looked at the effect of utilizing all contacts along the reproductive continuum from pregnancy to 12 months postpartum. The project supported all health centers in the study area to systematically offer PPFP through training, supportive supervision, and use of data dashboards. In addition, the study oriented health extension workers in 10 *kebeles* to the needs of postpartum women, modified an integrated MCH card, and encouraged health extension workers to mobilize women's development army volunteers to identify and refer pregnant and postpartum women to services, including PPFP. The study showed a dose response relationship in that, for each ANC, delivery, PNC, and child immunization contact where FP is discussed, there was an 8% higher chance a woman adopted PPFP, demonstrating the value of integrating FP at all contacts from pregnancy through the extended postpartum period, with the added benefit of using longitudinal tracking tools to ask pregnant and postpartum women about PPFP use at each contact. This study also demonstrated the value of community-based PPFP, with health extension workers providing counseling and services at health posts and during home visits, and women development army members promoting birth spacing and PPFP. This community-based component contributed 44% greater adoption of PPFP among women who delivered at home in intervention areas versus comparison areas. These results help fill an evidence gap noted in 2017 during the early development of the immediate PPFP high-impact brief, when evidence on community-based PPFP was scarce. This study indicates that countries with a high proportion of home births could benefit from investment in community-based PPFP strategies.
  - **Tanzania:** MCSP conducted a study in Mara and Kagera regions to understand and test new approaches for improving MIYCN and PPFP practices. The study included a formative phase, whose results were published in *Maternal and Child Nutrition,* and a second mixed-methods implementation research phase with a package of interventions at facility and community levels. The intervention package included LAM tracking tools for clients and CHWs, a job aid on LAM and EBF, onsite training, supportive supervision, community engagement, and a LAM song aired on local radio. Study results comparing the intervention period to the same period of the previous year revealed increases of 123% and 101% in PPFP use within 6 weeks postpartum and 25% and 64% in EBF by 6 weeks postpartum in intervention sites in Kagera and Mara, respectively. Among these PPFP users, the contribution of LAM to the method mix increased 49 percentage points in Kagera and 21 in Mara. Among mothers using the LAM self-tracking tool, 58.3% transitioned to another modern method by 6 months postpartum. The absolute numbers of LARC and permanent method users did not change substantially, however with the increase in LAM use, LARC and permanent method use decreased as a percentage of the method mix. Qualitative results demonstrate the feasibility of a multichannel, integrated approach to improve MIYCN and FP outcomes in Tanzania and point to areas where adjustments could further strengthen outcomes, including remaining gaps around perceived risk of pregnancy and timeliness of postpartum contraceptive uptake after childbirth. The study team disseminated results with national and regional WGs, and met with bilateral projects that can incorporate MCSP's learning.
  - **Liberia:** MCSP and the Liberia MOH scaled up integrated FP and immunization services by building upon a 2012 MCHIP and MOH pilot that contributed to substantial increases in contraceptive uptake. Under MCSP, the MOH endorsed expansion of the MCHIP approach to additional counties, pending adjustments to the approach to strengthen and monitor immunization. MCSP conducted a mixed-methods process evaluation of

the modified service integration approach in 22 health facilities in Grand Bassa and Lofa counties. Trends indicated slight but not statistically significant increases in voluntary FP uptake in intervention over nonintervention facilities. Pentavalent vaccine dropout rates did not change in intervention compared to nonintervention sites, indicating no negative impact on immunization services. Clients and providers expressed that the integrated services improved efficiency of services in terms of the time and costs involved to provide/receive services in a single visit rather than through separate visits. MCSP shared these results with stakeholders in Liberia, and FP-immunization integration was incorporated into the Liberia Family Planning Costed Implementation Plan: 2018–2022.

- **Malawi:** MCSP supported the Government of Malawi to systematically integrate FP and immunization services in all health facilities and associated community-based outreach sites in Ntchisi and Dowa districts over a 15-month period. MCSP conducted a mixed-methods process evaluation that examined factors affecting service provision, use, and experiences of care. The findings indicated that integration of FP and immunization services did not negatively affect immunization outcomes. Results suggested many women switched from health facility-based to community-based services because the latter were more accessible. The intervention appears to have facilitated continued increases in total FP use, accessibility of services, and perceptions regarding quality of care. This legacy, along with the Liberia results, contributes to global learning around integration models and factors that facilitate success of service integration across contexts.

MCSP continued MCHIP's legacy of generating new evidence on integrated and community-based interventions. The project learned that it is critical to ground the design of these interventions in formative research with stakeholders, including providers, clients, and their influencers. Interventions in **Ethiopia** showed declines in the proportion of women who wait for menses to return before voluntarily adopting PPFP, but this issue remains a concern, whether in **Ethiopia, Tanzania**, or elsewhere, that requires further attention and examination. Changing provider behaviors to systematically integrate services requires attention to details on the positioning of supplies and tools, privacy and confidentiality, and follow-up and supervision. It has also been shown that facilities with complicated referral pathways between units are more likely to lose clients. Research studies can establish supplemental systems to track intrafacility referrals for integrated services or track women's use of a set of services over time, though MCSP is not ready to recommend such tracking to routine HISs. The **Malawi and Liberia** FP and immunization integration study results have been shared with the MIYCN-FP-immunization CoP. We anticipate that this new evidence will inform future updates to the FP-immunization integration High Impact Practices for FP brief when it is next reviewed.

Expansion of Contraceptive Method Choice

Providing women and couples with access to a wide range of methods is critical for increasing uptake, reducing unmet need, and improving birth spacing to decrease maternal and infant mortality rates. MCSP worked with multiple partners to increase method choice and access to newer reversible methods (hormonal intrauterine devices [IUDs] and the progestin contraceptive vaginal ring) and permanent methods (tubal ligations and vasectomies).

Global

- **Leadership of the Long-Acting and Permanent Methods CoP:** In program year 4 (PY4), MCSP assumed the role of chair for the Long-Acting and Permanent Methods CoP, which currently has 470 members from 47 countries. The CoP convened two technical consultations to provide updates on global contraceptive service delivery for implants and hormonal IUDs, review the evidence, and explore approaches to expand services and increase method mix. These technical consultations served as a forum for global stakeholders to discuss research and implementation practices, and identify gaps that need addressing to advance high-quality FP programming in the context of informed choice and voluntarism. In early PY5, based on results of a member survey and discussions with opinion leaders and group members, the CoP decided to transition to a Method Choice CoP starting mid-2019.
- **Preparation of the global community for new self-care contraceptives:** MCSP and the Population Council developed global training materials for the progestin contraceptive vaginal ring, which were approved by WHO and USAID, and incorporated into the Training Resource Package for FP. Registration of the product for use by breastfeeding women up to 1 year postpartum is imminent in **Nigeria**, where these materials have already been used to orient trainers and will be used to train facility providers. Registration is also forthcoming in **Kenya and Senegal**. With the US Food and Drug Administration having approved a new 1-year vaginal ring, the materials

will eventually need to be adapted because, ideally, women who use and appreciate the progestin contraceptive vaginal ring during their first year postpartum will be able to transition to the 1-year ring to space or limit future pregnancies.

Global and Country

- **Introduction of hormonal IUDs:** USAID, other donors, MCSP, and partners developed a global learning agenda (published in *Global Health Science and Practice* in December 2018) to increase access to hormonal IUDs in FP2020 focus countries. MCSP supported introduction of hormonal IUDs in 42 public facilities in **Kenya** and 40 in **Zambia** using commodities donated by the International Contraceptive Access Foundation. Despite extended nursing strikes and the close of the MCSP country program, uptake was high in Kenya where LARCs are already popular, with over 1,500 insertions over a 2-year period. Uptake was much lower in Zambia, where IUDs are generally less popular: Approximately 300 insertions were reported over 2 years, though there may have been underreporting. MCSP supported studies in both countries to establish the profile of women adopting the method, their experiences using it, and providers' perspectives on factors for successful introduction. Study results and lessons learned from implementation will be useful to establish a market for this method in LMICs and inform best practices for phased scale-up. MCSP, in collaboration with the MOH and other implementing partners, supported country-level planning and engagement for a collaborative total market approach to transitioning the hormonal IUD to country ownership and taking it to scale. MCSP facilitated in-country discussions among partners in Kenya and Zambia to address these issues, which includes conversations with MOHs and partners to transfer commodity management from partners to MOH for continuity and sustainability.

Country

- **Expansion of permanent method services to more couples:** Although use of permanent methods is sometimes constrained by high service costs, lack of trained health workers, and low demand, MCSP used innovative approaches to expand access to permanent methods in several countries, as detailed in MCSP's permanent methods brief (forthcoming). In **Rwanda,** MCSP advocated for inclusion of permanent methods under the national insurance scheme and used a WhatsApp group to facilitate communication among hospitals, health facilities, CHWs, and the MCSP team; schedule procedures; and coordinate outreach teams. Through its two programs in **India**, MCSP engaged with men to increase demand for voluntary male sterilization and improve availability of voluntary female sterilization through fixed day static services in Madhya Pradesh, Odisha, and Uttar Pradesh. MCSP in **Nigeria** expanded and supported training of health workers on minilaparotomy under local anesthesia. CHWs in **Haiti** conducted FP awareness campaigns to increase awareness and demand for services provided through mobile units that offered LARCs and permanent methods.
- **Introduction of IUDs and injectable contraceptives in India's urban primary health centers:** Through support to India's The Challenge Initiative for Healthy Cities project, MCSP advocated with city and state governments to expand FP options by adding the provision of IUDs and injectable contraceptives to the pills and condoms that were already available at most urban primary health centers. As a result, by March 2019, 95% of these centers were providing either injectables or IUDs, an increase from 67 urban primary health centers in March 2018 to 459 a year later.
- **Support to FP training in Pakistan:** MCSP expanded access to LARCs in Pakistan through support to a country-owned and -managed training system that established FP training units utilized by the Population Welfare Departments (for FP) and the Health Departments (for PPFP integrated with MNCH). Twenty-two of these units are now functional across Sindh and Punjab, with more under development by the government in Balochistan. Through this system, provincial master trainers support district-level trainers, who roll out training to providers, with a focus on LARCs. MCSP also engaged with policymakers on incorporating voluntary PPFP in costed implementation plans and other strategies, and supported the governments of Sindh and Punjab to conduct research and roll out subcutaneous injectables throughout their provinces.

MCSP influenced expansion of method choice within national policies and guidance in 12 countries: **DRC** (LARCs); **Guatemala, Haiti, and Nigeria** (tubal ligation); **India** (progestin-only-pills, centchroman, postpartum tubal ligation, and shifting to fixed day static services); **Kenya and Zambia** (hormonal IUDs); **Togo and Rwanda** (no-scalpel vasectomy); **Malawi** (LAM and other PPFP methods in immunization outreach); **Pakistan** (implants and

subcutaneous depot medroxyprogesterone acetate); and **Tanzania** (LAM, emergency contraceptive pills, and postpartum LARCs). Introducing new contraceptive methods or revitalizing underutilized methods works best when partners coordinate and support a country's health system managers and providers through the change management process. Myriad details require attention and careful consideration while planning the scope of introduction so that it maximizes learning for eventual scale-up: selection of service delivery points or channels to offer the method, concerns about future supplies and their costs, use of parallel documentation system until the HMIS and/or logistics management information system can be updated, potential client demand and the profile of early adopters, and providers' willingness to learn new counseling skills and incorporate the new method into their practice. MCSP shared tools and lessons between countries and with other partners and donors in the global FP community, striving to provide national decision-makers with the best evidence and information to support policymaking.

Contributions to the Evidence Base for Reaching First-Time Young Parents

Globally, FTYPs ages 15–24 and their children often experience a disproportionate share of adverse health outcomes, in part due to lower use of essential health services. MCSP offered a unique lens and broad platforms to address FTYPs' health needs across the reproductive life course, including ANC, facility delivery, PPFP, and PNC. To inform interventions tested in three distinct contexts, MCSP further leveraged its global footprint by adapting promising FTYP tools and approaches across countries and leveraging other innovations.

Global

- **Adaptation of Our First Baby by partners:** Prior to implementing the approach in **Nigeria and Mozambique**, MCSP adapted Save the Children's "My First Baby" approach to be more inclusive of fathers and renamed it "Our First Baby". MCSP also developed a suite of program tools and knowledge products to widely share findings and lessons from implementation of Our First Baby in Mozambique and Nigeria through conferences and other presentations to facilitate uptake of approaches and lessons by other partners. Notably, CARE and the United Nations Population Fund adapted Our First Baby to an integrated GBV and sexual and reproductive health project with young mothers' groups in northern **Syria**.

Country

- **Madagascar:** MCSP conducted formative research exploring factors at the individual, couple, household, community, and health system levels that shape use and nonuse of FP by FTYPs. Findings informed the *Tanora Mitsinjo Tanaraka* (young people looking after their legacy) approach, which engaged FTYPs through household visits led by CHWs and supported facility-based health providers to offer welcoming services. Documentation found that the focus on the reproductive life course strategically built on FTYPs' concerns about family health and fostered connections to the health system early in pregnancy. FTYPs appreciated the warm welcome they received at health facilities, an important motivator to return, and invitation cards helped to communicate that FTYPs are expected and welcome to use health services. Accompaniment by CHWs was a powerful motivator for service use for some FTYPs. *Tanora Mitsinjo Tanaraka* achieved an 86% increase in FTYPs' ANC use in the 11 supported health facilities (monthly visits increased from 415 to 772). Further, monthly community-based distribution of short-acting methods per CHW more than doubled, from 35 to 76 clients. MCSP also supported the development of Madagascar's ASRH National Strategic Plan, which emphasizes age- and life stage-tailored approaches as an effective programming strategy for meeting the needs of diverse adolescents and youth.
- **Mozambique:** In collaboration with the Nampula and Sofala health directorates, MCSP adapted Save the Children's My First Baby facilitator guide, flip chart, and brochure to the Mozambican context expanding the approach to engage male partners. The expanded *Our* First Baby approach includes content on fertility, care for self in pregnancy, birth planning newborn care and breastfeeding, and voluntary FP. MCSP implemented the package in six districts in Nampula and eight districts in Sofala with 410 FTYPs (271 females and 139 males) through a series of nine health activist-led education and support group sessions. The Our First Baby experience and the participation of many male partners indicated that when given the opportunity to participate in constructive dialog with their partner, young men are often willing and eager to play an active role in decision-making around fertility choices, pregnancy, and childcare, going beyond the traditional male role of providing financially for the family. MCSP also found that obtaining support from local leaders was critical to influencing the community members and parents. Additionally, a qualitative program review (brief forthcoming) revealed that

Our First Baby training and implementation extended beyond participants to community health cadres, health facility staff, and district health officials through building their capacity to address the unique needs of FTYPs.

- **Nigeria:** MCSP adapted the formative research tools and approach from Madagascar and used the findings to adapt the Our First Baby approach to the Nigerian context, with an added mothers' savings and loan component adapted from another MCSP innovation in Nigeria. In Kogi and Ebonyi, MCSP piloted group sessions facilitated by trained mentors to engage FTYPs and their male partners. Documentation has shown that Our First Baby facilitated information sharing, reflections about gender norms, and the development of young mothers' skills to care for themselves and their families. This pilot also provided insights into considerations for engagement of male partners, as their participation was variable and limited by logistical constraints related to young men's employment and social norms around activities perceived as women's domain. Findings will be used to inform future FTYP efforts in Nigeria and globally. Partners, such as the Clinton Health Access Initiative and the Palladium Integrated Health Program, contacted MCSP for information about this work and hopefully will build on and replicate these efforts.

Cross-country learning includes the importance of fostering connections to the health system early in pregnancy and ensuring that all interactions are positive to ensure that FTYPs continue to access delivery, postnatal, and voluntary PPFP services. Other key lessons include deepening insights into effective strategies for engaging male partners, particularly in framing content to speak to men's aspirations to be good fathers and to assuage men's concerns about being considered effeminate for participating in what is considered to be a woman's activity. Community outreach to engage FTYPs must be balanced with HSS efforts. Most notably, services must be welcoming and responsive to the needs of FTYPs, which will require deeper attention to provider behavior change efforts.

Proven Approaches to Strengthen Family Planning Services

Global

- **Human capacity development to improve FP outcomes:** To transform traditional training approaches with limited ability to improve and maintain provider performance, MCSP applied evidence-based learning and performance principles to develop a modular, facility-based approach to LARC training, adapting materials from the FP Training Resource Package and other resources. The LARC LRP provides a comprehensive resource for high-quality service training, with an implementation guide and 10 modules that cover counseling, client assessment, infection prevention and control, monitoring, IUDs (hormonal and copper), and contraceptive implants (single and two-rod) in the interval, postabortion, and postpartum periods. Each module combines all of the learning materials required by the facilitator and are available in English, French, and Spanish.

  MCSP used the LARC LRP to introduce hormonal IUD across 82 facilities in **Kenya and Zambia** (and additional in PSI-supported sites in Zambia). Kenya formally adopted the hormonal IUD module into its National FP Training Package in 2018, and Zambia is in discussion to do the same. MCSP also incorporated the French and Spanish translations of the LRP into QI initiatives in **the Eastern and Southern Caribbean** in response to the Zika epidemic (see the Zika summary for more information). The LARC LRP materials were additionally used by partners to strengthen voluntary FP services in **Togo and Haiti**, and by the Pan American Health Organization (PAHO) for trainings in **seven LAC countries**. In addition, the LARC LRP was adapted for use in humanitarian settings by CARE and is being field-tested in **DRC, Egypt, and Nepal**. Reflections on the experience in Kenya and Zambia highlighted that while providers and participants greatly appreciated the onsite, hands-on, interactive learning approach, there is a need to establish clear country-level criteria to transition from one-time learning activities to ongoing opportunities to teach, develop skills, and provide support. The use of these materials and reflections with country colleagues also informed the development of MCSP's mentorship guidance and Jhpiego's instructional design templates for effective, modularized, onsite learning.

Country

- **Expansion of access to FP through community-based services:** MCSP's approach included improving access to and use of FP for women living in hard-to-reach locations through strengthening and use of community-based programs and platforms in 12 countries: **DRC, Egypt, Ethiopia, Guinea, Haiti, India, Kenya, Malawi, Mali, Mozambique, Rwanda, and Tanzania**. MCSP revised national guidelines to advocate for a greater role for

community workers in FP counseling and/or provision in DRC and Egypt, and systematically strengthened referral systems across the continuum of care and levels of the health system in DRC, Ethiopia, India, Malawi, Mozambique, and Tanzania. MCSP also strengthened community provider skills through capacity development, monitoring, and supportive supervision to improve counseling and service provision at the household level in DRC, Guinea, Haiti, Mali, Rwanda, and Tanzania. MCSP created and applied job aids and resources targeted specifically to community-based providers in five countries: new curricula for CHWs in Egypt, new tools that reflect the updated medical eligibility criteria for CHWs in Haiti, job aids for health surveillance assistants to use in outreach in Malawi, mentoring tools for CHWs in Rwanda, and new CHW materials in Tanzania.

- **Promotion of male engagement in FP in Togo:** In 2016, MCSP coordinated with the MOH and partners to conduct a rapid formative assessment that explored motivators and barriers for both men and women to access and use FP services. As a result of this assessment, MCSP supported the MOH to develop a social and behavior change strategy in 2017 and to implement a strategy for the promotion of male engagement in FP and expansion of voluntary no-scalpel vasectomy services in three cantons in the Kloto health district of Togo. As a part of this strategy, MCPS promoted couples' joint discussion and use of FP, men's voluntary uptake of no-scalpel vasectomy, and men accompanying their partners to RMNCAH services. To do this, MCSP implemented and assessed the acceptability and feasibility of three male engagement approaches: engagement of CHWs to conduct home visits and counsel couples on FP, CHW-facilitated video group discussions with men and women, and engagement of husbands' school members to mentor other men and promote positive masculinity in their communities. All approaches engaged local health facility workers and CHWs to promote informed choice and discussion around various FP methods, gender equity, and other topics. Additionally, MCSP trained four staff from the local district hospital to provide no-scalpel vasectomy with cauterization services, expanding available vasectomy services in Togo by 33%. The Breakthrough Research project carried out a qualitative case study evaluation of MCSP's work in Togo which found improvements in couples' communication, knowledge around FP and reproductive health matters, joint decision making for FP and reproductive health, male awareness of gender equity and household task-sharing. For more information, see MCSP's brief *Promotion de l'engagement des hommes dans la santé de leurs familles Amélioration de la communication au sein du couple et du counseling des couples*.

Recommendations for the Future

MCSP generated several recommendations for MOHs and future FP and ASRH programs from its extensive experience increasing access to PPFP, expanding the contraceptive method mix, deepening the evidence base for programs targeting FTYPs, and reinventing proven approaches to strengthen FP services across 21 countries.

- **Promote interorganizational collaboration and integration across the continuum of care for PPFP scale-up.** At the end of MCHIP, India was the only country to achieve any scale for integrating PPFP within maternity care at the time of birth. Today, the picture is very different, partially due to MCSP's contributions to making PPFP a global priority through collaboration with global actors and donors, and its operationalization of PPFP over large geographic areas in the field. Over the past 5 years, MCSP also helped to clarify that PPFP is not just postpartum IUDs or a single intervention within maternity wards but is achieved through integration at multiple health contacts and service delivery points, from ANC counseling, to immediately following birth and every additional MCH contact through the extended postpartum period. The project's collaborations with FHI360, PSI, Marie Stopes International, Pathfinder, and John Snow Inc. (SPRING and then Advancing Nutrition) as co-chairs and steering committee members of various WGs enabled richer learning on method choice, integration of voluntary FP across the continuum of care, and service delivery channels.
- **Innovate and generate new evidence to inform PPFP scale-up.** MCSP innovated and used its broad platform to generate evidence of what works to, for example, reach FTYPs, integrate FP with other health services, or to introduce new contraceptives, such as hormonal IUDs. However, the work is not done. More countries—particularly the 39 that identified PPFP as a priority in their FP2020 country action plans—need to take services to scale. MCSP's learning activities continue to point to additional areas ripe for innovation: improving social and behavior change communication around the tendency to delay PPFP until menses return and thus risk unintended pregnancy, developing new technological solutions to longitudinal tracking of postpartum women from decision-making through to voluntary adoption and continuation of PPFP, finding effective ways to nudge providers to systematically integrate FP within other services, or better engaging men in the entire MNCH continuum of care—including the PPFP decision-making process—without impinging on women's autonomy and agency.

- **Systematically scale up PPFP with a lens toward HSS, measurement, equity, and sustainability.** MCSP worked to strengthen country health systems while applying tools, such as the scale-up management toolkit and indicator testing methodologies, to improve implementation and results. Synergistically, the FP work was integral to achieving MCSP's global Strategic Objective 1 of sustained and equitable coverage, and contributing lessons for scale-up of integrated services. In the future, additional support for scale-up should continue to apply a provider behavior change lens to systematically incorporate new practices into client care processes.
- **Improve availability and quality of FP data in national HMISs.** As part of the health systems agenda and scale-up effort, MCSP advanced the measurement agenda through its endeavor to understand how FP data are captured in HMISs across 22 countries. The project also brought together colleagues and partners to achieve consensus on recommendations for PPFP indicators within HMISs so that country decision-makers can access metrics of program performance, lessening dependence on intermittent population-based surveys. However, the path to adopting or refining the usefulness and usability of HMIS data is not straight or easy. Countries will continue to need partner engagement to increase the value and use of their health system-generated FP data at the facility, district, and national levels to drive progress toward national and global goals. As noted above, it is also critical to innovate around better longitudinal use of data at the point of care to support client-centered care.
- **Provide opportunities for information sharing, particularly between countries where expansion of FP and ASRH service provision may experience similar barriers.** MCSP's FP and ASRH efforts generated a wealth of new evidence grounded in implementation science. The project continues to disseminate the learning and evidence through a range of channels in hopes of informing future programs in LMICs. MCSP believes that seeing is believing and used opportunities, such as the ICFP, to afford stakeholders (advocates, donors, and policymakers) an opportunity to not just learn about MCSP's work but see it in action during site visits organized with the Rwanda MOH to facilities where voluntary PPFP was institutionalized into the health system. Opportunities to build a movement around PPFP and collaborative learning are the motor that will continue to drive progress. Moving forward, the learning from MCSP's work with FTYPs is also ripe for such collaborative learning, as countries often face similar social norms that impede FTYPs from using services, and there is an urgent need to ensure that all health services are welcoming and responsive to the needs of adolescents and youth.

Malaria

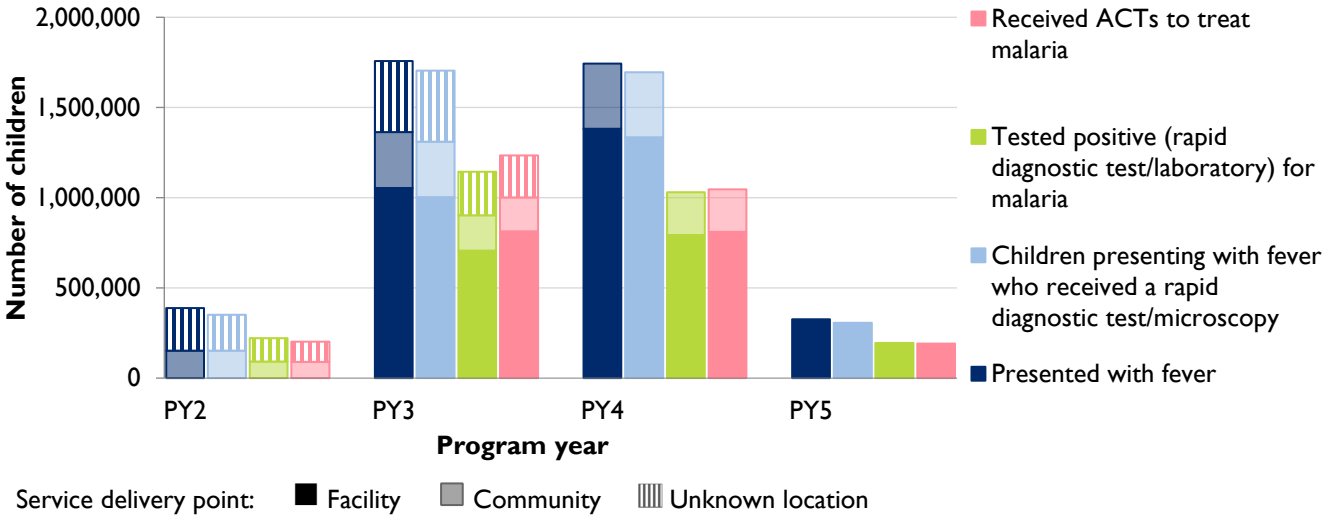
Areas of Focus - Malaria

- Linking country experiences with international expertise through the RBM MiP WG and the iCCM/Child Health Task Force
- Demonstrating the importance and feasibility of improving and measuring malaria service delivery quality of care
- Providing initial evidence on implementation of community IPTp under current WHO IPTp recommendations
- Translating global guidance on ANC guidelines and other technical recommendations into practical implementation resources
- Supporting national malaria efforts through direct assistance to National Malaria Control Programs (NMCPs) and targeted research activities to inform national-level policies and practices

Highlights of MCSP's Legacy

MCSP led global policy updates on malaria and provided global leadership as co-chair and secretariat of the RBM MiP WG and secretariat of the iCCM Task Force/Child Health Task Force, which convenes and coordinates stakeholders integrating malaria and child health programming.	MCSP improved access to and uptake of three or more doses of IPTp (IPTp3+) in seven malaria-endemic countries (Burkina Faso, Kenya, Liberia, Madagascar, Mozambique Nigeria, and Tanzania).	MCSP improved access to and uptake of quality malaria service delivery, with a focus on pregnant women and children under 5 in Burma, DRC, Kenya, Liberia, Madagascar, Mozambique, Nigeria, and Rwanda.

Figure 6.1. Malaria treatment cascade across seven MCSP-supported countries* among children aged 0-59 months in malaria-endemic areas**



*Over 2.6 million children received artemisinin-based combination therapies (ACTs) to treat malaria.

**Sum of DRC, Kenya, Liberia, Mozambique, Nigeria, Uganda, and Rwanda data. In PY5, only DRC, Mozambique and Liberia projects were active and continued to report malaria data.

Malaria

Introduction

Malaria remains a significant cause of morbidity and mortality globally, with MiP responsible for 20% of stillbirths and 11% of newborn deaths in sub-Saharan Africa. While access to service delivery has improved significantly, there are still coverage gaps and challenges in ensuring services are delivered with quality. According to WHO's Global Malaria Programme, among eligible pregnant women, 54% received IPTp1, 42% received IPTp2, and 22% received IPTp3 in 2017.[15]

Through partnerships at global and country levels, MCSP advanced evidence-based policies and successful approaches for achieving malaria prevention and treatment goals, with the aim of improving universal coverage and, eventually, elimination of the disease. Over the life of the project, MCSP demonstrably improved effective coverage and quality of malaria services and elimination approaches in its supported countries. Under MCSP, malaria control activities focused on the delivery of high-impact interventions targeted at pregnant women and children under 5; control of MiP, including improving coverage and reach of IPTp; and facility- and community-based case management, such as implementation of iCCM for children under 5. MCSP provided an ideal platform for MiP programming given the confluence of malaria and MH in the provision of IPTp as part of a comprehensive ANC package. The integrated structure drew expertise from malaria, MH, and other technical teams, such as nutrition, and facilitated collaboration on the production of resources for countries. This coordination was particularly advantageous in providing technical guidance to countries during the rollout of the 2016 WHO ANC recommendations and in the development of several MCSP ANC resources. MCSP's leadership of the iCCM Task Force focused on advocating for resources and demonstrating how to leverage human and financial resources for malaria programming to design, implement, and monitor child health programs that addressed comorbidities (i.e., malaria, diarrhea, and pneumonia) as leading causes of under-5 mortality. MCSP advanced harmonization of indicators for routine monitoring of iCCM and disseminated best practices on institutionalization of iCCM in national health systems.

To contribute to the PMI goal of reducing malaria mortality by one-third and morbidity by 40% from 2015, MCSP:

- Facilitated a global exchange through the RBM MiP WG and the iCCM/Child Health Task Force between national experience and global expertise.
- Promoted and fostered a favorable policy environment to ensure national documents aligned with global-level recommendations, including global and national-level advocacy.
- Developed and disseminated tools and approaches that improve the quality of malaria service delivery at facility and community levels.

Key Accomplishments and Results

Malaria in Pregnancy

Global

- **Global leadership and advocacy for MiP:** As co-chair and secretariat of the RBM MiP WG, MCSP was a technical leader and advocate for MiP at the global level. This leadership resulted in increased global and country awareness of the need for action to improve control of MiP in malaria-endemic countries. MCSP's support in collaboration with key stakeholders took many forms, including writing the 2015 *Global Call to Action: Maximize the Public Health Impact of IPTp in Sub-Saharan Africa* to raise awareness on IPTp with an accompanying infographic to advocate for prioritization of investment in MiP.
- **Inclusion of MiP in 2016 WHO ANC recommendations:** MCSP advocated for the inclusion of MiP components during the development of the 2016 WHO ANC recommendations. In collaboration with the RBM MiP WG and WHO, MCSP led the global engagement, drafting a brief, *Implementing MiP Programs in the Context of WHO Recommendations on ANC for a Positive Pregnancy Experience*, providing guidance to countries on the adaptation of the recommendations in the context of MiP programming.

[15] Roll Back Malaria – Malaria in Pregnancy Working Group 20th Annual Meeting, Maputo, Mozambique, February 12–14, 2019. https://endmalaria.org/sites/default/files/MiPWG%20annual%20meeting%20agenda.pdf.

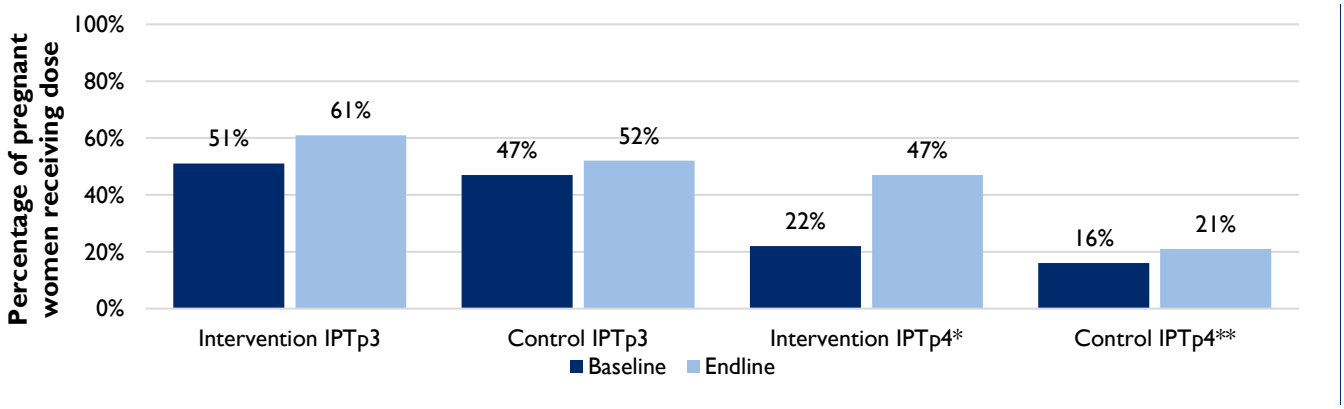
- **Global MiP M&E guidance:** Through the RBM MiP WG and in coordination with the RBM M&E Reference Group, MCSP developed a new summary of global MiP M&E guidance for malaria-endemic countries, providing an update to WHO's 2007 M&E guidance for MiP following the changes to WHO recommendations for IPTp in 2012 and ANC in 2016. The new MiP M&E guidance will help malaria program managers and other stakeholders better understand and monitor MiP programs in the context of changes in policy recommendations and other technical updates since 2007.
- **MiP country profiles:** In close collaboration with PMI and the Global Fund, MCSP developed MiP country profiles for 12 selected PMI countries (**Angola, Benin, Burkina Faso, DRC Ghana, Kenya, Liberia, Madagascar, Malawi, Nigeria, Senegal, and Zimbabwe**). The profiles explore progress toward attaining targets, provide updates of country IPTp guidelines, and document country efforts to implement and monitor policy changes and intervention coverage. The profiles highlight best practices across the region that may inform policy and practice in other countries, with the aim of advancing MiP programming, specifically around IPTp. The country profiles, completed in September 2018, serve as a reference for program managers and policymakers on recommendations for improving MiP intervention coverage, identifying and overcoming key challenges, and recognizing best practices. A summary of the profiles provides an accessible resource for those interested in trends across the 12 countries.
- **Database of MCSP MiP resources:** To promote continued use of MCSP-funded MiP resources, MCSP created a website to house technical and programmatic resources and guidance for MiP programming and service delivery. This also serves as a library for countries seeking information on how to prioritize MiP within comprehensive ANC and strengthen MiP programming overall.

Country

MCSP contributed to MiP learning in Rwanda and Burkina Faso, as well as improved access to MiP and increased uptake of optimal IPTp3+ in eight malaria-endemic countries (**Burma, Kenya, Liberia, Madagascar, Mozambique, Nigeria, and Tanzania**) through the following activities:

- **CHW distribution of IPTp in Burkina Faso:** MCSP tested the feasibility of community delivery of IPTp in three high-malaria-transmission districts of Burkina Faso (Batié, Pô, and Ouargaye). The study concluded with positive results indicating CHWs were able to increase IPTp3 and IPTp4 coverage without negatively affecting ANC coverage (see Figure 6.2). Significant differences were seen at endline, with stronger coverage gains in the intervention group, particularly for IPTp4, which more than doubled between baseline and endline. For IPTp4, the coverage rate increased by 25 percentage points for the intervention area between the baseline and endline surveys, with only a 4 percentage-point increase in the control group. Initial dissemination of study results led to the Burkina Faso MOH's commitment to continue community delivery activities in study areas and a pending expansion to full coverage of the three study districts.

Figure 6.2. IPTp3 and IPTp4 at baseline and endline in Burkina Faso



* Significantly different between baseline and endline at p<.0001
** Significantly different between intervention and control for IPTp4 at p<.0001

- **Learning around malaria interventions in Rwanda:** MCSP contributed significantly to a greater understanding of several standard malaria interventions through a series of studies conducted in Rwanda. Notably, the study on

Effectiveness of Intermittent Screening and Treatment of MiP on Maternal and Birth outcomes demonstrated that intermittent screening and treatment of MiP is not a suitable alternative to routine ANC in highly endemic districts in Rwanda.

- **Harmonization of national IPTp policies with global guidance in five countries:** MCSP worked with country-level TWGs in **Kenya, Madagascar, Mozambique, Nigeria, and Tanzania** to harmonize national policies for provision of IPTp with RBM and WHO guidelines.
- **ANC assessment in Burma:** MCSP completed an assessment of ANC including MiP in **Burma**, which led to the first national guidelines on ANC, including a section on prevention and case management of MiP, which were launched in 2018. For more information, see the Burma country summary.
- **Development and testing of tools to improve MiP services:** Leveraging investments from multiple technical teams, MCSP developed and field-tested the Toolkit to Improve Early and Sustained IPTp Uptake in **Madagascar and Mozambique** to support estimation of GA for provision of IPTp as early as possible in the second trimester. MCSP also developed a job aid for the Treatment of Uncomplicated Malaria among Women of Reproductive Age to facilitate correct and consistent case management of malaria in pregnant women. Hard and soft copies of these tools were disseminated to malaria control departments in PMI-supported countries as part of a comprehensive package of MCSP MiP resources. Laminated job aids were delivered to MCSP-supported health facilities, where they serve as a quick reference guide for providers, lending to a "no missed opportunities" approach for targeting pregnant women through the correct determination of eligibility for IPTp and appropriate treatment of MiP.
- **Utilization of community health volunteers to promote MiP services:** MCSP trained community health volunteers in **Kenya** to encourage pregnant women to seek ANC and begin IPTp early in the second trimester. This intervention contributed to a 50% increase (24–36%) in the percentage of pregnant women starting ANC attendance by 20 weeks of pregnancy between October 2014–March 2016. This community-based approach was replicated by MCSP in three additional counties at the request of PMI.
- **IPTp trainings in Madagascar:** The project implemented a new LDHF training approach combined with routine supportive supervision to increase the number of providers offering services according to the 2012 WHO recommendations for IPTp in Madagascar. Facility readiness to provide malaria services to pregnant women increased from 50% to 80% in primary care facilities and from 23% to 50% in hospitals. Presence of trained staff increased from 22% to 87% in primary care facilities, availability of sulfadoxine-pyrimethamine (SP) increased from 27% to 68% of facilities, and uptake of IPTp3 improved from 14% to 28%.
- **Improved MiP service quality and commodity security in Tanzania:** MCSP improved the capacity of health care workers in providing quality MiP services and advocated to key stakeholders at the council, regional, zonal, and national levels to develop action plans for SP and rapid diagnostic test commodity security in Tanzania. MCSP identified 48 sentinel sites in Mara and Kagera where the project worked with regional health management teams to conduct quarterly site visits and assess MiP interventions, including the status of MiP commodities. This resulted in an increased uptake of IPTp4 in Mara and Kagera, from 0% at baseline in February 2015 to 20% and 29%, respectively, in September 2016.

Malaria Case Management

Global

- **Advocacy for the institutionalization of iCCM, including malaria case management:** MCSP provided technical leadership and advocacy for iCCM and child health at the global level as the secretariat of the iCCM/Child Health Task Force secretariat, which advocates for institutionalizing iCCM.
  - **Benefits of Integrating Malaria Case Management and iCCM**: The global brief on *Benefits of Integrating Malaria Case Management and iCCM* was used to strengthen concept notes for the Global Fund New Funding Model that integrated diarrhea and pneumonia case management, which raised $80 million in integrated financing for iCCM in 12 countries through the 2014–2017 funding cycle. MCSP and the iCCM Financing Task Team led the effort to advocate for the integration of malaria, diarrhea, and pneumonia case management to maximize the impact of malaria programs and reduce overuse of antimalarial drugs (see Child

Health section for more information). This global brief was developed in coordination with the Global Financing Task Team and contributed to successful partnership advocacy for iCCM at country level.

- **Indicators for the iCCM/Child Health Task Force**: The M&E subgroup of the iCCM/Child Health Task Force produced a set of indicators that was used by the DHIS2 Academy/University of Oslo to develop its community module for routine monitoring of case management. To inform these indicator recommendations for the University of Oslo, the iCCM/Child Health Task Force published, Monitoring iCCM: a feasibility study of the indicator guide for monitoring and evaluating iCCM in *Health Policy and Planning* in January 2016, which urged country M&E advisors to measure a smaller set of high-value indicators that are easy to implement, reliable to interpret, and useful for both global stakeholders and frontline health workers involved in malaria programs.

Country

MCSP improved access to and uptake of high-quality case management of malaria, with a focus on pregnant women and children under 5 in **Burma, DRC, Kenya, Liberia, Madagascar, Mozambique, Nigeria, and Rwanda**.

- **QI for malaria services for children under 5 in Mozambique:** MCSP implemented a QI approach in Mozambique to assess six areas of performance: pharmacy, management of human resources and commodities, laboratory, malaria case management, IPTp, and community malaria case management. Eighty-seven percent of participating facilities improved their performance on malaria standards, and 57% improved their performance against the standards by at least 50% compared to baseline. By the end of the program, almost 100% of children under 5 with fever had received a diagnostic test in MCSP-supported areas. Results indicate that 98% of children under 5 with a positive malaria diagnosis had received artemisinin-based combination therapy, as compared to 91% in the first quarter; 95% of pregnant women testing positive for malaria received treatment, as compared to 72% in the first quarter of implementation; and 45 of 58 health facilities continued to conduct performance measurements even after project support ended.
- **Supportive supervision and mentorship in Liberia:** MCSP increased supervision and performance standard scores in Liberia through supportive supervision and mentorship. Supportive supervision scores in April 2018 showed 85% of health facilities scoring 50% or less. By December 2018, all facilities scored at least 80%. MCSP strengthened supportive supervision and workplace, individual, and team-based mentoring by building the capacity of county health team staff to conduct quality supervision visits following the close of the program. During the transition period, county health team staff took the lead on these visits to ensure sustainability.
- **iCCM and malaria services in Rwanda:** MCSP conducted an evaluation of the iCCM strategy implemented by MCSP in seven districts of Rwanda, which revealed that 70% of children treated by CHWs for all iCCM pathologies were treated correctly according to the national protocols using retrospective file verification. Malaria was found to be the most correctly treated by CHWs, at 90%. MCSP also conducted malaria diagnostic refresher training in Rwanda to strengthen quality microscopy. Training improved the performance of lab technicians in species detection from 54% to 82% and parasite density from 42% to 83.5%. Nine months after training, *P. falciparum* and *P. ovale* were correctly detected by 97% and 80% of lab technicians, respectively.
- **Updates to country-level IMCI/IMNCI and iCCM guidelines and policies:** MCSP updated case management guidelines and protocols for facility-based IMCI and iCCM. This was done through country TWGs to strengthen service provision in **Burma, DRC, Guinea, Haiti, Liberia, Mozambique, Namibia, Nigeria, and Rwanda**.

Ministry of Health National Malaria Control Programs and Elimination Efforts

Country

- **Long-term technical advisors in Chad and Nepal:** MCSP supported NMCPs in Chad and Nepal, placing long-term technical advisors to strengthen the NMCP's Global Fund grant performance.
  - **Chad:** The long-term technical advisor in Chad supported the creation of management structures and processes to better oversee malaria control efforts. The advisor was also integrally involved in supporting data collection, validation, and analysis to better calibrate malaria control activities. Since the advisor began providing support to the NMCP in Chad, the country's Global Fund rating improved from B2 to A2.

- **Nepal:** MCSP supported the Nepalese government with two long-term technical advisors—one malaria expert and one supply chain expert. The malaria advisor helped produce a malaria elimination addendum to Nepal's National Malaria Strategic Plan and supported leadership capacity at multiple levels to reach Nepal's malaria elimination goals. As part of malaria elimination efforts, MCSP-supported active case detection teams diagnosed and treated 60 malaria positive patients out of 4,417 febrile people tested across four districts in an effort to stop malaria transmission. The advisor also trained laboratory technicians on malaria microscopy in the private sector, where many Nepalis seek care. The supply chain advisor assisted the government in procuring bed nets on its own for the first time, at a record low price. Since the arrival of the long-term technical advisors, the Global Fund grant rating improved from B2, to the highest rating, A1.

- **Elimination readiness report in Madagascar:** MCSP conducted Madagascar's first malaria elimination readiness assessment, indexing facilities' readiness using a series of factors relating to service delivery standards and preparedness to respond to malaria outbreaks. Notably, only 47% of facility-level providers conducted a rapid diagnostic test in febrile patients. Of the five confirmed malaria cases, 80% received an artemisinin-based combination therapy and one received SP. A malaria rapid diagnostic test was available in 77% of facilities, and a functional thermometer was available in 89% of facilities. At least 80% of facilities had at least one formulation (age/weight of patient) of an artemisinin-based combination therapy on the day of the survey, but stock-out rates of other malaria commodities were high. Only 46% of community health volunteers reported giving artemisinin-based combination therapies in cases of positive malaria tests. While theoretical epidemic response plans exist, many of the plans have never been enacted. Composite indicators for elimination readiness provided scores for each district across several domains, including resource availability; case management; data management and use; and training, supervision, and technical assistance. The five districts scored between 49% and 58% on malaria elimination readiness, illustrating a need for continued support to enable an environment for quality of care. This assessment will inform the development of a national malaria elimination strategy. Several dissemination meetings have taken place with stakeholders, with meetings to develop a malaria elimination strategy planned.

Recommendations for the Future

- **Disseminate and use tools developed under the RBM MiP WG.** MCSP's support for the RBM MiP WG was successfully transitioned to the PMI-supported Impact Malaria project, which has already begun to liaise with global and national-level actors to continue the legacy that MCSP established. This platform is critical in facilitating exchange between country-level implementers and global-level stakeholders around MiP. Under the auspices of the RBM MiP WG, MCSP's final malaria product was a technical update to M&E guidance for MiP, in collaboration with PMI, WHO, the Global Fund, and the Impact Malaria project. Dissemination of this guidance should take place under Impact Malaria and the RBM MiP WG. Use of the guidance document has the potential to have a significant positive impact on the malaria community's ability to monitor progress and make evidence-based decisions on supporting MiP programs through standardizing MiP indicators and the way they are collected and calculated. This is particularly true for data on MiP case management.
- **Continue to innovate for improved IPTp service delivery and coordination.** Innovations to improve the uptake of IPTp are critical in ensuring outcome improvements. New interventions, such as community distribution of IPTp, have potential to improve intervention coverage, as do traditional approaches, such as ensuring a reliable supply of SP and other MiP commodities and QI at service delivery points. The MiP country profiles highlight the success stories of several countries, which are likely applicable to those still struggling. Countries need strong health systems and good coordination to ensure successful MiP programs.
- **Integrate case management for malaria and other common childhood illnesses.** Integrating the treatment of the most common childhood illnesses with malaria community case management can make malaria programs more efficient and effective, and increase uptake of services. Malaria programs should continue to ensure integration with other services. Additionally, continued dissemination of the recently developed guidance for institutionalizing iCCM can guide countries to better operationalize and institutionalize iCCM programs.
- **Improve malaria services through data-focused supervision and standards-based quality assurance.** The implementation of data-focused supervision and standards-based quality assurance approaches can improve the quality of MiP and case management service delivery in a meaningful and sustainable manner.

Nutrition

Areas of Focus - Nutrition

- Providing global technical leadership for MIYCN through sharing country experience and evidence on ways to practically strengthen integration of nutrition in the RMNCAH platform
- Translating global and country learning into practical programmatic guidance to address barriers to maternal nutrition, EBF, and complementary feeding
- Using evidence for action to design and roll out integrated nutrition-health approaches that are multidimensional and responsive to country needs

Highlights of MCSP's Legacy

Published a first-ever journal supplement compendium on programmatic evidence and experience on how to strengthen nutrition within the RMNCH platform, featuring five MCSP countries and program implications.

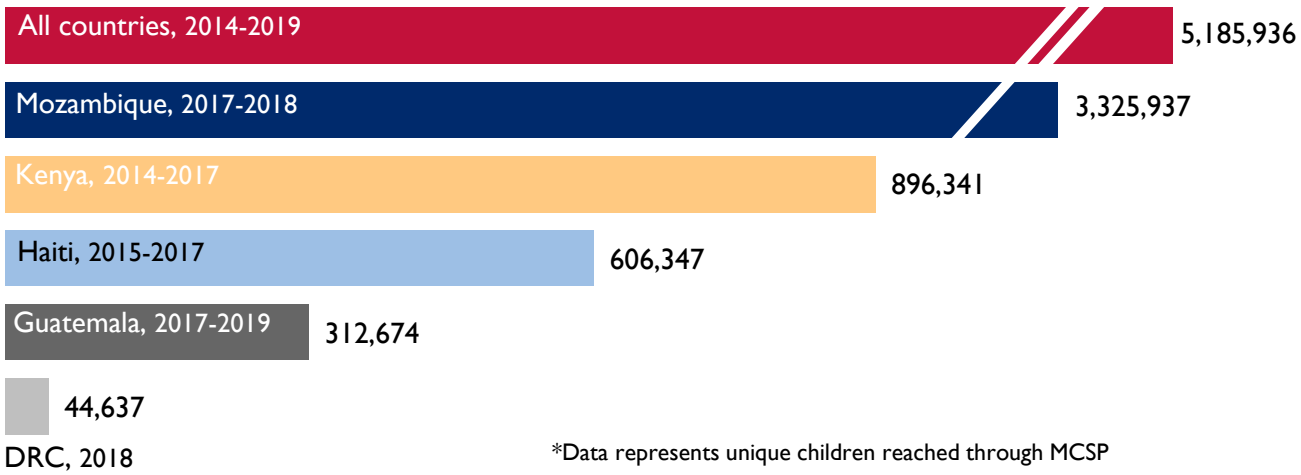
MCSP reached 5.2 million children under age 5 with nutrition interventions and 1.1 million children under age 2 across five countries.

Initiation of breastfeeding (within 1 hour) showed improvements or sustained high levels in seven countries, in part due to MCSP's programmatic efforts (Figure 7.2).

- 16 Formation and leadership in TWGs
- 14 Country guidelines, policies, and strategies influenced
- 11 Peer-reviewed articles*
- 9 Social and behavior change materials
- 8 Technical briefers
- 5 Global nutrition guidance materials

* Two additional articles currently under review/in preparation

Figure 7.1. Number of children under 5 reached by nutrition interventions through MCSP over the life of project, 2014-2019*



*Data represents unique children reached through MCSP

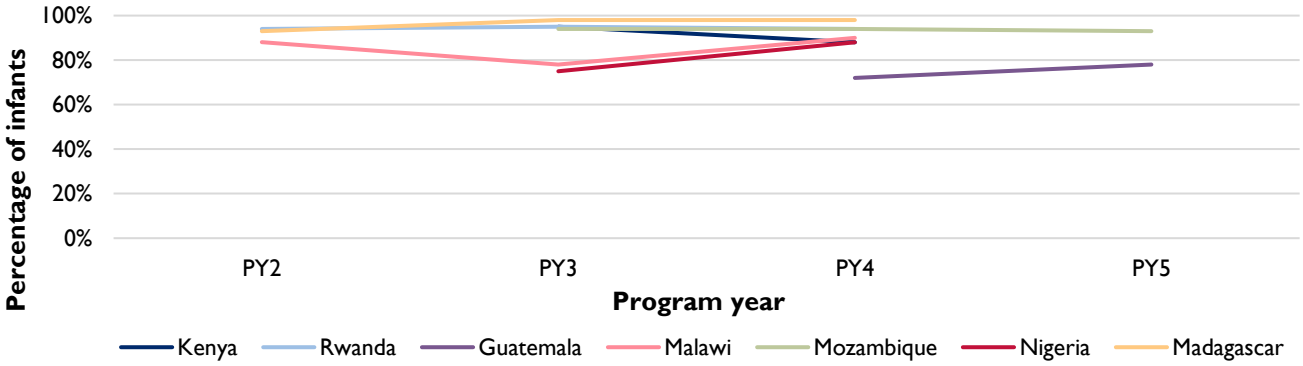
Nutrition

Introduction

Every country in the world faces multiple burdens of malnutrition, with at least one in three people globally experiencing malnutrition in some form (i.e., stunting, overweight, and/or anemia). The SDGs and World Health Assembly targets for nutrition for 2025 provide an impetus and recognition to accelerate global action to address the pervasiveness of malnutrition.[16] Yet countries are off course for all targets, with limited progress in EBF. While health systems play an important role in the promotion and rollout of critical nutrition interventions, service delivery at the health facility and community levels are often not at the quality, intensity, and/or coverage desired to achieve country and global targets. While the two *Lancet* nutrition series provided the evidence of high-priority, scalable nutrition interventions, alongside the recognition that interventions should reach those who need them most, the process of how this can be feasibly achieved is often not shared, discussed, or documented.

MCSP's primary goal was to demonstrably strengthen integration of nutrition within RMNCAH programming to improve nutrition practices through global leadership, working with governments to strengthen service delivery of nutrition interventions, and contribute to the global knowledge and evidence base through documentation. MCSP provided a unique opportunity to strengthen nutrition within the health system, with collaborative efforts across teams and countries on the project, including newborn health, child health, FP, and immunization. MCSP's global leadership in breastfeeding, anemia, and maternal nutrition is showcased in the development of policies and guidelines in collaboration with MOHs, and in improved and integrated service delivery at the country level, including context-driven health promotion, counseling, and mentoring and coaching of facility and community providers. MCSP's support for country-level implementation of baby-friendly initiatives (the Baby Friendly Community Initiative [BFCI] and the BFHI) in Kenya and Malawi has been notable for strengthening breastfeeding promotion, support, and practices. MCSP developed and documented implementation evidence and program experience to inform on country-level integration of nutrition into the RMNCAH platform and across health areas, including child health, FP, and immunization in DRC, Kenya, Malawi, Mozambique, and Tanzania. MCSP used global evidence and policy reviews to inform on rollout of evidence-based, high-impact nutrition interventions and practices, including addressing barriers to optimal infant and young child feeding (IYCF) and maternal nutrition, and supporting the integrated package for maternal anemia (including IFA supplementation) in country programming.

Figure 7.2. Percentage of infants put to the breast within 1 hour of birth in seven MCSP countries



[16] The World Health Assembly's six global nutrition targets for 2025 and nutrition were embedded into the second SDG (to end malnutrition in all forms) and other nutrition-related targets.

Key Accomplishments and Results

Maternal, Infant, and Young Child Nutrition

Global

- **Global leadership in MIYCN:** MCSP's nutrition expertise, evidence, and vast experience were showcased across various technical meetings and fora, including the global Micronutrient Forum, International Congress of Nutrition (which included 11 global and country nutrition presentations), second World Breastfeeding Conference, the Global Maternal Newborn Health Conference, USAID World Breastfeeding Week Symposium, WHO/UNICEF International BFHI Congress, Academy of Breastfeeding Medicine, International Society for Research in Human Milk and Lactation, and UNICEF maternal nutrition consultations in Senegal and Nepal. MCSP has provided technical expertise to the UNICEF- and WHO-led Global Breastfeeding Collective: a partnership of over 20 organizations that aims to increase country-level investments in breastfeeding. MCSP co-chaired the collective's advocacy tools WG, spearheaded the development of three advocacy briefs, and contributed to the K4Health Breastfeeding Advocacy Toolkit. MCSP also participated in the Child Health Task Force nutrition subgroup, and shaped and informed strategies for integration through the MIYCN-FP WG. In addition, MCSP influenced the global agenda on maternal nutrition and highlighted the importance of addressing nutrition during pregnancy and lactation in the first 1,000 days (see Table 7.1).

Anemia and Maternal Nutrition in the Global and Country Agendas

Global

- **Provision of long-standing technical leadership on anemia:** MCSP provided technical leadership on the USAID Anemia Task Force (with SPRING project through September 2018) to deliberate on global and country-level approaches to address the multisectoral nature of anemia with multidisciplinary experts from the fields of malaria; MH; water, sanitation, and hygiene (WASH); and child health at USAID headquarters and Missions. In addition, MCSP's K4Health Integrated Anemia Prevention and Control Toolkit remains the key go-to anemia resource for program implementers and policymakers. Since January 1, 2016, the toolkit has had 129,940 sessions, with 90% of sessions as new visits, and has been accessed by up to 16 countries. The top 10 countries using the toolkit are **India, Kenya, the US, Nigeria, Ghana, Indonesia, Tanzania, the UK, Ethiopia, and Pakistan.**

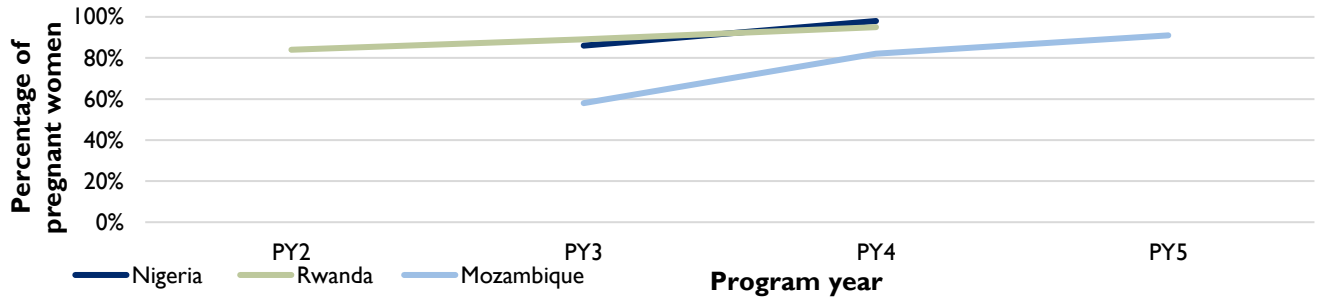
Country

- **Evidence-based maternal nutrition programming:** MCSP used evidence to shape programming in maternal nutrition in six countries: DRC, Egypt, Mozambique, Tanzania, Guatemala, and Zambia.
  - **DRC:** MCSP revised national IYCF counseling cards in DRC in collaboration with the Ministry of Public Health based on study findings, which included key messages on maternal nutrition. Health providers were trained on counseling mothers using these counseling cards during community visits and at health facilities.
  - **Egypt:** In Egypt, a counseling guide was developed for health providers, which provided guidance on healthy eating during pregnancy and lactation, including IFA supplements and reasons for taking them
  - **Mozambique:** A counseling guide was developed for health providers in Mozambique to address maternal nutrition, maternal anemia—IFA (Figure 7.3), deworming, and antimalarials—and perceptions of insufficient breast milk. National anemia prevention and treatment materials were developed alongside the MOH, which were pre-tested across the country.
  - **Tanzania:** In Tanzania, MCSP developed a job aid to counsel women on EBF and LAM, the LAM song, and key counseling messages on improving maternal nutrition during breastfeeding and addressing insufficient breast milk, which were rolled out in MCSP areas with the Ministry of Health, Community Development, Gender, Elderly, and Children.
  - **Guatemala:** MCSP supported the Guatemala Ministry of Public Health to conduct trainings for auxiliary nurses in the Western Highlands region through the Diplomado eLearning program to build their capacity in MIYCN knowledge and competencies in counseling. The messages for health providers in the Diplomado around maternal nutrition included promoting the consumption of a variety of natural foods that are not

processed, and explaining how and why it is important to reduce maternal consumption of processed foods, such as fried foods with high amounts of saturated fats—including fries and tacos—and candy, sweets, and canned foods, which contain excessive amount of sodium, fat, or sugar.

- **Ghana and Zambia**: MCSP worked closely with the MOHs in Ghana and Zambia to develop eLearning courses for improving nutrition knowledge and services. In Zambia, this course included topics on maternal nutrition, including attending ANC as soon as women know they are pregnant, eating a variety of foods (vegetables, fruits, meats, milk, and milk products) and an extra meal every day when pregnant, taking IFA supplements to prevent anemia, using fortified foods (such as iodized salt) in one's diet, and lightly exercising while pregnant.

Figure 7.3. Percentage of pregnant women who received 90+ iron-folic acid tablets in three MCSP countries



Infant and Young Child Feeding

Global

- **Strengthening counseling on breastfeeding challenges and addressing junk food consumption in children under 2:** Based on the findings from the systematic review at the global level, MCSP developed and rolled out practical, simple guidance/counseling aids in **Haiti, Kenya, and Mozambique** on how to identify and address breastfeeding difficulties, which have been incorporated in country-level counseling materials with uptake by MOHs. To further strengthen counseling barriers to EBF, MCSP conducted an implementation science study which explored how provider job aids can practically address challenges with EBF that mothers experienced in rural and semi-urban areas of Nampula, Mozambique. The use of job aids strengthened facility and community providers' skills in identifying and addressing common breastfeeding challenges, which are summarized in a technical report, brief, and webinar.

Country

- **National BFCI implementation in Kenya:** MCSP, in collaboration with the MOH and UNICEF, led the development of the first-ever national-level *BFCI Implementation Guidelines*, BFCI M&E tools, and the IYCF counseling package, which guide rollout in Kenya. MCSP also rolled out complementary feeding recipe books. Through this work, 685 community leaders were oriented on BFCI, 475 health providers were trained, 249 support groups were established, and 3,065 children 0–12 months of age were reached. Improvements in EBF and consumption of iron-rich complementary foods, and a decline in prelacteal feeding were observed following program rollout. Improvements in IYCF practices were observed from routine health data following implementation, with dramatic declines in prelacteal feeding of 19% to 11% in Kisumu County and 37.6% to 5.1% in Migori County from 2016 to 2017. Improvements in initiation and EBF in Migori were also noted—from 85.9% to 89.3% and 75.2% to 92.3%, respectively. Large gains in consumption of iron-rich complementary foods were also seen (69.6% to 90% in Migori, 78% to 90.9% in Kisumu), as well as introduction of complementary foods (42% to 83.3% in Migori). BFCI is a promising platform to integrate into other sectors, such as ECD, agriculture, and WASH. MCSP also addressed barriers to IFA supplementation use in Kenya, which strengthened counseling to address temporary side effects of IFA experienced during pregnancy (e.g., nausea, constipation).
- **Nationwide scale-up of BFHI in Malawi:** MCSP supported the Malawi MOH, in partnership with WHO and UNICEF, in the nationwide scale-up of BFHI to 54 hospitals, which led to over 80,000 women counseled on EBF. MCSP aided the MOH to update the national BFHI training package and behavior change communication

materials. A report was developed (and manuscript underway) that identified bottlenecks in the provision of care and feeding of small and sick newborns, and proposed solutions to improve care, which were shared in-country.

- **Strategies to address barrier to EBF:** MCSP used evidence-based and culturally relevant counseling strategies, techniques, and/or capacity-building methodologies to equip providers with skills to address barriers to EBF in **Guatemala** (eLearning), **Haiti, Kenya, and Mozambique.**

Translation and Integration of Evidence and Learning to Inform Country Implementation

A unique aspect of MCSP's nutrition programming was to demonstrate how barriers to MIYCN could be practically addressed by operationalizing the WHO ANC guidance and during routine contacts (ANC, childbirth, PNC) for optimization of breastfeeding counseling and support at community and facility levels. The experience, evidence, strategies, and tools that were rolled out for use during country-level implementation are summarized in Table 7.1.

Global

- **Demonstration of innovative behavior change through the development, rollout, and use of culturally relevant social and behavior change materials for MIYCN in 10 countries with MOHs:** MCSP spearheaded the development of materials that were responsive to country needs and rooted in local evidence (see Table 7.1), including complementary feeding recipes (**Kenya and Mozambique**), national maternal anemia materials (**Mozambique**), MIYCN learning content/e-courses (**Guatemala, Zambia, and Ghana**), and nutrition counseling materials (**DRC, Egypt, Haiti, Kenya, Malawi, Mozambique, and Tanzania**), that include content on MIYCN, including addressing "junk" food consumption among children under 2.

Country

- **Integration of nutrition into other health areas, including child health, immunization, and FP, within the RMNCAH platform:**
  - **DRC:** MCSP fostered and strengthened linkages between iCCM services and integration efforts in DRC to prevent and treat malnutrition through routine health services. The findings were used to inform a nutrition-iCCM approach that included revisions of IYCF counseling materials, building of provider capacity in nutrition, formation of 25 support groups, and reaching nearly 45,000 children under 5. For more information, see the study report (*Strengthening Nutrition in the iCCM of Childhood Illness in DRC*) and paper (*Strengthening Nutrition Services within iCCM of Childhood Illnesses in DRC: Evidence to Guide Implementation*).
  - **Mozambique:** Through MCSP's support to the Mozambique MOH in improving quality of nutrition services at facility and community levels, 3,325,937 children received nutrition interventions, including IYCF counseling; growth monitoring and promotion; screening, referral, and treatment of acute malnutrition; vitamin A supplementation; home fortification with micronutrient powders; and social and behavior change communication activities, including national anemia materials (flip chart, job aid, flow chart), radio messages, and cooking demonstrations/complementary feeding recipes for caregivers.
  - **Tanzania:** MCSP worked to strengthen nutrition and FP integration in Tanzania's Mara and Kagera regions, as shown in this report and article. The study involved in-depth interviews with mothers of infants under 1 year, grandmothers, health providers, and traditional birth attendants, as well as 14 focus group discussions with CHWs, fathers, and community leaders. Findings revealed that breastfeeding initiation was often delayed, and prelacteal feeding was common. Respondents linked insufficient breast milk to inadequate maternal nutrition, in terms of the quality of the diet and small quantities of food consumed by mothers. Breast milk insufficiency was addressed through early introduction of foods and liquids. Mothers believed that breastfeeding prevents pregnancy, regardless of the frequency or duration of breastfeeding, yet were generally not aware of the LAM for FP. Joint decision-making on FP was viewed as important, and women often discussed it with their partner. Future programming should address misconceptions about return to fecundity, knowledge gaps, and concerns about FP methods, including LAM, as well as perceptions regarding insufficient breast milk and early introduction of foods, which are impediments to optimal MIYCN and FP practices. Results informed the program design of an integrated nutrition and FP implementation approach, which included a LAM song, LAM self-tracking tool, and job aids for health providers.

Table 7.1. MCSP's nutrition learning at the country level

Learning from MCSP	Evidence/program guidance generated and impact at country level
1. MCSP's progress in strengthening nutrition-health integration across various technical areas (nutrition-FP, nutrition-child health-immunization, nutrition-other sectors) and five countries was published.	• Seven MCSP articles (open access) from five countries published in a free journal supplement in *Maternal & Child Nutrition*; also features an additional seven articles on other global and country experiences
2. Examine barriers to maternal nutrition and program implications in 24 USAID priority countries via literature review of barriers to maternal nutrition, collated country experiences, and operationalized WHO ANC guidance.	• Article (open access): Addressing barriers to maternal nutrition in low- and middle-income countries: a review of the evidence and programme implications • Three technical briefs on maternal nutrition: evidence and program considerations, key country experiences, and programming considerations in the context of the 2016 WHO ANC Guidelines • Country impact: Evidence shaped programming in maternal nutrition in six countries (DRC, Egypt, Mozambique, Tanzania, Guatemala, and Zambia).
3. Examine barriers to EBF across MCSP countries to accelerate EBF improvement: Conducted systematic review in 24 USAID priority countries.	• Article (open access): Addressing barriers to EBF in low- and middle-income countries: a systematic review and programmatic implications • Technical brief: Addressing Barriers to EBF: Evidence and Program Considerations for Low- and Middle-Income Countries • Health provider job aid implementation science study (report and manuscript in preparation) • Country impact: Evidence shaped country strategies and counseling to address barriers to EBF in Haiti, Kenya, and Mozambique.
4. Strengthen evidence base on junk food consumption within infant programming: Examined factors related to consumption of junk food by children under 2 years in 24 USAID MCSP priority countries.	• Brief: Key Country Experiences in Addressing Junk Food Consumption in Maternal, Infant, and Young Child Nutrition Programming • Brief: Junk Food Consumption Is a Nutrition Problem among Infants and Young Children: Evidence and Program Considerations for Low- and Middle-Income Countries • Country impact: Reducing or eliminating junk food consumption was incorporated into infant and young child feeding materials/courses in DRC, Egypt, Guatemala, Kenya, and Mozambique.
5. Examine barriers to implementation of community-based distribution of iron-folic acid supplements in 24 USAID MCSP priority countries: Conducted literature review.	• Brief: Community-Based Distribution of Iron-Folic Acid Supplementation: Evidence and Program Implications • Article (open access): Community-based distribution of iron–folic acid supplementation in low- and middle-income countries: a review of evidence and programme implications • Brief: Controlling maternal anemia and malaria: ensuring pregnant women receive effective interventions to prevent malaria and anemia: what program managers and policymakers should know • Country impact: Influenced approaches to increase access and coverage of iron-folic acid at the community level through dissemination to countries at regional maternal nutrition consultations with UNICEF.
6. Ascertain bottlenecks in providing adequate care and feeding of small and sick newborns in Malawi.	• Report and manuscript identifying bottlenecks in the provision of care and feeding of small and sick newborns in Malawi, and proposed solutions to improve care (in development) • Country impact: Results will be shared with the Malawi MOH.

Recommendations for the Future

MCSP built baby-friendly platforms in three countries, strengthened provider capacity in nutrition, and strengthened integration across health areas for quality nutrition-health services. MCSP provided analyses and reflection of where, why, and how implementation occurs in the journal supplement and in the compendium of work on strengthening nutrition within health services, noting there are several opportunities for action to highlight:

- **Strengthen the quality of routine data and support health providers to interpret and use data for decision-making.** This can improve care for women and children, and allow for midcourse corrections to programming and development of targeted approaches (at health facility or subnational levels), which would strengthen measurement and data use, especially around maternal nutrition and breastfeeding (early initiation, counseling, and EBF practices), as well as complementary feeding.
- **Document the process of implementation, successes and challenges, and benchmarks of progress during rollout of multiple interventions.** It is critical to monitor multiple interventions (e.g., micronutrient supplementation, fortification, and dietary diversification efforts) or multiple efforts around infant and young child nutrition, which should include sharing of data and lessons learned among implementing partners. This should be in tandem with the government and across implementing partners.
- **Collect data on the burden of, type, and severity of malnutrition/micronutrient deficiencies and coverage of key interventions.** This will allow programs and health systems to better understand the reach of projects, such as baby-friendly initiatives, EBF, and dietary diversity promotion, and to assess progress and accountability.
- **Provide comprehensive breastfeeding counseling and support at community and facility levels (i.e., BFHI/BFCI).** This should include strengthening provider capacity to identify and resolve breastfeeding problems, and strengthening the quality of counseling for maternal nutrition and maternal anemia, which should be an integral part of universal health care, including workplace support and maternity protections.

Water, Sanitation, and Hygiene

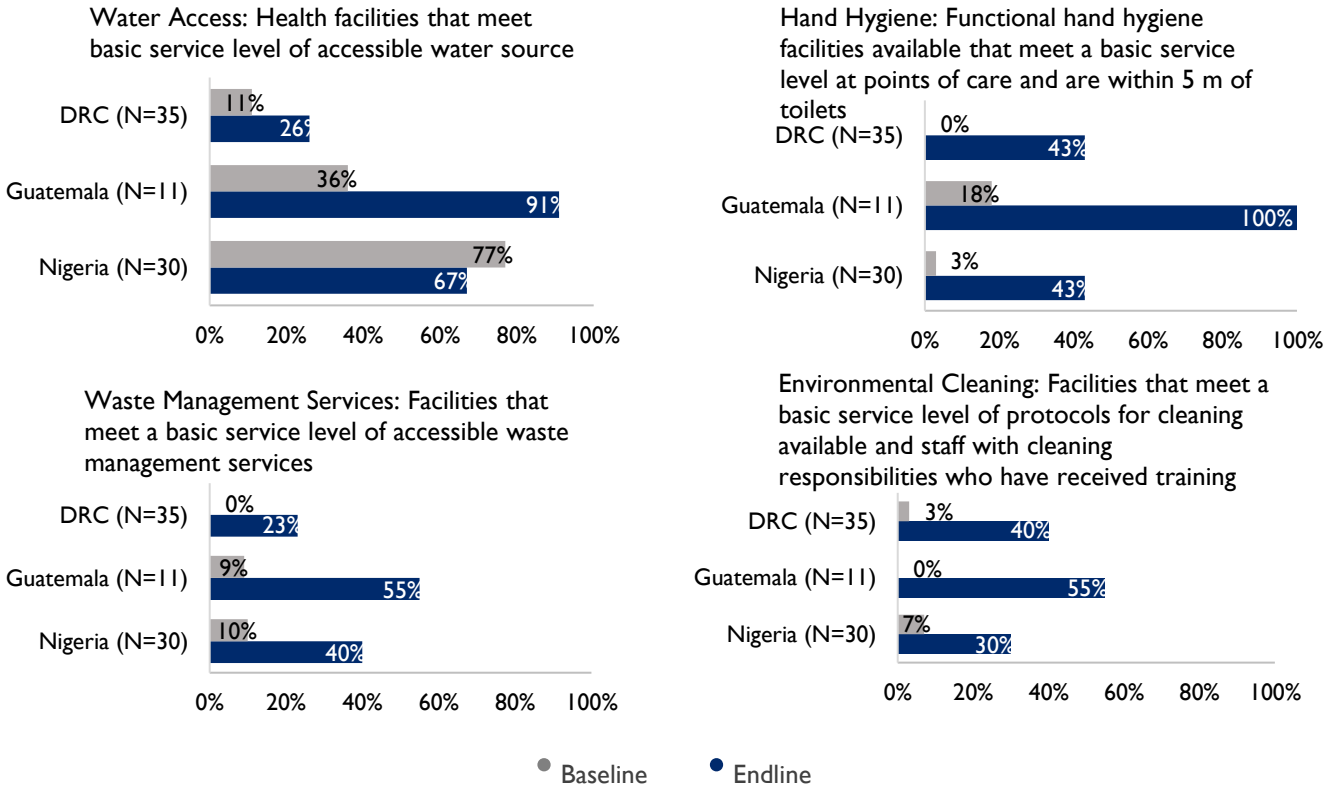
Areas of Focus - WASH

- Institutionalizing WASH in health care facilities
- Advancing behavior-centered programming to reduce puerperal and neonatal sepsis
- Integrating nutrition-sensitive WASH activities into health extension programs

Highlights of MCSP's Legacy

MCSP designed and implemented the innovative Clean Clinic Approach in Haiti, DRC, and Guatemala, resulting in sustained incremental WASH improvements for improved high-quality care.	MCSP advanced global learning on innovative multimodal behavior change strategies to improve WASH behaviors through evidence-based research informing implementation across programs in Nigeria and Guatemala.	MCSP demonstrated global leadership in WASH for MNCH by testing draft global indicators on WASH and infection prevention for labor and delivery, and by developing indicators for PNC and sick newborn wards.

Figure 8.1. Improvements in key WASH service access among MCSP-supported health care facilities in DRC, Guatemala, and Nigeria (source: Clean Clinic Assessments)



Water, Sanitation, and Hygiene

Introduction

The SDGs had recently been launched at the outset of MCSP, mandating universal access to WASH to improve human health and enhance the quality of health care services. Despite these goals, no global standards for WASH in health care facilities existed, little data were available, and no evidence-based strategies to improve WASH conditions and practices had been identified. Previous WASH in health care facility initiatives largely failed to institutionalize and sustain WASH improvements, likely because they were implemented through WASH systems and by WASH stakeholders instead of through health systems and by health stakeholders.

MCSP strove to make WASH a normative part of MNCH programming to prevent maternal and child deaths by supporting country programs to increase coverage and utilization of evidence-based, high-quality RMNCAH interventions. MCSP leveraged WASH investments to increase access to and use of WASH services at household, community, and health care facility levels using low-cost interventions. MCSP's top priorities/strategies were 1) increasing health care facility WASH conditions and practices to contribute to quality of care improvements and reductions in puerperal and newborn infections through MCSP's innovative CCA, and 2) reducing childhood enteric illnesses and contributing to stunting reductions by integrating USAID's Essential WASH Actions for Nutrition into MCSP community nutrition activities. As a global integrated health project and a member of the Global WASH in Health Care Facilities WG, MCSP brought valuable insight and experience to conversations on WASH in health care facilities' policy, strategy, standards, indicators, and implementation approaches globally.

Key Accomplishments and Results

Design and Implementation of the Clean Clinic Approach

MCSP made advancements in global WASH in health care facilities strategies through the design, implementation, and refinement of MCSP's innovative CCA in three countries. Findings and lessons learned were shared through technical assistance visits to Malawi and Uganda and dissemination of implementation tools and products.

Global

- **Sharing of lessons learned from MCSP's experience:** MCSP shared research findings and implementation experiences with the USAID Missions, national government representatives, and other implementing partners in **Malawi and Uganda**. As a member of the global WASH in Health Care Facilities WG, MCSP contributed implementation and research lessons that informed the 2019 WHO resolution on WASH in Health Care Facilities and the *WASH in Health Care Facilities: Practical Steps to Achieve Universal Access to Quality Care*. MCSP also presented at five conferences/global meetings and during four webinars to audiences comprising global WASH in health care facilities implementing partners and donors to inform design improvements and future research priorities.
- **Dissemination of implementation tools, research, and lessons learned to guide future WASH in health care facilities efforts:** MCSP launched a microsite on WASH in health care facilities to showcase various research, tools, and resources used to guide innovative WASH in health care facilities programming. The site describes MCSP's unique experience implementing WASH activities as part of a global integrated health project and provides guidance on how to approach designing and implementing WASH activities within health systems. Since its launch, the site has had over 4,537 views from 2,478 individual users in 113 countries. Numerous microsite users reached out to MCSP for guidance on implementing comprehensive, low-cost activities. MCSP provided guidance on establishing accountability systems, garnering critical ingredients for designing and implementing WASH in health care facility programs, and prioritizing learning questions.

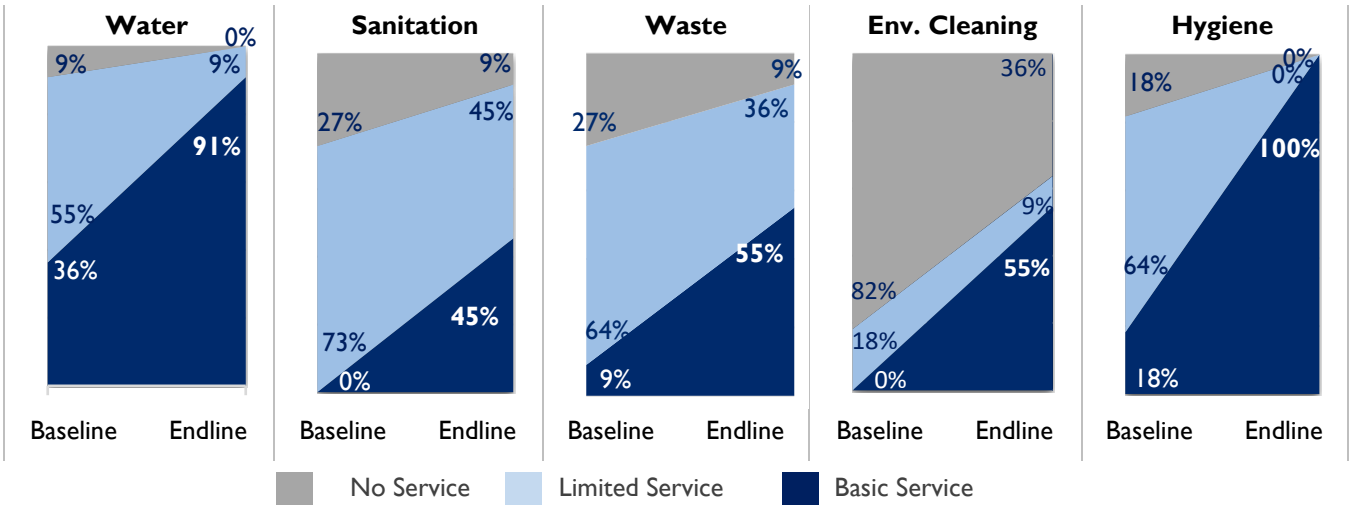
Country

- **Clean Clinic Approach:** MCSP designed and implemented the innovative CCA in four countries, which supported health care facilities to make low-cost, incremental WASH and IPC improvements. Unlike previous approaches, the CCA recognizes that some of the most common and impactful improvements are behavioral, managerial, and/or motivational, and thus can be implemented in short order with little external investment.

Through the approach's 10-step process, MCSP helped MOHs establish CCA programs and monitoring frameworks, and then assisted health care facilities to develop action plans to meet those criteria. The CCA was implemented in 145 health care facilities across **DRC** (35), **Guatemala** (11), **Haiti** (69), and **Nigeria** (30) as directed by USAID Missions. Results show significant improvements in WASH and infection prevention readiness across countries and can be accessed through the highlighted country program briefs. Each country program informed refinements and improvements in the next country program. As country programs progressed, MCSP began focusing more intentionally within individual wards, where patients are most at risk of infection. As a result, MCSP was able to support health care facility staff to improve monitoring systems and address WASH service shortfalls in their respective wards.

- **Institutional practical and comprehensive WASH and IPC data monitoring, evaluation, and learning systems:** Many countries have WASH and IPC standards that are impractical references for health care facility staff due to length and format. Additionally, WASH data collection systems are largely nonexistent, so little data are available to inform interventions. MCSP worked with MOHs in **Haiti, DRC, Nigeria, and Guatemala** to develop indicators and scorecards that are aligned with international standards. Example scorecards are available for the general facility, labor and delivery, PNC, and sick newborn wards. These scorecards were a central part of the CCA and resulted in substantial WASH servicer improvements in MCSP-partner facilities, as depicted in Figure 8.2. The scorecards are being used to inform official national standards in DRC and state standards in Nigeria. The vice minister of health for hospitals in Guatemala recently announced that the CCA standards and accompanying scorecards will be used throughout all public hospitals in Guatemala (45 facilities).

Figure 8.2. Changes in the proportion of MCSP-supported health care facilities in Guatemala with access to basic WASH services from baseline to endline (n = 11 health care facilities)



- **Strategic integration of WASH and infection prevention activities into broader quality of care and health systems efforts:** At the outset of MCSP, the global WASH and health sectors compartmentalized WASH in health care facilities interventions to narrowly focus on infrastructure improvements (WASH) or on limited IPC training and supply improvements (health). MCSP recognized the need to approach WASH and IPC collectively as cornerstones to the provision of quality health care services. Through the country CCA programs, MCSP demonstrated WASH's contributions to improving quality of care, which are highlighted in an MCSP report. Contributions included increasing community engagement to demand and support cleaner facilities, strengthening monitoring and accountability systems, and increasing access to basic WASH services. Additionally, through national and global advocacy efforts, MCSP lobbied for MOHs to take ownership of WASH as a quality of care issue and worked with governments to cascade this principle throughout national health systems (see advocacy brief). These efforts contributed to the CCA results and improved the quality of care provided to patients, as described in MCSP's **DRC** program WASH video.

Water, Sanitation, and Hygiene in Health Care Facilities Tool, Standards, and Indicators

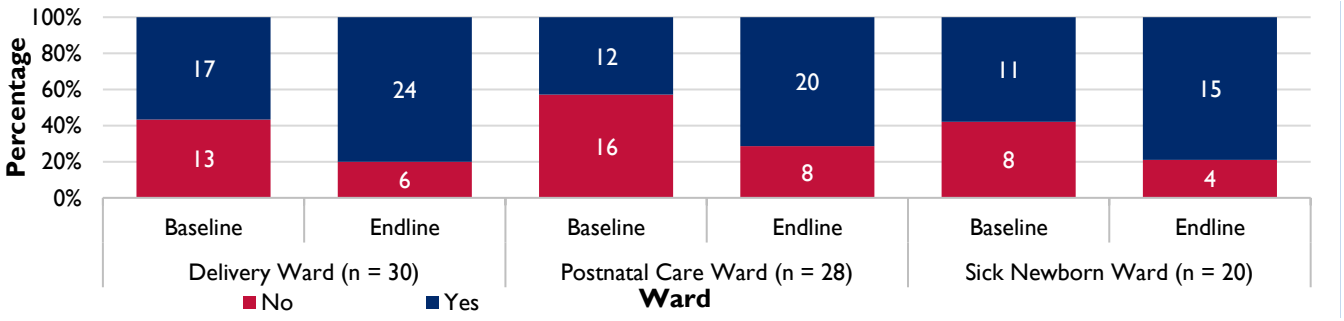
Global

- **Global draft indicators on WASH and infection prevention for labor and delivery ward:** In October 2017, WHO and USAID shared draft global WASH indicators for use in the delivery room. MCSP tested the indicators as part of its CCA program monitoring activities in **Guatemala and Nigeria**, and provided suggested revisions based on implementation experiences. WHO plans to publish the final set of indicators in 2020.

Country

- **Evidence base for WASH and quality of care on the day of birth and beyond:** MCSP and the London School of Hygiene and Tropical Medicine conducted a study in **Nigeria** to provide new insights into caregiver and visitor hygiene behaviors before, during, and after birth, and continuing into a newborn's transition to their home environment. Handwashing was identified as a key barrier to hygiene and IPC, even when water and soap were conveniently available in the delivery room. Only 2% of invasive procedures were performed with health care workers' hands in a state of optimal hand hygiene, while 82% of invasive procedures were performed with health care workers' hands in a state of probable contamination. Mothers and their newborns were visited on average seven times during the stay in the postnatal ward, yet only one visitor was observed washing hands before direct contact with the newborn (out of 69 direct contact observations), highlighting the lack of consideration previously paid to visitors and the infection risk they pose to newborns. The results from the study in Nigeria showed that handwashing behaviors among health care workers are driven first by self-preservation and second by well-being of mother and child. These findings informed the design of CCA activities in **Nigeria and Guatemala**, which aimed to reduce access and motivational barriers to practicing optimal hygiene behaviors in the fight against newborn and puerperal sepsis. Figure 8.3 highlights the pilot intervention's effects on key WASH services at critical points of care in Nigeria.

Figure 8.3. Improvements in the number of health care facilities with access to basic hygiene services at critical points of care in Ebonyi and Kogi states, Nigeria from baseline to endline



The standards, tools, and resources from these country programs were ultimately adopted by the national Ministry of Public Health in Guatemala and the state MOHs in Nigeria (Kogi and Ebonyi). Complete findings and results from the Nigeria research can be found in three peer-reviewed articles, the first of which is published here. A peer-reviewed implementation case study on the Guatemala program is forthcoming.

- **Comprehensive WASH and IPC monitoring and supervision tools for PNC and sick newborn wards:** While global WASH in health care facilities standards were published in 2017, the standards and accompanying indicators only applied to outpatient wards and general health care facility infrastructure. Although many WASH and infection prevention standards exist for PNC and sick newborn care, MCSP was unable to identify global or national monitoring and implementation tools that incorporated all of the basic WASH and IPC standards needed to reduce the risk of neonatal infections. In an effort to address this gap, MCSP consolidated a set of WASH and IPC standards for use in PNC and sick newborn wards, and incorporated them within CCA scorecards and certification systems in **Nigeria and Guatemala**. Many organizations and USAID partners have asked for these tools as references/guides for limiting neonatal infections, including USAID's Organized Network of Services for Everyone's Health Activity in Malawi; USAID's Medicines, Technologies, and Pharmaceutical Services global program; and USAID's Sanitation for Health Activity in Uganda.

- **Retroactive costing analysis of the CCA in Guatemala:** Over the life of MCSP, the global WASH and health sectors realized that little evidence exists related to the cost (and cost-effectiveness) of WASH in health care facilities interventions. To inform future funding and implementation opportunities, MCSP conducted a retroactive operational cost analysis of the CCA in Guatemala. Results can be used to estimate implementation costs per facility. Detailed information on the findings and recommendations are forthcoming.
- **Technical assistance and shared lessons learned from MCSP's global experience:** MCSP conducted a technical assistance visit to Malawi to share research findings and collective implementation experiences with the USAID Mission, national government representatives, and other implementing partners. MCSP also presented at five conferences/global meetings and gave four webinar presentations to an audience comprising global WASH in health care facilities implementing partners and various donors to inform design improvements and research priorities for future WASH in health care facilities activities.

Infection Prevention and Control Response Systems following the Ebola Outbreak

MCSP provided support to the Ebola virus disease (EVD) prevention, response, and recovery in Guinea, Liberia, and Ghana. (Even though Ghana did not have any active cases of EVD, it was still classified as a high-risk country due to its geographical proximity to the affected countries.)

Country

- **Training for health care workers on IPC practices and restoration of health services in Guinea:** In response to the EVD epidemic, MCSP set improved provider knowledge and performance of IPC measures by training providers in 55 facilities in Conakry and three rural prefectures on IPC. To restore and improve health services in areas stricken by the EVD epidemic, the project supported all health facilities in the 20 prefectures most affected to meet the minimum IPC standards through coaching and periodic evaluations, competency-based training and orientation of new staff, and rehabilitation of water and waste management systems.
- **IPC practices and promotion of standards in Liberia**: MCSP improved practices in facilities by introducing and promoting MOH IPC standards and providing whole-site, competency-based trainings on IPC in 77 health facilities in Liberia. In response to the EVD crisis, MCSP completed infrastructure upgrades, such as installation of triages, incinerators, and hand-dug wells, in 48 facilities. Furthermore, MCSP worked with facility staff to build their capacity, conducted a leadership and management development program to support the staff in those roles, and improved the policy environment to strengthen PSE by supporting efforts that included updates to the National Human Resources for Health Policy.
- **National IPC policy and training materials in Ghana:** MCSP supported the Ghana Health Services development of a national IPC policy and guidelines. Based on these IPC guidelines, MCSP conducted whole-site IPC training in all regional hospitals and 77% of the district hospitals across five MCSP-supported regions. Additionally, the project supported these regions to conduct follow-up supportive supervision visits to facilities. In total, MCSP improved the IPC knowledge and skills of more than 10,000 frontline clinical staff and nearly 4,000 frontline nonclinical staff, reaching 99% of all staff at targeted hospitals.

Water, Sanitation, and Hygiene in Households and Communities

Country

- **Household sanitation and hygiene in Mozambique:** In Mozambique, MCSP implemented a Clean Household Approach, which supports household cleanliness improvements through community construction demonstrations and leveraging community health systems to promote USAID's Essential WASH Actions for Nutrition. These actions are aimed at reducing child gastrointestinal illnesses that are associated with undernutrition. They include handwashing, latrine use by all household members, proper infant feces disposal, creation of clean play spaces for children away from soil and animal feces, and disinfection of drinking water. Through these low-cost interventions, MCSP demonstrated increases in household sanitation and hygiene access in Nampula Province, Mozambique, as shown in Figure 8.4. To sustain these improvements, the government should continue leveraging local WASH-related entrepreneurs to support household construction and use of convenient, affordable, and durable WASH products.

Figure 8.4 Improvements in household sanitation and hygiene access in Nampula, Mozambique

Indicator	Baseline (n=720)	Endline (n=420)	Trend	DHS
Improved sanitation facilities (not shared)	11%	21%	▲	22%
Dedicated handwashing station within household	16%	23%	▲	5%
Clean household environment*	70%	74%	►	N/A

* Defined here as a household without animal faeces visibly present in the home and courtyard, including the kitchen, living area, and sleeping area.

- **Community-Led Total Sanitation approach in Kenya:** MCSP used the Community-Led Total Sanitation approach to achieve and sustain "open defecation free" status in the two counties, Kisumu and Migori. This entailed the facilitation of a community's analysis of their sanitation situation, their defecation practices, and their consequences, leading to collective action to become open defecation free. Community-Led Total Sanitation can also stimulate broader household and community WASH improvements. MCSP trained 1,213 community health volunteers in Migori County and 60 volunteers in Kisumu on this approach to implement improved sanitation. Trained volunteers successfully generated collective action among partner communities, resulting in 414 communities nationally certified "open defecation free" (301 in Migori, 113 in Kisumu).

Recommendations for the Future

MCSP was implemented during a period of global awakening to the problems affecting WASH in health care facilities and its impact on meeting SDGs 3 (universal quality health care) and 6 (universal access to WASH). In 2019, the 72nd World Health Assembly adopted a resolution on WASH in health care facilities, which urges member states to establish a roadmap to improve WASH in health care facilities by creating/strengthening national standards, setting targets, collecting actionable data, addressing WASH service inequalities, and integrating WASH into broader quality of care initiatives. MCSP's implementation and research activities contributed to the formation of the resolution. The project's WASH legacy includes insights and recommendations that can inform the design and implementation of country roadmaps that will result in self-reliant national health systems that provide high-quality services.

- **Ensure interventions are behavior change-centered.** Past interventions have focused primarily on training and equipping clinicians to improve IPC. Yet even where access to WASH services is improving, stakeholders (staff, patients, caregivers) do not consistently use them. MCSP's implementation experiences highlight the need for future initiatives to design evidence-based, multimodal, behavior-centered interventions to improve and sustain the habits/routines required to maintain WASH standards in facilities. These interventions should incorporate training, education, and infrastructure improvements, as well as motivation-related interventions, such as persuasion, accountability, modeling, and incentives. Stakeholders are encouraged to design programs that incorporate WASH and IPC from a systems perspective, recognizing that behaviors are everlasting concerns in health care and require comprehensive interventions to sustain compliance and ensure institutionalization.
- **Measure progress against both output and outcome indicators.** Individual health care facilities are unable to make informed decisions on funding and resource allocation because little data exist on the availability, quality, and use of WASH services. Any future data collected should be immediately shared with health care facility management and staff to inform immediate action. The WASH in health care facilities subsector is currently limited to primarily reporting on output and proxy indicators. While these indicators are necessary for routine monitoring and decision making, stakeholders should also invest in measuring related outcomes (e.g., reducing contamination, reducing infections, improving quality of care, savings in time, resources, antibiotic-use) to show impact and support advocacy for increased investments in WASH in health care facilities.
- **Advocate for infection prevention and control.** Access to antibiotics has created a global clinical culture focused on infection treatment, not prevention. This is reflected within supply chain systems that prioritize essential medicines over preventive supplies. With the persistence of health care-associated infections and the emergence of antimicrobial resistance, national health systems must allocate sufficient budget and resources to IPC, requiring greater advocacy for the prioritization of these supplies and materials within supply chain systems.
- **Focus on monitoring systems.** Most countries lack systems for monitoring health office performance in WASH supply chain and maintenance support. In our experience, health care facilities' improvements will plateau quickly unless monitoring and accountability systems are applied to district and provincial health offices and facilities.

Zika

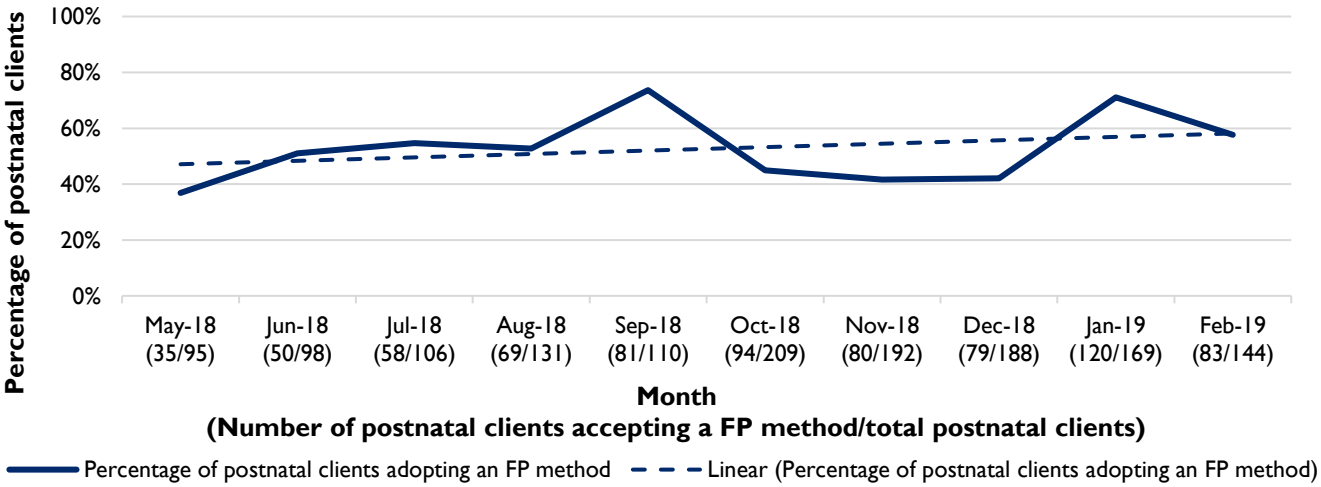
Areas of Focus - Zika

- Providing global leadership for ZIKV outbreak emergency response
- Disseminating guidance, provider tools, and job aids related to ZIKV prevention and care, and support for ZIKV-affected children and their families
- Improving RMNCAH service delivery relevant to the outbreak response with MOHs, including preventing ZIKV-affected pregnancies, and improving QI and mentorship competencies in the context of PNC and support for ZIKV-affected newborns and families
- Increasing coverage and quality of ECD services for children ages 0–3 years, including those impacted by congenital Zika syndrome
- Building provider capacity to care for small and preterm babies, including those affected by congenital Zika syndrome
- Collaborating with community organizations and MOHs to improve local leadership for service delivery

Highlights of MCSP's Legacy

Identified gaps in ultrasound service delivery and strongest sites for identification of possible congenital Zika syndrome in five USAID priority, ZIKV-affected countries in Central America and the Caribbean.	Supported Zika response across the LAC region, training nearly 650 health providers in ZIKV prevention, PNC, ECSB, and ECD.	Described impact of in utero ZIKV exposure on neurocognitive development of children ages 0–2 years via collaboration with the Windward Islands Research and Education Foundation in Grenada.

Figure 9.1. Percentage of postpartum women adopting a FP method in Barbados, Guyana, and St. Lucia



Source: Facility PNC register

Zika

Introduction

In February 2016, WHO advised that the recent cluster of microcephaly cases and other neurological disorders reported in Brazil constituted a Public Health Emergency of International Concern. MCSP responded to the growing epidemic in June 2016 with an initial focus on LAC and later the Eastern and Southern Caribbean (ESC) region (Figure 9.2). Since the start of the response, MCSP focused on developing strategies to increase the capacity of health systems and providers caring for women of reproductive age, pregnant women, newborns, and families at risk of and affected by ZIKV infection. Given widespread challenges in laboratory capacity throughout the region and frequent inability to know which people have been exposed to the complications of ZIKV infection due to common asymptomatic infection, late-appearing complications in infants, and subtle manifestations of in utero ZIKV infection, MCSP strategies necessarily addressed improving RMNCAH service delivery to a broad set of pregnant and postpartum women, infants, and families who were or may have been at risk during the outbreak. MCSP's ZIKV response activities drew on partnerships with local organizations and country governments, and on MCSP's extensive expertise in MNH, FP, ECD, service delivery strengthening, and capacity-building for facility-based QI competencies. Through its programming, MCSP facilitated the following activities:

- Implemented capacity-building activities through subawards distributed to local organizations, national and regional professional associations, and a subnational MOH authority (North Central Regional Health Authority, Trinidad and Tobago).
- Provided short-term technical assistance and remote support to inform the development and improvement of clinical and nonclinical services for women, infants, and families impacted by the ZIKV outbreak.
- Initiated strong partnerships with governments, public health authorities, and public and private facilities.
- Produced and disseminated tools and resources to support service delivery during outbreak response.

Highlights from MCSP's response to the Zika epidemic are below. For more details, please consult the separate MCSP Zika Response End of Project Report.

Figure 9.2. Scope of MCSP's Zika activities throughout the LAC and ESC regions

Key Accomplishments and Results

Resources and Technical Capacity to Inform Outbreak Response Priorities

Global/Regional

- **Landscape analysis:** MCSP conducted a rapid landscape analysis to describe the scope of existing ZIKV tools and materials. The landscape analysis sought to collect training resources and job aids that address prevention of ZIKV infection and management of complications, identify gaps in messaging or target populations within

collected tools, and support identification of highest-priority tools for development and adaptation. In collaboration with ASSIST and K4Health, MCSP documented existing materials for providers, facility managers, and health authorities, including job aids, client resources, training materials, and other resources across the continuum of care. MCSP collected 131 ZIKV-related provider materials from 39 different countries. Most materials were available in English, Spanish, or Portuguese; published by governments and regional normative agencies; and targeted to health providers. Gaps were identified around tools to support counseling, particularly related to the role of FP in prevention of Zika-affected pregnancies, the sexual transmission of ZIKV infection, and tools in Haitian Creole. Based on results, MCSP adapted and developed high-priority materials, integrating ZIKV prevention and management content into RMNCAH-related job aids and other resources, and generating training packages on therapeutic early stimulation and psychosocial support for ZIKV-affected infants and families. These adapted tools were used to standardize regional technical materials with ZIKV content and increase capacity of 650 health care providers and caregivers across the LAC region, including public- and private-sector doctors, nurses, ECD specialists, disabilities specialists, teachers, and parents.

Country

- **Ultrasound capacity assessment:** The utility of global recommendations for antenatal ultrasonography for evaluation of fetal abnormalities consistent with congenital Zika syndrome may be limited by the quality of ultrasound examination, which is known to be highly dependent on both the skills of the ultrasound provider and the technical capacity of their equipment. Gaps in obstetric ultrasound capacity, including in identification of features consistent with suspected congenital Zika syndrome before delivery, may contribute to inefficient and ineffective ultrasound referral patterns following suspected ZIKV infection in pregnancy. Such gaps also impede health providers' ability to provide comprehensive counseling to pregnant women and families on prognosis for infants and family preparations for a ZIKV-affected newborn. MCSP collaborated with ASSIST, the American Institute of Ultrasound in Medicine, and the Society for Maternal-Fetal Medicine to design and conduct a rapid obstetric ultrasound capacity assessment in five USAID priority countries in the LAC region: the **Dominican Republic, El Salvador, Guatemala, Honduras, and Haiti**. The objectives of the assessment included assessing technical capacity of obstetric ultrasound providers to detect features of congenital Zika syndrome, assessing capacity of ultrasound equipment used by providers observed in the assessment, and collecting key data to inform referral pathways for pregnant women with suspected or confirmed ZIKV infection. Across five countries, the team assessed the functionality of 97 ultrasound machines, completed 76 service delivery observations, conducted 65 provider interviews, and carried out 49 ultrasound practice interviews. After analyzing data from these surveys, MCSP, ASSIST, the American Institute of Ultrasound in Medicine, and the Society for Maternal-Fetal Medicine developed priority recommendations for country governments. Recommended actions included building capacity of providers to conduct all standard elements of routine obstetric ultrasound (including GA assessment and anatomic survey) and survey all potential findings known to be associated with congenital Zika syndrome. MCSP recommended the development of onsite, evidence-based standards for clinical management of cases of suspected ZIKV infection in pregnancy, collaboration with professional ultrasound societies, endorsement of a basic standard of obstetric ultrasound services (including IPC), and dissemination of guidelines within pre- and in-service education. Findings from the assessment were shared via five country-specific reports with USAID headquarters, USAID Missions, and MOHs. An additional five-country summary report was developed for USAID headquarters to summarize findings across all five countries.

Development, Adaptation, and Dissemination of Tools and Resources

Global/Regional

- **Resource development:** MCSP developed and disseminated technical briefers, job aids, and training packages in Spanish, English, French, Portuguese, and Haitian Creole to aid in Zika response activities. The MCSP Zika Pregnancy Wheel, which was co-endorsed by PAHO and the Infectious Diseases Society for Obstetrics and Gynecology, includes Zika prevention and management messages, and was translated into five languages, with over 25,000 copies disseminated to 18 countries. The MCSP PNC poster and checklist were adapted to include ZIKV-related clinical guidance. Materials targeted policymakers, frontline providers of MNH and ECD service delivery, endline beneficiaries, MOHs, USAID, and other implementing partners, and disseminated through short-term technical assistance visits, regional conferences, listservs, and the ORB online platform. To increase

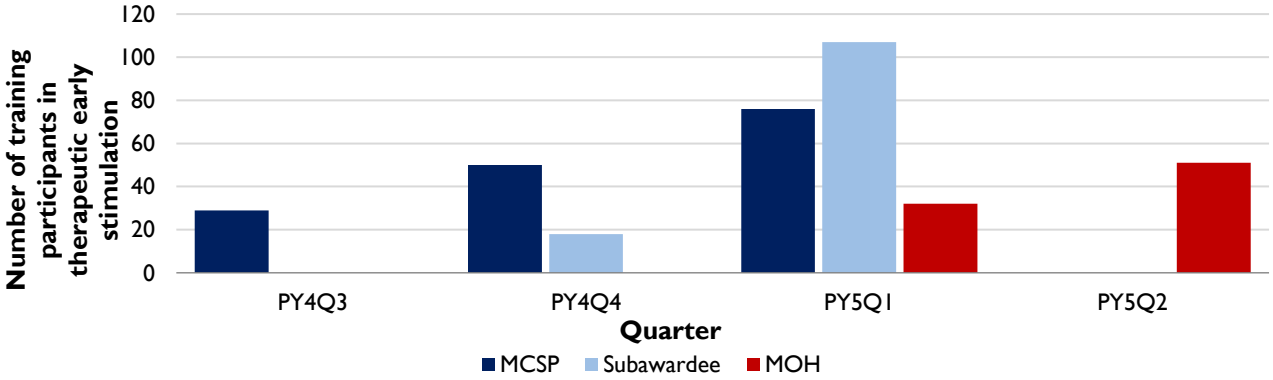
the capacity of health systems and providers caring for women of reproductive age in **Haiti and across the LAC region**, MCSP translated and introduced the LARC LRP in French and Spanish. This LRP provides a comprehensive resource for high-quality service training, with an implementation guide and 10 modules that cover IUDs (hormonal and copper) and contraceptive implants (single and two-rod) in the interval, postabortion, and postpartum periods. PAHO currently uses the LARC LRP in ongoing activities in **Guyana** and other countries in the ESC and LAC region. The Zika ORB domain was promoted to 400-plus frontline health workers through workshops, short-term technical assistance visits, and several regional workshops.

Service Delivery Strengthening in the Eastern and Southern Caribbean Region

Country

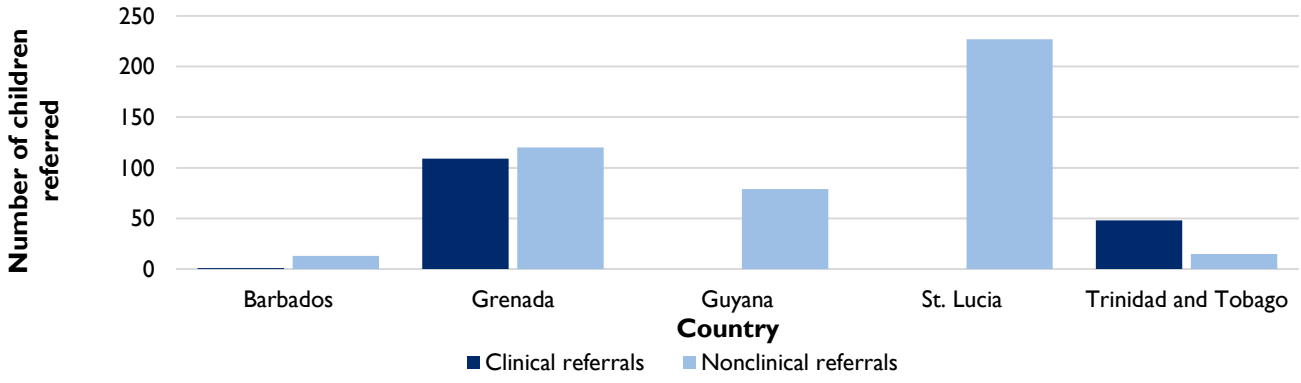
- **Country programming for ECD:** MCSP strengthened national and subnational programming for ECD across six countries in the LAC region **(Barbados, El Salvador, Grenada, Guyana, St. Lucia, and Trinidad and Tobago)** by developing an innovative set of materials on therapeutic early stimulation for children ages 0–3 years old. With this package, MCSP trained 298 health care and special education teachers. To address the needs of the whole family, MCSP developed the psychosocial support package for caregivers. One hundred thirty-seven health providers received training on creation and facilitation of support groups for families of children with delays and disabilities, including congenital Zika syndrome, to teach strategies for stress management and development of support networks. Furthermore, all countries led step-down trainings through subawardees and/or MOHs to further institutionalize higher standards for ECD clinical practice. MCSP also supported institutionalization of ECD through development of model child development guidelines and integrating ECD into three University of Guyana courses to make the subject a permanent part of Guyanese nursing curricula.

Figure 9.3. Quarterly total of early childhood development training participants in therapeutic early stimulation by party responsible for implementation*



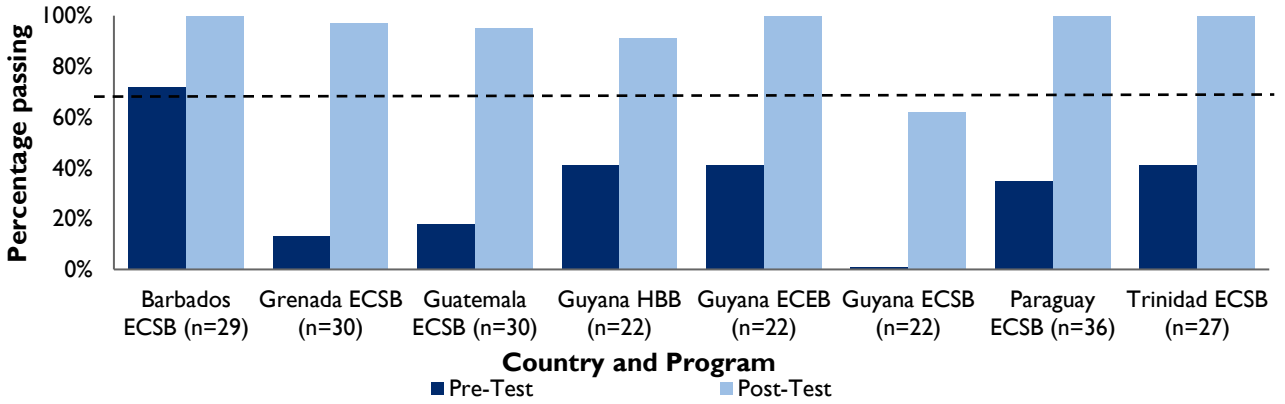
*Countries: Barbados, El Salvador, Grenada, Guyana, St. Lucia, Trinidad and Tobago

Figure 9.4. Number of referrals of suspected Zika-affected children (ages 0–3) to care and support services



- **PNC and QI competencies:** MCSP provided technical updates to staff from 36 service delivery sites across three ESC countries (**Barbados, Guyana, and St. Lucia**) on ZIKV infection prevention and management, PNC, and PPFP, and on introductory QI tools and processes using the MCSP Data Use Package. After each 3-day workshop, MCSP supported staff to develop facility QI plans to monitor ZIKV-related indicators and set goals for improvement in quality of PNC relevant to the ZIKV response. Common indicators chosen by facilities included PPFP counseling and adoption (relevant to prevention of ZIKV-affected pregnancies), EBF (relevant to health of all babies, and critical to counteract any nonevidence-based concerns about risk of ZIKV transmission), and PNC visits within 2 weeks of birth (important for routine care, as well as identification and appropriate referral of babies with suspected complications due to ZIKV infection in utero). An MCSP subawardee, the Caribbean Regional Midwives Association, provided local technical assistance via clinical mentors embedded in participating facilities, who conducted monthly mentorship visits and coached staff on data collection and analysis, using the data dashboards to visualize and identify ways to improve services. By the close of MCSP activities, approximately 92% of MCSP-supported facilities had designed and implemented their QI plans.
- **Essential Care for Small Babies:** Recognizing the need to improve care for small and premature babies, particularly infants with congenital Zika syndrome, MCSP conducted ECSB trainings for 216 health providers across eight countries in the LAC region, as well as a subregional training of trainers for 28 health providers across nine countries. In all countries, knowledge post-test showed improvement, and all participants passed the examination required for certification. The curriculum used objective structured clinical examinations following hands-on learning with MamaBreast and PreemieNatalie models to teach skills in temperature maintenance, appropriate feeding, infection prevention, and management of complications for small and preterm babies, as well as additional content on management of congenital ZIKV infection. Two hundred forty-four trained providers are now anchored within national health systems and are using new knowledge and skills in clinical management. In **Trinidad and Tobago**, the MOH funded additional step-down trainings for an additional 41 providers. The MOHs in **Barbados, Grenada, Guyana, and St. Lucia** all plan to conduct additional ECSB trainings of trainers to increase coverage of these interventions across the ESC region.

Figure 9.5. Percentage of health providers passing pre- and post-tests in MCSP ECSB trainings



Research Support

Country

- **Neuropsychological impact of in utero ZIKV exposure:** In **Grenada,** MCSP partnered with the Windward Islands Research and Education Foundation at St. George's University to describe nature of the impact of in utero ZIKV exposure on neurocognitive development. The primary objective was to ensure children with in utero ZIKV exposure reach their full developmental potential at 1 and 2 years of age by identifying and addressing developmental challenges as early as possible. The foundation measured multiple neurodevelopmental outcomes in a well-characterized cohort of ZIKV-exposed children in Grenada using sensitive measures of cognition, language, fine and gross motor skills, behavior, attention, and social-emotional reactivity. Preliminary results are the ESC region's first to describe the neuropsychological impact of in utero ZIKV exposure in infants in their first 2 years of life. Among 2-year-olds (nine nonexposed and 47 Zika-exposed children), six fell below the

25th percentile using international normative standards.[17,18] All six children were in the Zika-exposed group and were referred for early intervention with the Grenada Citizen Advice and Small Business Agency's Roving Caregivers Programme, an MCSP subawardee that provides home-based services to vulnerable populations across Grenada. Roving caregivers were trained in MCSP's therapeutic early stimulation package and Conscious Discipline, a neurodevelopmentally focused method that emphasizes safety, attachment, and self-regulation.[19]

Recommendations for the Future

The 2015 ZIKV outbreak in the LAC region revealed many gaps in the RMNCAH continuum of care, as well as significant health system weaknesses related to infectious disease diagnosis and surveillance. Through close partnerships with country governments and other local stakeholders, MCSP had the opportunity to assist several countries on their path to self-reliance and identified several key recommendations for future programs

- **Institutionalize ZIKV prevention and vector control messages across a range of settings.** The tools and resources developed by MCSP to share evidence-based guidance on prevention and management of ZIKV-affected pregnancies will be available in the event of future ZIKV outbreaks in the same or different regions.
- **Increase the capacity of local facilities and laboratories for higher-throughput disease reporting, testing, results communication, and analysis of reportable disease data, including for ZIKV infection.**
- **Invest in communication and accountability mechanisms that build trust between communities and country governments, maintaining mechanisms for multisectoral communication and collaboration.** Collaboration with other USAID implementing partners, professional associations, and community-based organizations strengthened the depth and breadth of MCSP's response within the region impacted by the outbreak.
- **Identify all appropriate providers of ECSB, PNC, therapeutic early stimulation, and psychosocial support, and clarify training cascades within those cadres before future trainings.**
- **Integrate therapeutic early stimulation and psychosocial support curricula into providers' pre-service training, and reinforce in-service learning on these areas through the establishment of coaching and mentoring.** The integration of therapeutic early stimulation and psychosocial support competencies into existing health systems will help to ensure sustainability and local ownership that extends beyond infants with congenital Zika syndrome to children with a range of disabilities.
- **Update policies and systems to ensure an enabling environment for FP counseling, informed FP choice, and services for families and children impacted by congenital Zika syndrome and other disabilities, and clarify the benefits of healthy timing and spacing of pregnancy (for mothers, infants, and families) in areas negatively impacted by shrinking birth rates.**
- **Invest deeply in partnerships with MOHs, local clinical specialists, and professional associations to ensure acceptability and sustainability of changes to service delivery, particularly in short-term response activities.** MOHs and other stakeholders are well positioned to continue service delivery strengthening to prepare for potential future epidemic response.
- **Continue to develop champions to provide coaching and technical assistance in QI competencies.**

[17] Fernandes M, Stein A, Newton CR, et al. 2014. The INTERGROWTH-21st Project Neurodevelopment Package: a novel method for the multi-dimensional assessment of neurodevelopment in pre-school age children. *PLoS One*. 9(11): e113360. doi: 10.1371/journal.pone.0113360.
[18] Villar J, Fernandes M, Purwar M, et al. 2019. Neurodevelopmental milestones and associated behaviours are similar among healthy children across diverse geographical locations. *Nat Commun*. 10(1): 511. doi: 10.1038/s41467-018-07983-4.
[19] Bailey BA. 2015. *Conscious Discipline*. Oviedo, Florida: Loving Guidance Inc.

Health Systems Strengthening & Equity

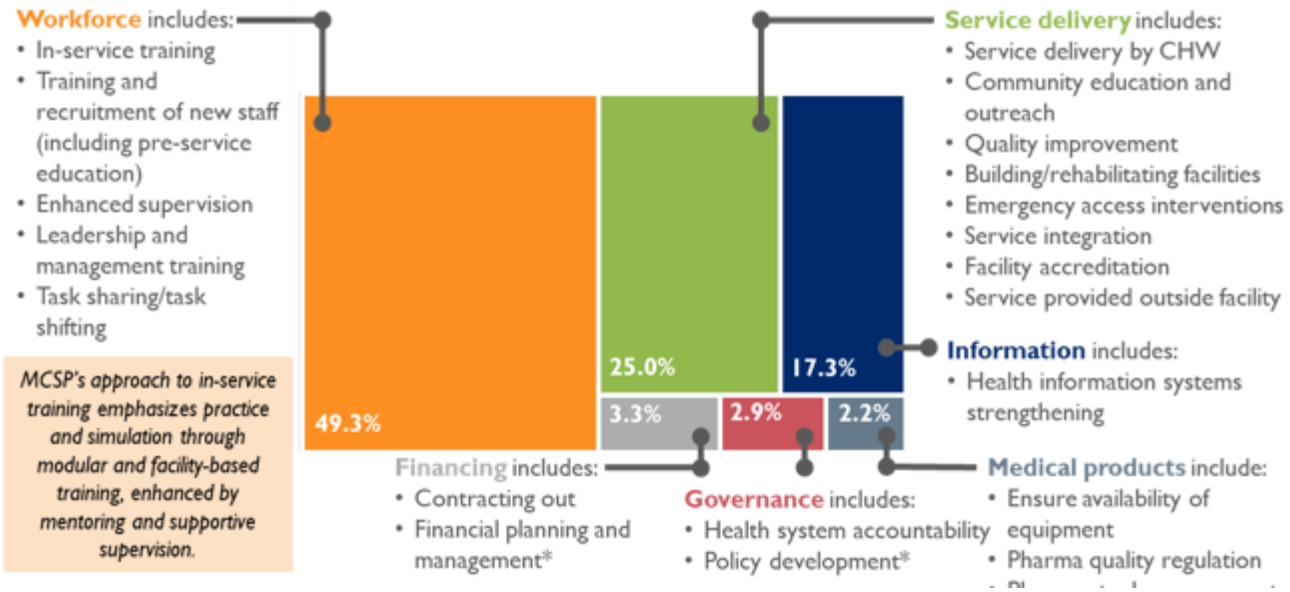
Areas of Focus - HSS and Equity

- Advancing integration of HSS and RMNCAH programming for improved outcomes through global technical leadership
- Supporting country programs to strengthen subnational management, human capacity development approaches, and financing for sustained improvements to RMNCAH
- Generating actionable evidence on financing requirements to inform RMNCAH planning
- Providing analytical support to country programs to inform equity and gender sensitivity of RMNCAH programming

Highlights of MCSP's Legacy

Institutionalized improved health sector management approaches to strengthen subnational management for RMNCAH in seven countries.	Strengthened pre-service, alternate models for in-service, and mentorship approaches to support improved RMNCAH in more than 20 countries.	Improved financial planning and generated evidence for domestic resource mobilization to sustain RMNCAH plus nutrition services in more than six countries.

Figure 10.1. Breakdown of HSS interventions implemented through country programs in 2017/18



Note: This graph summarizes the HSS strategies and categories included in USAID Acting on the Call 2017 report and the interventions denoted with an asterisk (e.g. policy development) represent additional HSS strategies that were added by MCSP to the analysis, to better capture the breadth of HSS interventions and strategies implemented by the project's country programs. For each systems category (e.g., workforce or service delivery), the strategies are ordered in descending order of frequency across country programs which were active in PY4.

Health Systems Strengthening and Equity

Introduction

Sustained improvement of RMNCAH outcomes requires delivery of a set of proven high-impact interventions at all levels of the health system, strong information systems to measure progress and inform decisions, effective leadership and governance, and adequate domestic financing, particularly as donor support transitions. Health gains can only be sustained through integration within strong underlying health system structures and processes. MCSP's approach to HSS focused on addressing barriers that directly affect service delivery, in particular, strengthened leadership and management, cost analyses to inform resource allocation, and workforce capacity development. Beyond weak health systems, many countries face significant inequities in RMNCAH outcomes and access to care along lines of patient socioeconomic status and other demographic factors. The global community recognizes that reaching the most underserved populations is critical to achieving RMNCAH, broader SDG, and universal health coverage goals. Accordingly, MCSP designed and implemented high-impact pro-equity interventions, and supported their scale-up to underserved populations. MCSP also used equity-related data to assess the reach of these programmatic approaches.

Key Accomplishments and Results

From the community to the national level, MCSP fostered improvements in human resources, planning, leadership and management, information systems, and financing to address barriers to effective service delivery. MCSP built the capacity of local actors at national, subnational, and facility levels to be the drivers of system strengthening, including introducing approaches for financial analysis and integrated district management. A systematic mapping of MCSP's HSS work across 32 country programs showed that MCSP strengthened health systems through all of its country programs. Half of all activities within country work plans included HSS-focused strategies identified in USAID's *Acting on the Call* 2017 report. As seen in Figure 10.1, of MCSP's HSS activities, half fell under workforce, one-quarter under service delivery, and approximately one-fifth under information systems. Financing, governance, and medical products functions comprised a relatively smaller portion of MCSP's HSS activities. HSS activities were further disaggregated by activities that provide direct inputs to system functions and activities that undertake comprehensive strengthening of performance drivers (i.e., activities that fundamentally change how the system operates). One-third of MCSP's country-level activities strengthened health system performance drivers.

Strengthened Subnational Health System Management for Improved RMNCAH

Subnational health managers are responsible for planning, managing, monitoring, and supervising health activities in facilities, engaging community members, and tackling the issues that prevent people from accessing health care. Despite the importance of these core competencies, many subnational health managers—though clinically trained—do not have management training. MCSP developed holistic strategies to increase broader management capacity.

Country

- **Rapid Health Systems Assessment tool:** MCSP developed the Rapid Health Systems Assessment tool to: 1) quickly diagnose challenges at the subnational level that may affect RMNCAH services; 2) prioritize key areas for strengthening; and 3) identify opportunities in the health system. MCSP conducted the assessment in **Guinea, Mozambique, Nigeria,** and **Rwanda**. In addition, the Rapid Health Systems Assessments found broader health system challenges and opportunities at the peripheral levels of the health systems across the four countries. These trends indicated a need for subnational managers—including those responsible for the delivery of care—to have strong general management abilities, authority to make decisions proactively, and strategic coordination skills to achieve results. The analyses informed the creation of tailored local project activities and subnational decision-making in all four countries. For example, MOH officials in **Guinea** cited the assessment in determining support needs at the regional and district levels. In **Rwanda**, the Rapid Health Systems Assessment findings demonstrated the importance of understanding how to scale up successful interventions, which led to MCSP support for costing the scale-up of successful interventions.
- **Comprehensive Approach to Health Systems Management:** MCSP supported district health managers to improve planning and use of resources; prioritize system bottlenecks that constrain high-quality services, develop local solutions, and identify local resources to alleviate those bottlenecks; and support improved performance and quality at service delivery sites in **Guinea** and **Tanzania**. In Tanzania, participants found that the Comprehensive

Approach strengthened local accountability and motivated individual performance for planning and management. In Guinea, the government institutionalized key aspects of the Comprehensive Approach for national scale-up into annual planning tools to allow managers across Guinea to identify root causes of weak health systems and take corrective actions.

- **Institutionalization of a management course in Guatemala:** In Guatemala, MCSP implemented a course with 84 subnational health managers across 30 project-supported municipalities in the Western Highlands to identify and analyze health system challenges that prevented progress on RMNCAH outcomes. Participants developed action plans with corrective activities to leverage local resources and solve the health problems they identified. Furthermore, with improved skills in stakeholder coordination and resource mobilization, participants submitted 39 funding requests to stakeholders, including local NGOs, implementing partners, and municipal governments, to carry out improvement activities; 97% (38) of the requests were financed. At the end of the course, the MOH gave official work and education credits to 75 successful course participants, which proved to be a helpful design feature of this work, as it incentivized participants to remain engaged throughout the course. MCSP handed over a complete course implementation guide to the MOH, who intends to scale up the course to other municipalities.
- **Improved data use for management in Haiti:** MCSP's Services de Santé de Qualité pour Haiti (Quality Health Services for Haiti) project worked in close collaboration with the MOH to provide technical support to all 10 of the country's health departments. MCSP collaborated with the health departments to conduct coaching visits to provide ongoing mentorship and strengthen management best practices, including using analyses from information systems for decision-making and adequate resource allocation. By the end of the project, the health departments' capacity to plan and evaluate data to inform resource decisions had improved, as attested by the greater number of monthly supportive supervision visits conducted by the MOH, higher data accuracy, and improved service indicators through regular statistical monitoring and reporting.

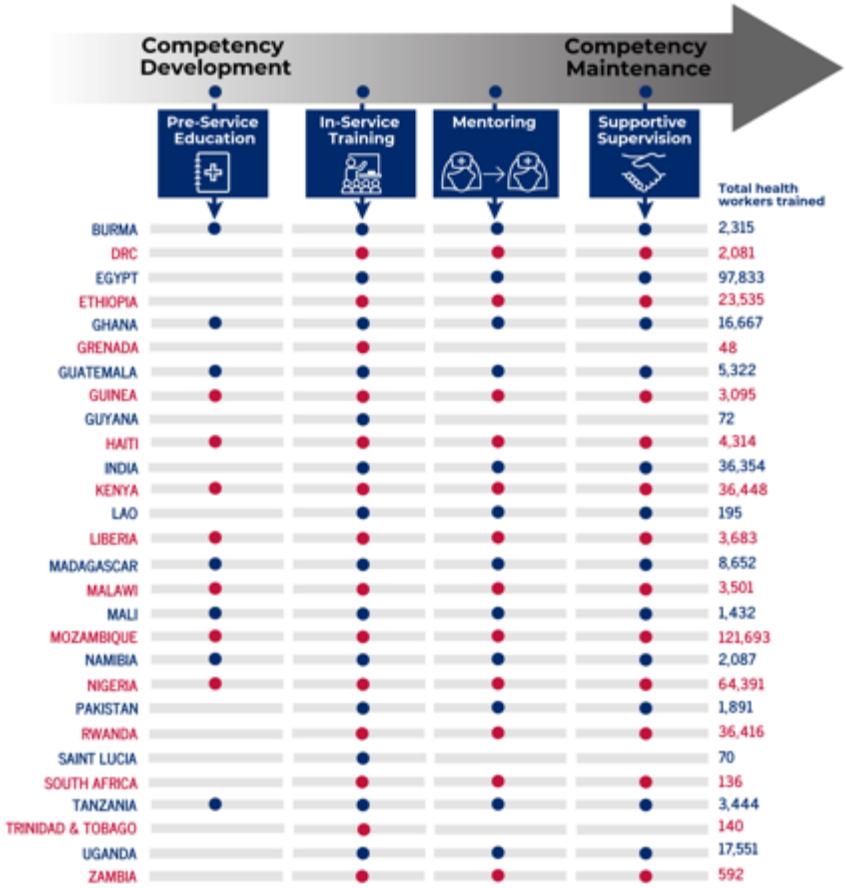
Innovative Human Capacity Development Approaches

MCSP contributed to learning and produced recommendations for evidence-based approaches for strengthening human capacity development to achieve sustained quality and coverage of high-impact RMNCAH interventions.

Global

- **Program learning and resources for strengthening mentorship approaches:** MCSP documented program learning and key principles for mentoring approaches based on experiences from 23 country programs across 19 countries and a literature review, leading to the creation of implementation principles for mentoring programs and documenting lessons from **Rwanda** and **Liberia.** These principles informed MCSP programs and were globally disseminated via the Fifth Global Symposium on Health Systems Research in 2018. MCSP learned that mentoring approaches often include aspects of data use for decision-making and link to formal in-service training and QI approaches. The principles recommend that mentoring programs should identify and build upon existing national structures and processes whenever possible to improve institutionalization, and that careful thought on mentor training, preparation, and sustainable incentives is important to program design.
- **Global knowledge sharing on human capacity development approaches:** MCSP disseminated programmatic lessons around its human capacity development approaches (see Figure 10.2), including the completion of a synthesis brief. The brief synthesized key lessons from country case studies and identified key recommendations to institutionalize and scale up pre-service education, in-service training, mentorship, and supportive supervision.

Figure 10.2: Human capacity development interventions and number of health workers, volunteers, and other facility staff reached, by country*



*Cadres include clinical health care workers (doctors, nurses, and midwives), community health workers, community health volunteers, and non-health personnel.

Country

- **Strengthened PSE:** MCSP's PSE programs applied a systems-strengthening approach to ensure competence upon graduation in 12 countries. MCSP used a rapid needs assessment tool to identify gaps within the PSE system and prioritize activities in a comprehensive manner. In **Tanzania,** to ensure sustainability of MCSP-supported PSE systems strengthening, MCSP worked closely with the zonal health resource centers to build their capacity. An end-of-project evaluation showed that MCSP-supported graduating students had significantly higher levels of skills competence than those from nonsupported schools. In **Liberia**, MCSP supported intensive efforts to reestablish and strengthen midwifery and lab technician PSE systems, including at some midwifery programs managed by faith-based institutions. Midwifery graduation pass rates increased from 81 to 97% within 1 year. In **Ghana**, integrating eLearning into teaching resulted in building national and institutional digital literacy and use of technology in 31 nursing and midwifery schools. In addition, fixed amount awards built local capacity and increased self-reliance while achieving measurable results.
- **Alternative approaches to in-service training and supportive supervision:** Twenty countries implemented alternative and evidence-based approaches to in-service training and supportive supervision, often integrated with mentorship. In **Madagascar,** the approach to human capacity-building included provision of LDHF training in facilities, combined with an enhanced approach to supportive supervision. Clinical outcomes improved, with the proportion of women screened for pre-eclampsia in ANC rising from 41 to 92% from 2015 to 2017 and the maternal mortality ratio decreasing from 242 to 20 deaths per 100,000 live births from 2015 to 2018. Madagascar also evaluated its enhanced approach to supportive supervision after training and found providers and supervisors considered it acceptable and effective.

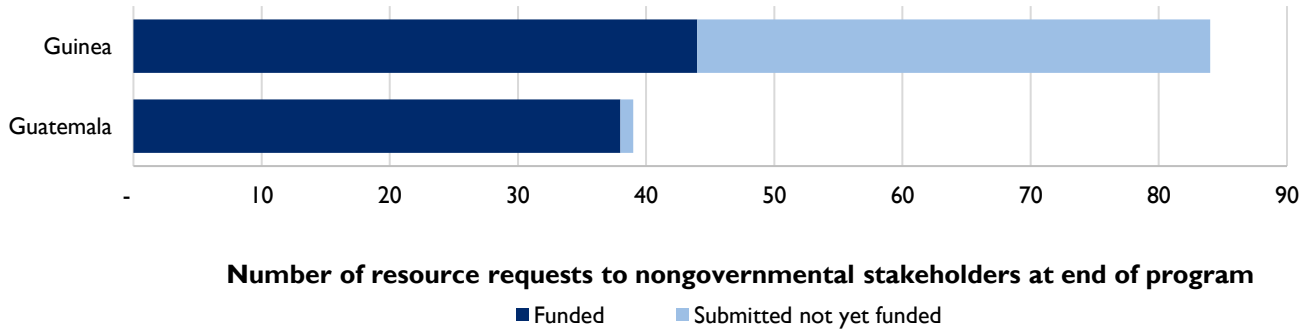
Improvements to Financial Analysis and Planning for Sustaining RMNCAH Interventions

Adequate domestic financing to minimize financial burden on populations for RMNCAH is a critical component of a country's journey to self-reliance. Accordingly, MCSP generated country-specific evidence and planning tools to improve domestic resource mobilization efforts and the efficient use of financing for RMNCAH services.

Country

- **Evidence to inform resource allocation and influence advocacy for greater domestic RMNCAH financing:** To generate evidence on the financial costs of transitioning MCSP programming to partner governments, MCSP conducted multiple analyses that estimated the costs of scaling and sustaining interventions in PPFP and ENC in **Rwanda**, and an essential child health package in **Uganda**. The outputs of these analysis have been used in dialogs with both country governments on how to sustain these interventions through domestic resources or other programmatic support. MCSP also supported the institutionalization of the community-based health planning and services (CHPS) tool for the **Ghana** Health Service by disseminating the tool and training users at national and regional levels. Now officially endorsed by the Ghana Health Service, the MCSP-developed tool has helped regional- and district-level health planners to estimate investment and annual operating costs for community-based primary health care services.
- **Local resource mobilization for resolving health system bottlenecks:** Through MCSP's work to strengthen subnational managers' capacities, MCSP incorporated training curricula on local resource mobilization. As part of the Comprehensive Approach in **Guinea**, district health teams created 84 resource requests with 52% receiving funding by the end of the program. In **Guatemala**, district managers in the Western Highlands submitted 39 requests, of which 97% were funded (see Figure 10.3). These funds were aligned with the system constraints identified by participants as part of the management courses discussed earlier. Other programs, such as the **Liberia** PSE support, also worked to mobilize domestic and partner sources to sustain MCSP investments.

Figure 10.3. Funded resource requests for local health systems strengthening in Guinea and Guatemala



- **Assessment of financial bottlenecks for RMNCAH in Uganda:** In tandem with its work on child health costing in Uganda, MCSP undertook an analysis of challenges in funding RMNCAH and primary health care services from national level to facility level. The assessment showed that facility-level funding was often insufficient to provide comprehensive RMNCAH services, and that additional domestic resource mobilization coupled with improvements in public financial management practices and efficiency was one avenue to resolve these challenges. The MOH planned to use the findings to help inform their broader health financing reform discussions and their scale-up of RMNCAH-focused performance-based financing.
- **Improvement of sustainable financing for essential primary care and RMNCAH drugs in Nigeria:** In Ebonyi State, Nigeria, MCSP worked with the State MOH and State Primary Care Health Care Development Agency to develop and disseminate a strategy and planning tools to improve financing for essential primary care and RMNCAH drugs through a revolving drug fund pilot. In addition to obtaining the State MOH's endorsement of the strategy, MCSP also led the institutionalization of financial, logistics management, and M&E tools with the State MOH as it began implementation of the strategy.
- **Sensitization of municipal leaders of nutrition financing in Guatemala:** To promote increased financial investment in health and nutrition from municipalities in Guatemala, MCSP and the Financial Technical

Assistance to Municipalities Directorate implemented a virtual course, "Municipal Investment in Health and Nutrition," which was targeted to staff in 30 MCSP-supported areas. Implemented with the Ministry of Finance, the course sensitized municipal leaders on chronic malnutrition and how local budget investment in key nutrition and food interventions can help to address chronic malnutrition rates.

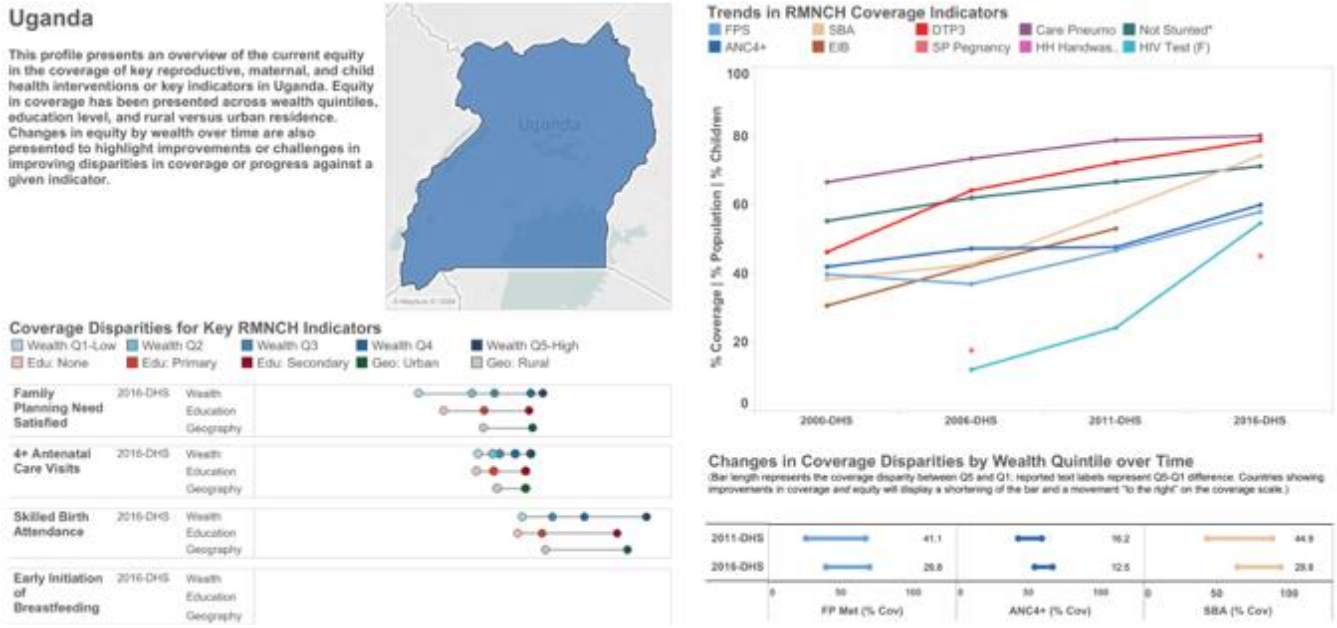
Implementation of Pro-Equity Approaches and Strengthened Equity Measurement

MCSP also promoted equitable access to quality health care services for women, newborns, and children, and has used data to adapt programmatic approaches to address and learn from persistent equity challenges. MCSP designed and implemented high-impact pro-equity interventions, and supported scale-up of those interventions to reach underserved populations.

Global

- **Global equity dashboards:** MCSP constructed equity dashboards and cross-country comparisons for MCSP-supported countries that analyze disparities in coverage by wealth, education, and urban/rural residence for selected high-impact interventions across MCSP technical areas to inform country-level discussions for equity-focused programming (Figure 10.4).

Figure 10.4 MCSP equity analysis dashboard (partial illustrative example from Uganda)



Country

- **Implementation of pro-equity approaches:** MCSP identified and implemented promising pro-equity interventions, which were likely to reach the underserved by shifting services to the community level and/or relying on delivery by workers with less formal training. Further information can be found in the equity brief.
  - MCSP supported **Uganda, Kenya, Malawi, Nigeria, Tanzania, Madagascar, Liberia, India, Pakistan,** and **Haiti** to adopt RED/REC to achieve high levels of immunization coverage across all population groups.
  - In **DRC** and **Nigeria**, MCSP supported implementation of the iCCM approach to child health.
  - In **Mozambique** and **Haiti**, MCSP supported the scale-up of ADMSA to prevent PPH during home birth.
  - In **Ethiopia, Mozambique,** and **Liberia,** MCSP supported community use of CHX.
- **Creation of equity measurement tools and methodologies:** In **Burma**, MCSP assisted the government to construct an asset index tool based on census data from more than 10 million households that can be used to inform targeting of a variety of social programs. The tool was used by a social franchise network to validate the socioeconomic profile of its beneficiary in a study of out-of-pocket payments. In **Nigeria**, MCSP conducted an

exploratory geospatial analysis using geospatial modeled surfaces on proxies of socioeconomic status and geocoded service availability data to identify potential areas where programming could better address underserved populations to identify areas.

- **Identification of barriers to RMC:** MCSP examined barriers to institutional delivery for underserved populations that are not defined only by wealth but other characteristics, such as ethnicity, religion, and age, in **Nigeria and Guatemala** to tailor RMC approaches to better reach these populations. MCSP analyzed the relationship between RMC indicators and socio-demographic characteristics of women and girls surveyed after giving birth in facilities in Guatemala (N=140) and in Nigeria (N=428). This analysis did not demonstrate any statistical difference between examined indicators (including report of verbal abuse and of receiving respectful care) across women's ages, marital statuses, educational statuses, parities or primary languages spoken at home. One third of Guatemalan women interviewed in the community cited belonging to an indigenous group as a reason for mistreatment in childbirth (34.2%) and some women interviewed and participating in community focus groups mentioned that Ladina (non-indigenous) women are treated better in childbirth and that poor women are more likely to be mistreated. In Nigeria, some women participating in community focus groups noted that certain groups of women are more likely to be mistreated in childbirth in facilities including poor women, women belonging to a certain religion, and women who speak certain languages (ethnicity; specific results varied between Kogi and Ebonyi States). More detailed quantitative and qualitative results are included in the forthcoming manuscripts, including implications for future RMC programming in the study settings.

Recommendations for the Future

Strengthening health system functions is the backbone of creating a sustainable system that can deliver a basic package of RMNCAH and primary care services. As countries make progress on their journeys to self-reliance, they will need to consider the financial resources needed to improve service capacity and coverage while reducing undue financial burden of the population to meet broader universal health coverage goals. Accordingly, programs have additional opportunities to incorporate HSS activities to increase coverage and quality of RMNCAH services:

- **Mainstream financing approaches that provide costing data on scale-up and financial bottlenecks**. MCSP has provided critical information on the costs of maintaining high-impact interventions in select countries; mainstreaming these approaches in all country engagements is critical to support nationwide scale-up of approaches and maintenance of these approaches after projects have ended. This work could be combined with larger system-level analytics to understand financial bottlenecks of RMNCAH services with the goal of improving domestic resource mobilization to create more self-reliant health systems capable of delivering high-impact RMNCAH interventions.
- **Improve human resource motivation, retention, and accountability**. Though MCSP has developed the capacity of health workers to provide high-impact RMNCAH services in more than 32 countries, additional activities could focus on supporting long-term health worker motivation and retention. This could include examining workplace conditions that undermine quality services and demotivate staff, developing performance-based incentives, engaging district managers to clarify authority structures that allow staff to address problems, and engaging with facility managers and community structures to strengthen accountability mechanisms.
- **Measure equity.** MCSP has developed strategies and methodologies to better measure and use data on dimensions of equity; however, more could be done to mainstream these approaches into program monitoring to better assess the equity impacts of identified interventions. Strategies to achieve this include: incorporating pro-equity targeting during program design; identifying equity gaps by socioeconomic status, geographic location, membership in religious or ethnic minorities, gender, age, or other characteristics; incorporating equity measures into a broader measurement strategy, including baseline and endline equity measurement to assess program contributions to narrowing coverage inequities; capturing data on the economic status of program beneficiaries even where equity is not one of the program goals; and supporting managers to use disaggregated routine data to identify underserved geographical areas and develop strategies for reaching those populations.

Community Health

Areas of Focus - Community Health

- Supporting national partners to increase coverage of high-impact RMNCAH interventions at the household and community level and integrate community health and civil society engagement as important components of their health strategies
- Engaging communities and civil society as essential partners in achieving health for all
- Stimulating global dialog on the importance of community health in preventing child and maternal deaths

Highlights of MCSP's Legacy

MCSP contributed to global thought leadership and advocacy to advance community health and civil society engagement in RMNCAH, as demonstrated by the ICHC.	MCSP supported government CHW programs in 14 countries and built capacity for community engagement approaches in eight countries.	MCSP contributed to institutionalization of community health in national policies and strategies in 10 countries.

Figure 11.1: Community health interventions in Rwanda, Egypt, Ethiopia, DRC, and Nigeria

MCSP Community Health Highlights

MCSP working in community health and civil society engagement in 18 countries, as illustrated by these selected highlights

Community prevention and management of PPH

MCSP built the capacity of the community health program in Rwanda to reduce maternal deaths in the community by improving prevention and management of PPH among women delivering at home. This was done by equipping **4,144** CHWs with the skills to provide community-based services such as provision of misoprostol. As a result, the proportion of home deliveries receiving misoprostol increased from **14%** in PY2 to **52%** in PY3.

National CHW strategy and implementation

In Egypt, MCSP worked closely with the Ministry of Health and Population to develop a national CHW strategy for its **14,000** CHWs. The new strategy promotes CHWs as key actors in Egypt's journey to self-reliance through the increased reach of community-based service delivery for all Egyptians, including the most vulnerable.

Community organizing and capacity-building

In Ethiopia, MCSP supported communities and health care providers to engage in ongoing dialogue, planning, collective action, and monitoring of outcomes. MCSP noted an increase in the proportion of pregnant women attending at least four ANC visits (54.5% before and 64.7% after) and who received a home visit by health workers within two days of birth (48.5% before and 59.4% after). Community self-efficacy, collective action, effective leadership and participation, also improved significantly from baseline to endline.

Community health management information system

MCSP supported DRC to improve the HMIS and community health HIS in Tshopo and Bas-Uélé Provinces from early 2017 to early 2019. This included technical and financial support to strengthen community HIS reporting, provision of data collection registers and forms, and training for CHWs and their supervisors in **119** communities.

In Nigeria, MCSP developed and integrated the community HMIS and logistics management information system addenda into the integrated community case management curriculum, allowing the capture of private sector data for the first time, with the potential for future incorporation of public sector data in the national DHIS 2 database.

Community Health

Introduction

Attainment of global health goals, including health-related targets of the SDGs and aims to achieve primary health care for all, is highly dependent on development of equitable and resilient systems to address community health. Over the life of the project, MCSP worked at the global level and in 18 countries to advance community health and civil society engagement for the prevention of child and maternal deaths. The pressing need to strengthen and integrate community health platforms into national systems guided MCSP's community health strategy at each level. Globally, MCSP advocated with policymakers and donors regarding the importance of both community health and civil society engagement and contributed to learning on effective and sustainable practices. At the national level, MCSP worked to institutionalize community health and civil society engagement as part of national health systems, policies, and programs, and build capacity for their implementation. At the subnational and community levels, MCSP increased community participation and ownership in decision-making, resource mobilization and allocation, promotive and preventive health, service demand and utilization, monitoring, and accountability.

Key Accomplishments and Results

Institutionalization of Community Health

As a global project, MCSP contributed to global technical leadership, advocacy, and learning on community health and civil society engagement, often in collaboration with other global partners.

Global

- **ICHC and 10 critical principles:** MCSP played a central strategic leadership role in the coordination, planning, and execution of this Johannesburg, South Africa, gathering in March 2017, working with conference cohosts USAID and UNICEF, in collaboration with WHO and the Bill & Melinda Gates Foundation. The conference advanced thinking on community health as part of the national health system and went beyond CHW programs to highlight communities as active participants in their health. Participants included 22 official country delegations and others from MOHs, academia, international NGOs, and local CSOs, in addition to the organizing institutions. The 10 critical principles for institutionalizing community health (short and long versions) were a product of the conference. MCSP convened the event, "Harnessing the Power of Communities to Advance Equity and Primary Health Care for All" (May 6, 2019 in Bethesda, Maryland and online) to revive attention to the principles and focus attention on the way forward. health, and disseminate the principles, in Bethesda, Maryland, and online. The principles also were disseminated at a WHO technical consultation on institutionalizing iCCM (July 2019). Country action plans, including areas where needs for additional information were identified, informed the themes of webinars hosted by MCSP post-ICHC to promote continued learning exchange on topics pertinent to ICHC country priorities including community HISs, digital tools for community health, CHW resources including the new WHO guideline, social accountability, and community-level data use. The momentum generated at ICHC 2017 has carried forward into ongoing collaborative efforts (without MCSP input) to develop community health roadmaps at country level to guide the scale-up of primary health care and plans for a subsequent conference in Africa.
- **Publications to advance community health:** MCSP's manuscript "Hubris, humility and humanity: expanding evidence approaches for improving and sustaining community health programmes" makes an important case in the peer-reviewed literature for expanding acceptable types of evidence pertinent to community health, beyond randomized controlled trials. "Beyond the building blocks: integrating community roles into health systems frameworks" helps health decision-makers better see, plan for, and resource community health as part of national health systems. MCSP also identified implementation principles published in Annex 6 of the WHO evidence map of social, behavioral, and community engagement interventions for RMNCH.

Country

- **National policies and strategies:** MCSP supported development of national strategies and policies on community health workforce programs and community mobilization in 10 countries (**DRC, Egypt, Ethiopia, Haiti, Ghana, Guinea, Mozambique, Namibia, Rwanda, and Tanzania**). For example, in **DRC**, MCSP

supported development of the country's national community health strategy, which positions the community as a leading partner, actor, and beneficiary of all health interventions and services. In **Egypt**, MCSP worked closely with the Ministry of Health and Population to develop a strategy for its 14,000 CHWs. In support of this new strategy, MCSP facilitated a workshop for two governorates in which MCSP's CHW Coverage and Capacity tool was used to help national ministry staff, governorate-level leadership, and CHW supervisors to prioritize CHW tasks and target populations. In **Guinea** and **Haiti**, MCSP supported the drafting of the community engagement sections of the national health policy and community health strategy, respectively. In **Rwanda**, MCSP supported development of the national community mobilization framework and training materials. In one MCSP target district, 332 villages developed their own community action plans to address key health priorities, such as low enrollment in health insurance, lack of hygiene and toilets, low uptake of ANC and PNC visits, low FP prevalence, etc. From January 2017 to March 2018, the number of women accessing PNC at the community level nearly doubled.

- **Community-based health planning and services scale-up in Ghana:** MCSP supported the institutionalization of the CHPS costing tool for the Ghana Health Services by disseminating the tool and training users at the national and regional levels. The tool helps regional- and district-level health planners to estimate annual investment and operating costs required to establish, maintain, and operate CHPS zones by costing plans, comparing costed plans against the CHPS national implementation guidelines, identifying funding gaps, and mobilizing resources for community-based primary health care services.

Scale Up of Community-Level Technical Interventions

MCSP supported implementation and scale-up of community-level interventions across technical areas. For interventions specific to individual technical areas, please refer to the corresponding report sections for newborn health, child health, immunization, FP, malaria, nutrition, and WASH.

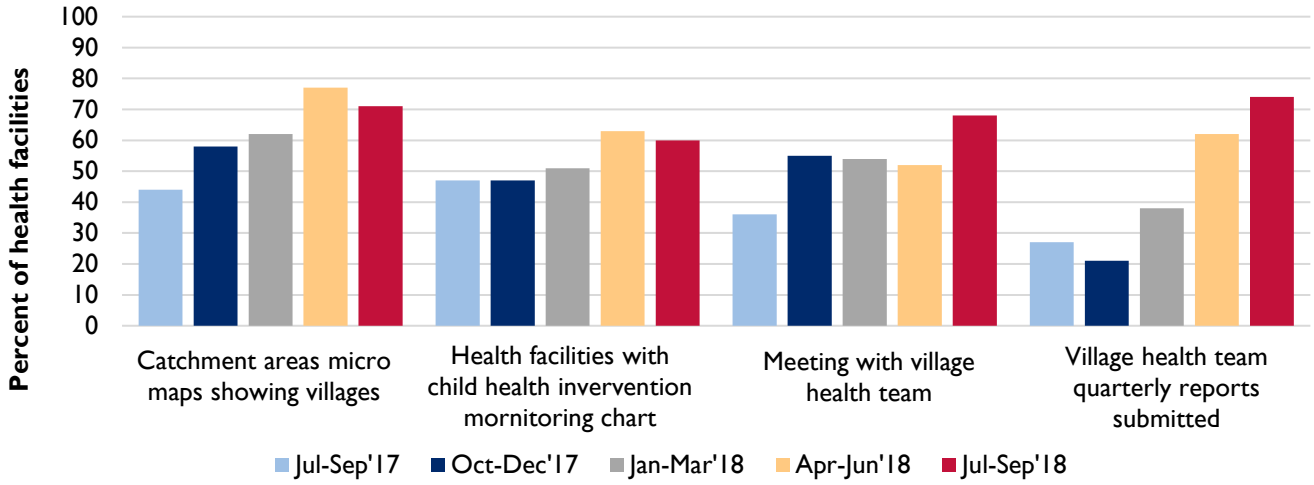
Global

- **Expansion and analysis of data from the Community Health Systems Catalog:** MCSP shaped data collected by Advancing Partners and Communities for the 2017 update of its online Community Health Systems Catalog. The catalog includes data on interventions implemented by community providers in 25 countries. Of these, MCSP analyzed data from the 22 USAID priority countries for MCH. Results and recommendations identify areas to improve national policies and strategies related to national CHW programs and community engagement. The CHW landscape analysis was disseminated in the CHW-themed webinar hosted in conjunction with WHO, in which the new WHO CHW guideline was presented and discussed. The intention is for stakeholders to use these resources when planning and developing where and how progress can be made in countries in this area using actual data.

Country

- **Adaptation of the RED/REC approach:** MCSP country teams (**Haiti, Kenya, Malawi, Mozambique, and Uganda**) adapted and applied RED/REC tools and strategies to technical areas beyond immunization. The use of the RED/REC tools and microplanning approach improved targeting of beneficiaries and tracking of clients for multiple health interventions, and enhanced community engagement, contributing to bottom-up, user-centered planning for service delivery. Figure 11.2 shows increases in RED/REC practices from Uganda.

Figure 11.2. Implementation of adapted RED/REC practices in 137 facilities in MCSP demonstration districts in Uganda (Luuka, Kaliro, Ntungamo, and Sheema), Jul 2017–Sep 2018



Community Health Workforce Planning and Capacity-Building

MCSP developed tools and worked with its partners to build capacity of CHWs and community groups, combining technical skills with organization, management, communication, and accountability skills.

Global

- **Development of the CHW Coverage and Capacity tool to support CHW workforce planning:** MCSP developed an Excel-based tool to help CHW program planners address CHW design and workload questions such as the number of CHWs required to carry out a specific scope of work, or conversely, what scope of work is feasible for a set number of CHWs serving a predetermined population. MCSP applied the tool at subnational level in **Egypt and Rwanda** and enabled D-Tree to use it in **Zanzibar** to support government design of a new cadre of community health volunteer. The tool will also be shared with 10 country delegations via a presentation at the WHO Global Malaria Program's technical consultation on institutionalizing iCCM in July 2019 for them to consider using in their own contexts. Many factors shape CHW program design and implementation; MCSP has found that the CHW Coverage and Capacity tool is best used in conjunction with in-country champions to facilitate information gathering and consensus building on assumptions to be used, and to feed recommendations into decision-making processes.

Country

- **Community health workers:** MCSP's work with CHWs spanned technical areas and touched most MCSP country programs including those in **Burma, DRC, Egypt, Ethiopia, Ghana, Guinea, Haiti, Kenya, Malawi, Mozambique, Namibia, Nigeria, Rwanda, and Tanzania**.
  - **LDHF training of CHWs in Egypt:** MCSP strengthened skills and knowledge of more than 10,000 CHWs in 23 of Egypt's 27 governorates using hands-on learning followed by continuous practice with feedback and mentorship. Pre- and post-test training scores across all skills assessed increased an average of 15%, with greatest improvement in problem-solving and persuasion (23% and 19%, respectively); final scores ranged from 83% to 94%.
  - **HIV testing by CHWs in Namibia:** MCSP supported Namibia's Ministry of Health and Social Services to strengthen CHW program performance and management, and to introduce and scale up community-based HIV testing and counseling in five northern districts with high HIV prevalence. The program grew to a nationwide platform of 1,688 CHWs reaching nearly 3,000 hard-to-reach communities in all 14 regions, and contributing to reductions in maternal, neonatal, and child morbidity and mortality. Between July 2016 and June 2018, 138 CHWs provided HIV tests to 18,259 people at the community level, and linked the 366 newly identified HIV positive clients to care, treatment, and support. This demonstrated that the program platform

could successfully deliver integrated primary health care, HIV, and social services to vulnerable, hard-to-reach populations. Additional information can be found in Namibia's country summary.

- **CHWs deliver RMNCAH services in Rwanda:** Between September 2016 and August 2017, MCSP supported training, equipment, and supervision for two cadres of CHWs (4,780 *animatrices de santé maternelle* [community MH workers] and 9,560 binomes) in all villages of the 10 targeted districts. These CHWs reached 516,090 people through home visits, community dialog, and community radio.
- **RMNCAH service delivery through CHWs in Haiti:** In Haiti, 1,480 MCSP-supported polyvalent CHWs conducted 255,439 home visits for RMNCAH services. Additionally, CHWs contributed to the active monitoring and maintenance of 12,027 clients living with HIV on antiretroviral therapy (ART) during a 2-year period, through a community-based team approach that included peer educators, mobile technology, and social and behavior change communication messages.

Community Engagement, Demand Generation, and Social Accountability

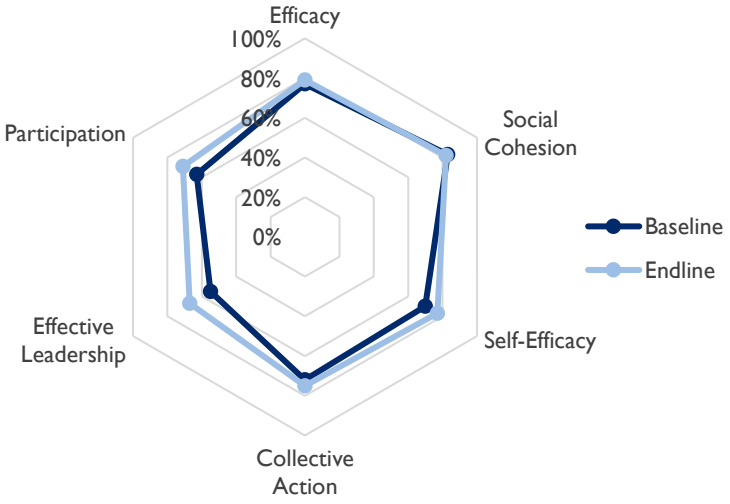
Global

- **Social accountability tools, resources, and technical assistance:** MCSP developed and disseminated the *Social Accountability Resources and Tools* guide and co-sponsored a consultation on M&E for social accountability in conjunction with the CORE Group community-centered HSS WG (November 2018). A draft document on M&E for social accountability interventions was presented at the Partnership for MNCH Partners' Forum in India in December 2018, with the final product disseminated in 2019. In **Malawi**, MCSP completed a literature review of global and national documents on social accountability and documented two case studies in conjunction with UNICEF Malawi and the National Social Accountability Task Force. The case studies fed into the Malawi Community Health Strategy launched in 2017 and a roundtable meeting in Lilongwe on September 6, 2018, that MCSP facilitated on behalf of USAID and UNICEF Malawi. The roundtable brought together 52 representatives from the Government of Malawi, international and national NGOs, donors, and partners to share learning, discuss and refine corresponding roles, and generate recommendations for a common agenda to sustain and scale up social accountability approaches in Malawi. Roundtable reports and recommendations were shared with a newly formed social accountability knowledge-exchange network in Malawi, where efforts to institutionalize coordination mechanisms continues.

Country

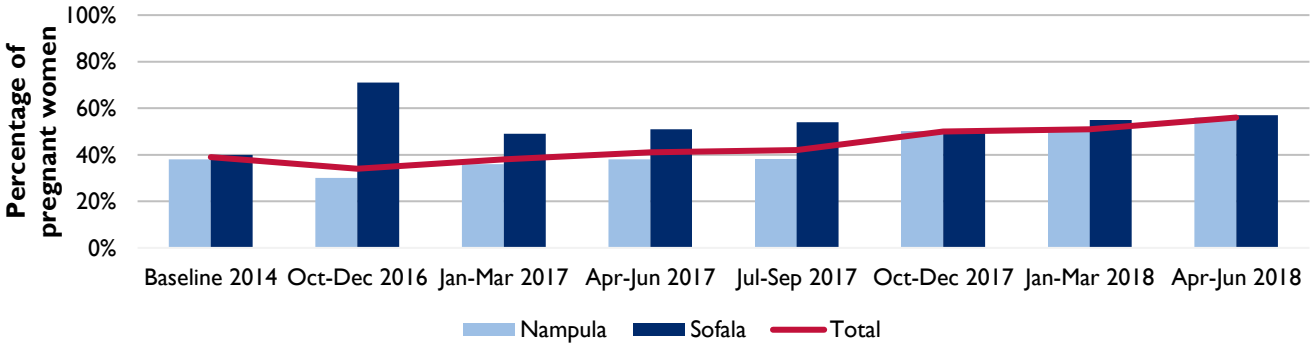
- **Community organizing and engagement:** MCSP supported country-level implementation of community engagement approaches for improved access and quality of RMNCAH services in eight key countries: **Ethiopia, Guinea, Haiti, Malawi, Mozambique, Rwanda, Tanzania, and Zambia**. The project promoted participation and empowerment of community members and frontline workers in decision-making, service delivery, and monitoring quality services using approaches that included Partnership Defined Quality, Community Score Card, and the Community Action Cycle. MCSP helped to integrate community participation into national-level community health strategies and district work plans and budgets, to improve community capacity strengthening, community ownership, linkages to communities, and social accountability.
  - **Ethiopia:** MCSP enhanced community capacity to coordinate, monitor, and evaluate CBNC interventions. The team measured changes in community capacity, including significant improvements in the domains of self-efficacy (4 point improvement), collective action (6 point improvement), effective leadership (2 point improvement), collective efficacy (3 point improvement), and participation (2 point improvement) among nearly 2,000 community members interviewed (Figure 11.3). Additionally, MCSP encouraged and supported communities and health care providers to actively engage together in ongoing dialog, planning, collective action, and monitoring of outcomes. MCSP noted changes in service use and community capacity measures associated with the project's intervention. These included percentage increases in a) pregnant women identified (from 70.9% to 82.1%); b) pregnant women attending at least four ANC visits (from 54.5% to 64.7%); and c) mothers who received a home visit by health workers within 2 days of their baby's birth (from 48.5% to 59.4%).

Figure 11.3. Respondents' perception of community capacity measures organized under six capacity domains



- **Malawi:** In two focus districts, MCSP used the My Village My Home interactive tool to engage communities and empower village leaders to track newborns' immunization status in their communities. The percentage of fully immunized children increased within 2 years from 75% to 88% in Ntchisi District and from 68% to 91% in Dowa District.
- **Mozambique:** Fifty-nine co-management and humanization committees, comprised of community and health facility representatives, implemented the Community Score Card approach in conjunction with Partnership Defined Quality to increase citizen participation in QI of health services. Measured improvements included greater attendance of male partners at ANC consultations, from 64.8% in 2016 to 77.5% in 2018 in Nampula province, and from 27.4% in 2016 to 44.3% in 2018 in Sofala province. In addition, as Figure 11.4 shows, the percentage of pregnant women who attended four or more ANC visits at a project-supported facility increased from 39% at baseline to 56% in June 2018, in conjunction with CHW activities to promote MNH via home visits and community outreach and education sessions.

Figure 11.4. Percentage of pregnant women who attend four or more ANC visits at MCSP-supported facilities



- **Zambia:** MCSP facilitated the formation, revitalization, and strengthening of provincial, district, and community engagement structures to improve RMNCAH services and accountability. Health care workers at the district (404) and facility (558) levels were trained to apply sound community engagement approaches in all 43 districts in four target provinces. This improved the capacity of facilities to plan, execute, and monitor community engagement and social and behavior change communication activities as observed by improvements in MOH and RMNCAH continuum of care plans from 2018 to 2019. The project also found greater stakeholder involvement in community health in the 23 districts where MCSP facilitated the formation of district health promotion teams.

Community Health Information

Global

- **Supporting Communities to Use Data—a resource package:** In collaboration with the Health Data Collaborative's Community Data subgroup, MCSP developed a resource package focused on supporting communities to use data. The Supporting Communities to Use Data resource package partially addresses a need identified by ICHC country delegations for comprehensive resources, tools, and guidelines for national governments to develop policies in community-level RMNCAH data use and for frontline health workers to generate and use high-quality data.

Country

- **Community-level data use:** MCSP strengthened community HISs at the local level, including system strengthening, data reporting completeness, quality, and use, and advocated for their integration into national HMISs and HISs in **DRC, Egypt, Haiti, Mozambique, Namibia, Nigeria, Rwanda, Tanzania, and Uganda**. The strengthening and integration of community data into national systems improves decision-making by CHW supervisors, program managers, and health system planners, improves client services, and encourages greater advocacy for investment in health services. In **Egypt**, senior officials used CHW data to highlight their household coverage and demonstrated how results can be leveraged for program advocacy. In addition, MCSP used participatory approaches and tools to embed mechanisms at the community level in **Ethiopia, Haiti, Mozambique, Rwanda, and Tanzania** through which community members and subnational officials came together routinely to reflect on existing processes and results to inform future action and planning. This approach has supported a culture of collective learning and adaptation based on the learning by doing and learning by experience models. For additional information on MCSP's work related to HISs, please see the MMEL summary in this report.

Recommendations for the Future

The Astana Declaration revives attention and commitment to primary health care, and yet 40 years post-Alma Ata, community health platforms are still not fully integrated into the formal health system and are not consistently prioritized for investment as part of national health strategies. Going forward:

- **Invest in community health systems**. Countries and donors need to prioritize funding that is in keeping with community health's impressive return on investment and its outsized potential contribution to prevent mortality.
- **Go beyond traditional health systems building blocks**. Conceptually, policymakers and financiers need to think in terms of systems for health that go beyond the traditional health system building blocks, to address the multiple systems and sectors that affect the health of populations and communities.
- **Integrate community and civil society engagement in national health systems**. Community health and civil society engagement need to be more fully integrated into national health systems, with particular attention to reaching vulnerable populations. That includes the community health workforce, strategies that support community participation and empowerment, formal mechanisms for partnership with civil society, and incorporation of community data and use within national HMISs.
- **Increase national-level coordination**. Coordination and support are needed at the national level to continue to develop and support community health roadmaps, harmonize partner approaches, and support implementation down to the "last mile" where vulnerable women, children, and families live.

Digital Health

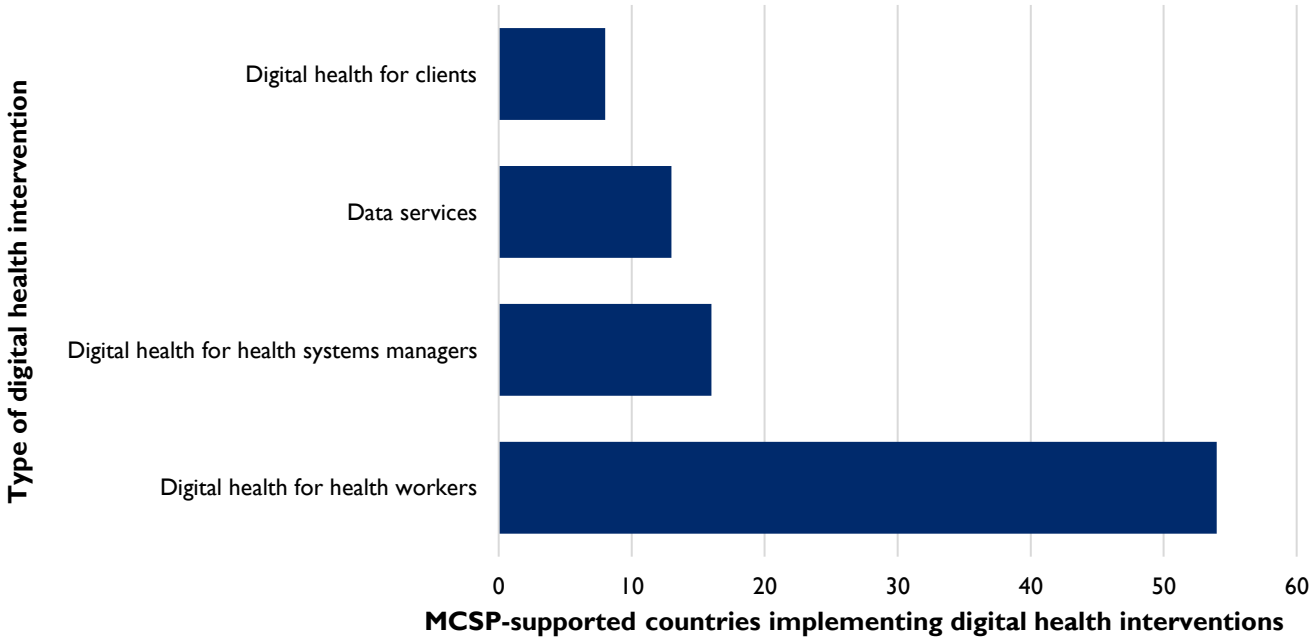
Areas of Focus - Digital Health

- Developing frameworks and disseminating best practices for digital health design and implementation
- Strengthening the in-country enabling environment for effective and sustainable uses of digital health
- Scaling national-level digital health interventions

Highlights of MCSP's Legacy

MCSP introduced the Digital Health Investment Review Tool, a global good to improve resource decisions in digital health.	MCSP developed the Health Information Mediator in Tanzania, an interoperability solution to enable data exchange for all systems in the country.	MCSP launched the HelloMama program in Nigeria, providing age- and stage-based messaging to pregnant women, which has been taken up by the government of Cross River State.

Figure 12.1. Digital health interventions implemented under MCSP by type



Digital Health

Introduction

There has been a tremendous increase in the availability of mobile phones and interest in the use of digital health approaches over MCSP's lifetime. In addition, the World Health Assembly passed a Resolution on Digital Health in 2018, and WHO expects to launch its Digital Health Strategy in 2019. MCSP has contributed to better RMNCAH health care practices and outcomes through effective and efficient uses of digital technology at global and country levels. This was achieved using a three-pronged approach:

- Support the development of global goods and dissemination of best practices
- Develop and scale innovative digital solutions across the spectrum of digital health interventions
- Strengthen the enabling environment within the countries where MCSP worked

The goals of the project were to:

- Identify opportunities to leverage digital health to help MCSP interventions to improve health outcomes in MCSP country programs, and promote scale-up of existing proven digital health interventions in those countries
- Provide technical assistance to field programs that have included digital health activities in their work plan, and identify opportunities to integrate digital health in new field programs
- Support the implementation of quality standards for digital health activities, including promoting the Principles for Digital Development, related to MCSP technical areas.

Key Accomplishments and Results

Dissemination of Learning and Collaborating with Other Digital Health Stakeholders

Global

- **Leadership in communities of practice:** MCSP supported knowledge sharing and dissemination of information, best practices, and resources through active contributions to the Global Digital Health Network, a network of more than 3,500 members across 100+ countries. MCSP's digital health lead was nominated by the network's advisory board to serve as co-chair in April 2018 and has since led monthly webinars and meetings on topics of interest and maintained an active mailing list and web presence. Additionally, the co-chair led the development, fundraising, and production of the 2018 Global Digital Health Forum, resulting in over $75,000 raised to support travel scholarships and conference costs.
- **Introduction of and support to global goods:** MCSP provided ongoing feedback to the design of the WHO Digital Health Atlas and served as a champion for its use through country visits and international conferences. The atlas serves as a tool to address fragmentation by making landscape analyses of digital health interventions available by country and functional area. MCSP demonstrated the utility of the atlas by ensuring that its digital health activities are listed in the Digital Health Atlas. To improve the decision-making around investing in digital health, MCSP also led the development of the Digital Health Investment Review Tool, a global good that supports adherence to the Principles for Digital Development and aims to increase donor and country capacity for selection and oversight of digital health investments. The tool was presented for feedback at numerous conferences, including the Global Digital Health Forum 2017, DHIS2 Symposium, ICT4D 2019, USAID Mini-University 2018, and the CORE Group 2019 conference. The Digital Health Investment Review Tool is being used as the model for the USAID Digital Investment Tool and the Digital Impact Alliance's Digital Principles Maturity matrix. Through its support to mPowering, MCSP also launched and maintained the ORB platform—an global web-based library of training resources for frontline health workers on Zika, FP, ANC, etc., spanning more than 50 languages (see the forthcoming report on mPowering's achievements).
- **Global learning with the MAMA program:** MCSP completed and disseminated the *MAMA Lessons Learned* report, which cataloged 14 lessons across the global program's implementations **in Bangladesh, India, South Africa, and Nigeria**. The report details key lessons learned using the mHealth Assessment and Planning for Scale toolkit as a framework for assessing each country program. Following the publication of the executive summary and report, webinars were held in September and November 2018, with dissemination through the

Global Digital Health Network, which included representation from country, funder, and global levels, as well as updates on the current and future plans of these programs.

Creation of an Enabling Environment for Digital Solutions

Country

- **National implementation of interoperable HISs in Tanzania:** MCSP in Tanzania implemented and supported the health-e-link health information mediator in Tanzania, which serves as a crucial interoperability layer in the national health information architecture. The mediator currently connects 13 systems between five national and specialized hospitals and legacy systems (with four more expected), facilitates approximately 2.2 million data transactions per month, and delivers more than 500 files monthly. MCSP has handed over operation of the Health Information Mediator to the Tanzania Ministry of Health, Community Development, Gender, Elderly, and Children, as a strategy to increase the prospects for sustainability of this landmark interoperable system.
- **National eLearning initiatives in Ghana:** MCSP supported the formation of the eLearning secretariat at the MOH in Ghana to sustain eLearning, building capacity of subject matter experts and tutors to design and develop eLearning content. This served as the foundation for building 11 eLearning modules and hosting several existing trainings through the MOH in partnership with Moodle. These courses are now available to more than 35,000 Ghanaian nurses at the click of a button.

Support for Health Workers

Country

- **Improved health worker knowledge through eLearning**. In **Zambia**, MCSP developed four eLearning courses covering ANC; consolidated HIV; maternal, adolescent, infant, and young child nutrition; and integrated management of acute malnutrition—outpatient therapeutic program services. The courses are now available on the MOH eLearning portal: www.learnehealthzambia.org. They allow nurses to earn continuing professional development points, which are recognized by the General Nursing Council and Health Professions Council of Zambia. In **Ghana,** MCSP also supported development of the HelloNurse interactive story learning app with the MOH. It contains malaria and HIV modules and is integrated into the resources available to students alongside the eLearning modules. HelloNurse is available on the MOH eLearning site and the Google Play store and has been installed more than 8,000 times.
- **Digitalization of the community HMIS:** In **Egypt**, MCSP developed the digital HMIS, which is the electronic system supporting the local community health worker cadre known as Raedat Refiat (RR). This system supports all components of the RRs' work, including household registration, home visits, reporting, and work planning. The system also serves as a central registration database for the locations, training status, and demographic information of RRs, so will aid the Ministry of Health and Population in making decisions on resource allocation and planning for deployment of new RRs as the current workforce reaches retirement age. MCSP also developed 12 counseling videos, which are included in the application, to support RRs in delivering information about healthy behaviors. The system includes an application for RR supervisors at the facility, district, and governorate levels. The application puts aggregate data on RR performance and work plans at supervisors' fingertips, while also providing supervisory checklists to use during their visits. The system has been introduced in five governorates of Egypt, covering more than 1,200 RRs and will be handed over to the Ministry of Health and Population with installation in their server room.
- **Improvements to quality of care on the job through decision support:** In **Tanzania**, MCSP introduced mobile decision support tools for facility- and community-based health workers in Mara and Kagera regions, covering 28 health facilities and more than 200 CHWs. These applications guided health workers step-by-step through the Ministry of Health, Community Development, Gender, Elderly and Children guidelines for antenatal, postnatal, and newborn health and provided services to more than 6,700 pregnant women and their infants. In **Haiti**, MCSP supported the rollout of the mSante system to 266 peer educators, who used this mobile tool to provide community-based ART services through household visits.

- **Strategies to connect health workers for better client care:** MCSP has used WhatsApp, a free and widely used text, voice, and video messaging tool, to improve communications between health workers. In **Rwanda**, **Kenya** and **Uganda**, WhatsApp was used to connect mentors and mentees to improve knowledge between visits and consult on difficult cases. In **Mozambique**, health workers established referral networks to share information on the management of complications, stabilization of clients for referrals, and preparedness of the referral hospital to receive referred clients.

Support for Care Seekers

Country

- **Mobile technology for effective client engagement:** MCSP implemented phone, text, and integrated voice response reminders in multiple country contexts to reach clients outside the health facilities. The WeMUNIZE program in **Nigeria** implemented short message service text and voice call (recorded by community leaders) reminders for mothers to take their children for RI appointments, and signed up 4,000 subscribers. In Western **Kenya**, MCSP helped health facilities to use phone calls to track and communicate with immunization defaulters. MCSP also worked in **India** to help develop an integrated voice response system for FP providing three functions to clients: FP method choice (providing information on methods available and the considerations for each), client feedback on services provided, and appointment scheduling for next FP visit.
- **Scale-up of client tools to the state level:** MCSP supported multiple country programs in creating digital tools for mothers seeking care. In **Nigeria**, MCSP was the lead coordinator for the pilot of the HelloMama messaging platform in two states (Cross River and Ebonyi). This activity provided age- and stage-based behavior change messages to its subscribers, including more than 60,000 pregnant women and 26,000 spouses or family members. More information can be found in the GDA and Nigeria HelloMama summaries in this report.

Support for Health Systems Managers

Country

- **Adaptation and reuse in existing systems**: In **Malawi**, MCSP completed the addition of RI commodity tracking information to the cStock system in two districts, leveraging prior investments made in this national system that was tracking child health commodities at the village clinic level. Before this system was implemented, stock-out rates were as high as 64% for key immunization commodities; they now range between 0 and 8%. The system has expanded to two additional districts outside of MCSP with Save the Children leveraging Pfizer funding, thereby improving access to these critical commodities by a larger population.
- **Development of a foundational pillar of Namibia's Health Information Architecture**: MCSP developed Namibia's Master Facility List, which will serve as the central reference point for health facility information by all other systems used in Namibia, eliminating redundant lists and facilitating data exchange across systems. This website covers more than 580 public and private sector facilities and provides information on the location, staffing, and services available at each. The system was transitioned to be hosted at the Office of the Prime Minister, and 10 staff within the Ministry of Health and Social Services Health Information and Research Department were trained on its installation and maintenance. In addition, multiple partners were trained on data exchange with the site.

Data Services

Country

- **Encouragement of data use through dashboards**: In **Madagascar**, MCSP scaled up the use of facility dashboards, where MNH data is reported via short message service, aggregated, and analyzed in 820 hospitals and primary health facilities. The dashboards use four service quality indicators and four outcome indicators, which are color-coded red, yellow, and green depending on the degree to which the standard is met. Results are displayed publicly at the facility level and used in monthly QI meetings. Use of these dashboards, coupled with mobile mentoring and other programmatic interventions, helped to drive key indicators such as the percentage of

women screened for pre-eclampsia, women who received a uterotonic, and successfully resuscitated infants from 85%, 71%, and 41% at baseline to over 90% at the end of 3 years (98%, 96%, and 91%, respectively).

- **Use of geospatial data to better serve the population**: In **Nigeria**, MCSP supported the Bauchi and Sokoto State Primary Care Development Agencies in the development of GIS maps to better define catchment areas for the RI program. Nearly 300 maps were developed to update under-1 population estimates, identify missing settlements, and more accurately measure distances to the health facilities.

Recommendations for the Future

- **Ensure that digital health innovations address the architecture and enabling environment of HISs as a whole.** Digital health programs do not perform in a vacuum; they can be strengthened or hindered by the technology and the policy environment in which they exist. In addition to improving disease- or program-specific HISs, digital health innovations should also focus on strengthening the national HIS, including developing strategies, architecture, and governance. These more overarching investments support the sustainability of individual systems and programs and recognize that digital health and HIS underpin all programs that support health improvements. This approach is in line with the principles of donor alignment for digital health to prioritize national plans and invest in national strategies, maturity continuum assessments, and country capacity-building.
- **Continue to support the human element as innovations and digital health tools are introduced.** As advances in technology continue to disrupt the health sector, programs should ensure that management and the people who are charged with using these tools are supported. Investments in change management should be made alongside program introduction so that the potential of these new approaches can be fully harnessed and allow for the organizational changes that may be required to adapt to these new ways of doing business.

Measurement, Monitoring, Evaluation, and Learning

Areas of Focus - MMEL

- Improving RMNCAH metrics and data collection tools at global, national, and subnational levels
- Strengthening the functioning of national HISs, leveraging digital solutions
- Increasing the capacity of MOH partners in routine RMNCAH data synthesis, visualization, and use for improved decision-making
- Answering priority implementation research questions to drive improved RMNCAH programming
- Studying systematic support for scale-up of high-impact RMNCAH interventions
- Supporting measurement in all MCSP country programs

Highlights of MCSP's Legacy

MCSP strengthened managers', health care workers', and community volunteers' capacity to visualize and use data to improve service quality and care seeking behaviors at the district, facility, and community levels.	MCSP assessed MNCH data elements in national HMISs in 24 of 25 USAID MCH priority countries, and FP data elements in a subset of these. This contributed to revisions in globally recommended metrics and in the content of national HMISs in key countries. See map above for countries.	MCSP tested new RMNCAH indicators, gathering evidence on their validity, feasibility, and/or usefulness; the collected data informed revisions to national HMISs in Madagascar, Rwanda, Nigeria, and Tanzania.

Figure 13.1. Twenty countries using data dashboards to support decision-making with MCSP support (by technical area and health system level)

Measurement, Monitoring, Evaluation, and Learning

Introduction

The Roadmap for Health Measurement and Accountability, which marked the beginning of the SDG era, outlined the need for renewed commitments from countries, partners, and donors to improve metrics, strengthen routine HISs, and foster data-driven decision-making. In keeping with this agenda, MCSP aimed to help ensure that:

- Health care workers, managers, and policymakers have and use the right information, at the right time, to make evidence-based decisions on the delivery of RMNCAH health services within their country
- RMNCAH stakeholders at the global level are better able to track progress across countries toward the goals, objectives, and targets of global initiatives

MCSP supported countries to advance the seven strategic actions outlined in *The Roadmap for Health Measurement and Accountability*. Creating a culture of data use and continuous learning and improvement was at the heart of MCSP's approach. Operationalizing data use for action and accountability is a cyclical process, as depicted in USAID MEASURE Evaluation project's evidence-based decision-making process. MCSP moved beyond measurement of health processes, including quality of care, to document improved accountability, equity, and health outcomes. Each component in the decision-making process was considered in the development of all MCSP data use activities and short-cycle learning questions to generate actionable information that MCSP and partners used to improve program implementation. MCSP supported capacity-building, coordination, and collaboration to strengthen demand for and the collection, availability, and use of data for action, primarily targeting the district, health facility, and community levels.

Key Accomplishments and Results

Improved Metrics, Data Collection Tools, and Methodologies

Global

- **Engagement with global M&E groups:** MCSP worked with global groups to develop improved RMNCAH indicators, better data collection tools, and practical M&E guidelines that contributed to improved measurement of intervention quality and health outcomes both globally and nationally. These global groups included, among others: ENAP; EPMM; Health Data Collaborative facility and community routine data, interoperability, and digital subgroups; RBM M&E reference group; Child Health Task Force M&E subgroup; WHO/UNICEF WG on immunization data quality and use; and a PPFP M&E sub-WG. Examples of products developed with these groups include *Analysis and Use of Health Facility Data: Guidance for Programme Managers*, *Count Every Newborn: A Measurement Improvement Roadmap for Coverage Data*, and *RED: A Guide to Increasing Coverage and Equity in All Communities in the African Region*.
    - Engagement with these groups also provided valuable opportunities to disseminate and use MCSP's learning to strengthen global metrics work. For example, MCSP collaborated with members of the ENAP/EPMM core metrics group to design a multicountry study of new MNH indicators for a national HMIS and develop a core set of MH indicators for global tracking. In addition, MCSP's participation in the Global Immunization Data Quality and Use WG with WHO and UNICEF resulted in identification of tools and adoption of processes by the countries that improve immunization data quality.
    - MCSP supported the Africa Regional Workshop on Improving Routine Data for Child Health in National HISs, where more than 90 participants from 15 countries from MOHs, NGOs, WHO, and UNICEF discussed emerging best practices, gaps, and challenges, and developed country action plans to address them.
    - MCSP convened a measurement committee of 16 organizations/programs under the PPFP CoP to reach consensus on routine PPFP indicators. MCSP is collaborating with FP2020 and Advance Family Planning to advocate for recommended indicators at the country level, and WHO will include recommendations in its new HMIS guidance materials. Engagement with these groups also provided valuable opportunities to disseminate and use MCSP's learning to strengthen global metrics work.
- **Knowledge, practices, and coverage household survey tool**: MCSP updated the knowledge, practices, and coverage (KPC) household survey tool and made it available online as a global resource that will continue to be

available on the MCSP legacy website after the program closes. MSCP revised the following survey modules: sick child, MiP, birth spacing, nutrition, WASH, MNCH, and immunization. In addition, MCSP created a new gender module with questions that can be integrated into other KPC survey modules, including information about women's and men's roles in household activities, household decision-making, women's and children's health care decision-making, and attitudes around gender norms. Questions aim to provide program implementers with a better understanding of how gender-based attitudes, norms, roles, and behaviors may affect health-seeking behaviors and health outcomes, including RMNCAH. Understanding this context is crucial for integrating gender into program design and better enabling families and communities to practice healthy behaviors and to seek and access health services. This module differs from other KPC modules in that it includes a questionnaire for both women and men. MCSP also developed mobile versions of the KPC household survey modules using an open-source mobile software application, CommCare, building on work conducted by MCSP in **Tanzania**.

- **Routine RMNCAH indicators in national HMISs**: MCSP produced evidence on the availability and feasibility of collecting routine RMNCAH indicators in national HMISs. MCSP conducted a comprehensive assessment of key MNCH data elements available in 24 of 25 USAID priority countries and of FP data elements in a subset of these countries. MCSP also documented the extent to which the introduction and use of new country-level RMNCAH indicators could help address gaps in the availability of data that could be used to improve coverage and quality of RMNCAH interventions and were acceptable and feasible to collect (see country-level achievements). Reports on the findings and a searchable dashboard will continue to be available on the MCSP website.

Country

- **Use of the revised KPC survey package**: Several MCSP-supported countries have applied the revised KPC survey package, including incorporation of wealth indexes to be able to measure equity in coverage (Nigeria child health KPC and Mozambique KPC). In **Tanzania**, data from the KPC's new gender module was used to facilitate dialog between women and men on how to improve gender equity in the household and community. Additionally, MCSP explored associations between male engagement during ANC and delivery at a health facility in an article published in *PLoS ONE*. The USAID-funded MNH bilateral program in Tanzania is using the findings to inform program activities and M&E plans. In **Mozambique,** MCSP used results of the KPC survey with the gender module to conduct a more rigorous evaluation of the effectiveness of male engagement interventions that encourage couples' communication to increase ANC attendance, joint birth preparedness and complication readiness plans, institutional birth, and use of modern FP; determine the feasibility and acceptability of male engagement interventions on RMNCAH services for clients and providers; and explore how decisions between couples are made and what may influence their decisions about seeking RMNCAH services.
- **New HMIS indicators and registers in MCSP-supported countries**: After the assessment of the introduction, use, and feasibility of new RMNCAH indicators that could be used to improve coverage and quality of RMNCAH interventions in **Nigeria** and **Madagascar**, MCSP successfully advocated for the inclusion of the new and tested MNH/FP and child health indicators in the national HMISs in both countries. In **Mozambique**, MCSP assisted the MOH to develop and roll out new child health registers that integrate routine child health and nutrition indicators into the national HMIS, thus making child health data available to managers for program planning, monitoring, and evaluation of their efforts.
- **Validation of a facility-based indicator on perinatal mortality in Tanzania**: MCSP conducted a study in Tanzania that tested the validity of a new facility-based indicator on perinatal mortality. The study yielded compelling results, documenting a high level of sensitivity and specificity between information on newborn outcomes recorded in the health facility maternity register and the gold-standard perinatal death audit for the outcomes of fresh stillbirth, macerated stillbirth, and newborn deaths. These results are notable as this indicator allows for measurement of potentially preventable perinatal mortality using HMIS data and could serve as a sentinel measure of the quality of intrapartum care at health facilities. A manuscript summarizing the indicator validation findings was published in *PLoS ONE,* and an implementation research brief is available on MCSP's website. MCSP conducted a dissemination and planning workshop in the Lake Region to disseminate the results and the indicator is now being used in areas supported by the USAID bilateral project.
- **Contribution analysis in Burma, India, and Rwanda**: MCSP used contribution analysis, a relatively new alternative approach to capturing impact that has been applied in other sectors, to help describe our program

implementation approach and impact on improving health systems in Burma, India, and Rwanda. In India, the analysis showed that MCSP contributed to expanding the basket of FP methods in 52 project-supported public sector facilities in seven districts of five states. In Burma, MCSP found that its policy development, advocacy, and planning efforts with the Ministry of Health and Sports set the stage for the development of an improved training system. In Rwanda, the contribution analysis exercise showed that the LDHF and mentorship approach contributed to the maintenance of competencies of health workers in MNH, FP, and child health. Linking back to well-articulated theories of change and using quantitative and qualitative data, these analyses provide insights into both why changes happened and the level of change.

Data Collection, Visualization, and Use and Health Information System Functionality in MCSP Countries

Country

- **HIS strengthening:** MCSP contributed to better RMNCAH health care practices and outcomes in the countries supported in part by strengthening HIS functioning. In **DRC, Egypt, Namibia**, and **Uganda**, MCSP worked with MOHs to strengthen their community programming, including community HISs. MCSP's efforts included strengthening the overall systems to ensure data reporting completeness, quality, and use at the country level. Countries, in turn, were able to use information generated at local levels to solve system bottlenecks to help reach high coverage, quality, and equity for high-impact RMNCAH interventions supported by MCSP and the global community. MCSP also collaborated with **Tanzania**'s MOH to design and deploy an interoperability layer (health information mediator) to improve data exchange across 13 different systems including hospitals, health facility registry, logistics management, financial transactions, vaccine information, and DHIS2 (see the Digital Health summary). In addition to the modifications and installation of the system, MCSP worked closely with the MOH to host the system in-country and to build the capacity of the ministry information, communication, and technology personnel to maintain, modify, and support the health information mediator.
- **Data visualization and use:** MCSP strengthened MOH capacities for visualization and use of routine RMNCAH data in supported countries. Based on its experience with multiple country programs, MCSP developed the Visualizing and Using Routine Reproductive, Maternal, Neonatal, and Child Health Data at Health Facilities: A Resource Package for Health Providers and District Managers, which includes routine RMNCAH data visualization and use materials, including a laminated wall chart template and a supportive supervision module. WHO included a link to this MCSP resource package in its new toolkit for analysis and use of health facility data. Components of this resource package were adapted and used in **Rwanda**, **Nigeria**, **Liberia**, **India**, **Ethiopia**, **Guatemala**, and the English-speaking Caribbean countries of **Barbados**, **Guyana**, and **St. Lucia**, where MCSP supported Zika-related work, including health worker training on improving the quality of PNC and FP services. In the Mara and Kagera regions of **Tanzania**, training improved the data management and use skills of 90% of health care providers—734 total—working in MCSP-supported facilities. In **Guatemala**, local health authorities have been trained in data visualization and use for local planning; and web-based indicator dashboards are being finalized for local planning as well as continuous QI. In **Liberia**, 92% of 77 MCSP-supported facilities assessed at endline reported using HMIS data to review performance with a district or county supervisor during recent supervision visits, compared to 61% at baseline, and 78% of facilities reported deciding along with the supervisor based on the RMNCAH data at endline, compared to only 53% at baseline.
- **Use of data for decision-making through application of data dashboards:** In 20 countries MCSP supported the development and rollout of data dashboards at the community, facility, and/or district levels, including laminated poster data dashboards and electronic dashboards across multiple areas of RMNCAH (see Figure 13.1 and MCSP's brief on Fostering Use of Routine RMNCH Data at the Point of Care) to improve the use of data for decision-making by health workers and volunteers. For example, in **Nigeria**, health workers at 80% of the 321 MCSP-supported facilities in Kogi and Ebonyi states are now using these dashboards to track service delivery trends and inform program management decisions, including stock management. Village heads and volunteers in **Malawi** tracked infants and mobilized families for immunization using the My Village My Home community-level poster data dashboard; an endline assessment noted improved immunization coverage and reduced dropout rates. **Rwanda**'s MOH used data dashboards for scaling up predischarge PPFP and ENC/newborn resuscitation across 10 districts. To improve and maintain quality while expanding PPFP services, health care providers at facility and district levels in Rwanda have used dashboards to visualize and track data on key indicators, including the number

of providers trained on PPFP, stock-outs of FP commodities, counseling outcomes (client accepts a method, plans to initiate a method later, or refuses FP), and progress on the facility PPFP action plan (Figure 13.2).

Figure 13.2. Sample hospital data dashboard tracking PPFP from Rwanda

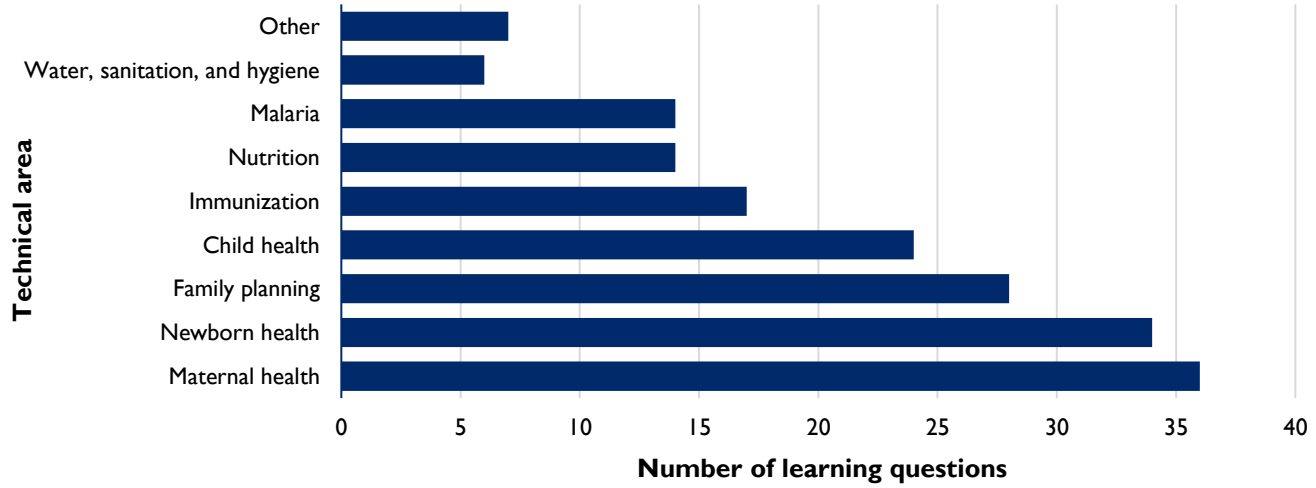
- **Use of geospatial techniques to improve RMNCAH:** As part of the project's efforts to improve data visualization and use at county level, MCSP also supported countries to apply geospatial techniques to RMNCAH. In **Rwanda**, MCSP supported capacity-building for GIS use, training MOH staff in QGIS (an open-source application) and supporting them to produce maps. In **Nigeria**, MCSP applied GIS technology to create digital primary health center catchment area maps and generated population estimates for RI microplanning. The activity demonstrated the potential of using GIS to create more accurate catchment area listings and identified challenges with the GIS-generated population estimates. GIS is now being used to improve immunization coverage.

Action-Oriented Learning to Inform Policy, Program Design, and Adaptive Management

Global

- **Dissemination of findings of learning activities in key global fora for improved RMNCAH:** MCSP tracked progress of learning activities (Figure 13.3.) using an interactive dashboard and leveraged opportunities to share findings with local, national, and global decision-maker fora. Learning activity findings were packaged and disseminated broadly to reach target audiences in user-friendly formats through blogs, photo essays, webinars, conference presentations, briefs, case studies, study reports, manuscripts, and journal supplements. MCSP also synthesized the broader implications of findings from program implementation and learning activities in a series of high-profile thematic legacy moments with participation from frontline technical experts from the field, global thought leaders, NGOs, donors, and implementing partners. MCSP's learning resulted in substantial additions to the RMNCAH evidence base for high-impact interventions and promising innovations in LMIC contexts, with more than 100 peer-reviewed journal manuscripts (and counting) published during the life of the program. For additional information, please see Annex 8 for the list of peer-reviewed manuscripts published under MCSP, and view the interactive dashboard of MCSP publications here.

Figure 13.3. MCSP learning dashboard showing number of learning questions by technical area*



*Several learning questions fall under more than one technical area

Country

- **Additions to the evidence base for high-impact RMNCAH interventions and promising innovations in specific country contexts:** In collaboration with local and global stakeholders, MCSP developed its action-oriented learning agenda by setting out a comprehensive strategy and parameters to align learning with the implementation agenda and the seven priority global learning themes: scale-up, QI, equity, HSS, community action for health, innovations, and measurement and data use. MCSP's support for both implementation and learning were designed to help countries address system bottlenecks and prevent child and maternal deaths. Emerging qualitative and quantitative information were reviewed and fed back into programming to encourage timely uptake of lessons learned, inform improvements to implementation support, and influence policy. MCSP's learning agenda included both human subjects research studies and other learning activities embedded in program implementation, the results of which are highlighted throughout this report. For detailed information on the content, findings, and use of results for MCSP's learning activities, please refer to the Strategic Objective 3 section in the overview of this report, and to Annex 5, which summarizes MCSP's action-oriented learning agenda.

Recommendations for the Future

- **Continue to improve development and adoption of routine RMNCAH metrics.**
  - **Promote greater collaboration among global actors around RMNCAH metrics development.** Multiple WHO WGs are addressing RMNCAH metrics and data collection tools but do not always communicate adequately with each other and sometimes do not fully understand implementation challenges at the country level. Mother and Newborn Information for Tracking Outcomes and Results, Child Health Accountability and Tracking, and the Health Development Collaborative WGs have helped to promote cross-WG communication and harmonization of efforts, but their mandates are short term. It remains critical for partners such as MCSP to collaborate with these WGs to support improved communication, advocate for country perspectives, share data from experience implementing on the ground in multiple countries, and ensure recommended metrics are shared with country stakeholders at all levels.
  - **Facilitate country adoption of globally recommended RMNCAH measures.** There is a need to bring together many projects or partners that support improvements in routine HISs with respect to RMNCAH. Currently, mandates for USAID-funded programs to help lead revisions to the content of national HMIS are mostly funded through the President's Emergency Plan for AIDS Relief (PEPFAR) and PMI, which focus on HIV and malaria measures, respectively.
  - **Strengthen measurement and metrics for quality of care**. Continuous measurement of quality indicators (input, processes, and outputs/outcome measures) is a core principle of all improvement work. However,

there is much work to be done to strengthen metrics for improving quality of care in low-resource settings, especially:

- Prioritize quality of care measures needed by specific actors in country health systems (e.g., national MOH, district managers, and facility teams).
- Strengthen HISs to be able to capture essential quality data elements for clinical case management and QI.
- Build capabilities of actors in documentation, data extraction, calculation, visualization, interpretation, and action based on prioritized quality of care indicators.
- Measures of possible system barriers to scale-up of equitable and high-quality interventions would also provide useful complementary information.

- **Increase linkages between national HMIS offices and RMNCAH divisions**. Limited communication and coordination occur between national HMIS offices and RMNCAH divisions at the MOHs in most countries, so HMISs are either not responsive to program needs or are overloaded with too many indicators. RMNCAH projects need to make long-term investments in establishing relationships with HMIS divisions/HMIS strengthening projects to understand data needs, build HMIS capacity, and work to strengthen these linkages.

- **Continue to improve timeliness and availability of national HMIS data.**
  - **Ensure the right data are available at the right level of the health system**. It is important to identify and understand which routine service data are needed by which stakeholders at which level of the health system, from the community to the national level. Not all data need to be reported to the district level and entered into DHIS2. Data need to be actionable at the different levels, and this is linked to the need for more competency and skills development around data visualization and use.
  - **Maximize the use of digital solutions**. There is a need to better harness the data revolution as HISs can continue to benefit from integration of new and better use of existing digital tools. This can help health workers improve analysis, feedback, and visualizations, as well as help MOHs and partners design more interoperable health systems.
  - **Integrate private sector health service delivery data into the HMIS**. Given that the private sector is an important source of care in many countries, this activity should be pursued as appropriate and feasible.
- **Continue to improve use of RMNCAH data at multiple levels of the health system by building capacity in data visualization and use**. Donors invest in building data use skills across all levels of the system. Skills need to be strengthened among facility and CHWs and supervisors in data aggregation, visualization, gap analysis, and data use for decision-making on a routine basis.
- **Ensure large global RMNCAH programs use a range of methods to measure outcomes and impact**: **across countries**: Routine quantitative performance indicators are useful for understanding program progress but need to be complemented by other approaches to tell a more comprehensive story of program results and impact. In many cases, household surveys may not be feasible or appropriate if country buy-ins are shorter than three years in duration. Following MCSP's midterm evaluation and the recommendations to conduct additional syntheses of the program's policy work and impact, the program undertook a series of policy case studies and developed a policy dashboard. In addition, MCSP applied the complexity-aware learning approach of "Contribution Analysis" in three countries to document program contributions tied to detailed theories of change. LiST analyses were also conducted in selected MCSP countries to model maternal, newborn, and child lives saved and percent mortality reduction rates. Future programs should continue to apply qualitative and complexity aware approaches to complement routine performance monitoring data to document the achievements of USAID investments.

Gender

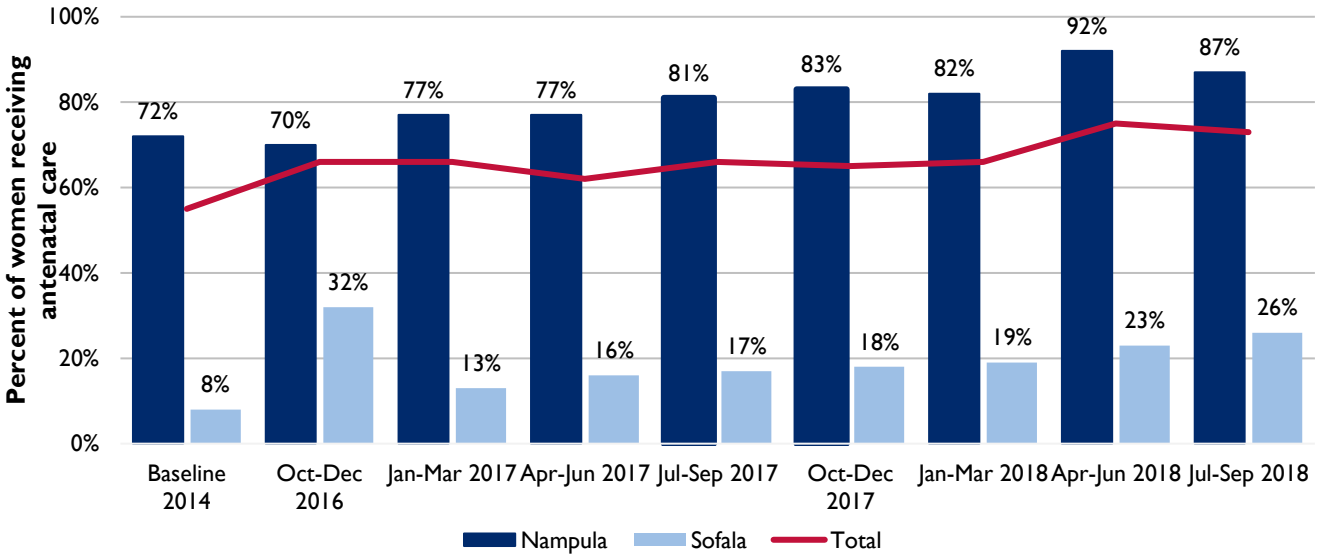
Areas of Focus - Gender

- Improving quality of care for RMNCAH by ensuring respectful, gender-sensitive service delivery across the continuum of care
- Engaging men in RMNCAH preventive and care services at both the facility and community levels
- Mitigating RMNCAH risks posed by GBV
- Empowering female health workers

Highlights of MCSP's Legacy

In Ghana, Guinea, Haiti, Madagascar, and Rwanda, MCSP developed and updated training materials and QI tools for GBV that MOHs adopted in order to continually improve the availability and quality of GBV services in these countries.	MCSP developed women's and men's gender modules for the KPC household survey, the first to include questions about who decides to use RMNCAH services, and measures of gender norms related to RMNCAH. This module will allow for multicountry analysis of how gender influences RMNCAH.	MCSP linked RMC to the gender equality agenda by publishing a review in BMC *Reproductive Health* entitled, "Expanding the Agenda for Addressing Mistreatment in Maternity Care: A Mapping Review and Gender Analysis."

Figure 14.1: Percentage of women receiving ANC whose male partner participated in at least one visit at 86 project-supported health facilities in Mozambique



Gender

Introduction

SDG5 on gender equality has among its targets: "5.1 End all forms of discrimination against all women and girls everywhere; 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation; 5.6 Ensure universal access to sexual and reproductive health and reproductive rights…." Over the past 5 years, MCSP has developed tools and strategies to address gender-based constraints and opportunities related to RMNCAH outcomes and integrated these into national strategies, training packages, and QI tools. MOHs in Ghana, Nigeria, Mozambique, and Tanzania have institutionalized and scaled up these strategies, training packages, and tools through national programs so that partners and local governments can scale up and sustain gender-sensitive health services. Through the identification and analysis of gender issues pertaining to RMNCAH in select settings, MCSP has drawn new insights on the impact of addressing gender norms, roles, and relations as it relates to RMNCAH care seeking, service use, and other health outcomes. MCSP contributed to these goals in the following ways:

- **Improving RMNCAH quality of care by ensuring respectful, gender-sensitive service delivery.** MCSP worked with health providers, facilities, and policymakers through QI processes and capacity-building and mentorship of providers to ensure that women and men have equal access to high-quality care. Key aspects of respectful, gender-sensitive services include accessibility of services; patient-centered care that respects women's dignity, autonomy, and agency; respectful, confidential provider-client interactions; and gender-responsive and equitable health policies, all of which meet the needs of women and, as appropriate, their partners. In the five countries in which we worked, as well as in the global discourse, this helped unpack and operationalize gender-sensitive care.
- **Mitigating RMNCAH risks posed by GBV.** MCSP worked to prevent and respond to GBV and link survivors to high-quality care through community engagement, provider skills building, monitoring and improving the quality of GBV services, and incorporating appropriate GBV screening into health services.
- **Engaging men in RMNCAH preventive and care services at both the facility and community levels.** MCSP worked to engage men in RMNCAH care seeking and service delivery by building health worker capacity to proactively and appropriately engage men in RMNCAH services, and by supporting CHWs and peer educators to hold dialogs with couples to promote gender-equitable decision-making on and men's support of RMNCAH.

Key Accomplishments and Results

Quality of Care for RMNCAH Through Respectful, Gender-Sensitive Service Delivery Across the Continuum of Care in Four Countries

Global

- **Expanding the Agenda for Addressing Mistreatment in Maternity Care: A Mapping Review and Gender Analysis:** MCSP conducted a review to examine how gender inequalities contribute to mistreatment during childbirth. The review is described in the article, "Expanding the Agenda for Addressing Mistreatment in Maternity Care: A Mapping Review and Gender Analysis," which was published in BMC *Reproductive Health* in August 2018. Although many RMC advocates have recognized mistreatment during childbirth as a gender issue, this was the first peer-reviewed research paper to do so.

Country

- **Service delivery QI:** From 2016 to 2018, MCSP improved the quality of service delivery in health facilities in **Nigeria, Tanzania**, and **Mozambique** using Jhpiego's standards for gender-sensitive service delivery, a supervision tool that allows facilities to assess themselves through a participatory process with providers and incentivizes them to improve based on a scoring system. Hundreds of providers have been trained to implement the tool, and scores have increased in the areas of respectful communication and care, privacy and confidentiality, and male engagement. The tool was subsequently integrated into existing national QI initiatives in Mozambique and Tanzania to position it for scale-up across the country.

- **Gender and RMC in Nigeria:** From 2017 to 2018, MCSP facilitated participatory workshops in Nigeria on gender and RMC with the aim of reducing gender-based discrimination leading to mistreatment of health workers and clients. MCSP trained 30 core facilitators and 1,000 health providers on the Health Workers for Change curriculum, which uses a participatory approach to help providers address gender inequities, attitudes, and barriers to delivering high-quality care. As a result of participant-created action plans to address gaps and challenges, interpersonal communication and empathy with clients improved, emergency maternity care hours were expanded, infrastructure improvements were made, and privacy during medical exams and labor improved. (For more information, see MCSP's technical brief.)
- **Gender-sensitive FP in India:** From January 2017 through September 2018, MCSP partnered with the Indian organization Centre for Catalyzing Change to train 21,943 CHWs, nurses, and community health committee members; 2,501 facility-level providers; and 546 district- and state-level officials on gender-sensitive FP services that respect women's autonomy, dignity, and privacy.

Men's Engagement in RMNCAH Preventive and Care Services at Facility and Community Levels in Four Countries

Global

- **Male Engagement Task Force**: MCSP co-chaired the USAID Male Engagement Task Force of the Interagency Gender WG, which was re-launched in 2017. The task force grew from being inactive in 2016 to having 177 members in 2017. In its role as co-chair, MCSP led, along with co-chairs at the Institute for Reproductive Health at Georgetown University and the Population Council, the development of guidance for engaging men as clients, partners, and agents of change for RMNCAH.

Country

- **Male engagement in RMNCAH:** In Mozambique, Nigeria, Rwanda, and Tanzania, MCSP found that facility-based providers and CHWs, respectively, can substantially increase male participation in RMNCAH through education and encouragement around male involvement in RMNCAH.
  - **Tanzania**: More than 10,000 community members in Tanzania, including more than 4,000 men, participated in community-gender dialog sessions led by CHWs from 2014 to 2017. In Mara, 91% of men who participated indicated that they are willing to educate others at community and church meetings about the role of men in RMNCAH. Ongoing dialog with the community is continuing through USAID's Boresha Afya project.
  - **Nigeria**: MCSP developed posters, a pamphlet, and a job aid to raise awareness and to help providers counsel clients on how men can contribute to their family's health. MCSP also built the capacity of 101 pre-and in-service providers as training facilitators on male engagement in March 2018 and provided privacy screens to 10 facilities. As a result of these interventions, male participation in FP, ANC, and labor and delivery increased by nearly four times in one year, from 1,483 men accompanying their female partners to FP, ANC, and labor and delivery in June 2017 to 5,487 in June 2018.
  - **Mozambique**: From October 2016 to June 2018, MCSP trained providers in 86 health facilities to offer high-quality couples counseling that supported male involvement in birth preparedness and complication-readiness planning in Mozambique. During this time period, MCSP also built the capacity of 10,597 CHWs in 29 districts to integrate gender and male engagement approaches into health promotion activities. These efforts resulted in 30,982 couples developing joint birth plans, including choosing a health facility at which to deliver, saving money and arranging transport, and selecting a supportive birth companion. See full endline qualitative report here.
  - **Rwanda:** MCSP reached 9,727 couples and young people in six districts of Rwanda with a local adaptation of the Bandebereho MenCare+ curriculum. Group sessions led by peer champions engaged expectant fathers and their partners to promote men's involvement in MNCH, FP, caregiving, and preventing domestic violence.

Mitigation of RMNCAH Risks Posed by Gender-based Violence

Country

- **GBV health service quality assurance:** MCSP piloted a quality assurance tool for GBV health services that was developed with support from CDC, PEPFAR, and WHO in **Haiti and Rwanda** to provide critical feedback on the relevance and applicability of the tool in a lower-resource GBV setting (Haiti) versus a higher-resource GBV setting (Rwanda). The tool was rolled out across 12 MCSP-supported facilities that provide GBV services in both countries. Improvements included increased identification of GBV survivors, empathetic counseling, special care for child and adolescent survivors, and increased privacy for clients.
- **Training tools for GBV:** In **Ghana, Guinea, Haiti, Madagascar, and Rwanda**, MCSP developed and updated training materials for GBV that MOHs adopted for ongoing use.
  - **eLearning module**: In **Ghana and Madagascar**, MCSP developed a 1.5-hour eLearning module on the first-line response for GBV, which reflects WHO recommendations. These have been integrated into pre-service curricula for community nurses and midwives in Ghana and into in-service curricula for ANC providers in Madagascar.
  - **In-service training curricula**: In **Guinea**, MCSP facilitated the development of national in-service training curricula for health workers on responding to GBV, which reflects global guidance and best practices on the same.
- **GBV training and services:** In **Guinea, Nigeria, and Rwanda**, MCSP trained health providers on the appropriate provision of GBV services and reached thousands of GBV survivors.
  - **Guinea:** In Conakry, MCSP worked with the MOH to establish a network of seven health facilities comprising 42 health care providers with 125 community educators, 10 paralegals, and school/university committees to support GBV survivors. MCSP conducted 180 educational sessions on GBV reaching 13,000 people, including security forces and local government officials.
  - **Rwanda**: MCSP reached more than 14,938 GBV survivors in Rwanda with health services and built the capacity of 173 trainers and 1,500 health providers to offer post-GBV care between October 2016 and March 2018.
  - **Nigeria**: MCSP built the capacity of 101 Nigerian health care providers from March to June 2018 to offer GBV first-line support and basic clinical care, and produced referral directories for Kogi and Ebonyi states.

Empowered Female Health Workers

Global

- **Gender discrimination and other barriers during PSE and in the health workforce:** Women make up 70% of the global paid health workforce, yet they face discrimination in terms of compensation and workforce advancement compared to their male counterparts. Challenges include gender discrimination resulting in unequal pay, violence and sexual harassment, restricted mobility outside the home, and the burden of balancing pregnancy and family care with their job. MCSP addressed these barriers by sensitizing midwives and midwifery students on gender and building skills on addressing gender issues during health services, facilitating FP education and services to students, fostering supportive working and learning environments for women, and working with schools to create sexual harassment and pregnancy policies. Findings and lessons from MCSP's gender assessment in the health workforce in Liberia informed MCSP's inputs into a global report by the WHO Global Health Workforce Network's Gender Equity Hub, (co-chaired by WHO and Women in Global Health), *Delivered by Women, Led by Men: A Gender and Equity Analysis of the Global Health and Social Workforce*. The report looks for the first time at issues of leadership, decent work free from all forms of discrimination and harassment (including sexual harassment), gender pay gap, and occupational segregation—across the entire workforce.

Country

- **Gender-responsive PSE:** In **Liberia**, MCSP trained clinical mentors on gender-responsive teaching methods to improve the gender sensitivity of teaching practices. In addition to providing gender-responsive curricula, the project integrated learning objectives on gender sensitivity, gender as a determinant of health, GBV, and female genital mutilation into pre-service training for health providers and built provider skills in these areas. From March 2018, MCSP trained and supported peer FP providers to provide FP counseling and modern contraceptive methods to 219 students. MCSP also trained 10 students from the Tubman National Institute of Medical Arts as gender ambassadors, who in turn educated 150 students and staff about FP methods, sexual harassment prevention, and available school support for pregnant students.

Recommendations for the Future

The agenda for addressing gender inequities that undermine RMNCAH is still in the early stages. Although promoting women's access to health information and services is a critical first step to women's broader equality and empowerment, there is still much work to do to better define and measure the impacts of the gender interventions described here to determine which are high impact. Greater investments are needed for dedicated gender-responsive and transformative interventions to have meaningful scope and scale and to evaluate impact. Specifically, future initiatives, whether from global, bilateral, or private funding mechanisms, should do the following:

- **Further evaluate interventions to measure the impact of GBV screening, counseling, and referrals on uptake of ANC and FP services, as well as mitigation of ongoing GBV.** This evaluation will be critical in the move toward self-reliance of countries in order to prioritize the most impactful interventions.
- **Evaluate approaches to promoting respectful care.** This can include standards-based QI and social behavior change participatory workshops, such as Health Workers for Change, which are essential to understanding how these interventions can help prevent child and maternal deaths.
- **Invest in implementation science methods to answer how engaging men in RMNCAH leads to improved uptake of such services as facility-based births and MNCH outcomes**. We also need to better understand how to appropriately engage men; particularly to avoid the potential of limiting women's agency and choice.
- **Use capacity-building and learning for adaptive management in further rolling out the interventions described in this summary with local government leadership.**

Africa Bureau

Areas of Focus - Africa Bureau

- Promoting high-impact interventions to strengthen ANC services in the Africa region, including improved care for MiP
- Strengthening MPDSR systems
- Strengthening care of small and sick newborns
- Increasing access to and use of RI systems
- Strengthening leadership in child health in Africa
- Promoting integrated programming to increase efficiency in service delivery

Highlights of MCSP's Legacy

With WHO and UNICEF, MCSP designed and co-facilitated the Intercountry Capacity-Building Workshop on the revised RED Guide with 13 African country delegations, enabling them to adapt and roll out the updated guidance.	MCSP enhanced understanding of MPDSR gaps in Africa, contributed to global MPDSR products, and strengthened implementation of MPDSR in several countries.	MCSP used its findings from a study in Rwanda to facilitate a participatory process to develop national-level recommendations and action plans to improve the quality of care for small and sick newborns.

Figure 15.1. Global, regional, and technical support provided through MCSP to reach every district with high-quality immunization services

Africa Bureau

Introduction

The sub-Saharan African region carries the heaviest burden of maternal, newborn, and child mortality and morbidity, and significant effort is required to address critical gaps to achieve country and global MNCH targets in the SDG era. Over the life of the project, MCSP leveraged Africa Bureau funds to support strategic regional MNCH policy, program, and research priorities in the sub-Saharan Africa region focused on strengthening the coverage and quality of high-impact MNCH services in the region.

Africa Bureau-supported MNH activities focused on improving the coverage and quality of ANC, strengthening implementation of MPDSR, and improving care for sick and small newborns. MCSP worked with governments and key MPDSR stakeholders to assess MPDSR implementation in four sub-Saharan African countries, leveraging assessment findings to strengthen country-level implementation and develop global capacity-building materials that will bear fruit well beyond the life of the project. In addition, MCSP supported WHO to develop guidance and a policy brief on strengthening linkages between MPDSR and QI and collaborated with WHO AFRO to plan a series of MPDSR and quality of care webinars for francophone countries. As part of a global effort to assess and improve quality of care for small and sick newborns, MCSP conducted a situational analysis of inpatient care for newborns and young infants in Rwanda, and developed key follow-up actions and recommendations in collaboration with the MOH and other key stakeholders in the country.

Africa Bureau-supported child health activities assisted government-led TWGs to strengthen leadership for defining priorities, designing programs, and fostering multistakeholder collaboration to mobilize resources and optimize coordination in support of child health goals. Recognizing that long-lasting impact of child health and immunization programs requires strong country leadership, MCSP worked closely with WHO AFRO, USAID, and other partners to strengthen country leadership to address child health issues related to fragmented programming in African countries. MCSP incorporated opinions from multiple African leaders in the *Mapping Global Leadership in Child Health* activity in 2016 and led the expansion of the iCCM Task Force to the Child Health Task Force. MCSP worked closely with the iCCM Financing Task Team to provide assistance to 24 countries to develop more integrated and stronger concept notes for the Global Fund new funding models. At the country level, MCSP supported HIS strengthening to capture and use essential child health data to improve services. The project collaborated with WHO AFRO, CDC, the Bill & Melinda Gates Foundation, and other partners to revise and disseminate updated RED/REC guidelines and increase focus on equity and integration, including stronger alignment between child health and immunization program activities. MCSP, in close collaboration with the African Union, WHO AFRO, civil society, and other partners, historically elevated the issues of immunization and domestic resources to the ministers of health and finance and the heads of state. All 54 countries in Africa are signatories to the Addis Declaration on Immunization.

Key Achievements and Results

Maternal and Perinatal Death Surveillance and Response Systems

- **Assessment of MPDSR implementation in four sub-Saharan African countries:** MCSP conducted an assessment of subnational MPDSR implementation in four sub-Saharan African countries (**Nigeria**, **Rwanda**, **Tanzania**, and **Zimbabwe**), analyzing barriers and potential facilitators. As described in four individual country reports and a synthesis report, the assessment identified multiple gaps in implementation of MPDSR processes at the subnational level, including incorrect assignment of the causes of death and incomplete or inadequate formulation and follow-up of action plans to address identified modifiable contributing factors. Illustrative recommendations that emerged from the assessment include strengthening the capacity of subnational managers and health care workers to implement high-quality MPDSR processes; ensuring widespread availability of MPDSR guidelines and forms; adopting codes of conduct for committee meetings; promoting the use of standardized systems to identify and classify cause of death; monitoring the follow-up of death review (audit) recommendations (action plans); and monitoring and analyzing trends in death review findings to inform priority actions for leading causes of maternal and neonatal mortality in the local context. Two manuscripts highlighting key findings and recommendations were finalized and submitted for publication.

- **Strengthening of country-level MPDSR implementation:** Applying learning from the multicountry MPDSR assessment, which demonstrated important MPDSR capacity gaps among subnational managers and facility health workers, MCSP worked with MOHs, professional associations, and other stakeholders to strengthen MPDSR implementation in nine countries. In **Rwanda** and **Tanzania**, the MOH in each country updated its national guidelines to incorporate recommendations from the MPDSR assessment in that country. In Tanzania, the USAID Boresha Afya bilateral project benefited from MCSP technical support, the MCSP MPDSR assessment, and the field testing of the MDSR capacity-building package to strengthen implementation of MPDSR in the Mara and Kagera regions. The Ministry of Health and Child Care in **Zimbabwe** developed an RMNCAH and nutrition QI package and strategic implementation plan, which included MPDSR as a key QI component, leveraging findings from the MPDSR assessment. In **Nigeria,** MCSP worked with the State MOH in Kogi and Ebonyi states and with representatives of professional associations and other stakeholders to strengthen linkages between QI and MPDSR activities in each state.
- **Development of an MDSR capacity-building module:** MCSP collaborated with WHO and the global MPDSR TWG to develop MDSR capacity-building materials to address gaps identified in the multicountry MPDSR assessment described previously. The MDSR module aimed to build the skills of health care providers and district managers to implement high-quality MPDSR processes, including correct assignment of deaths, the formulation and monitoring of prioritized responses, and the monitoring and analysis of trends in causes of and contributors to maternal deaths using routine HIS data and death review findings. MCSP strengthened in-country capacity for robust MDSR implementation in **Nigeria** and **Tanzania** by building the capacity of local MDSR experts, who served as facilitators during field testing of the MDSR module in each country. With project technical support, the draft MDSR capacity-building materials were adapted by UNICEF to develop a PDSR capacity-building module.
- **MPDSR and QI linkage strengthening:** Leveraging its close engagement in the global MPDSR TWG and the multicountry WHO MNCH Quality of Care Network, the project collaborated with WHO colleagues in Geneva and WHO AFRO to develop a draft QI and MPDSR conceptual framework. The project convened a side session to orient and solicit feedback on the draft framework from country stakeholders at a WHO MNCH Quality of Care Network meeting in Addis in 2019 and subsequently supported WHO to develop a policy brief outlining opportunities to strengthen linkages between QI and MPDSR as part of global, regional, and country efforts.

Strengthened Antenatal Care Coverage and Quality in the Africa Region

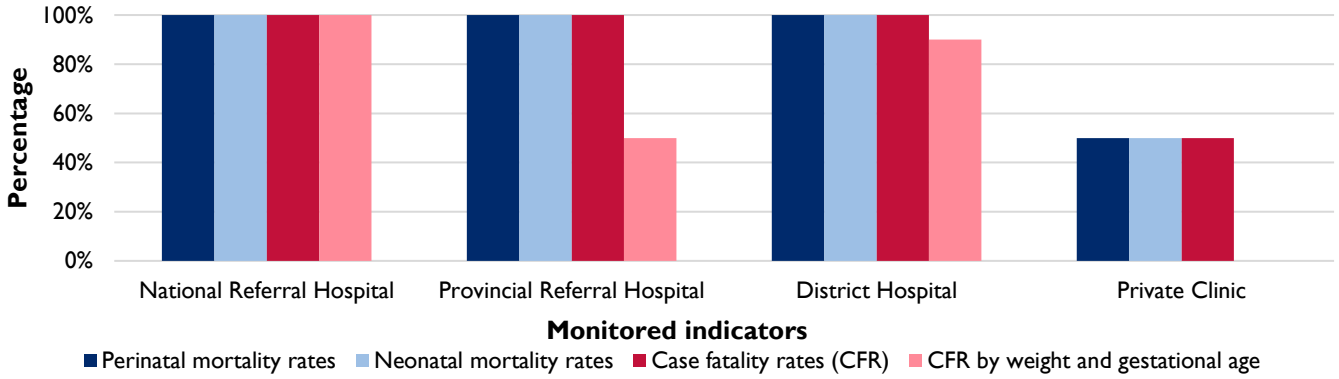
- **Promotion of improved coverage and quality of ANC:** MCSP's Africa Bureau programming on ANC leveraged investments from MH, malaria, and other technical areas to contribute to the development of multiple technical resources and tools to support dissemination and uptake of global ANC recommendations in the Africa region, along with guidance on prevention and treatment of peripartum maternal infections (*In process; will insert link when published*) . MCSP supported governments and other stakeholders in multiple countries to incorporate updated global ANC guidance and materials into national policies and tools, pre- and in-service training curricula, supervision, and QI processes. (See the MH and Malaria sections of this report for additional detail.) In collaboration with PMI, MCSP developed the Toolkit to Improve Early and Sustained Uptake of Intermittent Treatment of MiP to promote uptake of and adherence to the 2012 WHO IPTp recommendations. The toolkit was field-tested in **Mozambique** and **Madagascar**, where it was incorporated into government-led IPTp activities.

Strengthened Care of Small and Sick Newborns

- **Assessment of health system strengths, provision of quality care, experience of care, and gaps in the care of small and sick newborns:** MCSP collaborated with USAID, Every Preemie—Scaling, Catalyzing, Advocating, Learning, and Evidence-Driven (SCALE), UNICEF, WHO, University Research Co., ASSIST, SNL, the London School of Hygiene and Tropical Medicine, and the Global Health Supply Chain Program to conduct a series of assessments of the status of inpatient care of newborns and young infants from 0 to 59 days. MCSP conducted this assessment in **Rwanda** in PY4 to examine components of policy, implementation strategy, service readiness, systems to support quality services and clinical practices, and experience of care, to understand the health system's strengths and weaknesses and the quality of services being provided in the care of small and sick newborns. Fifteen

facilities were assessed for facility readiness and quality of care interventions. All facilities were found to routinely monitor the quality of care indicators shown in Figure 15.2; however, less than half hold routine meetings to review the findings.

Figure 15.2. Percentage of facilities monitoring quality of care indicators, by facility type



Gaps were also noted in retaining an adequate number of skilled and motivated staff, preventive maintenance of high-tech equipment, and involvement of families in the provision of respectful inpatient care for newborns and young infants. Preliminary results of the assessment were disseminated during a workshop led by the MOH and convened at the Rwandan Pediatrics Association's Annual Scientific Conference in Kigali in September 2018. The workshop was attended by the Directors General of hospitals, the Chief of Neonatal Services, representatives of the MOH and Rwanda Biomedical Center, government and private sector pediatricians, and national and international neonatology experts. The participants collectively generated recommendations and strategic actions in response to the assessment results; the recommendations and action plans were vetted by the MOH, and the final report was endorsed in late 2019. MCSP provided technical support to the USAID Boresha Afya project, sharing the experiences and learning from Rwanda assessment to inform the same study in **Tanzania**.

Leadership in Child Health and Mobilization of Resources for More Comprehensive Child Health Programming in Africa

- **Role of African leaders' opinions in shaping the recommendations of MCSP's global leadership mapping in child health:** The Mapping Global Leadership in Child Health study aimed to better understand the evolution of child health as a global issue since the year 2000, as well as its network of stakeholders and leaders. By exploring how leadership might be strengthened and child health repositioned, MCSP collected viewpoints from regionally based entities that helped inform recommendations related to reframing child health, reestablishing leadership, reversing fragmentation and coordinating effectively, reinforcing data and accountability, and establishing country-level focus.
- **Expansion of the iCCM Task Force to the Child Health Task Force for a more comprehensive focus on the life-course approach:** This expansion occurred in fall 2017 under MCSP's leadership as the secretariat. The shift changed the focus of child health from disease- and intervention-specific approaches to addressing the child more comprehensively, in line with the life-course approach. In Africa, this included advocating and successfully incorporating pneumonia and diarrhea case management of children under age 5 in malaria concept notes for the Global Fund.
- **Mobilization of more than USD 80 million for iCCM across 12 African countries:** MCSP actively participated in the work of a group of global partners called the iCCM Financing Task Team, created in 2014 following the Global Fund and UNICEF's commitment to collaborating in the context of the new funding model to maximize opportunities for synergies. The task team supported countries in sub-Saharan Africa to integrate iCCM into Global Fund malaria and HSS concept notes. As a result, the Global Fund and its co-funders awarded more than USD 80 million to 12 countries (**Burkina Faso, Burundi, Côte d'Ivoire, DRC, Ethiopia, Ghana, Malawi, Mali, Niger, Nigeria, Uganda, and Zambia**) in two years. In addition, the group's overall objective

expanded to supporting the scale-up of a complete package of care for the febrile child at the community level as well as working to influence the broader iCCM integration agenda in early grant recipient countries.

Coverage, Quality, and Equity of Routine Immunization in the African Region

- **Addis Declaration on Immunization—Fulfilling a Promise to Ensure Immunization for All in Africa:** Although many international NGOs were invited to the Ministerial Conference on Immunization in Africa—led by the African Union and WHO AFRO in February 2016—MCSP spearheaded the involvement of country frontline civil society voices. In preparation for the event, MCSP and UNICEF co-led the development of the ministerial brief on community involvement in achieving universal immunization coverage, highlighting the vital roles CSOs play in achieving universal immunization. This increased focus on the participation of CSOs was clearly reflected in the Addis Declaration on Immunization, a document endorsed by 53 African heads of state promoting the position that everyone in Africa should receive the full benefits of immunization. To guide the declaration's implementation, MCSP and other partners developed the Addis Declaration on Immunization roadmap—launched in June 2017—providing input on the three main strategies, directing partnerships to a more inclusive approach, and using a pragmatic lens based on field realities to achieve the declaration's objectives. MCSP played a key role in elevating the participation of CSOs, which are now seen as partners in moving commitments forward in the region. The roadmap serves as a guide to all 54 countries, partners, and stakeholders to ensure universal coverage of immunization on the continent. For example, **Uganda** passed an immunization law along with dedicated funding for its implementation. In **Nigeria**, basic health care funds have been signed into law, dedicating funding to primary health care and immunization. Additionally, **Kenya** has established its universal health coverage plan, incorporating immunization as a core element.
- **Adaption and roll out the revised RED Guide in thirteen African countries:** After more than 10 years of implementing the RED strategy to achieve the goal of 80% immunization coverage in all districts and 90% nationally, countries revealed the need for revised guidelines that better reflect field realities. MCSP worked with WHO AFRO, USAID, and partners to revise the RED approach to increase the focus on equity, integration, and community engagement, as well as best practices and tools from MCSP immunization focal countries, such as Uganda, Malawi, and Nigeria. Once a draft of the revised guide was available, MCSP provided technical support to **Kenya** and **Malawi** to pilot the revised guide. The process, outcomes, and lessons learned from the country-level adaptation in Malawi and Kenya highlight the importance of ensuring cross-sector participation, buy-in from all immunization partners, engagement of community perspectives, and presence of a champion partner like MCSP. Other key considerations for rollout include ensuring adequate time for preparation and planning as well as technical and financial partner support at all levels. This document served as a practical guide for other countries undergoing the adaptation process and was disseminated at the Intercountry Capacity-Building Workshop on the revised RED Guide in Kenya in May 2018. Through this process, MCSP supported 13 countries to roll out the revised RED Guide in the East and Southern Africa subregions.
- **Roll out of the EPI/IMCI interactive training and resource tool developed by the WHO AFRO in Rwanda and Zambia:** MCSP child health and immunization teams joined efforts to support the rollout of the EPI/IMCI eLearning tool in 10 districts in **Rwanda** to build the capacity of health center managers and district supervisors to improve the quality of supervision and support provided at health facilities. Equipped with a better understanding of the technical aspects of IMCI and EPI, the 169 trained managers improved the overall support provided to staff members working in immunization and outpatient services, including targeted services for children under age 5. MCSP also supported the orientation of 44 district-level mentors on the EPI/IMCI tool in four target provinces in **Zambia**. MCSP built the capacity of these mentors to support EPI and IMCI activities. With resources not available to train mentors on EPI or IMCI in the traditional setting, the electronic EPI/IMCI training tool was helpful and appropriate for building capacity of mentors to help them mentor their facility-based health care workers. MCSP's efforts helped set new standards and demonstrated practical approaches for integration of curative and preventive programs in the region.
- **Guidance for the new WHO six-dose tetanus and diphtheria containing vaccine schedule:** MCSP worked with the National EPI of **Uganda** to develop an implementation roadmap that reflects and addresses challenges in introducing tetanus and diphtheria containing vaccine and the six-dose schedule. Based on the Uganda experience, MCSP shared considerations for the introduction at the WHO AFRO regional meeting on maternal and newborn tetanus elimination in Nairobi in 2018, and the Maternal and Neonatal Tetanus Elimination

program review meeting and donor conference in late 2019. The new guidance requires further sharing with countries and practical guidance on operational considerations; however, through regional EPI managers' meetings, other countries are learning more about the challenges and recommendations related to this new schedule—key learning that is useful when considering introducing the tetanus and diphtheria- containing vaccine into their national vaccination schedules.

Improvements to Health Information Systems and Promotion of Integrated Programming to Maximize Efficiency of Service Delivery

- **Action plans to strengthen routine child health and nutrition data:** In collaboration with MCSP, USAID hosted the Africa Regional Workshop on Improving Routine Data for Child Health in National HISs in Johannesburg, South Africa (September 2017) to strengthen routine monitoring of child health and nutrition services. Attended by over 90 participants from more than 15 countries, the workshop focused on indicators and data elements, national and subnational HIS strengthening, community data, and digital solutions. Delegations from the **DRC**, **Ethiopia**, **Mozambique**, **Nigeria**, **Uganda**, and **Zimbabwe** developed action plans to address child health and nutrition data gaps in their current HIS and followed up on their plans to ensure that these data are available through the national HISs, accessible, of high quality, and used for decision-making (see the Child Health section for details).

Recommendations for the Future

- **Strengthen regional efforts to advance MPDSR and ANC implementation.** Through collaboration with WHO and regional and country stakeholders, MCSP made significant contributions to global and regional understanding, resources, and implementation of MPDSR as well as to strengthening ANC policy and service delivery quality in the Africa region. Future efforts should focus on improving the quality of MPDSR implementation and ANC services using standardized indicators and promoting the integration of MPDSR into broader QI efforts. WHO MNCH Quality of Care Network activities in multiple African countries offer one promising platform to strengthen ANC services and linkages between MPDSR and broader QI initiatives.
- **Improve quality of inpatient care for small and sick newborns**. The situation assessment of small and sick newborns and young infants in Rwanda was part of a series of studies conducted by MCSP and other global partners. The findings from Rwanda clearly identified the systems and quality of care gaps in care of small and sick newborns, reinforcing assessment findings in other countries and the global imperative to improve the quality of inpatient care of small and sick newborns with respect to both provision of and families' experience of care. Regional and country partners will need to be ready to work with national governments to adapt and implement the forthcoming WHO standards for quality of care for small and sick newborns to improve care for these most vulnerable infants and achieve ENAP and SDG neonatal mortality reduction targets.
- **Strengthen child health investments**. Investments in sub-Saharan African countries should continue to focus on strengthening child health country leadership and promoting program integration to achieve MNCH goals. The changing child health profile and landscape in Africa will require a greater focus on quality of child health services, HSS, and intersectoral coordination in order to reach the ambitious SDG child health targets by 2030. Despite important achievements, not all countries in sub-Saharan Africa achieved MDG 4 of reducing under-5 mortality by two-thirds between 1990 and 2015. Yet, every country is expected to achieve the SDG child health targets to reduce newborn mortality to at least as low as 12 deaths per 1,000 live births and under-5 mortality to at least as low as 25 deaths per 1,000 live births by 2030. These pressures, along with the expanded definition of a child beyond age 5, will influence the evolution of priority child interventions in coming years and will require increasingly resilient health systems, strong community and private sector engagement, and new multisectoral collaboration to achieve child health targets in the sub-Saharan Africa region.
- **Address equity gaps**. Although more children have been immunized, one in five still lack vaccination, and vaccination programs have not kept up with the population growth in the region. As outlined in the revised RED Guide, taking every opportunity to ensure that there are no missed opportunities for vaccinating every child needs to be a priority. The equity gaps are still wide and need to be tackled with new tools and approaches. The Addis Declaration on Immunization commitments need to be implemented, given that sustainable domestic funding for immunization is critical if gains are to be maintained and coverage goals achieved.

Latin America & the Caribbean Bureau

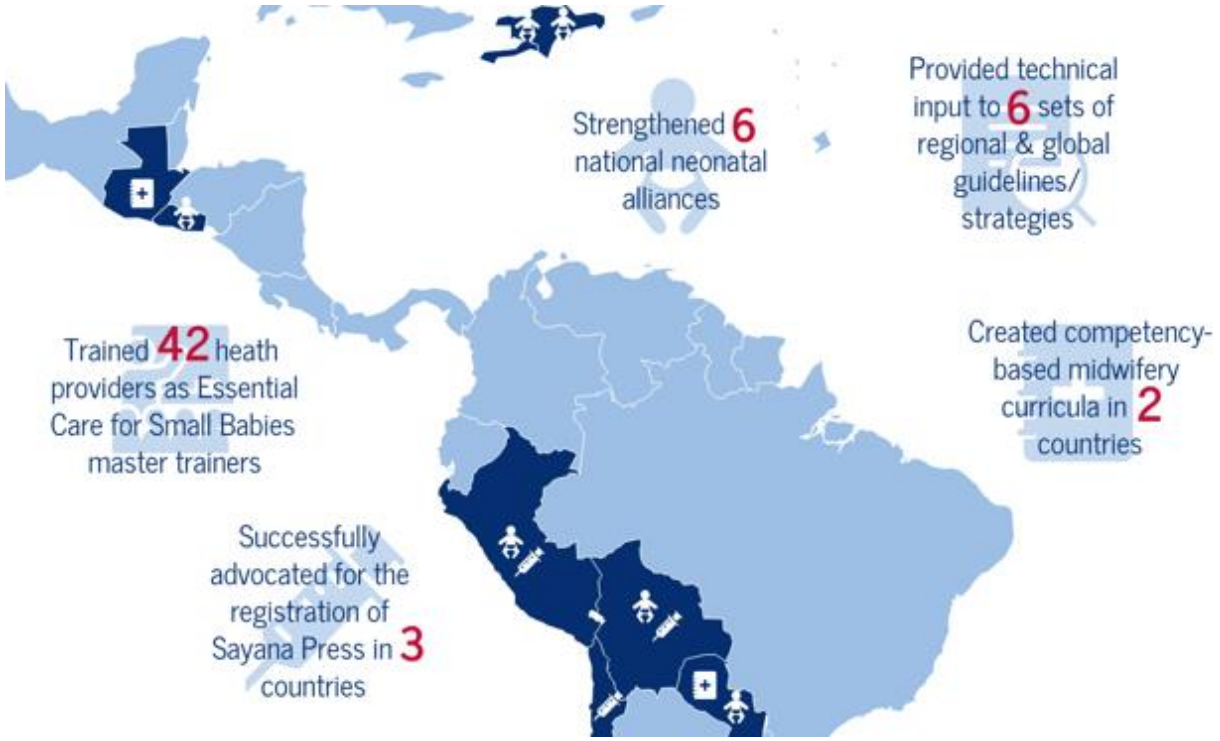
Areas of Focus - LAC Bureau

- Supporting regional stakeholders (e.g., professional associations, task forces, and regional alliances) to improve coverage and quality of maternal and newborn care in the LAC region
- Leveraging regional platforms to disseminate updated global MNH guidelines, evidence, and tools to stakeholders in the LAC region
- Promoting availability of essential reproductive health supplies in the LAC region

Highlights of MCSP's Legacy

MCSP supported the Caribbean Regional Midwives Association to become a regional leader in midwifery, providing midwives with opportunities to obtain needed ongoing education.	MCSP built in-country capacity of more than 300 providers across 16 countries in LAC on ECSB.	MCSP supported the Reproductive Health Supplies Coalition LAC Forum (ForoLAC) to become a thriving 600-member reproductive health organization—the largest in the LAC—to protect USAID's 50+ year investment in sexual and reproductive health in the region.

Figure 16.1. MCSP's legacy in the LAC region



Latin America and the Caribbean Bureau

Introduction

Although the LAC region has seen improvements in MNH health indicators in recent years—between 1990 and 2015, the MMR declined from 135 per 100,000 live births to 67 per 100,000—these gains mask stark inequalities.[20] From March 2014 to September 2019, the MCSP LAC Bureau strengthened regional and country-led efforts to improve MNH outcomes and access to reproductive health supplies within the LAC region. Crucial to the success of these MNH and reproductive health initiatives was MCSP's interagency collaboration and active participation in regional and country-led platforms. Assuming a leadership role in WGs and alliances such as the LAC Regional Task Force for the Reduction of Maternal Mortality (*Grupo de Trabajo Regional para la Reducción de la Mortalidad Materna* [GTR]) and the LAC Neonatal Alliance, and supporting regional fora such as ForoLAC, MCSP played a strategic role in shaping the regional MNH and contraceptive security agendas.

Key Accomplishments and Results

Best Practices to Achieve Respectful and Equitable Maternal and Newborn Health Care

- **Support to regional and country efforts to improve evidence-based quality respectful care**: Responding to the regional priority of strengthening RMC and eliminating mistreatment and abuse, MCSP disseminated updated MNH guidelines, best practices, and tools (including WHO *Recommendations on ANC for a Positive Pregnancy Experience,* WHO *Recommendations on Intrapartum Care for a Positive Childbirth Experience*, and the second edition of the WHO *Managing Complications in Pregnancy and Childbirth* manual) to stakeholders in the LAC region through nine regional and global meetings and three webinars. During the 2018 International Federation of Gynecology and Obstetrics Congress, MCSP collaborated with fellow GTR members to conduct a symposium, "RMC in the LAC region: How can we accelerate progress and measure change?" and supported the GTR to act on symposium recommendations. MCSP also worked closely with the GTR to strengthen RMC and the quality of MNH care in LAC through subregional meetings on RMC in **Panama** (in 2016) and in **Trinidad** (in 2017), engaging 91 meeting participants from 18 LAC countries to identify the major challenges and drivers of disrespect and abuse, identify priorities for accelerating action on RMC (see Box 16.1), and develop country-specific RMC action plans. As a result, **Haiti**, with support from its government and the GTR, conducted a country-wide RMC survey on disrespect and abuse, developed and implemented a RMC training guide, and began incorporating RMC indicators in national, subnational, and local information systems. **Uruguay** and **Cuba** also developed national RMC guidelines; **Chile** integrated RMC into the first level of care and now includes RMC content in its midwifery education programs; and several countries, including **Mexico**, have established committees to investigate obstetric violence claims.

Box 16.1. Priority actions for accelerating quality and RMC in the LAC Region

- Encourage high-level intersectoral advocacy to foster political and financial commitment
- Document and disseminate best practices
- Incorporate key RMC elements into regulatory frameworks
- Develop educational curricula and training courses
- Empower midwives at all levels
- Strengthen monitoring and evaluation systems including RMC indicators
- Develop behavior change and communication strategies to reach vulnerable groups
- Improve health facility infrastructure

- **Technical guidance on MDSR:** MCSP coordinated with PAHO and other stakeholders to foster alignment across a series of MDSR/MPDSR materials and resources, including the global MDSR capacity-building package, the complementary global PDSR capacity-building package, MCSP's MPDSR assessment tools, and WHO's MPDSR operational guidance. MCSP also supported the GTR to adapt WHO's global MDSR recommendations to regional needs in the *Guidelines for MDSR: Region of the Americas*. MCSP supported dissemination and monitored use of the guidelines within the region through initial training of trainers workshops in **Panama** (2015) and in **Jamaica** (2016). As a result, countries in LAC identify MDSR as a priority; in 2018, **Bolivia** held a national meeting on MDSR with support from the GTR. In July 2019, MCSP provided technical support during the Pan

[20] World Health Organization. 2015. Trends in maternal mortality: 1990 to 2015 estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: WHO. https://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/

American Health Organization-led meeting on Maternal Near Miss in **Panama** to discuss monitoring of extremely severe maternal morbidity in LAC countries; share information about existing models used by LAC countries with national monitoring systems; define a regional mechanism for monitoring extremely severe maternal morbidity; and agree on next steps for the regional dissemination of the mechanism.

- **Sharing of lessons learned to inform evidence-based approaches:** MCSP supported the GTR's development and launch of the *Overview of the Situation of Maternal Morbidity and Mortality: LAC*. Reflecting on progress, challenges, and lessons learned on maternal mortality reduction from the past decade, the document serves as a reference for regional stakeholders, including governments and policymakers, on the prioritization and adoption of successful evidence-based MNH approaches and best practices.
- **Development of terms of reference to map MH initiatives:** MCSP served as a key collaborator and participant in adapting WHO's Global Strategy for Women's, Children's, and Adolescents' Health to the LAC context, supporting the working group responsible for mapping the implementation of regional and national initiatives and interventions related to social equity in MH and adolescent pregnancy. Results of this mapping will inform decisions related to strengthening policies, strategies, and interventions on maternal and adolescent health to more effectively implement WHO's Global Strategy in local and national contexts.

Efforts to Improve Quality and Coverage of Newborn Care

- **Strengthening of regional and national neonatal alliances:** MCSP supported the LAC Neonatal Alliance, a regional interagency WG that advocates for the implementation of programs and regional policies to reduce newborn morbidity and mortality. MCSP served as chair for 4 years, technical lead for the executive committee for 5 years, and as a technical committee member to advance PDSR for 2 years. MCSP encouraged the alliance's sustainability and growth by moving the newborn health agenda to the national level and also provided technical assistance to countries interested in developing national alliances (i.e., Guatemala) by providing step-by-step guidance on how to form alliances and exchanging experiences with other already formed national alliances. MCSP strengthened the national alliances in **Peru**, **El Salvador**, the **Dominican Republic**, **Bolivia**, **Haiti**, and **Paraguay** by holding regular membership meetings to provide relevant updates in newborn health, share experiences implementing different neonatal health interventions, and facilitate south-to-south learning to overcome challenges. Additionally, MCSP collaborated with regional partners to coordinate approximately 10 webinars to update alliance participants (more than 100 participants per session from up to 15 LAC countries) on newborn health topics, including management of Zika congenital syndrome in response to the epidemic that affected newborns in the region, as an opportunity for capacity-building of health providers. MCSP ensured continuous support for the LAC Neonatal Alliance through the development of a roadmap with guidelines for countries that would like to form a national alliance, a transition plan for the alliance post-MCSP, and a strong executive committee.
- **Technical expertise to update newborn health guidelines and strategies:** Through participation in the Policies, Strategies, and Interventions WG, and in coordination with regional partners, MCSP provided technical inputs to regional guidelines and strategies including the Regional Strategy and Action Plan for Newborn Health (2015); ENAP; the Global Strategy for Women's, Children's and Adolescents' (2016–2030); and the Every Woman Every Child LAC strategy. These documents provide guidance on evidence-based interventions and best practices to incorporate into national newborn health plans in LAC. MCSP's inputs helped to make these documents relevant to the LAC regional context.
- **Expanded use of HBS resources:** MCSP served as the main advisor for implementation of HBS in the region, revising technical content and translations for the American Academy of Pediatrics and receiving recognition from the Academy as a leading agent in the implementation and dissemination of HBS resources in LAC. MCSP revised the Spanish and French translations of ECSB curriculum and trained approximately 300 health providers from 16 countries in Latin America and the ESC to serve as national trainers to provide cascade trainings in their individual countries. MCSP donated simulators and training materials (provider guides, flip charts, and action plans) for ongoing trainings and to increase the likelihood that participants would continue to practice their new skills in the workplace.
- **KMC scale-up in the Dominican Republic:** Following the introduction of KMC in the Dominican Republic under the USAID-funded Basic Support for Institutionalizing Child Survival project (with continued

implementation under MCHIP), KMC programming continued to grow under MCSP. In PY5, MCSP conducted a facility- and health system-level assessment to understand the status of KMC implementation in the country, evaluate the quality of clinical care at hospitals implementing KMC, assess strengths and opportunities, and provide recommendations to the MOH to scale up and sustain KMC. Although the Dominican Republic has made strides to address neonatal mortality through KMC, the assessment found that significant gaps remain, including: lack of funding, guidelines, and policies for KMC; inadequate numbers of health providers trained in KMC; and few breastfeeding promotion activities. MCSP recommended that the MOH and National Health Service prioritize the integration of KMC into newborn health and nutrition programming and strategies moving forward. Additional recommendations can be found in the KMC Assessment Report, which was disseminated to the MOH and key stakeholders in June 2019.

- **Indicators to measure KMC coverage:** MCSP was a visible technical leader for KMC for ENAP metrics. This resulted in MCSP co-authoring the article "Consensus-based approach to develop a measurement framework and identify a core set of indicators to track implementation and progress towards effective coverage of facility-based KMC," which was published by the *Journal of Global Health* in December 2017. MCSP's experiences in measuring KMC indicators in the **Dominican Republic** and **Colombia**, published in the article, helped to define indicators for global use. MCSP also contributed technical input to the protocol of the Every Newborn – Birth Indicators Research Tracking in Hospitals study (led by the London School of Hygiene & Tropical Medicine) to validate KMC indicators. The study results will help to inform recommendations on a standardized KMC coverage indicator for use in LAC countries' HMISs.

Strengthened and Expanded Midwifery Education

- **Implementation of competency-based midwifery curriculum in Paraguay:** MCSP strengthened midwifery education programming in Paraguay, where it successfully supported a south-to-south learning exchange between Peru and Paraguay and between Peru and Guatemala, facilitating learning and uptake of best practices between the countries in order to create a competency-based midwifery curriculum in each country. These efforts, which began under MCHIP, culminated in two schools executing the MCSP-developed curriculum in Paraguay, where there were no standardized midwifery curricula and, prior to MCSP interventions, there were disparate accreditation processes. Paraguay's National Higher Education Evaluation and Accreditation Agency adopted MCSP's curriculum as the standard to evaluate and accredit all of its midwifery schools.
- **Support to launch new midwifery cadre in Guatemala:** MCSP supported the launch of Guatemala's first midwifery education program, spearheading the development of a midwifery career path in conjunction with a competency-based midwifery curriculum. These efforts marked an important step toward improving the quality of and equitable access to MNH services, including RMC, given midwives' focus on rural and indigenous populations in Guatemala. With MCSP's support under LAC Bureau, the Guatemalan MOH approved the *Norms and Regulations to Implement the Technical University for Midwifery Career* and pledged to fund the first cadre of midwifery students in Huehuetenango. In PY3, these efforts transitioned to MCSP's project in Guatemala. Eighty-nine midwifery students, all funded by MOH scholarships, were enrolled in the Pan-American University in Huehuetenango as of May 2019.
- **Regional capacity to provide ongoing continuing professional development for midwives:** MCSP surveyed the Caribbean Regional Midwives Association's 13 member countries on their continuing professional development requirements and willingness to accept a regional accrediting body. MCSP and the association analyzed survey results from the 12 countries that responded, identifying regional priorities regarding continuing professional development learning platforms, content, and learning type. In close collaboration with the Caribbean Regional Midwives Association, MCSP developed two hour-long webinars: one on ANC and one on clinical updates in PE/E and PPH, derived primarily from WHO's second edition of *Managing Complications in Pregnancy and Childbirth*. Ultimately, the association will be able to provide credit to midwives who take these courses, strengthening its sustainability as a regional leader and initiating efforts to formalize a regional system for granting continuing education credits. MCSP also anticipates that the Caribbean Regional Midwives Association will have the opportunity to generate income from these webinars to ensure its sustainability.

Improvements to Procurement Systems and Increased Costs Savings for Reproductive Health Supplies

- **Advancements in the last-mile delivery of reproductive health supplies:** MCSP helped ForoLAC to strengthen regional health authorities' capacity to identify inefficiencies affecting the provision of reproductive health supplies in rural health facilities in five regions—two in **Guatemala**, two in **Peru**, and one in **Bolivia**—and to bring these inefficiencies to the attention of decision-makers. Regional health authorities partnered with CSOs to disseminate last-mile costing exercise findings to government officials and advocacy groups, using the evidence generated to implement advocacy plans and gain support for the last-mile supply chain. In two of Peru's regions, Cajamarca and Ucayali, supply chain financing is now part of the development and political agenda. In Guatemala, the exercise encouraged government officials to draft a national pharmaceutical policy, Guatemala's first such policy.
- **Increased price transparency of reproductive health commodities:** From 2018 to 2019, ForoLAC, with support from MCSP and anonymous donor funding, convened procurement officers from 15 LAC countries to share advances achieved in reproductive health commodity security. These discussions led to knowledge sharing on price negotiations and new strategies and tools for securing better procurement terms, and spurred dialog among national and international procurers. Ultimately, discussions led to the development of a new a digital price platform to allow national procurement agencies across the region to see what neighboring countries are paying for the same products.
- **Lower prices for contraceptives:** Through MCSP's support to ForoLAC, five national governments (**Argentina**, **Bolivia**, **El Salvador**, **Nicaragua**, and **Peru**) secured better prices for contraceptive products including one- and two-rod implants, copper IUDs, one- and three-month injectables, and male condoms. Price reductions ranged from 7% for the monthly injectable to 84% for the two-rod implant. Overall, price reductions generated approximately USD 15.3 million in annual cost savings across the five countries. Savings were largely reinvested in greater procurement volumes, in turn meeting the reproductive health needs of more women.

Recommendations for the Future

- **Continue GTR efforts to support the implementation of updated RMNCAH guidelines and evidence-based practices to promote high-quality experience of care in the LAC region**. Moving forward, mechanisms must be put in place to monitor quality of care and RMC in order to improve the experience of care, reduce mistreatment in labor and delivery, and strengthen MDSR. Further research is also needed to increase knowledge about the conditions of inequity in LAC.
- **Continue to strengthen the LAC Neonatal Alliance**. With MCSP's guidance, the LAC Neonatal Alliance platform became an operational and successful model of partnership with regional stakeholders to advocate for interventions that reduce neonatal morbidity and mortality. By strengthening country alliances, MCSP has fostered self-reliance in newborn health expertise in each of these countries. MCSP encourages further targeted support to alliance member agencies to ensure that the alliance continues to serve as a technical advisory group; as a resource for updated research, guidelines, and innovative newborn health technologies; and as a partner that monitors and supports country alliances.
- **Prioritize strengthening of midwifery frameworks**. MCSP and its regional and country partners have helped to ensure sustainable improvements in midwifery frameworks in the LAC region. Stakeholders should continue to prioritize competency-based education and strengthen midwifery frameworks to improve access to MNH care, especially among the most rural populations that midwives often reach.
- **Support ForoLAC to improve access to reproductive health commodities**. MCSP's support to ForoLAC has resulted in increased knowledge sharing and a renewed interest in supply chain costing. USAID's continued support to ForoLAC is essential to ensuring that the reproductive health agenda in the region continues to be updated and efforts to create more transparent price platforms across LAC are carried forward in order to increase access to affordable, quality reproductive health supplies.

Asia Bureau

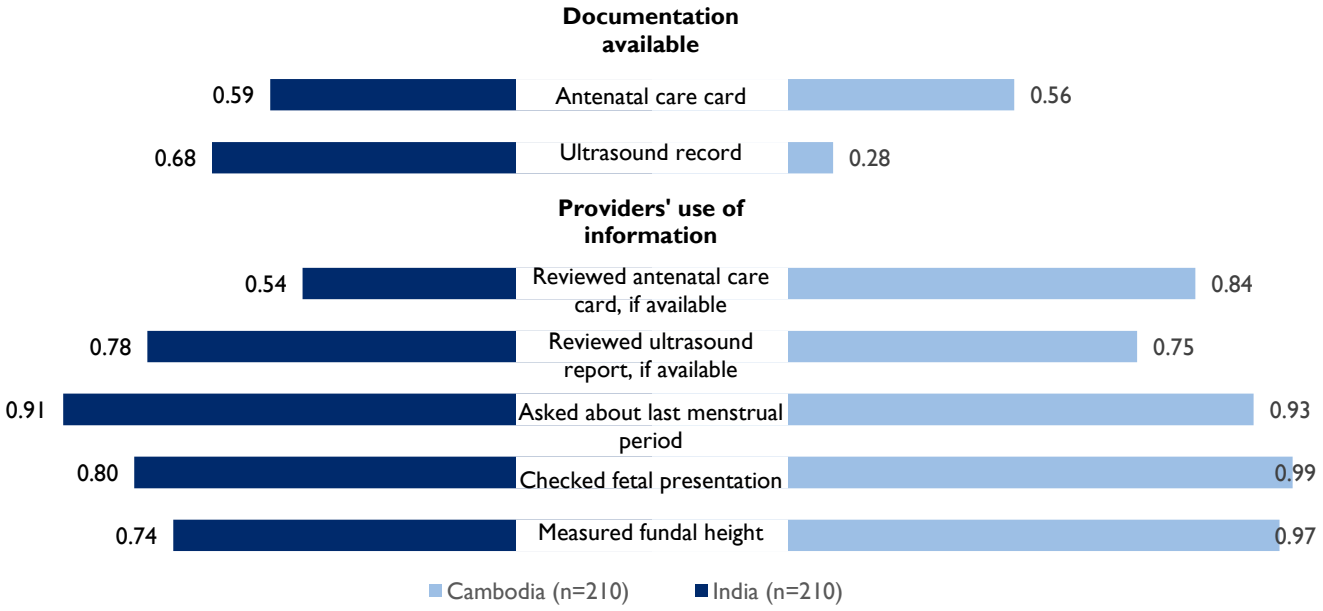
Areas of Focus - Asia Bureau

- Improving quality of MNCH services in Laos
- Increasing coverage of high-quality PNC services through an HSS and continuum of care approach in selected public health sites in India
- Improving GA estimation, documentation, and use for clinical care of pregnant women in large and small public-sector facilities in Cambodia and India

Highlights of MCSP's Legacy

In Laos, MCSP used a mentorship approach to build skills for MNH practices on the day of birth to improve outcomes in district facilities and remote health centers, and saw dramatic improvements in completion of partographs, oxytocin use, early breastfeeding, and skin-to-skin care.	The India Ministry of Health and Family Welfare recognized PNC as a priority area to focus on within its national QI initiative. The MCSP PNC study team will support the ministry to draft national operational guidelines for strengthening PNC services.	MCSP identified significant opportunities to improve GA estimation and use of ANC health information, noting that a majority of observed intrapartum triage encounters in India (68%) and Cambodia (53%) did not include review of any documentation from ANC.

Figure 17.1. Asia Gestational Age Estimation Study findings from intrapartum care observations at the hospital and health center level



In Cambodia and India, intrapartum care providers were more likely to collect new gestational age information during triage by asking about last menstrual period or measuring fundal height, rather than reviewing previous documentation in ANC cards or ultrasound reports. Often, these reports were unavailable.

Asia Bureau

Introduction

MCSP supported improving the coverage and quality of high-impact interventions in Asia through focused implementation research and analysis of facility- and home-based PNC in India, estimation of GA in India and Cambodia, and introduction of an MNH midwifery mentorship program with the MOH in Laos. Results generated through these investments contributed to the regional and global evidence base to strengthen the availability and quality of lifesaving ANC, intrapartum care, PNC for mothers and babies, and improved care through mentorship.

Key Accomplishments and Results

Achievements in Laos

- **Laos country program**: The Laos country program had two strategic objectives throughout the life of the project: 1) improve the quality of maternal and newborn care in Luang Prabang and Sayaboury provinces by strengthening key skills for maternal and newborn care among MNH care providers, their educators, and their supervisors, and 2) support process documentation of program learning to inform the MOH's and other stakeholders' efforts to improve MNH care. Please refer to the Laos country summary for more detail.

Effective Coverage of Postnatal Care Services in India

Building on the multicountry review of PNC home visitation programs in the public sector (led by SNL with USAID, MCSP, UNICEF, and WHO), MCSP conducted implementation research to develop a scalable model for effective coverage of pre- and postdischarge PNC using a system strengthening and continuum of care approach in India. Results from the formative review conducted in Karnataka, Uttarakhand, Odisha, informed the design and strategy for the implementation research phase, which was conducted at nine facilities (four primary health centers, four community health centers, and one district hospital) in three blocks in Nuapada District, Odisha.

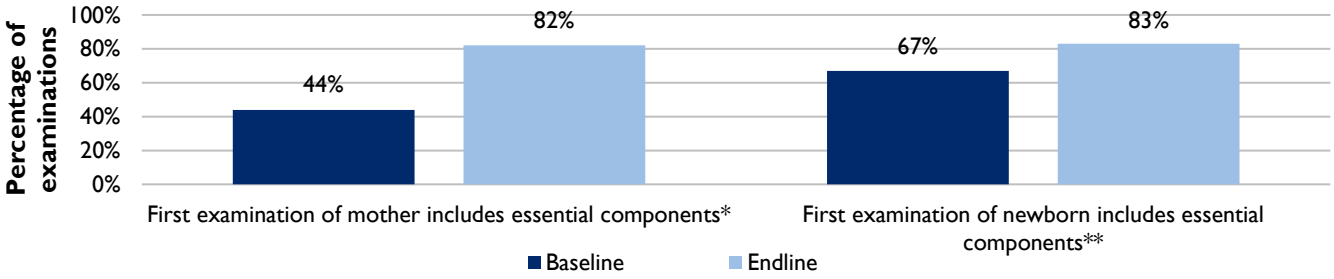
- **A new approach to identify and prioritize high-risk mothers and newborns:** In light of the recognized challenges in providing PNC, especially for the most at-risk mothers and newborns, a key intervention of the PNC study was the development of a risk stratification approach. This approach helped to prioritize high-risk mothers and newborns for home-based care and follow-up by accredited social health activists and auxiliary nurse-midwives. It was developed in consultation with the state government of Odisha and Nuapada District, and builds on an existing antenatal risk stratification approach that applies a series of steps for all mothers and newborns:
  - Predischarge screening to determine risk based on a set of simple symptomatic predetermined criteria
  - Delivery of improved quality of predischarge care at the facility and predischarge counseling
  - Establishment of a linkage between the facility and family/community using the mobile application
  - Home-based care, including calls and text reminders to accredited social health activists, auxiliary nurse-midwives, and families, for high-risk cases
  - Referral back to the facility for cases where an accredited social health activist identifies a danger sign at a home visit

  The study's overall HSS and continuum of care approach, including the risk stratification tool, was implemented at all levels of care (primary health centers, community health centers, and district hospital) in three blocks (Boden, Komna, and Khariar) of Nuapada. The approach included improvements to the health facility environment, strengthening skills of providers, and improved monitoring. Endline findings show that the approach was successful in increasing the duration of predischarge stay for all mothers and newborns.
- **Improved quality of pre- and postdischarge PNC:** MCSP used a number of approaches to improve the quality of predischarge care for mothers and newborns in the study area. Facility-specific QI plans were developed, and champions were identified among staff leadership. In addition, a mentoring model was developed to strengthen predischarge care by mentoring staff nurses in the district hospital and selected community health centers. The mentoring aimed to build capacity and motivation of staff to improve the quality of care during hospital stay and at the time of discharge. Finally, MCSP supported the establishment of model PNC wards in

Tarbod and Khariar; these model wards included dedicated space for PNC as well as essential equipment and supplies to ensure that staff were equipped to provide care for mothers and newborns before discharge. Quality of care predischarge PNC at health facilities in Nuapada District improved for all mothers and newborns, with increased attention on the importance of predischarge examination. This included a change from 44% at baseline to 82% at endline of mothers receiving a first examination with four or more essential components and a change from 67% at baseline to 83% at endline of newborns receiving a first examination with four or more out of seven essential components (Figure 17.2). In addition, the percentage of mothers who received any predischarge counseling increased from a baseline level of 69% to 80% at endline. Increased client satisfaction scores were also noted from baseline to endline, and the increased duration of stay at primary health centers and community health centers for vaginal deliveries (as compared to baseline) suggests that families perceived greater value in staying longer at the health facility and were more willing to do so due to improved quality of care (Figure 17.3).

The average number of postnatal home visits for all mothers and newborns was four at baseline and increased to five visits at endline for high-risk cases (it remained the same for non-high-risk cases). Maternal recall of danger signs increased from baseline to endline, with an increase from 36% to 97% of mothers who were able to recall at least four danger signs in a mother that require referral and an increase from 30% to 97% of mothers who were able to recall at least four danger signs in a newborn that require referral.

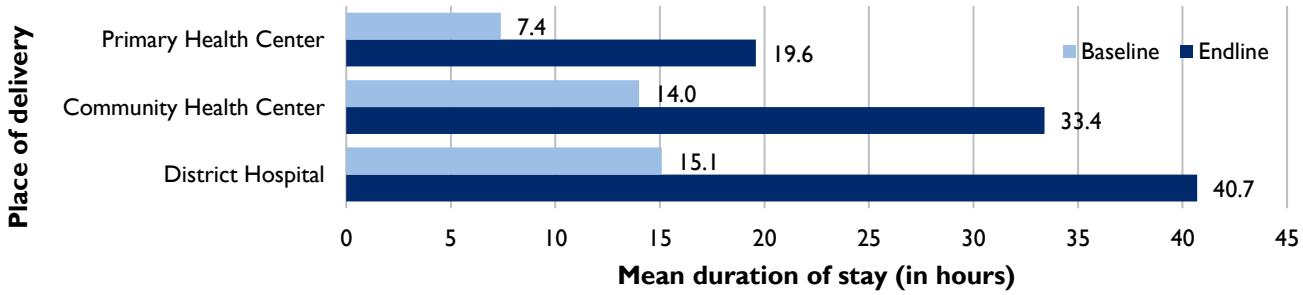
Figure 17.2. Quality of first examination of mother and newborn, baseline versus endline



*An exam for a mother was counted as including essential components when it included four or more of the following essential components: inquiry about excessive bleeding, pads and abdominal pain, and examination for blood pressure, pulse, and temperature.

**An exam for a newborn was counted as including essential components when it included four or more of the following essential components: examination of skin, cord, weight, temperature, and breathing, and counseling included information on breastfeeding, warmth, and danger signs.

Figure 17.3. Mean duration of stay for all mother-newborn pairs, by place of delivery, baseline versus endline



- **Development of a mobile app to connect families and accredited social health activists:** The formative research revealed that the linkages between facility and community were nearly nonexistent in many places. In response, MCSP developed and launched a mobile application, First42Days, to better connect facility staff, families, and their designated CHWs. In addition to linking a family with their accredited social health activist/auxiliary nurse-midwife, the app provides the accredited social health activist/auxiliary nurse-midwife information about the medical status of the mother and newborn so that they can conduct timely, tailored PNC visits. By incorporating voice messages along with text messages, the app reached users regardless of literacy level or type of mobile phone they used, thus increasing social accountability. The study found that 40% of families called their accredited social health activist back to ask about the home visit in response to receiving the messages.

- **Local ownership and investment for sustainability:** The approaches developed through the MCSP-supported pilot in Nuapada District contributed to improvements in the coverage and quality of PNC for the most vulnerable mothers and newborns. Local and national stakeholders, including the Odisha state government and the Ministry of Health and Family Welfare, have expressed an interest in scaling up the interventions; the risk stratification approach was proposed for inclusion in the Odisha state budget for scale-up in all 15 priority districts in the state. In late 2019, the Odisha state government committed to scaling the approach in four districts (Bolangir, Kandhamal, Koraput, and Malkangiri) in the next fiscal year, with the remaining 11 districts planned for following fiscal year. At the national level, the Ministry of Health and Family Welfare incorporated materials developed by the MCSP-supported study into the governments national information, education, and communication strategy for the Labour Room QI Initiative (LaQshya). A case study on the risk stratification approach was selected for inclusion in the upcoming Government of India- and WHO-led Quality, Equity, and Dignity Compendium, and a case study on the MCSP-supported PNC work was also included in the recent global ENAP report. Lastly, MCSP provided technical support to the Government of India to develop national operational guidance for improving PNC services.

Asia Gestational Age Estimation Study

The capacity to provide appropriate, time-sensitive interventions for improving maternal and newborn outcomes in the context of ANC and intrapartum care depends upon the clinically appropriate use of accurate and precise GA information. Correct calculation of the estimated date of delivery, which follows GA estimation, also facilitates appropriate birth planning and complication readiness by the mother and family. Increased global attention to the need for accurate GA estimation was triggered by results of the Antenatal Corticosteroid Trial, published in 2014, which showed that despite the expected more frequent use of antenatal corticosteroids for mothers of LBW infants in the intervention groups, neonatal mortality did not decrease in this group and, in fact, increased in the study population overall. Study authors theorized that inaccurate GA assessment contributed to misclassification of GA-based eligibility and the increase in neonatal mortality.

- **Accurate GA estimation:** The Asia Gestational age Estimation Study (AGES) aimed to understand the current strategies and practices of GA estimation and documentation in two LMICs (India and Cambodia), with the ultimate goal of contributing to safe and effective clinical practice in MNH. A critical premise for this research has been that GA is most accurate and precise when documented early in pregnancy (first trimester when possible), and that GA must be documented and reviewed throughout the continuum of care to best inform clinical decision-making, especially with regard to time-sensitive interventions.
  - **Cambodia:**
    - Approximately 60% of patient study participants presenting for intrapartum care at the hospital level in Cambodia did not bring an ANC record for review. This was true for around 28% of clients presenting for intrapartum care at health centers.
    - Among those women who brought ultrasound records with them, about 25% did not have those records reviewed by a provider.
    - For those with time-sensitive interventions (e.g., induction of labor), only 56% had ultrasound records available.
  - **India:**
    - Ultrasound was generally more available than in Cambodia, but ultrasound-based GA was available for only 3% of ANC clients less than 14 weeks pregnant, indicating that the gold standard for precision in GA estimation was exceedingly rare.
    - Most providers (92%) asked clients about the date of their last menstrual period at their first ANC visit.
    - Nearly half of clients did not receive an ANC card at the first ANC visit, and as a result, approximately 6% of clients had estimated date of delivery established and documented in the first trimester.
    - Most intrapartum clients (59%) brought ANC cards to maternity services, but only about half of those had providers who looked at their cards.
    - Among women receiving time-sensitive intrapartum interventions at the health center level (n=50), 34% had no ANC record available for review.

- Qualitative research findings indicate that most ANC clients in rural Rajasthan understand time in relation to harvests, the moon cycle, and festivals, rather than months and days. Analysis has also shown that no consistent protocol for GA estimation or triangulation of inputs is used by providers. While providers often expressed confidence in their GA estimation practices, this was not backed by quantitative data.
- Health providers communicated diverse explanations for value of GA estimation in ANC and intrapartum care.

- **Guidance generation:** The findings of AGES informed the agenda, discussions, and decision-making at the MCSP-convened Technical Consultation on Improving the Quality of GA Estimation on May 30, 2019, in Washington, DC. Global stakeholders, including representatives from MCSP, USAID, WHO, UNICEF, PAHO, and various academic institutions, considered the global normative guidance, implementation challenges, and emerging evidence to develop updated guidance for the global community. The technical experts discussed potential strategies for improving quality GA estimation and use in clinical decision-making, and opportunities to increase access to rational ultrasound use, including country support requirements and priorities for HSS. The suggested guidance will be shared with the global community and study countries via a final report and dissemination events, with the ultimate goal of improving quality of care for pregnant women and infants.

Recommendations for the Future

Laos

Please refer to the Laos country program summary for a list of recommendations for the future.

Postnatal Care

In India, MCSP built on the Odisha State government's innovative approach for antenatal risk stratification by extending it to the postnatal period, and prioritized pre- and postdischarge care for those mothers and newborns who were at risk of developing complications. The pilot in Nuapada demonstrated the potential for this approach to strengthen the quality of care and improve outcomes for mothers and newborns; the next step will be to contextualize and test the Nuapada PNC approach to other states, thereby improving PNC for mothers and newborns across India.

- **Discuss risk stratification as a means to improve PNC for the most vulnerable mothers and newborns as a strategy to improve postnatal outcomes.** To do so, the strategy tested in Nuapada should be adapted and tested in different geographical and health system conditions in other countries and results published to contribute to the knowledge base. The global MNH community should review results of the risk stratification approach in improving maternal and newborn outcomes, and consider updating the WHO guidelines, if the results show promise. This would contribute to reducing morbidity and mortality among mothers and newborns, particularly those at the greatest risk of postnatal complications.
- **Expand and test the First 42 Days mobile app with new content.** With the rapid growth of digital health technology, it is recommended that the First 42 Days mobile app be expanded and tested for additional contents, such as metrics, feedback from parents, and referrals and counterreferrals. This will contribute to the growing knowledge base for mHealth interventions as important tools to enhance care, build accountability of health systems, and strengthen linkages between facilities, communities, and families.
- **Design and test a specialized PNC model for newborns discharged from inpatient care.** This could include specific instructions on timing and content of PNC for these highly vulnerable infants, including linking with early intervention programs to support their neurodevelopment and physical health.

Gestational Age Estimation

- **Continue to prioritize improved accuracy and precision of GA estimation as the global community works toward improving the overall quality of MNH services**. GA is critical to providing appropriate, time-sensitive interventions for improving MNH outcomes in the context of ANC, intrapartum care, and PNC.
- **Invest in improving the experience of ANC for women to facilitate earlier entry to care.** This, in turn, supports accuracy and precision in GA assessment.

- **Emphasize the importance of clinical documentation during capacity-building for ANC and intrapartum care providers.** This can help in communicating with other caregivers throughout the continuum of care and with appropriate clinical decision-making.
- **Precede rational introduction and use of obstetric ultrasound by broad consideration of overall health system priorities and referral pathways, appropriate cadres, training needs, equipment maintenance capacity, and safe environment of care for equipment and infection control.**
- **Disseminate the guidance generated from the Technical Consultation on Improving the Quality of GA Estimation.** The findings of AGES should also be included in the global MNH evidence base when developing future guidelines on ANC and ultrasound use in pregnancy.

Global Development Alliances

Areas of Focus for Global Development Alliances

- Mobile Alliance for Maternal Action: harnessing mobile phones to provide women and their families access to the basic health information they need to have a healthy pregnancy and babies.
- Survive and Thrive: Supporting, sustaining, and strengthening high-quality, facility-based interventions and clinical competencies through training, QI approaches, professional associations, and the application of effective technologies and innovations
- Saving Mothers, Giving Life (SMGL): Reducing maternal mortality in low-resource, high-burden sub-Saharan African countries using a district HSS approach

Highlights of MCSP's Legacy

Through the MAMA program, MCSP improved access to vital health information for over 86,000 pregnant women, spouses, and family members in Nigeria.	MCSP contributed to the development and dissemination of HBS and HBB training modules, strengthening capacity and improving quality of care for mothers and newborns in seven MCSP and MCHIP-AA-supported countries.	Through SMGL, MCSP helped to increase M&E capacity in Uganda and Zambia, allowing for better tracking of key health indicators and maternal deaths.

Figure 18.1. Highlights from the Survive & Thrive and 100K Babies initiative in Nigeria

As a partner on the Survive & Thrive/100K Babies initiative in Nigeria, MCSP contributed to strengthening the capacity of professional associations and frontline health workers to deliver life-saving newborn care in Nigeria.

MCSP and other100K Babies partners collaborated with the Pediatric Association of Nigeria and Nigerian Society of Neonatal Medicine to support the Federal MOH in developing a **harmonized national Essential Newborn Care Course.** The course brings together adaptations of *Helping Babies Survive* and the WHO *Early Essential Newborn Care* modules.

Between 2015-2018, 100KB partners (including MCSP) trained:

93 **national-level master trainers** on the harmonized ENCC curriculum

2,472 **frontline health workers** in 8 states through cascade trainings

Global Development Alliances

Introduction

Mobile Alliance for Maternal Action

Millions of pregnant women and their families have inadequate access to the basic health information they need to have a healthy pregnancy and healthy babies. MAMA was designed to address this barrier by harnessing the growing ubiquity of mobile phones. MAMA was a three year (2012-2015) public private partnership between USAID and Johnson& Johnson—each providing a $5 million investment—that delivered vital age- and stage-based health messages to new and expectant mothers in developing countries via their mobile phones. Through its global learning program, it created tools and resources to strengthen new and existing mobile health programs for use by NGOs and other organizations to provide trusted information to moms. MAMA developed free, adaptable messages informed by experts in MNCH—including those at MCHIP and MCSP. The program also included the MAMA Global Secretariat, which was established in 2012 as a result of the promising experiences from Bangladesh and South Africa. The secretariat was supported by USAID, Johnson & Johnson, and BabyCenter, and was hosted by the mHealth Alliance/United Nations Foundation with the following objectives: to galvanize the mHealth efforts in Bangladesh and South Africa to expand similar programs for low-income pregnant women, new mothers, and their families to other countries; to create high-quality age- and stage-based messages for these clients that could be adapted to meet the needs of the local context; and to research and better understand the role that mHealth can play in behavior change, leading to demonstrated

Survive and Thrive

Building upon the successes of the HBB GDA, the Survive and Thrive GDA launched in 2012 with the goal of improving maternal and child survival and tackling the leading causes of newborn death beyond birth asphyxia. The American Academy of Pediatrics served as the secretariat of the GDA, which was also supported by private sector partners Johnson & Johnson and Laerdal. The GDA was founded on two key objectives: (i) support, sustain, and strengthen high-quality, facility-based interventions and clinical competencies through training, QI approaches, and the application of effective technologies and innovations; and (ii) mobilize and equip members of professional associations to improve the quality of high-impact MNCH interventions in health facilities and to be MNCH champions. Global maternal, newborn, and child mortality rates correlate with a lack of access to health services provided by trained, skilled health care providers. To address this need, the GDA developed a series of tools and resources, including the HBS and Helping Mothers Survive packages, and coordinated with MOHs through country-led and country-owned initiatives to develop national MNH plans and provide training opportunities for health professionals.

Saving Mothers, Giving Life

Preventing maternal and newborn deaths remains a global health imperative under the United Nation's SDG targets 3.1 and 3.2. SMGL was designed in 2011 within the Global Health Initiative as a public-private partnership between the US government, Merck for Mothers, Every Mother Counts, the American College of Obstetricians and Gynecologists, the government of Norway, and Project Commission on Urgent Relief and Equipment. SMGL's initial aim was to dramatically reduce maternal mortality in low-resource, high-burden sub-Saharan African countries. It used a district HSS approach, combining supply- and demand-side interventions to address the three key delays to accessing effective maternity care in a timely manner: delays in 1) seeking, 2) reaching, and 3) receiving quality obstetric services. MCSP supported SMGL and the MOH in Zambia to improve or scale-up high-impact interventions, including EmONC, ENC, HBB, PPFP, and more in target districts. The project also increased M&E capacity in Uganda and Zambia in order to improve tracking of SMGL indicators.

Key Accomplishments and Results

Mobile Alliance for Maternal Action

- **MAMA implementation**: **Bangladesh**, **India**, **Nigeria**, and **South Africa** started implementation of their mHealth programs sequentially and are at varying stages of implementation and program scale-up. The country

programs have achieved successes in reaching pregnant women, new mothers, and their families with vital information about how to take better care of themselves and their children. The evidence-based, culturally sensitive mobile messages have been downloaded and used by 161 organizations in 54 countries around the world and are accompanied by guidelines on how to localize the messages for a specific country context. The country programs have also developed public-private partnership networks, particularly engaging governments and mobile network operators in supporting mHealth efforts. The full report and relevant resources are available on MCSP's website.

- **HelloMama in Nigeria:** MCSP supported the HelloMama program, which has been scaled up in Cross River and Ebonyi states, reaching 97 health facilities and more than 60,000 subscribers. HelloMama is an age- and stage-based messaging platform delivering behavior change messages to pregnant and postpartum women through integrated voice response and text platforms. The project was implemented as a partnership with Pathfinder and Praekelt. In baseline and the endline surveys conducted by Pathfinder on the behalf of the partnership, results showed an increased percentage of women having at least four ANC visits (87% in the intervention group vs 82% in the control group), breastfeeding their child exclusively for at least 6 months (69% intervention vs 62% control); and applying CHX to the newborn's stump (43% intervention vs 33% control). The State of Cross River has agreed to take on the running costs for the program and has already included a budget allocation to continue the program beyond the end of the MCSP transition.
- **Support to the MAMA Global Secretariat closeout:** Once its global goals were achieved, the MAMA Global Secretariat was dissolved in December 2015. MCSP played a key role in this transition process, including supporting the secretariat's closeout activities and synthesizing lessons learned from the four countries, with the aim of providing useful information to other stakeholders interested in implementing mHealth initiatives.
- **MAMA lessons learned:** In December 2016, MAMA hosted a "lessons learned" meeting with representatives from the four country programs and partner organizations. Due to MCHIP's role in implementing the program in Bangladesh and supporting M&E in South Africa, as well as its own role introducing MAMA in Nigeria, MCSP played a critical role in coordinating this meeting. The primary lessons identified in this meeting include using local contextual factors such as literacy levels or phone usage patterns during initial mobile channel selection; conducting formative research to guide programmatic design; and developing financing models with consideration of the local context, goals, and cost drivers. It is also important to build partnership structures with clearly articulated roles and contingency plans for unanticipated changes in leadership, strategy, and personnel; localize content, timeslots, jingles, etc., with involvement from country stakeholders; and carefully align multiple partners and strategies for customer enrollment. The systems need to be designed to be adaptable to evolving program needs, which requires careful management and collaboration with external technology experts and mobile network operators. Finally, reporting needs and privacy policies should be clarified before implementation to avoid delays in harnessing data, with a careful balance struck between resources allocated for routine monitoring and impact evaluation. Further information about this meeting can be found in the MAMA lessons learned brief.

Survive and Thrive

- **Mobilization of GDA partner resources:** From 2012 to 2017, Survive and Thrive GDA harnessed the expertise and innovation of partners, including USAID and its supporting projects, MCHIP, MCSP, and USAID ASSIST; the American Academy of Pediatrics; Laerdal; Latter Day Saint Charities; Jhpiego; Save the Children; Johnson & Johnson; Global Health Media; the American College of Nurse-Midwives; the Bill & Melinda Gates Foundation; the American College of Obstetricians and Gynecologists; the American Heart Association; Sigma; Project CURE; and the International Pediatric Association to ensure that mothers, newborns, and children across the globe can survive and thrive to their full potential. The GDA mobilized USD 120 million in contributions from all partners, 45% of which was cash, and contributed to country- and global-level advancements in training and QI for MNH.
- **HBS and Helping Mothers Survive training modules in national programs:** Through the Survive & Thrive GDA, MCSP supported the adaptation and integration of the HBS and Helping Mothers Survive training modules into national programs in **Bangladesh**, **Burma**, **Pakistan**, the **DRC**, and **Zimbabwe**. In addition, MCSP introduced and expanded the use of HBS modules in several other countries across the globe, extending the reach of the GDA-supported materials far beyond the countries included in the GDA itself. For example,

MCSP supported the introduction of ECSB in eight countries in the LAC region (see the LAC Bureau and Zika sections for details).

- **Bangladesh:** A multipartner effort in Bangladesh to adapt materials related to the care of newborns to the country context resulted in the development of the Comprehensive Newborn Care Package, which has since been implemented in public sector settings at multiple service delivery levels.
- **Burma:** GDA partners in Burma engaged with in-country technical experts to adapt and incorporate existing global and country manuals and guidelines, including HBB, ECEB, and ECSB, to strengthen existing national newborn resuscitation and IMNCI training programs. The updated modules, reflecting relevant Burma policies, guidelines, and protocols, were launched by the MOH for national scale-up in April 2017 and have resulted in the creation of a national newborn resuscitation package. This has been an important step toward institutionalizing competency-based, hands-on education methodology to improve newborn skills for health care providers.

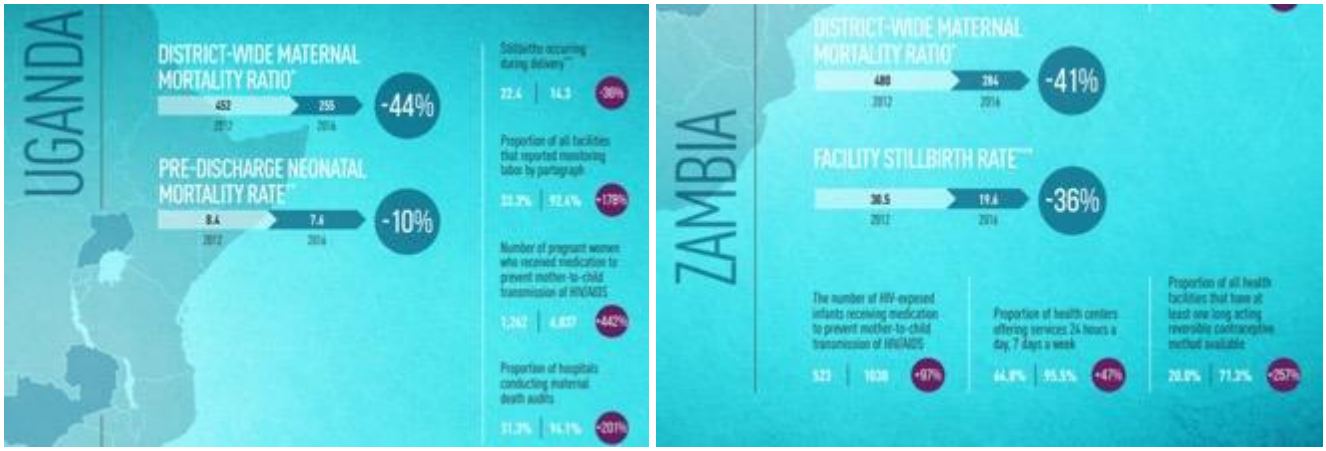
- **Professional associations strengthened as a pathway to sustainability:** Together with other GDA partners, MCSP mobilized national professional associations to lead and facilitate improvements in the delivery of high-quality health services across the globe.
  - **Nigeria:** GDA partners in Nigeria, supported a memorandum of understanding between professional associations and the Federal MOH to ensure the availability of trained and mentored health providers to improve the quality of services. MCSP worked in collaboration with the Federal MOH, American Academy of Pediatrics, and Pediatric Association of Nigeria/Nigerian Society of Neonatal Medicine to train 93 national-level master trainers on the new, harmonized ENC Course curriculum; cascade trainings were subsequently rolled out and reached at least 2,472 frontline health workers in eight states of the country. The GDA also worked with the Nigerian professional associations to adapt and integrate HBS training modules into the national newborn program. (Figure 18.1)
  - **DRC:** MCSP supported the organizational and institutional capacity-building of the Congolese Association of Pediatricians, through a subagreement with the Canadian University Services Overseas International, to build upon the Pediatric Association's potential regarding governance, administrative support, communication, and advocacy. Separately, MCSP also collaborated with GDA partners (American Academy of Pediatrics, American College of Nurse-Midwives, and American College of Obstetricians and Gynecologists) to support four Congolese professional associations—the Congolese Association of Pediatricians, Congolese Association of Obstetricians/Gynecologists, Congolese Association of Midwives, and the Congolese Order of Nurses—to improve care for mothers and newborns by strengthening provider performance on low-cost, high-impact interventions. Specifically, MCSP, along with the three GDA partners, harmonized, adapted, and adopted an integrated maternal, newborn, and PPFP package for care on the day of birth and the immediate postpartum period, for integration into pre-service and in-service training in-country. Twenty-three professional association members were trained on the integrated package in 2017, and subsequently cascaded the training at their own health care institutions and elsewhere in the country, including at the MCSP-supported model training center at Kintambo General Hospital. By September 2018, MCSP had trained 53 of Kintambo's health care providers on the integrated MNH and PPFP package at the model training center; trainees also benefited from post-training follow-up and skill practice. Post-test evaluations showed impressive gains in theoretical knowledge as well as clinical skills, with an average final evaluation score of 89.8%.

- **Implementation of focused QI measures:** MCSP led QI initiatives in several countries, including Nigeria, where quality control measures in relation to health care delivery and facility readiness did not previously exist.
  - **Nigeria:** MCSP established QI teams in 91 health facilities and developed M&E tools to contribute to the adaptation of Nigeria's national QI guidelines and tools and to incorporate the WHO quality of care framework in Igabi. These tools were used by GDA partners Save the Children and Johnson & Johnson to train staff on data management and using data for decision-making, as well as forming QI teams in 22 health facilities to track QI indicators related to MNH outcomes, facility cleanliness, and provider skills. As a result, the percentage of Johnson & Johnson-supported facilities reporting data to the state DHIS on time increased from 60% to 90%.

Saving Mothers, Giving Life

- **Support for M&E in Uganda:** MCSP supported the SMGL partnership on all aspects of M&E in Uganda. To calculate maternal deaths in the community, data were triangulated across routine monitoring, verbal autopsy review, and deaths identified by the pregnancy outcome monitoring system at facilities. There was a 44% reduction in both facility and districtwide MMR in Uganda. Facility deliveries increased by 47% (from 46% to 67%) in Uganda, while cesarean delivery rates increased by 71% (from 5.3% to 9.0%). The changes in stillbirth rates were significant (−13%) in Uganda. The average annual rate of reduction for maternal deaths in SMGL-supported districts exceeded that found countrywide: 11.5% versus 3.5%.
- **Support to scale-up of MNCH interventions in Zambia**: MCSP assisted SMGL and the MOH in scaling up evidence-based, high-impact MNCH interventions as the main clinical implementing partner for 87 target facilities in Mansa, Chembe, Lunga, Kabwe and Samfya districts. MCSP was also designated as the HBB clinical implementing partner for Chipata, Choma, Pemba, Zimba, Kalomo, Lundazi, and Nyimba districts, where the project reached a total of 105 target facilities. In order to reduce maternal and neonatal mortality in SMLG target districts, MCSP supported the MOH and other partners to expand and improve the quality of labor/delivery, newborn, and postpartum health services (including PPFP in Mansa and Chembe). MCSP worked across the national, district, and community levels to revise and standardize national training packages, implement activities to improve the quality of clinical care, and generate demand for maternal health services. For instance, MCSP trained 128 national trainers in ECEB, HBB and KMC to facilitate integration of these approaches into all EmONC trainings in Zambia. The project also provided training and mentorship in EmONC/ENC to 43 healthcare providers and additional trainings and/or mentorship for over 400 providers.
- **Development of M&E capacity in Zambia:** MCSP supported the SMGL partnership to build M&E capacity of the University of Zambia for routine indicator monitoring and reporting. Staff at the Central Statistical Office were trained on SMGL indicators, data collection, and verbal autopsy for the endline districtwide summative evaluation effort. These efforts found a 38% reduction in facility and a 41% decline in districtwide MMR in Zambia. Facility deliveries increased by 44% (from 62% to 90%) while cesarean delivery rates increased by 79% (from 2.7% to 4.8%). The average annual rate of reduction for maternal deaths in SMGL-supported districts exceeded that found countrywide: 10.5% versus 2.8%. The change in stillbirth rates was also significant (−36%).

Figure 18.2. Saving Mothers, Giving Life results in Uganda and Zambia



Source: Saving Mothers, Giving Life. 2018. *5 Years, 3 Countries, 1 Mission. 2018 Final Report: Results of a Five-Year Partnership to Reduce Maternal and Newborn Mortality*. SMGL. http://www.savingmothersgivinglife.org/docs/smgl-final-report.pdf

Recommendations for the Future

Specific recommendations for the future from MAMA, Survive and Thrive, and SMGL can be found in each of the GDAs' final reports.

HIV/AIDS

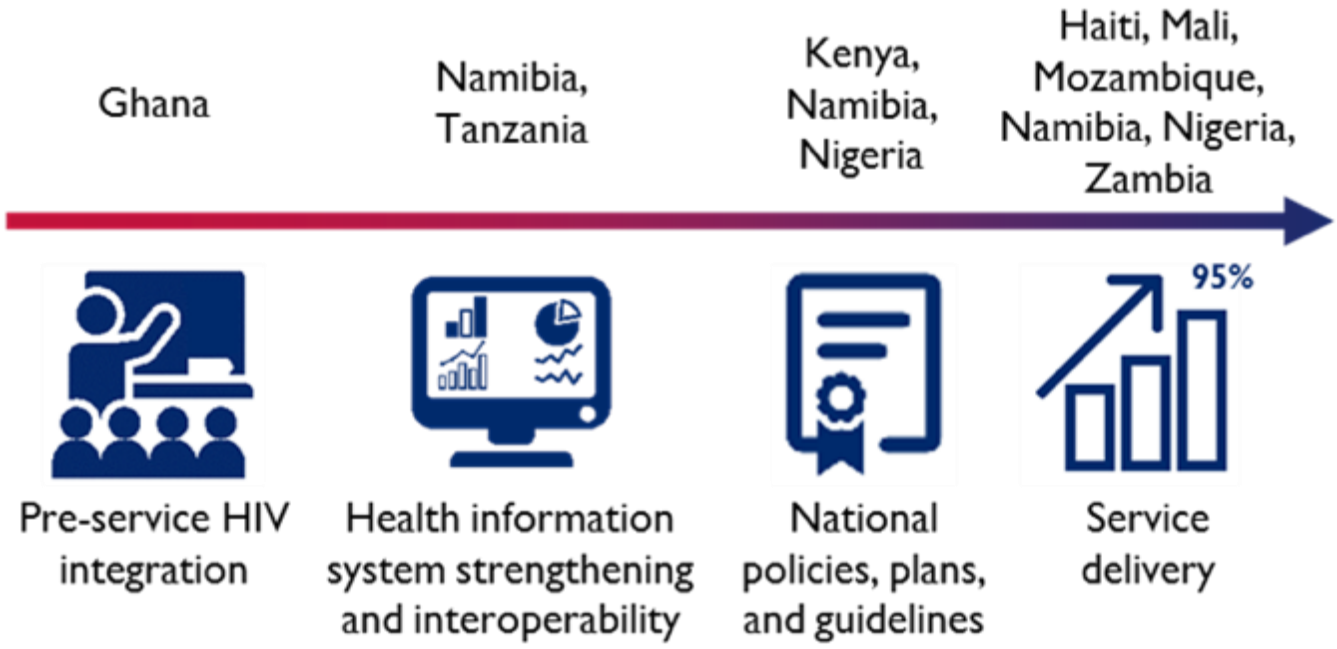
Areas of Focus - HIV/AIDS

- Addressing country-specific priorities related to HIV prevention, treatment, care and support, including service delivery, policy development, and capacity development
- Providing technical assistance to achieve 95-95-95 targets
- Supporting service delivery across the cascade of care, including HIV testing services (HTS), prevention of mother-to-child transmission (PMTCT), HIV care and treatment including cervical cancer screening, and adherence support

Highlights of MCSP's Legacy

Supported nearly 20,000 HIV-positive women during pregnancy with ART for PMTCT across Haiti, Mozambique, and Zambia, and initiated more than 11,000 nonpregnant clients on ART in Haiti and Namibia.	Contributed to providing HTS to more than 400,000 clients, including the most hard-to-reach populations through support of MOHs and empowerment of CHWs in Haiti, Mozambique, Namibia, and Nigeria.	Contributed to strengthening health systems performance drivers from pre-service strengthening for HIV services in Ghana and Tanzania to enhancing the interoperability of HMISs in Namibia and Tanzania.

Figure 19.1. Moving from systems strengthening to HIV service delivery in MCSP-supported countries



HIV/AIDS

Introduction

The HIV response is a remarkable achievement in the history of global health. PEPFAR has played a defining role in supporting the Joint United Nations Programme on HIV/AIDS (UNAIDS) fast-track targets to end the HIV pandemic by 2030. Several countries are on track to achieve epidemic control, and "undetectable = untransmittable" holds the promise of sustained epidemic maintenance. However, in 2017, 1.8 million individuals globally acquired HIV.[21] Countries' trajectories toward the 95-95-95 targets are not uniform. Although steady progress has been made in addressing the HIV epidemic, young women and girls are still disproportionately affected in many countries where MCSP works, especially in sub-Saharan Africa, where 56% of new HIV infections are among women. MCSP received PEPFAR funds in a select number of countries to further advance PEPFAR priorities. MCSP increased access to prevention, treatment, care, and support services in nine countries: eight across sub-Saharan Africa (Ghana, Kenya, Mali, Mozambique, Namibia, Nigeria, Tanzania, and Zambia) and one in the Caribbean (Haiti). MCSP assisted governments to ensure that HIV testing and treatment was afforded to the most at-risk, vulnerable populations.

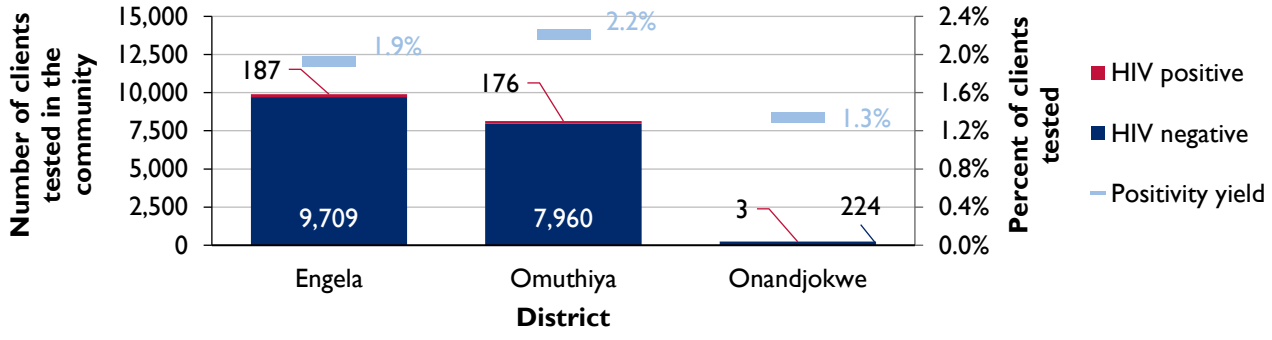
Key Accomplishments and Results

HIV Prevention, Including HIV Testing Services

Country

- **Strengthening of the continuum of care through Namibia's national CHW program:** From 2014 to 2018, MCSP supported Namibia's Ministry of Health and Social Services to strengthen the continuum of care from households and communities to health facilities by institutionalizing the national Health Extension Program. Leveraging the reach of CHWs through the national CHW program, MCSP provided catalytic technical support to the Ministry of Health and Social Services to introduce and scale up community-based HTS in five northern districts with high HIV prevalence. Between July 2016 and June 2018, 138 CHWs conducted 18,229 HIV tests; of these, 67% were performed for first-time testers (see Figure 19.2). The standard operating procedures developed by MCSP for community-based HTS in the CHW program will be used by the ministry to further scale up the approach and accelerate Namibia's progress toward reaching the UNAIDS 95-95-95 targets.[22] Furthermore, to accelerate HIV prevention, testing, and treatment among Namibian adolescents and youth aged 10–24 years old, MCSP partnered with the Namibian Planned Parenthood Association to strengthen adolescent-friendly services, provide 60,514 HIV tests, link 1,762 HIV-positive clients to ART, and initiate pre-exposure prophylaxis to 384 HIV-negative clients at risk of HIV. For more information, please see MCSP's report on providing community-based HTS in Namibia.

Figure 19.2. 138 CHWs in three districts conducted 18,229 HIV tests and identified 366 new people living with HIV in Namibia



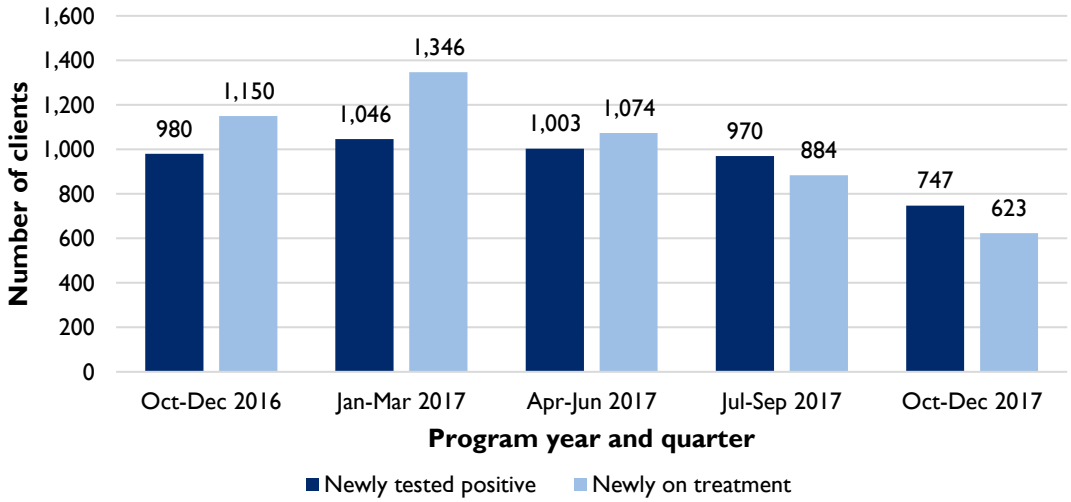
Data source: MCSP Namibia program monitoring data (July 2016–June 2018).

[21]UNAIDS Data 2018. http://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf

[22]The UNAIDS 95-95-95 targets are 95% of PLHIV have known HIV status, 95% of people diagnosed with HIV infection on ART, 95% on PLHIV on ART with suppressed viral load.

- **Increase in capacity for HIV testing in Nigeria:** MCSP worked with the Nigerian Federal MOH from October 2016 to January 2019 to increase capacity for HIV testing, including the development of the HTS guidelines and national HTS scale-up plan, which were finalized in June 2017. These guidelines provide essential updates on new HTS approaches, including partner notification services, as well as standards for providers to ensure implementation of high-quality HTS. MCSP found an average decrease of USD 322 per newly identified HIV-positive partner through implementation of the partner notification services program. HIV-positive index clients who accepted and participated in partner notification services listed a total of 12,679 partners. Of all HIV-positive partners identified, 75% were successfully linked to HIV care and treatment, including partners who were newly diagnosed and previously diagnosed (presumed to have fallen out of care and treatment). MCSP also worked with the Federal MOH to develop national guidelines for HIV self-testing; these were finalized in November 2018 and provide implementation standards, including common distribution approaches, evaluation standards for new self-testing kits, and M&E tools.
- **Advancement toward the UNAIDS 95-95-95 goals in Haiti:** Principal strategies undertaken by the Services de Santé de Qualité pour Haiti (Quality Health Services for Haiti) project to work toward the 95-95-95 UNAIDS goals were targeted testing and the implementation of "test and start" in the PEPFAR-supported sites (46 of 164 health centers). These new approaches, supported by the MOH and rigorously introduced by the MCSP teams through trainings and supervision visits, resulted in identifying a higher percentage of people living with HIV (PLHIV) when conducting HIV testing and ensuring the majority of PLHIV started on treatment immediately following a positive test result. By December 2017, all tested individuals received their results, 83% of those who tested HIV-positive were enrolled on ART (see Figure 19.3), 63% were retained on treatment for at least 12 months, and 64% had undetectable viral loads. Over the course of the project, MCSP tested 717,010 individuals and started 7,196 new patients on ART.

Figure 19.3. Number of people newly tested HIV-positive and those newly on ART in Haiti



Note: Newly on treatment includes newly tested positive as well as known people living with HIV who had not yet initiated ART.

HIV Care and Treatment, Including Prevention of Mother-to-Child Transmission and Cervical Cancer Prevention

Country

- **Scale-up of cervical cancer prevention (CECAP) services:** Women living with HIV are five to nine times more likely to develop cervical cancer than their HIV-negative peers. In **Mozambique**, MCSP supported the government to scale up CECAP in 34 districts in Nampula and Sofala Provinces to improve access to screening and treatment of precancerous cervical lesions for all women using visual inspection with acetic acid and immediate cryotherapy. From October 2015 to September 2018, MCSP trained more than 500 health professionals across all 11 provinces and more than 130,000 girls and women were reached. MCSP provided technical assistance to the Department of Non-Communicable Diseases to develop the Plan for Consolidation

and Expansion of the National Program for Prevention and Control of Cervical and Breast Cancer, 2016–2021, which established the framework for consolidating and expanding the national program. The plan promotes the shift from opportunistic screening (waiting for women to come to the service to offer screening) to organized screening (targeting all eligible women for screening at least once in a lifetime, if not at regular intervals). In 2017, the MOH procured USD 417,000 worth of essential materials and equipment for CECAP, including 40 cryotherapy units for treating eligible lesions at public health facilities. The program expects that the MOH will continue to take an increased lead in forecasting and procurement of CECAP materials and equipment. In **Tanzania**, MCSP supported the government to reach more than 42,000 women with cervical cancer screening services using visual inspection with acetic acid in Iringa and Njombe regions over the life of project, with more than 97% of identified precancerous lesions treated on the same day. In **Mali**, MCSP provided technical support to public and private services through cervical cancer screening during routine activities for 4,402 women in 252 community health centers and 92 private clinics, 66 of whom tested positive and were referred for treatment.

- **Improved systems for monitoring and serving ART clients in Haiti:** MCSP's SSQH project had a focus on increasing efficiencies to better monitor adherence and retention of clients on ART. Gender-specific barriers to uptake and adherence to treatment were addressed through ensuring culturally relevant peer education and support. MCSP supported community-based services including community-based distribution of ART. By December 2017, there were 12,027 patients on ART in the facilities supported by MCSP through PEPFAR funding. Substantial efforts were made to bring clients lost to follow-up back into care, and to maintain newly enrolled clients on lifelong ART. The challenges of returning clients to treatment were primarily linked to client migration across borders and within country, and a lack of monitoring systems to trace client movement. MCSP developed tracking tools to collect essential data via peer educators, trained and mobilized peer educators to trace and relocate clients lost to follow-up, and supported peer educator distribution of ART. Dispensing of multiple months of ART was also instituted across facilities. At the health facility level, MCSP introduced biometric equipment linked to electronic medical records in 86% of supported sites to allow clients to be registered and receive point-of-care services in multiple sites. In addition, MCSP installed viral load testing in all 42 sites and developed a tool that allowed for better monitoring of viral suppression and improved clinical guidance. MCSP introduced successful targeted testing strategies, which led to an increase in the proportion of those testing HIV-positive from 1.4% in Q1 of PY3 steadily up to 1.7% in Q4 of PY3. This rate held at 1.7% through PY4 Q1. MCSP also supported facilities to improve viral load. By the end of the project, all 42 of the HIV sites providing treatment also provided viral load testing. As of December 2017, 7,886 PLHIV had a viral load result, 64% of whom were virally suppressed.
- **Improvements in delivery of MNH care and integration with HIV services in Zambia:** Under the SMGL program in Zambia, MCSP was designated as the main clinical implementing partner for Mansa, Chembe, Lunga, Kabwe, and Samfya districts, where MCSP worked to improve the delivery of high-impact MNH services in 87 target facilities. Using a mentorship approach, MCSP worked to integrate PMTCT and EmONC. MCSP worked with ANC and labor/delivery providers to ensure that HIV testing at ANC visits and dry blood spot testing after delivery were routinely and correctly performed, and that antiretrovirals were administered according to National Option B+ guidelines. For more information, please refer to the SMGL final report.

Supporting Health Systems Performance Drivers

Country

- **Provision of eLearning in Ghanaian nurse and midwifery schools:** In partnership with the Government of **Ghana**, MCSP enabled access to eLearning in 31 nursing and midwifery training schools, improving health care provider competency in provision of comprehensive HIV services. Through MCSP, 35,000 nursing and midwifery students had access to HIV materials to better prepare them to serve Ghanaians. In addition, the Hello Nurse application facilitated dissemination of the 95-95-95 strategy through case-based scenarios, interactive clinical task presentation, and clinical decision-making support.
- **Improved capacity of Tanzanian pre-service institutions:** In **Tanzania**, MCSP harmonized continuous QI, accreditation, and registration processes among key governing bodies as a key PSE sustainability strategy. More than 286,100 students have graduated from improved health training institutions that now have functioning computer labs, skills labs, and libraries and meet all associated continuous QI standards. Overall QI scores increased at supported institutions from 37% in 2015 to 81% in 2017. An endline assessment identified a

significant improvement in competence demonstrated by graduating students from MSCP-supported schools, an average of 80% compared to 68% from nonsupported MCSP schools. In Tanzania, HIV funding also contributed to MCSP deploying the Health Information Mediator, a key component that enables data to flow between multiple systems/organizations and improves data use for decision-making.

- **Improvements in data quality and accessibility in Namibia:** MCSP supported the Namibian Ministry of Health and Social Services' Health Information and Research Directorate to strategically enhance and integrate the country's fragmented HIS, incorporating CHW program data into the DHIS2 platform, improving HIV data quality, and promoting and teaching more effective and strategic use of data from the HIS for decision-making at all levels.
- **Support for integrating reproductive health and HIV services in Kenya:** MCSP supported the finalization of guidelines on reproductive health and HIV service integration and taking them to the county level. MCSP trained providers on packages of integrated preventive and curative health interventions that included focused ANC (with MiP, maternal nutrition, FP, PMTCT, etc.), PNC (including breastfeeding, immunization, CHX cord care, and PPFP), EmONC (including essential newborn care), Kenya Action Plan for Pneumonia and Diarrhea (integrates immunization, child health, nutrition, and WASH to prevent and treat pneumonia and diarrhea), and IMCI strategy.

Recommendations for the Future

- **Integrate HIV services within the primary health care platform.** MCSP strengthened HIV services in nine countries, in seven of them (Ghana, Haiti, Kenya, Mali, Namibia, Tanzania, and Zambia) through strengthening primary health care platforms and provider competencies. MOHs and program should leverage key entry points such as ANC, immunization, and HIV testing, to integrate RMNCAH and HIV services.
- **Governments should increase the visibility and scale up community-based HTS and ART services.** The success of such approaches was clearly demonstrated in Namibia and Haiti, respectively.

Country Program Achievements under MCSP

Burkina Faso Global Health Security Agenda Summary & Results

Geographic Implementation Areas

Regions
- 3/13 (23%)—Centre, Centre-Est, and Est

Districts
- 5/70 (7%)—Baskuy, Manni, Pouytenga, Sig-Noghin, and Zabré

Facilities
- 85/2,287 (4%)

Population

Country
- 20.9 million

MCSP-supported areas
- 1.29 million

Technical Areas

Program Dates
November 30, 2017–June 30, 2019

Total Funding through Life of Project (GHSA)
$1,000,000 (Ebola funds—Pillar IV)

Demographic and Health Indicators

Indicator	# or %
Children between 12–23 months completely vaccinated	81%
IMR (per 1,000 live births)	66
U5MR (per 1,000 live births)	102
MMR (per 100,000 live births)	341

Source: Burkina Faso DHS-MICS IV, 2012

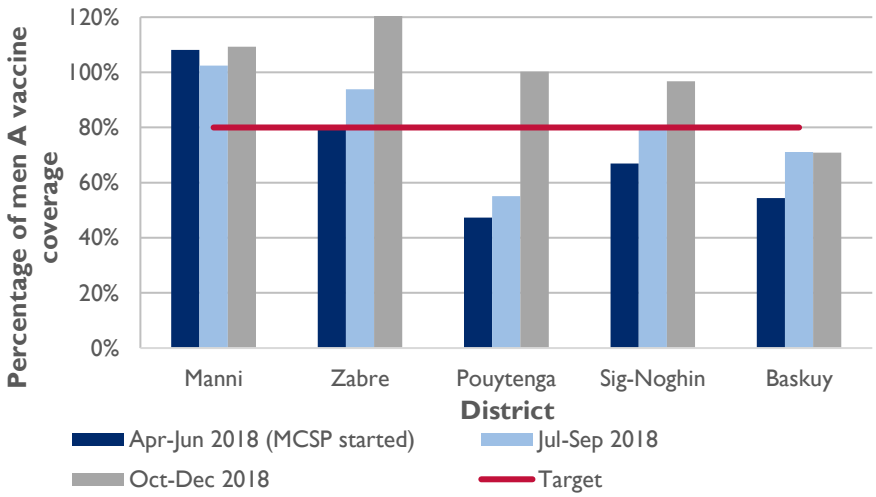
Strategic Objectives through the Life of Project

- Scale up and strengthen case-based and community-based surveillance to improve meningitis detection and confirmation.
- Improve preparedness and response mechanisms for future meningitis outbreaks.
- Improve meningococcal group A, pneumococcal conjugate third dose, and Penta3 immunization coverage by strengthening the overall RI system in low-performing districts and maintaining high coverage in well-performing districts.
- Improve surveillance, coordination, communication, and case management for ongoing and future dengue fever outbreaks.

Highlights through the Life of Project

- Updated the MOH's RED/REC training materials and improved health worker capacity to deliver immunization services in five districts.
- Supported MOH staff in implementation of immunization data quality and accuracy self-assessments in five districts.
- Trained 166 health staff in epidemiologic surveillance in five districts, resulting in increased preparedness for detecting diseases and strategically responding to outbreaks.
- Supported an interministerial pilot of the event-based surveillance system using the One Health approach in Pouytenga district.
- Supported MOH dengue, measles, and meningitis outbreak responses.

Figure 1. Coverage of meningitis A vaccine increased in four of the five MCSP-supported districts



Data source: Ministry of Health Routine Immunization Database

Burkina Faso—Global Health Security Agenda

Background

In Burkina Faso, under a 1-year activity funded by USAID through the Global Health Security Agenda (GHSA), MCSP began providing technical and financial support to the MOH under the Preventing Epidemics through Surveillance and Immunization program. The goal of this program was to support the Burkina Faso MOH to strengthen its RI systems and disease surveillance, with a focus on meningitis and dengue prevention, preparedness for potential outbreak, and outbreak response.

MCSP's work plan was approved in May 2018, and in July 2018, MCSP received approval from the Burkina Faso secretary general to support activities in three regions (Centre, Centre-Est, and Est) and five districts (Baskuy, Sig-Noghin, Zabré, Pouytenga, and Manni[23]). In August 2018, MCSP organized a rapid assessment, during which MCSP established contacts with regional, district, and community authorities, service providers, and clients throughout its intervention area. Assessment findings identified areas needing improvement, including organization of immunization services, use of management and reporting tools, and quality of immunization and surveillance data. In response, MCSP began working hand in hand with the MOH and other development partners on a variety of immunization, surveillance, and disease outbreak response activities. Key accomplishments resulting from MCSP support are described below.

Key Accomplishments

Updated the Ministry of Health's Reaching Every District/Reaching Every Child Training Materials and Trained Health Workers in Five Districts

RED/REC is a global approach to strengthening national RI programs. The approach promotes preparation of immunization microplans, use of information to track program implementation progress, interventions (including supportive supervision of health workers) to improve the quality of immunization services, and linking of communities to immunization services. In Burkina Faso, MCSP supported a baseline rapid assessment that revealed RED/REC implementation was lacking in many districts/health facilities. For example:

- Some health facilities had not developed microplans.
- Populations that were at risk of not being vaccinated and/or hard-to-reach populations were not being identified for vaccination.
- Immunization program performance was not monitored regularly, and districts were not conducting supervision visits to health facilities consistently.
- Program data were not being used consistently to guide decision-making.

With MCSP support, the EPI updated its RED/REC approach training materials based on WHO reference documentation and used revised training tools to build capacity of three regional EPI focal points, 15 health district team members, and 128 health facility managers in Centre, Centre-Est, and Est regions. The MOH, with MCSP support, adapted a microplanning tool to aid participants in preparing and updating district/health facility catchment area maps, identifying health centers and locations of priority communities, identifying client barriers to accessing and using immunization services, identifying solutions to challenges, and preparing work plans and plans for immunization sessions. As of May 2019, 54% of health facilities had developed and shared microplans with their district management teams, with the remaining health facilities expected to develop their microplans in the coming months. In contrast, only 58% of all health facilities in the five districts had completed a microplan for all of 2018.

Trained Staff and Supported Implementation of Immunization Data Quality and Accuracy Self-Assessments in Five Districts

The baseline assessment also identified significant EPI data quality issues in almost all health facilities assessed, prompting MCSP support for training in and conducting detailed immunization data quality self-assessments in all 85

[23] Though originally included as a sixth district, Pama was removed from the list of MCSP support due to security concerns.

health facilities in the five districts. Assessment results revealed that data collection tools were consistently available to health workers, but the quality of the EPI data was poor. For example, some health facilities had inconsistencies in data among their various data reporting tools, such as data from tally sheets not conforming to summaries of the same data included in monthly reports. Similar quality issues were observed in district monitoring, reporting, supervision, and data management practices. The MOH, with MCSP support, led more effective supervision visits and mentored facility staff in data quality and accuracy improvement activities. MCSP also built capacity of staff at all levels to use data more consistently and regularly for better programmatic decision-making.

Improved Meningitis A, PCV3, and Penta3 immunization coverage through strengthening overall RI system in low-performing districts and maintaining high coverage in well-performing districts

Despite high national administrative coverage rates, the MOH EPI still faced gaps related to vaccine service delivery; supportive supervision; data management and quality; and regional disparities in immunization coverage. To address these, the MOH EPI with MCSP's support, developed a strategy to build the skills of staff responsible for planning, implementing, and monitoring the EPI in MCSP-supported regions, districts, and health facilities. The strategy included: updating national RED/REC training materials; conducting updated RED/REC training for regional/district-level trainers and cascading it to health workers; and providing technical and financial support for supportive supervision. Skills-building focused on improving participants' ability to: effectively organize and deliver RI services in their catchment areas, optimize use of available EPI resources, and ensure equitable and sustainable immunization access for target beneficiaries in all communities. Consequently, coverage of meningitis A vaccine increased in four of the five MCSP districts. Although Baskuy achieved a 17% increase in coverage, it did not meet the 80% target. One reason may be the lack of community-based health workers (*agents de sante a base communautaire*) to provide complementary community mobilization on the immunization schedule and services (see Figure 1).

Built Capacity of Health Staff in Epidemiologic Surveillance in Five Districts

MCSP's baseline assessment indicated the need for more surveillance training of epidemic-prone diseases for both health staff and CHWs. The MOH set capacity-building of personnel as a priority need, especially for compliance with the country's IDSR system. The MOH had revised IDSR guidelines in the recent past and had already conducted a training of trainers (TOT) session using the revised guidelines but, due to insufficient resources, was unable to proceed with planned cascade trainings in all districts. In response, MCSP supported the MOH in training 166 district management team members and health facility officers (doctors, pharmacists, nurses, and midwives) from the five MCSP-supported districts. Trainees strengthened their skills in detecting diseases under surveillance (meningitis, dengue fever, yellow fever, measles, etc.), analyzing and interpreting data on disease conditions and priority events, and responding strategically to outbreaks.

Implemented Event-Based Surveillance Using the One Health Approach in Pouytenga District

In July 2017, the MOH began piloting an event-based surveillance system in three districts (Houndé, Kongoussi, and Boussé). In 2018, the MOH worked with the Ministry of Animal Resources, the Ministry of Environment, and development partners to integrate a multisectoral One Health approach to disease control within the system. The impetus for this interministerial One Health effort was the recognition that human, animal, and ecosystem health are interconnected, and that multidisciplinary approaches to preventing, detecting, and responding to emerging/re-emerging infectious disease threats are more effective than uncoordinated, standalone responses. In December 2018, the three ministries, with support from the USAID-funded MEASURE Evaluation project, implemented event-based surveillance One Health activities in Po health district, Centre-Sud Region. Three months later, in March 2019, the three ministries, with MCSP support, extended the event-based surveillance One Health activities to Pouytenga health district in Kouritenga Province, Centre-Est Region. The MOH, with support from MCSP, trained a group of multisectoral stakeholders from Centre-Est Region (4), Pouytenga District (3), and Kouritenga Province (4), as well as 54 health, environmental, and veterinary technicians and 221 community workers in identification, early detection, and notification of "unusual events" that may threaten human, animal, and/or environmental health. Participants received job aids (e.g., awareness registry, notification forms, supervision matrix) to use post-training. MCSP subsequently supported the ministries in conducting post-training follow-up and joint supervision visits throughout the district to ensure that surveillance staff were able to implement the One Health approach event-based surveillance effectively in the field.

Signs that the surveillance system in Pouytenga improved include:

- Intersectoral information sharing, coordination, and monitoring are now occurring. The heads of district health, forestry, and veterinary departments recently met to share information on rabies and sanitary inspections, and stakeholders from the three provincial departments planned a joint monitoring meeting for the second half of 2019.
- Surveillance staff from all three ministries are now notified of unusual event reports. Once an event report is confirmed, notification forms are sent within the appropriate ministerial reporting chain as well as to district officers from the other ministries for multisectoral investigation.
- There is greater community involvement in surveillance. Ministry staff are conducting communication, awareness-raising, and sensitization activities and home visits. Community-initiated surveillance is taking place, whereas surveillance was previously initiated mostly at the health facility level.

Supported the MOH's National Dengue, Measles, and Meningitis Outbreak Responses

MCSP supported the MOH to respond to outbreaks of dengue, measles, and meningitis through the life of the project in Burkina Faso.

- **Dengue outbreak:** Burkina Faso had a dengue fever outbreak (grade 1 emergency) that began in September 2017. By the end of 2017, 15,074 suspected cases, 8,768 likely cases, and 36 deaths (case fatality rate of 0.2%) had been reported nationally. In 2018, 4,385 suspected cases, 1,676 likely cases, and 25 deaths (case fatality rate of 0.6%) were reported nationally. In response to the epidemic, the MOH activated the National Epidemic Management Committee and five dengue subcommittees, strengthened surveillance (daily notification in Ouagadougou and weekly notification in all other regions), provided free medical care and treatment for all severe cases, disseminated awareness messages through radio and television, and implemented vector control measures. During this time, MCSP supported the MOH's Division for the Protection of Population Health in its response to the outbreak. MCSP's participation in National Epidemic Management Committee meetings and the dengue case management, communication, and epidemiological/surveillance subcommittees helped ensure that the country had a strong and coordinated response and that USAID was kept abreast of important developments. MCSP also supported a household awareness campaign conducted by 2,500 CHWs and training on dengue case management for 1,529 health care providers in seven regions, and provided financial and technical assistance for a workshop to review data collection and reporting tools to improve the quality of dengue response monitoring data.
- **Measles outbreak:** Over the past 4 years, Burkina Faso has regularly experienced measles outbreaks despite good administrative coverage achieved by RI. From week 1 (January 1–7) to week 23 (June 4–10) of 2018, the measles surveillance system reported 3,741 suspected cases of measles with nine deaths (case fatality rate of 0.2%). To respond to this outbreak, the National Epidemic Management Committee organized a vaccination response campaign from July 27 to August 2, 2018. The campaign involved 26 health districts (including MCSP's three intervention districts, Sig-Noghin, Zabré, and Manni) in 12 health regions and targeted children ages 6 to 59 months old. An active member of the National Epidemic Management Committee, MCSP provided technical support to the MOH in preparing, coordinating, and monitoring the measles response campaign.
- **Meningitis outbreak:** Burkina Faso is the only country that lies entirely within the meningitis belt and is at continued high risk of meningitis epidemics. In January 2019, Burkina Faso recorded a meningitis outbreak case in Est Region (Diapaga District) and Sud-Ouest region (health districts of Gaoua and Dano). At epidemiological week 10 (ending March 10, 2019), 818 suspected cases were reported nationwide with 49 deaths (case fatality rate of 6%). In response, from February 8 to 13, 2019, MCSP helped organize suspected case and reactive case vaccination campaigns in the Botou and Kantchari communes and health facility in Diapaga commune (Tapoa Djerma) with the tetravalent meningococcal vaccine. With earmarked outbreak funds from USAID, MCSP also provided technical support to the National Epidemic Management Committee.

Recommendations for the Future

Working within a limited timeframe, MCSP helped the MOH strengthen RI skills of district management team members, health facility staff, and CHWs (through support for the RED/REC approach and data quality self-assessments) and epidemiological surveillance (through IDSR, event-based surveillance/One Health approach, and dengue and meningitis surveillance training). To capitalize on this investment, MCSP recommends that the MOH; stakeholders within Baskuy, Sig-Noghin, Pouytenga, Zabré, and Manni districts; and development partners continue efforts to:

- **Implement the RED/REC approach.** This will help improve the organization of RI services, use of available resources, and equitable and sustainable access to vaccination for children and pregnant women.
- **Provide supportive supervision to regional, district, and health facility staff to improve the quality and consistent use of EPI data.**
- **Provide supervision for IDSR and event-based surveillance implementation and expand the pilot of the event-based surveillance/One Health approach.** Doing so will help improve disease detection, surveillance, and outbreak response throughout Burkina Faso.

Select Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of CHWs trained on identifying meningitis as per protocol in Pouytenga district (2019)	175 (target: 129; target exceeded)
Number of health care workers trained on dengue case management in seven districts (2018)	1,529 (target not defined)
Number of health care workers trained in the five intervention districts (2018–2019)	RED/REC: 146 (target not defined)
	DQSA: 18 (target: 10; target exceeded)
	IDSR: 166 (target: 170; 98% achieved)
Percentage of health facilities with microplans developed/updated in the five MCSP districts (as of May 2019)	54% (target: 100%; 54% achieved)[1]
Percentage of children under 12 months who received Penta3 in the five MCSP districts (October–December 2018)	113% (target: 80%; target exceeded)
Percentage of children who received measles-containing-vaccine first-dose in the five MCSP districts (October–December 2018)	107% (target: 80%; target exceeded)
Percentage of children who received meningococcal group A in the five MCSP districts (October–December 2018)	99% (target: 80%; target exceeded)

[1] As of May 2019, health facilities were still developing microplans with guidance from the districts.

Burma Summary & Results

Geographic Implementation Areas

Regions

- 7/17 (41%)—Ayeyarwaddy, Chin, Kayin, Magway, Rakhine, Shan (North), Shan (South), Rangoon

Population

Country

- 51.5 million

MCSP-supported areas

- 28.0 million

Technical Areas

Program Dates

July 1, 2015–June 30, 2019

Total Funding through Life of Project

$8,450,231

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	282
IMR (per 1,000 live births)[1]	62
U5MR (per 1,000 live births)[1]	72
TFR (per woman)[2]	2.3
ANC 4+[2]	59%
SBA[2]	60%
DTP3[2]	62%
Children with symptoms of ARI treated at a facility[2]	58%
ORT[2]	62%

Sources: [1] Burma Population and Household Census, [2] Burma DHS 2015–2016.

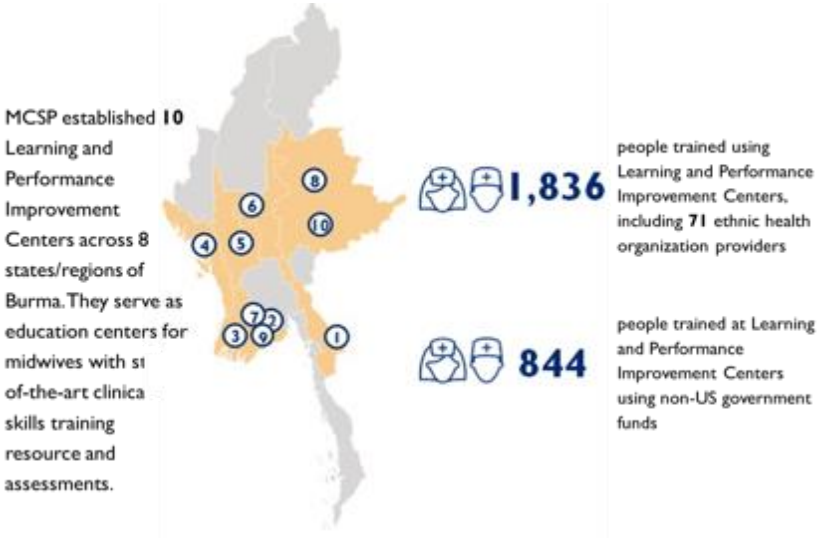
Strategic Objectives through the Life of Project

- Assist the Ministry of Health and Sports to strengthen:
  - The policy environment for QI and equitable access to MNCH
  - The health workforce to effectively deliver MNCH components of the National Health Plan Essential Package of Health Services
  - Health service delivery in targeted technical and geographic areas

Highlights through the Life of Project

- Contributed to the development of 10 policies, strategies, and guidelines to improve MNCH service quality, including the finalization, and launched the first-ever national ANC guidelines.
- Established 10 Learning and Performance Improvement Centers, contributing to quality improvements from 45% criteria met at baseline to nearly 85% 15 months later and incorporation of the approach into the first National Health Plan Annual Operational Plan for 2018.
- Trained 71 ethnic health organization providers as Ministry of Health and Sports-certified basic emergency obstetric and newborn care trainers—the first time that ethnic health organization trainers had been certified by the ministry.
- Supported the revision of IMNCI guidelines and introduction of facility-based IMNCI, enhancing providers' ability to manage childhood illnesses.

Figure 1. Establishment of Learning and Performance Improvement Centers



Burma

Background

At the start of MCSP's program in Burma, a strategic priority for the Ministry of Health and Sports was to strengthen human resources for health by building the capacity of existing health workers to deliver lifesaving MNCH interventions. Many health workers had not received technical updates in years, and most education and training had been purely didactic instruction within a classroom and limited to theoretical learning. Additionally, most health facilities did not deliver care according to evidence-based technical standards. The overall goal of MCSP's work in Burma was to respond to the Ministry of Health and Sports' strategic priorities for improving MNCH by demonstrating, documenting, and transitioning capacity to counterparts to make sustainable improvements in the health system. The work that started in July 2015 was focused around three intermediate results:

1. Policy environment strengthened for improving quality and equitable access to MNCH services
2. Health workforce strengthened to support effective delivery of MNCH components of the Essential Package of Health Services
3. Quality health service delivery strengthened in targeted technical and geographical areas

Key Accomplishments

Supported the Ministry of Health and Sports to Develop Policies and Guidelines to Create a Conducive and Evidence-Based Service Delivery Environment

The National Health Plan 2017–2021, which was officially launched on March 31, 2017, aims to strengthen the country's health system and pave the way toward universal health coverage. Its main goal is to extend access to an Essential Package of Health Services to the entire population while increasing financial protection. MCSP provided technical support for all of the National Health Plan Implementation Monitoring Unit's activities, including costing of the Essential Package of Health Services, formulating the National Health Plan's first Annual Operational Plan and its monitoring and evaluation (M&E) framework, drafting clear job descriptions for the different cadres involved in service delivery and developing a template for township health planning. These products are being rolled out nationwide to guide the implementation of the National Health Plan. Using these tools and guidelines, townships will be able to more effectively plan for and manage the delivery of health services in line with the Essential Package of Health Services.

MCSP, in collaboration with the Ministry of Health and Sports' Maternal and Reproductive Health Division, successfully finalized and launched the first-ever national ANC guidelines in 2018. These will guide the structure and content of ANC as a platform to ensure timely and consistent services for pregnant women in Burma. This national-level effort was initiated following a 2015 MCSP assessment in Burma to better understand the state of ANC services related to the prevention and treatment of malaria in pregnancy (MiP). Findings revealed inconsistencies in information gathering, clinical decision-making, and client counseling during ANC that can lead to inadequate prevention, screening, diagnosis, and treatment of malaria and other conditions in pregnancy. These findings, along with an earlier review of MiP policies, guidelines, and training materials, led to successful advocacy with the Ministry of Health and Sports to establish a national framework for ANC in Burma.

Received Ministry of Health and Sports' Endorsement of In-Service Capacity-Building Strategy and Learning and Performance Improvement Center Approach

MCSP supported the Ministry of Health and Sports to conceptualize, co-design, and implement a standardized approach to capacity-building for in-service and continuing professional development. The approach includes establishing a learning hub at the state/regional level as a repository for capacity-building materials and learning opportunities, and revitalizing state/regional health training teams so that they can deliver competency-based in-service training to township training teams and ultimately to basic health staff providers. Learning and Performance Improvement Centers were established in five states/regions across the

country (Ayeyarwaddy, Magway, Rakhine, Shan North, and Shan South), and the state/regional health training teams in each geographic area were trained as trainers in clinical skills standardization and effective teaching skills. Each center has anatomic models for hands-on skills practice and a team of skills lab managers trained in Learning and Performance Improvement Center management. This model represented the first standardized, decentralized approach to competency-based human capacity development in Burma. The consultative nature of this process resulted in the Ministry of Health and Sports including plans for expansion of the Learning and Performance Improvement Center model in the National Health Plan Annual Operational Plan. The ministry is also looking to expand the technical content of the centers beyond MNCH to include soft skills, noncommunicable diseases, and other priority areas. According to MCSP's external evaluation, the training approach and the Learning and Performance Improvement Center sites had the highest sustainability potential. Key informant interviews and focus groups noted that the standardized training modules and participatory training approach increased trainees' motivation and commitment to apply and replicate knowledge.

Strengthened Capacity of the Myanmar Nurse and Midwife Association to Deliver Continuing Professional Development

MCSP supported the standardization of clinical and training skills of the Myanmar Nurse and Midwife Association training team and established a skills lab in the headquarters office in Rangoon with the same hands-on practical models for skills practice as the Learning and Performance Improvement Centers. This infrastructure will support structured, competency-based continuing professional development training and practice for association members, facilitated by the association's training team. MCSP, in collaboration with 40 Myanmar Nurse and Midwife Association master trainers, completed the multiplier training on better care during the day of birth for a total of 17 association members. Moreover, MCSP continued to collaborate with the American College of Nurse-Midwives in a mentorship exchange to provide targeted organizational capacity-building in the areas of leadership, communications and advocacy, and technical skills-building support to the Myanmar Nurse and Midwife Association. Furthermore, MCSP completed the Learning and Performance Improvement Center sustainability plan, which includes activities for maintaining the centers' functions, such as forming committees for training center maintenance, developing committee terms of reference, conducting TOT for new team members, and securing additional funding. This will assist the Myanmar Nurse and Midwife Association to estimate future costs to address gaps for the sustainability of the centers. This will help to build capacity for planning how to best and most efficiently address these gaps and include realistic activities in the operational plan.

Standardized Skills for Providers Working in More Vulnerable Remote Areas with Greater Health Inequities and Indices

In collaboration with the Ministry of Health and Sports' Maternal and Reproductive Health Division and the Karen Department of Health and Welfare, MCSP trained 71 ethnic health organization providers as Ministry of Health and Sports-certified basic emergency obstetric and newborn care (BEmONC) trainers in the Burma-Thailand border state of Kayin. This was the first time that ethnic health organization trainers had been certified by the Ministry of Health and Sports. Standardization of skills and certification of those training ethnic health organization trainers will contribute to these health workers having skills that are similar to those of their national counterparts. This will potentially make it easier for ethnic health organization providers to be recognized within the Ministry of Health and Sports system in the future. MCSP also established a Learning and Performance Improvement Center at Taw Nor Teaching Hospital so that ethnic health organization providers can practice skills in the same way that health workers in MCSP's five target states/regions do. In addition, MCSP facilitated the development and dissemination of the sustainability plan for the Learning and Performance Improvement Center at Taw Nor Teaching Hospital. Other partners, such as UNICEF, are now looking to utilize MCSP's model to support the expansion of Learning and Performance Improvement Centers with ethnic health organizations in other states.

Initiated Site Strengthening and Quality Improvement Activities

MCSP introduced a Ministry of Health and Sports-endorsed approach and standards for QI at five clinical sites affiliated with the state/regional Learning and Performance Improvement Centers. The concepts of QI were new to Burma, and this QI introduction and demonstration was one of the first in the country. The approach includes forming facility QI teams, conducting QI assessments, implementing activities to address identified gaps, and measuring progress against standards over time. This included the introduction of QI for infection prevention and normal labor and delivery at all five clinical sites affiliated with state and regional Learning and Performance Improvement Centers. MCSP also expanded QI implementation to include emergency management of obstetric and newborn complications at Sittwe General Hospital in Rakhine State and conducted five planned and six unannounced drills to exercise the providers' skills.

At baseline, the five facilities met an average of 45% of the standards verification criteria. As of May 2018, 15 months after the start of the intervention, performance improved to an average of nearly 85%, increasing from 27% to nearly 80% of standards achieved in infection prevention and from 62% to nearly 88% in normal labor and delivery (Figure 3). Additional midline and endline assessments conducted at Sittwe General Hospital found that management of obstetric complications improved by 33% between July 2018 and April 2019 (Figure 2). MCSP's service delivery approaches demonstrated the feasibility of replicable implementation of high-impact interventions for policymakers and other decision-makers.

Figure 2. Quality improvements against verification criteria in obstetric complications at Sittwe General Hospital between July 2018 and April 2019

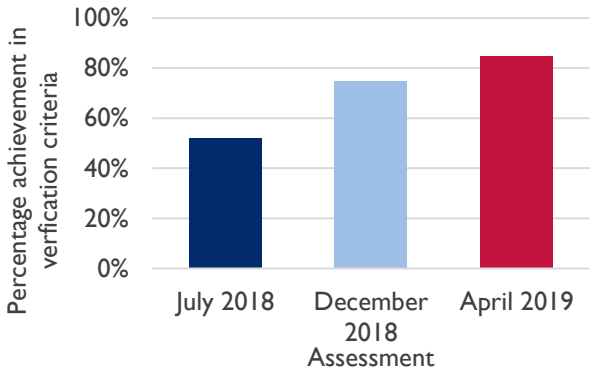
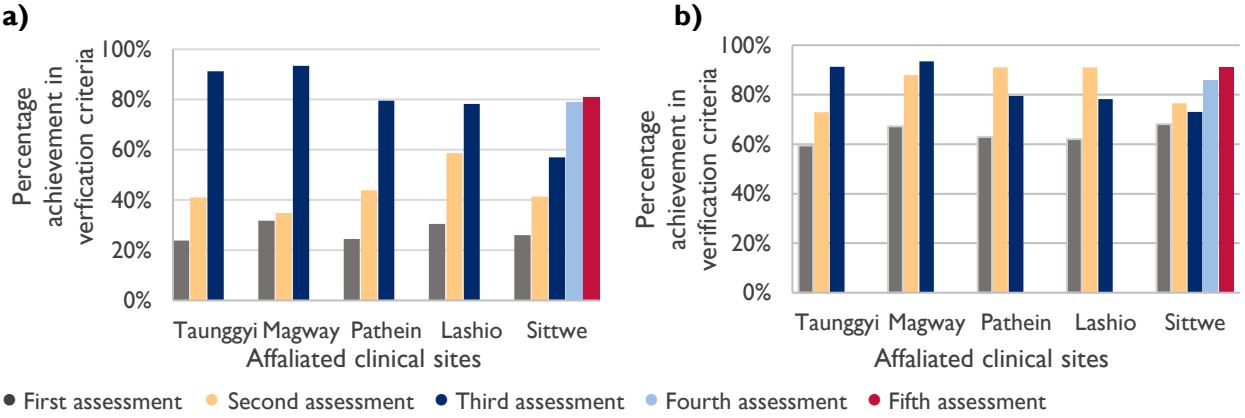


Figure 3. Quality improvements against verification criteria between February 2017 and April 2019 in a) IPC and b) normal labor and delivery*



* Assessments were conducted between Feb 2017-Jun 2018 in Taunggyi, Magway, Pathein, and Lashio. QI implementation continued at Sittwe General Hospital during the addendum period through Apr 2019 (fourth and fifth assessments).

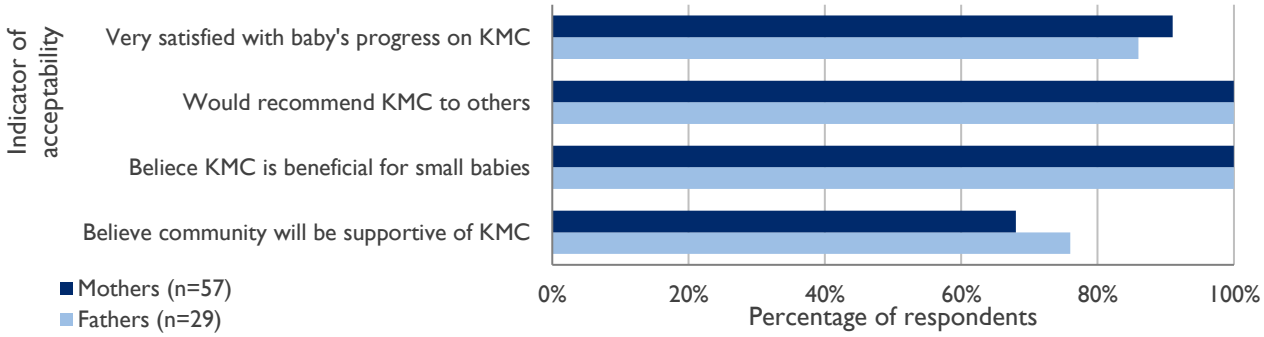
Introduced, Implemented, and Documented Kangaroo Mother Care

About 12.4% of babies in Burma are preterm (before 37 completed weeks of gestation); approximately 102,700 babies are born too early in the country every year.[24] A strategic priority for the Ministry of Health and Sports was to strengthen delivery of care according to evidence-based technical standards. MCSP collaborated with the ministry to support the implementation of KMC as an evidence-based intervention for the care of small babies. MCSP provided technical support to design standard operating procedures for

[24] Blencowe H, Cousens S, Oestergaard MZ, et al. 2012. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet*. 379(9832):2162–72. doi: 10.1016/S0140-6736(12)60820-4.

implementation of KMC in Thanlyin Hospital, leveraging concurrent facility-based QI efforts initiated a separate General Electric-funded project. MCSP provided support to establish the KMC unit in the hospital and to implement, gather monitoring data, review data trends, and make programmatic improvements. An average of 66% of babies with birthweights under 2,500 g were admitted to the KMC unit at Thanlyin Hospital. One hundred and ninety-four small babies were discharged from the KMC unit; among these, 38 were preterm babies who received KMC as early as Day 0 and continued until Day 12 at the latest. The average duration of stay at the KMC unit was 6.3 days. During their stay in the KMC unit, preterm babies received an average of 7.9 hours of KMC per day. The average weight gain of small babies who received KMC was 70.5 g during KMC admission. Almost 70% of the babies were discharged from the KMC unit with a diagnosis of "improved and approved." MCSP also collaborated with Taunggyi Women and Children's Hospital to assess the feasibility and acceptability of KMC. Findings show high feasibility and acceptability (Figure 2). MCSP also organized a half-day national dissemination meeting to share the study results and facilitate discussion on scale-up of KMC in Burma.

Figure 4. Perceptions of feasibility and acceptability of KMC among mothers and fathers



Demonstrated an Effective Model for Scale-Up of Integrated Management of Newborn and Childhood Illness Guidelines and Introduction of Related Facility-Based Services

MCSP provided technical support to the Child Health Development Division of the Ministry of Health and Sports to update the IMNCI guidelines to align with the global IMNCI approach intended to give children under 5 better quality of life by promoting both preventive and curative care. MCSP's contribution to the revision process helped to accelerate the scale-up of this approach in six selected townships in five states/regions of Burma. MCSP coordinated with the State Health Department and township medical officers to provide supportive supervision visits to the trained basic health staff. Onsite coaching was provided with guidance on how to utilize the IMNCI tools, primarily the chart booklet. The Ministry of Health and Sports will be utilizing these revised IMNCI training materials for nationwide scale-up over the next 1–2 years. MCSP also developed training modules for continuing medical education for basic health staff on diarrhea and pneumonia. Training materials and equipment/supplies used in training have been placed in all Learning and Performance Improvement Centers in all five states/regions to allow basic health staff to refresh their skills and to have access to reference materials.

The Ministry of Health and Sports endorsed the adapted facility-based IMNCI training materials and pilot of this approach in southern Shan State. MCSP coordinated closely with the Child Health Development Division and with the State Health Department in Taunggyi to set up the necessary infrastructure and provide training. The training materials and tools were all housed in the Learning and Performance Improvement Center and Taunggyi Women and Children's Hospital to allow doctors, nurses, and future students to have access to maintain and improve their skills for managing seriously ill children in the state. The experience in southern Shan will inform further scale-up in other states and regions, where township-level hospital staff need enhanced skills and confidence to appropriately manage serious childhood illnesses.

Supported the Ministry of Health and Sports to Pilot-Test and Document the Implementation of New Integrated Community Malaria Volunteer Guidelines

In spring 2017, the National Malaria Control Program (NMCP) and other departments in the Ministry of Health and Sports, along with WHO and partners, developed a new strategy to expand the role of the existing malaria volunteers to address five additional communicable diseases: tuberculosis, HIV, dengue hemorrhagic fever, filariasis, and leprosy. Their name was changed to integrated community malaria volunteers to reflect the increased scope of work, and a new guideline and training manual was prepared. The new integrated community malaria volunteer guidelines were finalized by the Ministry of Health and Sports, with technical support from WHO, in April 2017. The volunteers are intended to be able to identify the suspected patients and conduct referrals to the nearest health centers and basic health staff for proper diagnosis and treatment.

MCSP, in collaboration with state and township health officials from Kayin and Chin states, supported the first pilot training for 74 integrated community malaria volunteers in Myawaddy and Mindat[25] townships, and conducted supportive follow-up supervision visits, reaching 86% of these trained volunteers, to provide on-the-job guidance and support. MCSP also supported assessments of the intervention in both townships that included qualitative and quantitative components: assessing the knowledge and performance of the integrated community malaria volunteers, examining barriers to performing their activities, and exploring community perceptions and acceptance of the volunteers. The findings and recommendations were shared with the relevant national programs and stakeholders—including the President's Malaria Initiative (PMI)/USAID, WHO, UNICEF, and other nongovernmental organization (NGO) partners—in formal dissemination meetings in Nay Pyi Taw and Rangoon in July 2018. A final comprehensive report was also published and shared (MCSP 2018). MCSP's support for the pilot and assessments informed the Ministry of Health and Sports and partners about the barriers and challenges faced by the integrated community malaria volunteers in carrying out these increased responsibilities and proposed practical solutions that could be implemented during scale-up of this important community-level program. Lessons learned from MCSP's support of this activity will provide strategic guidance to the national programs in disease control and surveillance as they pose to scale up the integrated community malaria volunteer program nationwide.

Recommendations for the Future

MCSP successfully demonstrated a process for developing national-level policy and guidelines, the implementation of a competency-based in-service training approach at different phases and levels of health systems, and the introduction of facility-based QI activities. During the program, the following lessons learned and best practices were noted that should continue to be built on by future programs and donors:

- **Link policy to implementation.** A large reason for the success of MCSP's working in Burma was that the program ensured a smooth continuum between policy and implementation. Often, it was findings from implementation that identified the need for updated or new policy, while in other cases, it was the policy that was further piloted, operationalized, rolled out, and monitored.
- **Involve national bodies and professional associations.** Any national-level support activities related to policies and guidelines require the relevant key stakeholders' buy-in and need to be in line with these stakeholders' priorities to initiate and sustain support. Establishing and maintaining strong coordination and collaboration with the local professional societies and academic institutions are crucial to ensuring policies, guidelines, and strategies are in line with the local context.
- **Strengthen competency-based in-service training.** MCSP's experiences showed that the sustainability of the Learning and Performance Improvement Centers will depend on the key stakeholders' involvement through all stages, from design to implementation. There was high-level commitment to MCSP methods and MCSP-supported policies, guidelines, and standard operating procedures Integration of MCSP models into National Health Plan operation plans, such as cascade training models, QI, and post-training follow-ups, and the Ministry of Health and Sports' interest in expanding Learning and Performance Improvement Center sites in other states/regions suggested how MCSP influenced in-

[25] These are two very different settings ethnically and geographically, and were chosen specifically for testing.

service capacity-building at the system level. Furthermore, the timing is right and conducive for continuing learning and practice improvement in the country.

- **Sustain and scale up QI systems thinking.** The sustainability of QI implementation at facilities largely depends on the ownership and commitment of hospital leadership, institutionalization, integration of QI into the hospital management system—such as inclusion of QI in new staff briefing packages, inclusion of QI discussions in any hospital management meetings, flexibility of budget for supplies and equipment, technical updates for staff, and infrastructure improvement—and, most importantly, motivating staff to see QI as a part of their day-to-day practice. To take these approaches to scale, MCSP recommends that broader discussions be held between Ministry of Health and Sports and all relevant stakeholders on different QI approaches, with the aim of developing a standardized national QI strategy and approach so that all in-country QI implementation is standardized.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of ethnic health organization providers certified by the Ministry of Health and Sports	71 (target 72; 99% achieved)
Percentage of Learning and Performance Improvement Center clinical sites achieving at least 60% of QI verification criteria	100%
Percentage of preterm or low-birthweight newborns initiated on KMC	66% (target: 60%; target exceeded)
Number of trainings planned with MCSP support but implemented with non-MCSP resources	17 (target: 8; target exceeded)

Democratic Republic of the Congo

Summary & Results

Geographic Implementation Areas

Provinces
- 2/26 (8%)—Tshopo and Bas-Uélé

Health zones
- 8/516 (1.5%)—Aketi, Basoko, Buta, Isangi, Yabaondo, Yahisuli, Yakusu, Yaleko

Facilities
- 119/7,144 (2%) community care sites
- 106/8,266 (1%) health centers

Population

Country
- 83.3 million

MCSP-supported areas
- 1.21 million

Technical Areas

Program Dates

January 1, 2015–June 30, 2019

Total Funding through Life of Project

$18,326,485

Demographic and Health Indicators

Indicator	# or %
Population < 15 years old	52%
MMR (per 100,000 live births)	846
IMR (per 1,000 live births)	58
NMR (per 1,000 live births)	28
U5MR (per 1,000 live births)	104
Children <12 months receiving all three polio vaccine doses	62.9%
CPR (modern)	8%
ANC 4+	48%
Facility-based deliveries	80%
Stunting in children < 5 (height for age)	43%
Treatment of diarrhea with ORS	25.4%

Source: DRC DHS 2013/2014.

Strategic Objectives through the Life of Project

- Strengthen the Ministry of Public Health's capacity to strategically scale up cost-effective, evidence-based RMNCAH interventions.
- Improve the capacity of Congolese health professional organizations to provide quality in-service training and PSE on MNH and PPFP.
- In underserved rural communities of Tshopo and Bas-Uélé provinces, improve child survival by supporting IMNCI in health facilities and iCCM; increase the uptake of FP methods through community- and facility-based interventions; and improve the quality of care in health facilities through WASH interventions.

Highlights through the Life of Project

- Contributed to development of national strategies, guidelines, and tools, such as the ENAP, National IMNCI Strategic Plan, National Community Health Plan, and National WASH Standards.
- Launched the Kintambo General Hospital Model Training Center for integrated newborn, maternal, and PPFP care, training, and mentoring.
- From January 2017 to March 2019, treated over 350,000 cases of childhood diarrhea, malaria, or pneumonia, and increased FP and PPFP uptake, with almost 18,000 new FP users initiating services (Figure 1 and 2).
- Piloted approaches to strengthening nutrition services in iCCM in 25 sites and established 25 IYCF support groups.
- Strengthened data quality and use through DHIS2 trainings in two provinces.
- Scaled up the Clean Clinic Approach and improved WASH in 35 facilities.
- Helped coordinate the national response to the vaccine-derived polio outbreak and assisted with its implementation in six provinces.

Figure 1. New FP acceptors in MCSP-supported areas

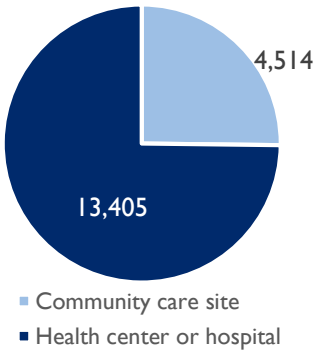
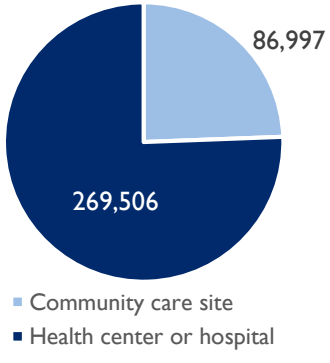


Figure 2. Cases of childhood illness treated in supported areas



Democratic Republic of the Congo

Background

From October 2015 to March 2019, MCSP partnered closely with the Democratic Republic of the Congo (DRC) Ministry of Public Health, USAID, and other stakeholders to improve planning, coordination, monitoring, evaluation, documentation, and scale-up of RMNCAH interventions at the national level and in the two provinces of Tshopo and Bas-Uélé.

Key Accomplishments

Developed National RMNCAH Policy, Strategies, and Tools

In its role as secretariat for the revitalized National RMNCAH Task Force and as technical advisor to the Ministry of Public Health's Division for Family Heath and Special Groups, MCSP supported the development of new national health policies, strategies, and guidelines. Over the life of the program, this included:

- **DRC's ENAP:** Building on the momentum from the Every Newborn Action Forum in Dakar in 2017, in 2018/2019, MCSP supported the Ministry of Public Health to draft and finalize DRC's ENAP and develop a consolidated set of tools for community newborn care. Developed with the WHO, UNICEF, and others, the ENAP tools were subsequently rolled out for use at provincial level by MCSP.
- **IMNCI and iCCM plans, policies, and tools:** With MCSP support, in 2016 and 2017, the Ministry of Public Health updated and approved the National IMNCI Strategic Plan 2018–2022, which included both clinical IMNCI and iCCM components and set ambitious newborn and child health targets. Additionally, in September 2016, MCSP worked with UNICEF and WHO through the Child Health Technical Working Group (TWG) to update DRC's iCCM policy documents and tools. Updated materials incorporated emerging evidence and added visuals to facilitate use by low-literacy CHWs. Others (e.g., Prosani Plus, Save the Children, SANRU-Global Fund) also adopted the revised tools for use in their programs. MCSP also helped develop a new iCCM/IMNCI data dashboard and website to improve monitoring of iCCM scale-up nationally. These tools enable the Ministry of Public Health to track progress in individual community care sites and review human resources and training data across partners and geographies for the first time.
- **National Multisectoral FP Strategic Plan, 2017–2020:** MCSP supported the National Reproductive Health Program to draft the National Multisectoral FP Strategic Plan, 2017–2020, which includes a national FP communications plan and tools to facilitate demand generation.
- **2019–2022 National Community Health Strategic Plan:** In 2018/2019, MCSP played a major role in development of DRC's 2019–2022 National Community Health Strategic Plan, which aims to reinforce community oversight and participation in health. To operationalize the plan, MCSP revised CHW health promotion tools, trained national trainers, and revised a management toolkit; the Ministry of Public Health is now mobilizing resources for additional rollout.
- **Development of annual operational plans:** MCSP supported the Division for Family Heath and Special Groups, the national Acute Respiratory Infection Control Program, and the Cholera and Other Diarrheal Diseases Control Program to develop annual operational plans. The Division for Family Heath and Special Groups costed, for the first time, annual operational plans aligned with the National Health Development Plan in 2017 and 2018, which were used to advocate for resources from partners.
- **Finalization of national WASH standards:** The Ministry of Public Health finalized its national WASH standards in 2018, with support from UNICEF, WHO, and MCSP. Before this, MCSP worked with the Ministry of Public Health to design an assessment tool for monitoring WASH standards in health care facilities and a process referred to as the CCA. Positive results of MCSP's CCA pilot in Tshopo and Bas-Uélé prompted the Ministry of Public Health to adopt the same standards for WASH in health facilities.

MCSP supported rollout of many of these policies and of an earlier set of RMNCAH policies and standard operating procedures that were never fully disseminated. MCSP printed these earlier policies and standard operating procedures and, in June 2017, worked with the Division for Family Heath and Special Groups and

a group of national-level facilitators to train provincial trainers. MCSP partnered with the Tshopo and Bas-Uélé provincial health divisions on a pragmatic training approach for lower levels of the health system that incorporated joint supervision visits and 2 days of regular monitoring and validation meetings, during which provincial trainers introduced the full set of policies and standard operating procedures. MCSP's positive experience with this modified approach was shared with the Ministry of Public Health and partners, many of whom adopted the same strategy with additional provincial health divisions.

Strengthened Congolese Health Professional Associations

In March 2016, the Ministry of Public Health, USAID, and MCSP initiated efforts to strengthen the capacity of three Congolese professional associations that, together, represent the majority of MNH care providers in DRC: the Congolese Association of Pediatricians, the Society of Congolese Midwives, and the Society of Congolese Obstetricians and Gynecologists. Based on results of organizational capacity assessments conducted in 2016, the Congolese Association of Pediatricians was selected to partner with Cuso International under a technical contract with MCSP. Together, the three organizations developed a 5-year (2018–2022) operational plan aimed at strengthening the association's governance, resource mobilization, administration, communication, and advocacy activities. MCSP also supported the Society of Congolese Midwives and the Society of Congolese Obstetricians and Gynecologists for organizational development trainings, technical trainings of trainers, capacity-building in clinical mentorship, and participation in cross-country learning opportunities.

Established a Model Training Center for Integrated Maternal, Newborn, and Postpartum Family Planning Care

In DRC, high newborn, infant, and maternal mortality rates coincide with relatively high reported facility-based delivery rates—approximately 80%, according to the 2013–2014 Demographic and Health Survey (DHS)—indicating a need for improved quality and coverage of care at birth. To improve the quality of integrated MNH/PPFP pre-service and in-service training, in 2017, the Ministry of Public Health and MCSP started work to establish a model training center at Kintambo General Hospital in Kinshasa. Based on an in-depth needs assessment, MCSP, the Ministry of Public Health, and the Kintambo General Hospital's management team jointly developed plans for a state-of-the-art center for pre-service, in-service, and continuing education using the hospital's existing infrastructure.

In April 2019, the Ministry of Public Health formally launched the Kintambo Model Training Center, which now includes a KMC unit, a simulation lab, an FP counseling room, and a training room. MCSP provided materials and equipment for the model training center and completed minor improvements to increase patient privacy and improve the site's organization of services. Using an integrated MNH/PPFP training package, MCSP supported training of a cadre of professional association trainers (23 in total), national Ministry of Public Health trainers, and providers at the model training center using competency-based approaches and peer-to-peer mentoring. Throughout 2018, this cadre cascaded trainings within their institutions and elsewhere in the country, including at the model training center. By September 2018, MCSP had trained 53 of Kintambo's health care providers on the integrated MNH and PPFP package at the model training center. Additionally, the model training center received 150 medical students from the Reverend Kim University who are doing rotations with the maternity department.

A model training center management committee (comprising hospital management and staff) convenes regularly to monitor quality assurance activities and organize pre-service and internship training opportunities with educational institutions. MCSP worked with this committee to develop a sustainability plan and financing policy, and to strengthen quality standards and clinical mentorship systems. Going forward, the model training center will continue to operate under the management committee, guided by the sustainability plan and management tools. Identifying sponsors to fund ongoing activities and facilitate the model training center becoming a national MNH/FP center of excellence is a future priority for the management committee. (For more information, please see the brief and video of the Kintambo Model Training Center.)

Improved Access to and Quality of Child Health Services in Tshopo and Bas-Uélé Provinces

An estimated one out of 10 child deaths in Africa occurs in DRC, with 304,000 deaths in children under 5 reported in 2016.[26] The leading causes of childhood deaths in DRC are neonatal complications, diarrhea, pneumonia, and malaria. Getting high-quality health services closer to remote communities through community-based approaches is a key component of the national strategy to decrease child mortality and morbidity. Introduced in DRC in 2005, the iCCM approach intends to bring lifesaving treatment of childhood illnesses closer to children by training and supporting volunteer CHWs to manage malaria, diarrhea, pneumonia, and malnutrition at community care sites.

In late 2016, MCSP began supporting implementation of the full package of IMNCI and iCCM services in 106 health centers and 119 community care sites in Tshopo and Bas-Uélé provinces that had previously received support for malaria services only. MCSP procured oral rehydration salts (ORS), zinc, and dispersible amoxicillin tablets to be provided free of charge at the iCCM sites. MCSP also trained health care providers and CHWs in IMNCI and iCCM, integrated QI approaches, provided essential supplies and commodities, and supported health worker supervision. Over the life of the program, health centers and community care sites with MCSP support treated over 350,000 cases of childhood malaria, pneumonia, and diarrhea (see Figure 3).

Figure 3. MCSP's impact on child health in DRC

From January 2017 to March 2019, in the 106 MCSP-supported health centers and 119 community sites:

206,704 cases of malaria were treated

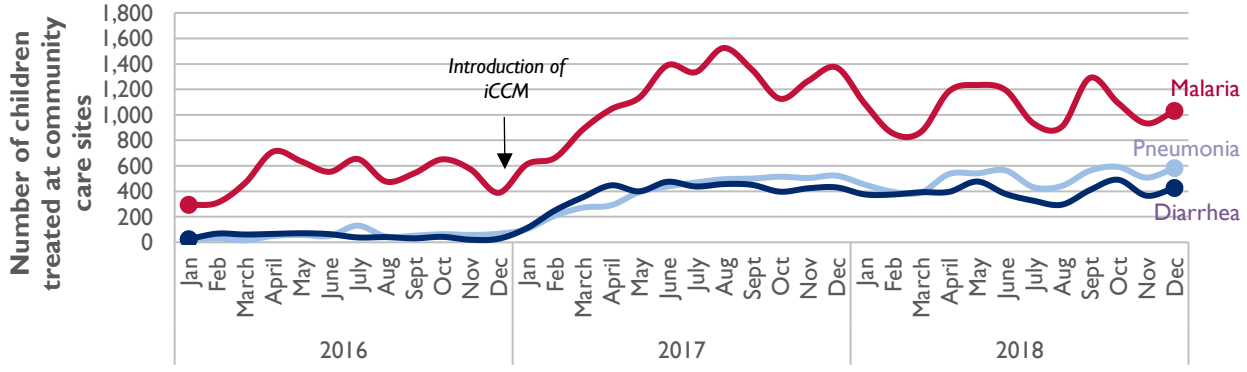
82,387 cases of pneumonia were treated

67,412 cases of diarrhea were treated

Based on analysis of health centers and community sites with a minimal threshold of complete reporting into the DHIS2 from 2016–2018, the number of cases of childhood diarrhea and pneumonia treated increased more than four times between 2016 and 2018 at the facility level and eightfold at the community level (Figure 4). This demonstrates that introduction of an integrated package and provision of free drugs can substantially increase the number of cases of child illnesses treated at all levels, including in underserved communities. (For additional information, please see the infographic.)

Figure 4. Trends in treatment of child illness in the community and health centers before and after introduction of iCCM and IMNCI in Bas-Uélé and Tshopo (2016-2018)

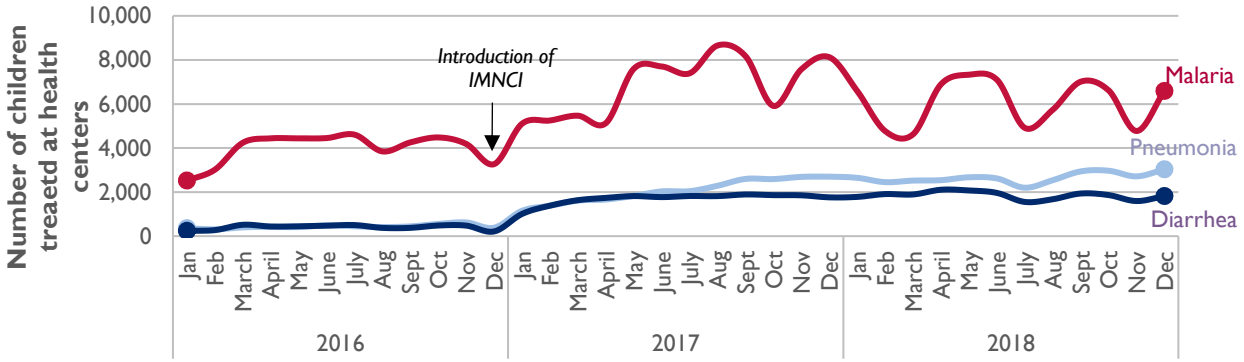
4a. Increases in treatment of child illness at community care sites in Tshopo (n = 37) and Bas-Uélé (n = 17) provinces*



*Data shown only for sites with minimum threshold of complete reporting in 2016.

[26] UNICEF, WHO, World Bank Group, United Nations. 2017. *Levels and Trends in Child Mortality Report 2017*. New York City: UNICEF.

4b. Increases in treatment of child illness at health centers in Tshopo (n = 79) and Bas-Uélé (n = 27) provinces*



*Data shown only for sites with minimum threshold of complete reporting in 2016.

Strengthened Nutrition Services for Women and Children

In DRC, 43% of children under 5 suffered from stunting, 8% were wasted, and 23% were underweight at the time of the 2013/2014 Demographic and Health Survey. In response, the Ministry of Public Health, DRC's national nutrition program, and MCSP prioritized the strengthening of nutrition-related strategies within iCCM and IMNCI. This was in recognition of the fact that the standard nutrition component of iCCM was limited to identification and referral of children with severe acute malnutrition and did not include preventive aspects of nutrition (e.g., improving IYCF practices around breastfeeding and complementary feeding, and building CHW IYCF counseling skills).

With MCSP support, DRC's national nutrition program undertook a formative study to guide integration of nutrition within iCCM. The study's findings informed the design and implementation of a pilot that involved 25 pairs of community care sites and health centers in three health zones in Tshopo Province. As part of the pilot, MCSP supported strengthening of existing IYCF-focused mothers' support groups and the creation of new groups in communities where they did not exist. Within these groups, caregivers were counseled to improve care seeking for sick and/or malnourished children, exclusively breastfeed their infants, and adopt healthy complementary feeding practices. By the end of 2018, 19 of 25 groups were fully active. Study findings were also presented during the 2018 Accra *Improving Nutrition Services in the Care of the Ill and Vulnerable Newborn and Child* workshop, during which the country delegation prioritized gaps and developed a country action plan to strengthen the capacity of CHW to strengthen nutrition aspects of the iCCM strategy.

Also based on the study's findings, MCSP supported the review and adaptation of existing Ministry of Public Health IYCF counseling cards and facilitated provincial and health zone teams to train facility-based providers and CHWs. In the pilot areas, by the end of 2018, 2,455 sick children under 5 years old had been screened in the community for malnutrition, and 795 pregnant women and 980 caretakers with children under age 2 had received nutrition counseling. In the future implementation of this approach, it will be critical to continue the strengthening of provider capacity to provide quality IYCF counseling, coupled with supportive supervision efforts. DRC's national nutrition program has expressed interest in continuing these efforts.

Improved Access to Family Planning Services at Community and Health Facility Levels

According to the 2013/14 Demographic and Health Survey, DRC has the third highest fertility rate globally, at 6.6 children per woman, a national MMR of 846 per 100,000 live births, and an adolescent birth rate of 138 live births per 1,000 adolescent women. FP can support reductions in maternal mortality by 30–40%, but in 2013, the contraceptive prevalence in the DRC was just 8%, and there was a high rate (28%) of unmet FP need. This was attributed to poor integration of FP within the package of services offered at the health facility level, stock-outs of contraceptive commodities or supplies needed for service delivery, limited availability of health services that specifically target adolescents and young adults, and inadequate recruitment, deployment, and geographic distribution of community-based distributors able to reach clients where they live.

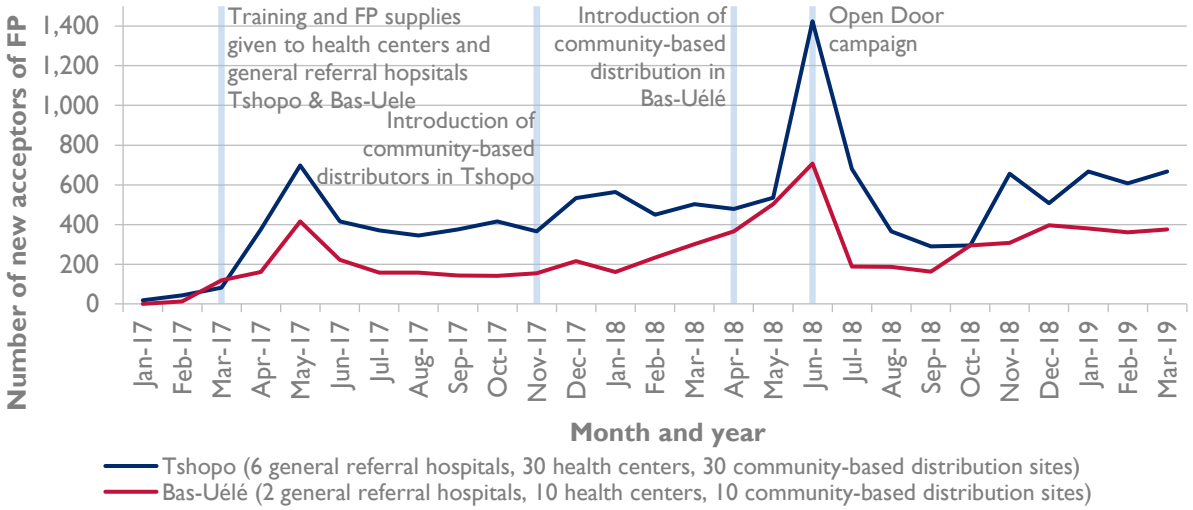
MCSP partnered with the Ministry of Public Health's provincial health divisions in Tshopo and Bas-Uélé to improve access to FP/PPFP services and increase voluntary uptake in underserved, rural communities. In line with the Ministry of Public Health's National Reproductive Health Program, MCSP and the two provincial health divisions worked to:

- Establish quality FP/PPFP services within existing health infrastructure by providing training, supervision, and the distribution of equipment, commodities, and tools.
- Garner interest and demand at the community level through interpersonal communication and promotional activities, such as radio broadcasts.
- Conduct three "Clinic Open Door" campaigns in 2018 to encourage women and community members to visit facilities where FP education and other services were offered free of charge.
- Develop a formal, national-level FP communication plan for replication at the health zone level that integrated PPFP messaging into antenatal, delivery, postnatal, and extended postpartum care.

Over the life of the program, MCSP's FP/PPFP activities in Tshopo and Bas-Uélé provinces reached eight health zones, eight general hospitals, 40 health centers, 40 community care sites, and 85,000 women of reproductive age. At community level, MCSP's approach relied upon community-based distributors to facilitate client access to FP information and services, improve awareness, generate demand, and provide clients with short-term contraceptive methods. Throughout 2017–2018, the Ministry of Public Health and MCSP supported provincial trainers to train 120 community-based distributors in the eight health zones. By December 2018, each of the 40 community care sites had three distributors in place.

The addition of FP/PPFP services at health centers and general referral hospitals in Tshopo and Bas-Uélé contributed to increased numbers of new FP acceptors between 2017 and 2018. At the community level, community-based distributors and Clinic Open Door campaigns supported further increases in new acceptors (Figure 5), indicating the effectiveness of community-based interventions in increasing voluntary FP uptake. (Additional details can be found here.)

Figure 5. Number of new FP acceptors by implementation site



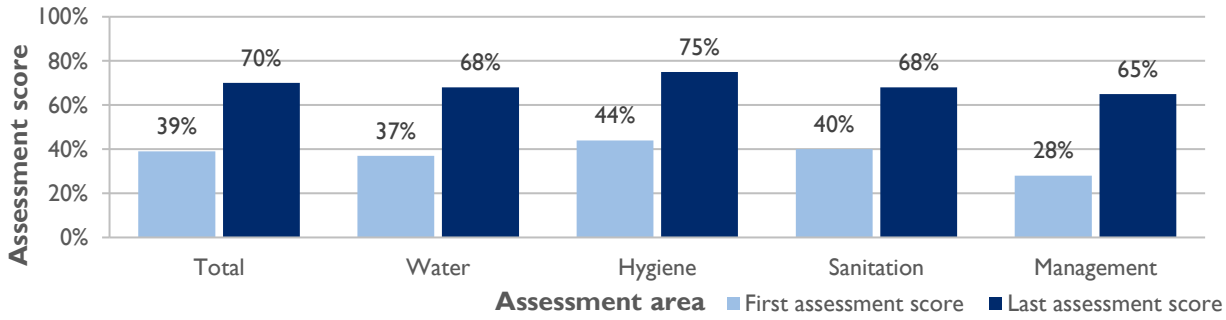
Implemented the Clean Clinic Approach to Improve Water, Sanitation, and Hygiene

DRC's 2014 Service Availability and Readiness Assessment showed that nationally, 63% and 59% of health care facilities lacked an improved water source and improved sanitation facilities, respectively. At the start of MCSP, only six of 15 (40%) of MCSP-assisted facilities in Bas-Uélé and three of 20 (15%) of supported facilities in Tshopo had access to water at least 5 days a week. With facilities unable to ensure provision of safe, high-quality, and trustworthy services, MCSP implemented the CCA to help them meet national WASH standards.

MCSP piloted CCA in 10 facilities in Bas-Uélé and Tshopo in August 2016 and scaled it to 25 more facilities in October 2017. CCA activities included assessing facilities; training providers, facility cleaners/hygienists, and CHWs; establishing hygiene committees at each facility and community feedback mechanisms; integrating WASH into broader facility-based action plans; supporting quarterly visits to each facility by district health inspectors; documenting results; and recognizing achievements. After a year, the 35 facilities increased average CCA scores from 39% to 70% between their first and last assessments. Among four technical areas, facilities scored highest in hygiene at final assessment but improved most substantially in WASH management, with the average facility score increasing from 28% to 65% (Figure 6).

WASH improvements brought increased user confidence, especially among pregnant women who had been afraid to deliver in unclean facilities that lacked water. There were also reported increases in attendance for preventive and promotional care, including ANC and RI. At the Lilanda health facility in Tshopo, for example, the number of facility births reportedly quadrupled over 5 months, with clients citing improved WASH services as the motivation for delivering at the health center. In Tshopo, the five facilities reaching Clean Clinic status saw their patient intake and the number of deliveries double from 166 to 333 patients and from 12 to 26 deliveries, respectively. As a result, income to these facilities nearly tripled during this period, from CDF 262,000 to 738,000, which facilities reinvested in health care services. The Ministry of Public Health has now adopted the CCA (integrating lessons from a separate UNICEF WASH activity into this intervention) and is expanding implementation to other regions.

Figure 6. Average start and end CCA assessment scores (n = 35 facilities in Bas-Uélé and Tshopo)



Improved Data Quality and Use

MCSP supported DHIS2 software trainings for data managers and zonal medical officers from MCSP-supported zones in Tshopo and Bas-Uélé provinces. The aim was to improve the quality, management, analysis, and use of data collected by health facilities and CHWs, and uploaded to the DHIS2 platform. MCSP ensured that data collection tools were available in the health zones, supported provincial data analysis meetings, introduced standardized "dashboards" in health facilities and at community care sites, and conducted joint data quality assessment visits with Provincial Health Division staff to health facilities. All of these activities positively affected the availability and quality of service data. MCSP's legacy is a strengthened health information management system (HMIS) in program-supported health zones, facilities, and communities.

Coordinated with Partners to Respond to Polio Outbreak

From January 2017 through March 2019, DRC had 45 confirmed cases of circulating poliovirus derived from the type 2 vaccine strain in seven provinces. From June 2017 to October 2018, the Ministry of Public Health Polio Emergency Operations Committee conducted 11 supplemental geographically focused immunization campaigns as part of the outbreak response, with the support of partners including WHO, UNICEF, USAID, the Bill & Melinda Gates Foundation, and the US Centers for Disease Control and Prevention (CDC).

MCSP provided technical assistance and helped coordinate the polio response at national level, and deployed seven senior consultants to assist with implementation of the outbreak response and supplemental

immunization activities in six provinces. These technical experts worked closely with the Ministry of Public Health and other partners to coordinate and plan an effective response, train supervisors, support vaccine stock management, enhance communication with local authorities and community members, and contribute to M&E. Technical support provided by MCSP consultants, plus their continuous mentoring and supervision of field staff, brought new levels of skills, competence, and innovation to engage and build trust among communities and noncompliant households. MCSP consultants used the campaigns to reinforce the RI system and use of real-time data, roll out the new surveillance guidelines, and address rumors related to polio vaccine uptake, often by working with religious and community leaders. The circulating poliovirus derived from the type 2 vaccine strain outbreaks appeared to be slowing in early 2019, when MCSP closed out. The only way to prevent them in the future is to ensure that polio vaccination rates stay at 80% or higher in all provinces, at all times.

Recommendations for the Future

Based on its experience at the national level and in Tshopo and Bas-Uélé provinces, MCSP has the following recommendations for future donors and implementing partners in DRC.

- **Continue and expand the integrated IMNCI/iCCM, FP/PPFP, nutrition, and WASH approach that MCSP demonstrated in Tshopo and Bas-Uélé provinces.** As of June 2019, MCSP had engaged in discussions with UNICEF, Enabel, SANRU, Médecins Sans Frontières, and the Ministry of Public Health provincial health authorities to advocate for continued implementation of the full package of IMNCI/iCCM, FP, WASH, and nutrition services in these two provinces.
- **Ensure DRC's policies and other national-level documents are up-to-date, evidence-based, and effectively implemented.** At the national level, continued investments are needed to support the Ministry of Public Health's RMNCAH policy agenda. Future donor support will help the ministry and its partners to ensure that the country's policies, strategies, and guidelines are evidence-based; that implementation incorporates global best practices; and that needed resources are identified, communicated, and mobilized.
- **Continue to support the RMNCAH Platform and its working groups to inform national policies and plans, including those related to the Global Financing Facility Investment Case.** MCSP helped strengthen the coordination and leadership capacity of the Ministry of Public Health Division for Family Heath and Special Groups and revitalized the RMNCAH task force, which had not met for a number of years before 2016. In June 2018, the honorable minister of health elevated the RMNCAH task force, renaming it the RMNCAH Platform, developing new terms of reference, and putting it directly under his own purview. Although this bodes well for the government's future RMNCAH commitments, MCSP's work with the more agile TWGs and programs led to more than 50 national policy and strategy changes.
- **Support the Ministry of Public Health's planned iCCM scale-up and advocate with other donors and with the government itself to match needs with resources.** USAID support for the full iCCM package and approval for commodities procurement was vital to successful implementation. To bridge the large gap between DRC's evidence-based policies and plans and their implementation, resources must be available to roll out new policies and strategies once developed. Donor investments and national budget allocations should be better aligned so that both are consistent with national policies and plans.
- **Continue supporting the model training center to ensure it becomes fully sustainable.** The Kintambo Model Training Center institutionalizes competency-based training and demonstrates a promising approach for the future. The integrated MNH/PPFP training tools, which were developed and approved by the Ministry of Public Health, are ready to be used in replicating this approach in other provinces. The model training center's governing mechanism and sustainability plan will also require continued support.
- **Follow the national iCCM and community health strategies.** This should include procurement of commodities and targeted advocacy to increase government purchase of these commodities. In Bas-Uélé and Tshopo provinces, MCSP built its iCCM, nutrition and FP work on a platform of community care sites that offered only malaria services. The geographic coverage of these sites was limited, and it was not possible to increase their numbers with available resources. MCSP was only able to expand the iCCM

package in existing sites to include pneumonia and diarrhea by making amoxicillin, ORS, and zinc available. Donated nutrition and FP commodities made it possible to offer these services in a subset of communities. Without greater geographic coverage and guaranteed access to commodities, the impact of IMNCI/iCCM and other integrated service delivery strategies will continue to be limited.

- **Advocate to other donors and the national government to continue growing FP/PPFP services in Tshopo and Bas-Uélé, though they are no longer priority provinces for the Mission.** FP was not among MCSP's original objectives, but in 2016, when USAID made a shipment of donated contraceptives available to Tshopo and Bas-Uélé, MCSP saw an opportunity to add FP and PPFP capacity-building to its support. The need was obvious—there were almost no FP services available in the provinces, and provider and client uptake was steady over the life of the program.
- **Provide necessary resources to operationalize the national HMIS and build on MCSP's work to ensure data quality and use will continue.** MCSP strengthened infrastructure and systems and built government capacity to operationalize the national HMIS and use routine data at the community, facility, and health zone levels in the two provinces of Tshopo and Bas-Uélé. Continued support for the infrastructure and systems—such as provision of paper forms, internet credit for data entry into DHIS2, and technical and financial support for data review meetings, data quality audits, and improvement plans—will be needed to ensure that gains are sustained and scaled up to all health zones in the two provinces.

Select Performance Indicators for Life of Project	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of (national) policies drafted with USG (MCSP) support	17[27] (target: 9; target exceeded)
Number of people trained through USG-supported programs	3,072 (target: 3,899; 79% achieved)
Number of children under age 5 with fever, diarrhea, and/or fast/difficult breathing for whom advice or treatment was sought from a facility or community case management-trained CHWs in MCSP-supported areas	450,639 (target: 361,103; target exceeded)
Number of cases of child diarrhea treated in USAID-assisted (MCSP) programs	67,412 (target: 63,766; target exceeded)
Number of cases of child pneumonia treated with antibiotics by trained facility or CHWs in USG (MCSP)-supported programs	82,387 (target: 66,125; target exceeded)
Percent of children ages 0–59 months in malaria-endemic areas presenting with fever who were tested with rapid diagnostic test or microscopy	93% (target: 100%; 93% achieved)
Percent of confirmed malaria cases in children ages 0–59 months who receive first-line antimalarial treatment	93% (target: 100%; 93% achieved)
Number of women initiating FP services (new users) at facilities or from trained CHWs in MCSP-supported areas	17,919 (target: 18,035; 99% achieved)
Percentage of target health facilities in MCSP-supported areas with handwashing stations and appropriate handwashing supplies available to the maternity and/or surgery wards or units (both if they exist)	100% (target: 100%; target achieved)

[27] Updated iCCM and IMNCI guidelines and tools (2); PPFP Package (1); Modules & technical briefs for Integrated packages for care on the day of birth and the immediate postnatal period adopted, including HBB, day of birth, bleeding after birth, and PPFP (7); 14 modules Primary Health Care management package (1); IMCI/child health strategic plan (1); FP communication modules and guidance (1); CCA training modules (1) and M&E tools (1); promotion of key family practices modules (1); National guidelines for WASH in health care facilities (1); National Community Health Strategy (1)

Egypt Summary & Results

Geographic Implementation Areas

Governorates

- 23/27 (85%)—9 in Upper Egypt (Aswan, Assiut, Beni Suef, Faiyum, Giza, Luxor, Minya, Qena, Sohag); 9 in Lower Egypt (Al Sharqia, Beheira, Dakahlia, Damietta, Gharbia, Ismailia, Kafr el-Sheikh, Monufia, Qalyubia); 5 border governorates (Matruh, Port Said, North Sinai, Red Sea, South Sinai)

Districts

- 216/308 (70%)

Facilities

- 4,839/5,098 (95%)

Population

Country

- 91.5 million

MCSP-supported areas

- 15.3 million

Technical Areas

Program Dates

April 1, 2015–August 15, 2019

Total Funding through Life of Project

$5,915,635

Demographic and Health Indicators

Indicator	# or %
TFR[2]	3.5
MMR (per 100,000 live births)[1]	33
NMR (per 1,000 live births)[2]	14
U5MR (per 1,000 live births)[2]	27
TFR (births per woman)[2]	3.5
CPR (modern methods)[2]	54%
ANC 4+[2]	82.8%
SBA[2]	91.5%
Postnatal care < 48 hours of birth[2]	14%
Stunting (height for age < 5)[2]	21%

Sources: [1] World Bank 2015, [2] Egypt DHS 2014

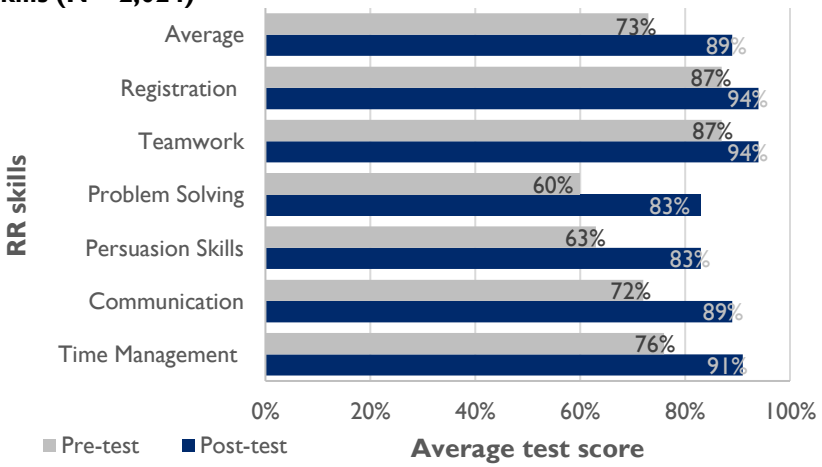
Strategic Objectives through the Life of Project

- Provide technical assistance to the Ministry of Health and Population to develop a national strategy for Egypt's CHWs, *Raedat Refiats* (RRs) that reflects the Family Health Package and will support the ministry to reach Sustainable Development Goal targets.
- Provide technical assistance to the Ministry of Health and Population to develop a national training system for the RR program and implement it at scale in 23 governorates.

Highlights through the Life of Project

- Assisted Egypt's Ministry of Health and Population to develop and validate a national strategy for its approximately14,000 RRs, promoting them as key actors in Egypt's journey to self-reliance through the increased reach of community-based services.
- Strengthened the skills and knowledge of more than 10,000 frontline RRs in 23 governorates, who are now better equipped to provide Egyptian households with timely and accurate health information.
- Launched a digital HMIS to enable more than 1,200 RRs in five pilot governorates to capture and manage program data, eliminating cumbersome paper-based reporting and saving RRs time that they can use to provide services to families in their communities.

Figure 1. Across 23 governorates, a matched sample of average RR skills test scores revealed the greatest growth in problem-solving skills (N = 2,024)



Egypt

Background

Egypt established the RR CHW cadre in 1994 to increase demand for FP services. From an initial 5,000 positions in 1994, the RR workforce has grown to 14,000+ RRs, tasked with promoting a range of health services reflective of the national Family Health Package. In 2015, at the request of the Ministry of Health and Population and with support from USAID, the Ministry of Health and Population and MCSP—led by a team of international and local researchers, including experts in the Egyptian health system—assessed the RR program and found that, although RRs are essential members of Egypt's frontline health team and the government has invested significant financial resources, the program as designed could not demonstrate desired results or impact. MCSP, in collaboration with the Ministry of Health and Population, thus undertook a two-pronged approach to strengthen the RR program: develop a new national strategy and an updated training program targeting RR knowledge and skills development to better meet the health needs of women of reproductive age in 23 of Egypt's 27 governorates.

Key Accomplishments

Established Strategic Goals, Objectives, and Indicators for the National Raedat Refiat Program

The findings and recommendations of the Ministry of Health and Population and MCSP-led 2015 RR program assessment directly informed the design of a new national strategy and the implementation phase of MCSP's program in Egypt. MCSP served as secretariat for a technical advisory group established by the Minister of Health and Population for the development of the national strategy. In keeping with recommendations 1 and 2 from the assessment, MCSP supported the Ministry of Health and Population to establish explicit strategic goals, objectives, and performance management indicators for the RR program within the context of the Ministry of Health and Population's full Family Health Strategy, with its targets linked to Egypt's Sustainable Development Goal for MCH.

As Box 1 indicates, MCSP led or directly supported implementation of six of the 11 assessment recommendations. Throughout the course of the national strategy development process and dissemination at events in Cairo and Assiut, MCSP also sought to catalyze and mobilize the central-level Ministry of Health and Population, donors, and other resource partners to support the new concepts, interventions, and actions described in the five remaining recommendations. Using the data and insights garnered from the assessment and relevant experiences from other countries' CHW programs, MCSP advocated for more than just additional traditional training to address RR program needs. Rather, MCSP collaborated with the Ministry of Health and Population to inform design of a fit-for-purpose national program that draws upon evidence, engages in long-term thinking, and promotes sustainability.

Box 1. The 2015 RR assessment yielded 11 recommendations. (MCSP led or supported implementation of those in bold.)

1. **Confirm or reverse the strategic direction of the RR program toward a full family health strategy.**
2. **Establish explicit strategic goals, objectives, and performance management indicators.**
3. Establish clear and recognized operational management and control of the RR program through a management unit at governorate level.
4. **Provide practical and operational guidance to RRs at governorate level to more strategically balance their activities between home visits and community outreach, and mobilization and support of community groups for health promotion and social change.**
5. **Establish, resource, and implement a state-of-the-art training strategy adapted to the ambitions of the RR program.**
6. **Make use of mobile technology.**
7. **Improve the RR and community health promotion information system.**
8. Involve communities in setting and achieving health objectives with the RR program through systematic engagement of local leaders and organizations as partners.
9. Start planning for a future with RR career advancement opportunities.
10. Improve the RR motivation and incentive system.
11. Cost these recommendations and options to move the RR program forward in the next 5 to 10 years.

The success of the technical advisory group in part inspired the Ministry of Health and Population to expand the committee's scope to include M&E of the strategy's implementation. Through this Ministry of Health and Population-led "High Committee," MCSP introduced a matrix for a unified RR evaluation process at the governorate level, ultimately reaching multistakeholder consensus on indicators, milestones, and timelines aligned with the four pillars of the RR strategy and Egypt's MCH targets. MCSP's support enabled the Ministry of Health and Population to bring the right information to the right people at the right time, facilitating sustained monitoring of strategy implementation. (For more information, see MCSP's case study, "Development of Egypt's National Community Health Worker Strategy: Optimizing a Historical Program for the Future".)

Developed a National Raedat Refiat Curriculum to Provide Practical and Operational Guidance

As the technical advisory group was revising the RR strategy, MCSP facilitated the establishment of technical committees and subgroups to lead the development of a new training system, including a modular approach to technical content areas, revised operational guidelines, and a focus on skills acquisition, particularly in areas deemed to be core RR competencies. The subgroups developed four training modules reflective of the Ministry of Health and Population's Family Health Package—newborn and child health, reproductive health, communicable and noncommunicable diseases, and nutrition—incorporating social and behavior change approaches within each. A fifth module, the operational guidelines, outlined RR qualifications, the reporting structure, household registration, and a revised RR job description. In October 2017, MCSP received Ministry of Health and Population approval for the revised training modules.

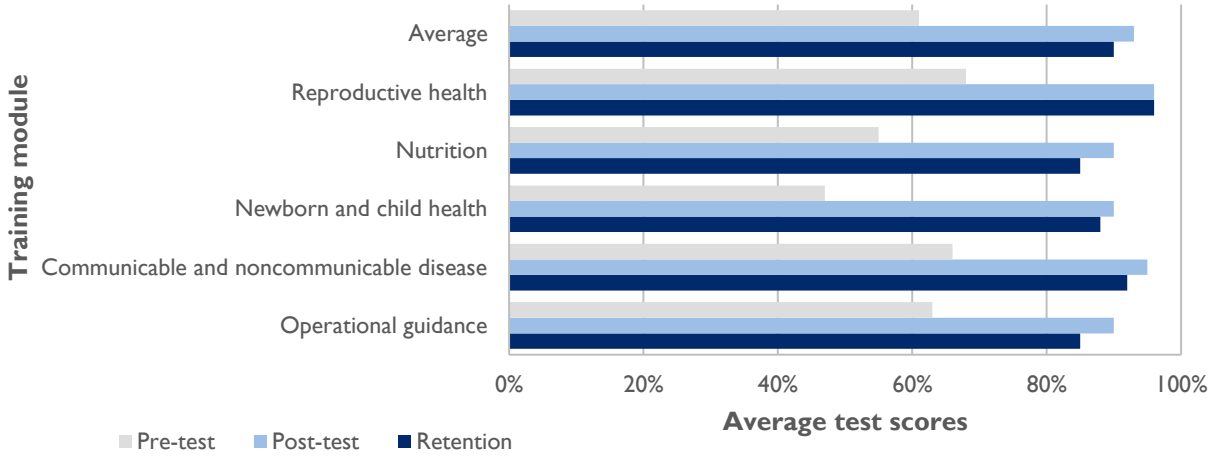
With the approved training modules as a guide, MCSP then built out a comprehensive training resource package, including training manuals, visual aids, monitoring tools, and job aids corresponding to the four technical content areas and revised operational guidelines. Each resource was developed and refined through an iterative process with the Ministry of Health and Population and relevant stakeholders. The complete training resource package is available on the Ministry's national RR website for reference and continued use, as well as on each RR tablet (see next section). For a durable, on-the-job reference, MCSP also provided RR supervisors and RRs in 23 governorates with printed copies of training modules (for RR supervisors), training manuals (for RRs), job aids, and the Ministry of Health and Population's family demographic register and daily home visit register.

Established and Implemented a Training Strategy Adapted to Raedat Refiat Program Ambitions

Beginning in mid-2017, MCSP introduced the training modules to 63 master trainers and 132 lead trainers. These new trainer cadres cascaded the training to 1,280 RR supervisors, who in turn built the capacity of 10,183 RRs in 23 governorates using a hands-on and interactive LDHF approach. Rather than didactic training in a classroom environment, the LDHF approach focuses on team- and workplace-based learning and practice. The LDHF learning activities, spaced over the course of approximately 5 months, consisted of one primary health care unit training day per week, followed by daily practical application during which RRs conducted home visits with real-time coaching from an RR supervisor. At the end of each month, RR supervisors met with their supervisees to share feedback on the RR's performance and discuss challenges faced in the course of the RR's work.

Across the 23 governorates, RRs who participated in the LDHF sessions consistently demonstrated improvements in thematic knowledge from pre-test to post-test and at 6 months post-training completion. MCSP conducted a knowledge retention test with a matched sample of RRs in 15 governorates, as shown in Figure 2. Although experience shows that a reduction in knowledge is to be expected, retention assessment results demonstrated an average retention of 90% across thematic areas.

Figure 2. At 6 months post-training, a matched sample of average RR knowledge retention test scores remained nearly on par with their post-test scores (N = 1,633)



These demonstrated increases in RR knowledge of reproductive health, nutrition, newborn and child health, and communicable and non-communicable diseases enable RRs to serve as key actors in Egypt's efforts to better meet the health needs of women of reproductive age and their families. As one RR reported, "[After the training,] ladies were asking me in all topics, not only FP. While the ladies followed my advice, their lives became better. For me, I became more precisely able to answer and keep trust with the women."[28] (For more information, see MCSP's brief, "Building Community Health Worker Capacity in Egypt".)

Designed and Launched a Model Health Management Information System for Raedat Refiats

In response to two recommendations from the RR program assessment—to make use of mobile technology and improve the RR and community health promotion information system—MCSP collaborated with the Ministry of Health and Population to design, launch, and refine a digital community HMIS to capture program data from more than 1,200 RRs in five pilot governorates.[29] In collaboration with the Ministry of Health and Population, MCSP developed the system to reduce the time RRs spend on paper-based reporting and free up more time for them to serve families in their communities, and to enable the ministry to manage the RR program more effectively by capturing data, including workforce data, to guide trainings and service planning and support.

MCSP distributed tablets and durable user manuals, and developed a cadre of 15 trainers and 29 facilitators from Ministry of Health and Population information technology and technical staff in Luxor, Ismailia, Assiut, Damietta, and Port Said governorates to lead the training of RR supervisors and RRs in these five governorates. These master trainers cascaded the training to 1,128 total RRs, comprising 250 RRs in Luxor governorate, 103 RRs in Ismailia governorate, 523 RRs in Assiut governorate,[30] 207 RRs in Damietta, and 45 RRs in Port Said governorate.

Meaningful engagement of Ministry of Health and Population staff early on and throughout the process fostered ownership, increasing the likelihood of the system being sustained after MCSP ends. To this end, MCSP purchased and installed a server at the Ministry of Health and Population to host the HMIS. The server will securely store national RR program data, demonstrating the ministry's commitment to moving another step closer to a paperless HMIS. (For more information, see MCSP's brief on National Community Health Information Systems.)

[28] *Raedat Refiat* focus group participant. Giza, Egypt. March 2019.
[29] Luxor and Ismailia were initially envisaged as the two pilot governorates. In consultation with the Ministry of Health and Population and USAID, MCSP later expanded the pilot to three additional governorates owing to changes in RR availability during the Ministry of Health and Population's national hepatitis C campaign.
[30] MCSP collaborated with Save the Children's sponsorship program to pilot the HMIS in Assiut governorate, where sponsorship programming is active, using sponsorship funds.

Recommendations for the Future

Building on successes and lessons learned over the last 4 years, MCSP offers the following recommendations to the Ministry of Health and Population and its partners as it supports the government of Egypt writ large in its journey to self-reliance:

- **Review the national RR strategy for its applicability in the five border governorates, given their distinctive epidemiological, geographic, and cultural profile.** As needed, develop a differential strategy, substrategy, and/or implementation plan aligned with the needs of these governorates.
- **Review, validate, and cost the World Bank-developed national RR strategy implementation plan to facilitate advocacy and fundraising.**
- **Continue to convene regular meetings of the High Committee.** This will allow for sustained monitoring of the strategy's implementation, including use of the RR evaluation matrix.
    - **Replicate the application of the LDHF approach as an initial training for RRs across the remaining governorates of Alexandria, New Valley, and Suez.** The approach has demonstrated effectiveness in improving RR knowledge and skills, and ranked highly in terms of satisfaction among those RRs surveyed.
    - **Conduct interactive, hands-on refresher trainings at the primary health care unit for RRs as outlined in the operational guidelines module.** This should be done twice a year through a 1-day session for each technical content area and should also incorporate continuous regular supportive supervision and coaching visits to RR supervisors and RRs.
    - **Ensure the continued engagement of the Ministry of Health and Population's technical and information technology staff to promote sustainability of future iterations of the RR HMIS.** These stakeholders should be actively involved in the thoughtful redesign, resourcing, technical support, and maintenance of the electronic information system.
    - **Plan for initial trainings in information technology skills and basic hardware use before moving to more complex tasks and operations.** This is crucial as Egypt continues to iterate and scale digital health models, such as those currently being designed by USAID's Strengthening Egypt's FP Program. The Ministry of Health and Population and its partners should also keep an eye to systems interoperability, with the aim of more efficient and effective management and timely decision-making for the national RR program.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of trainers who completed TOTs	1,475 (target: 1,460; target exceeded)
Percentage of improvement in RR knowledge	47% (target: 25%; target exceeded)
Percentage of improvement in RR skills	22% (target: 25%; 88% achieved)
Number of governorates that piloted the electronic HMIS	5 governorates: Luxor, Ismailia, Assiut, Damietta, and Port Said (target: 2 governorates [Luxor and Ismailia]; target exceeded)

Ethiopia Basic Emergency Obstetric and Newborn Care Summary & Results

Geographic Implementation Areas

Regions
- 5/11 (45%)—Amhara; Oromia; Tigray; Southern Nations, Nationalities, and Peoples' Region; and Addis Ababa Administration

Woredas
- 40/973 (4% of country total)

Facilities
- 235

Population

Country
- 105 million

MCSP-supported areas
- 3.82 million

Technical Areas

Program Dates

September 1, 2014–December 31, 2016

Total Funding through Life of Project

$3,866,711

Demographic and Health Indicators

Indicator	# or %
NMR (per 1,000 births)[1]	29
MMR (per 100,000 births)[2]	412
TFR[1]	4.6
CPR (modern methods)[1]	35%
Unmet FP need[2]	22%
ANC[2]	62%
ANC4+ visits[2]	32%
Deliveries by SBA[2]	28%
PNC within 2 days[2]	17%
Facilities with fully functioning EmONC services[3]	10%

Sources: [1] Ethiopia DHS 2016; [2] Central Statistical Agency and ICF 2016; [3] National EmONC Assessment 2009

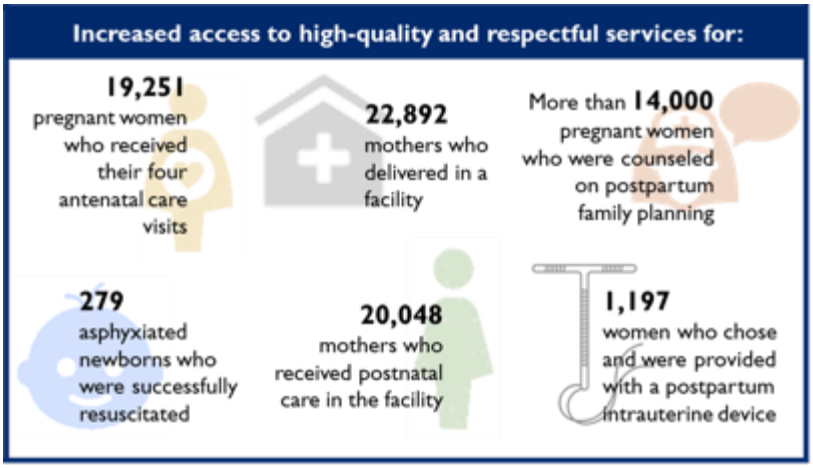
Strategic Objectives through the Life of Project

- Improve capacity of health facilities and skilled birth attendants (SBAs) to provide high-quality MNH services.
- Improve linkages between primary health care unit and community level to increase MNH care-seeking practices.
- Increase access to PPFP and strengthened service provision.
- Enhance capacity to develop national operations research and program learning agenda for MNH, and design and conduct MCSP-specific operations research.

Highlights through the Life of Project

- Adapted and supported the Federal MOH to roll out an MNH QI tool.
- Increased access to quality and respectful services for 19,251 pregnant women who received their four ANC visits, 22,892 mothers who delivered in the facility, 279 asphyxiated newborns who were successfully resuscitated, and 20,048 mothers who received PNC in the facility in 44 supported health centers.
- Supported the Federal MOH's plan to scale up PPFP counseling and postpartum IUD services nationally.
- In 24 health facilities, enabled more than 14,000 pregnant women to be counseled on PPFP and 1,197 women to be provided with voluntary postpartum IUD insertion.
- Documented the feasibility of using blended learning for BEmONC, effectiveness of the active audit-feedback intervention to increase MgSO4 use for management of PE/E at the hospital level, and prevalence of disrespect and abuse in public health facilities.

Figure 1: Highlights of MCSP's BEmONC program in Ethiopia



Ethiopia—Basic Emergency Obstetric and Newborn Care

In 2011, despite significant progress in previous years, Ethiopia's MMR was still 676 per 100,000 live births, which was far from its Millennium Development Goal target of 218 by 2015. Delivery with an SBA was still extremely low (15%[31]), and facilities with fully functioning EmONC services were only 10%.[32] Understanding the Government of Ethiopia's continuing interests and needs, USAID requested MCSP continue MNH support after the closeout of the MCHIP in Ethiopia. USAID tasked MCSP with implementing the award under two scopes of work: the Strengthening BEmONC project and the Community-Based Newborn Care (CBNC) project. MCSP's Strengthening BEmONC program in Ethiopia, which was implemented from September 2014 to December 2016, aimed to increase the availability, utilization, and quality of MNH and PPFP services in the USAID priority regions of Amhara; Oromia; Southern Nations, Nationalities, and Peoples' Region; and Tigray. MCSP worked in close collaboration with the Federal MOH and regional, zonal, and *woreda* (district) health bureaus to provide BEmONC, QI, PPFP, and MNH-related research.

Key Accomplishments

Integrated Maternal and Newborn Health and Quality Improvement Efforts

With the aim of reducing maternal and newborn mortality, MCSP introduced and strengthened BEmONC services by developing skill competencies through training and mentoring health care providers in 172 Integrated Family Health Program-supported and 44 MCSP-supported health centers. MCSP provided comprehensive MNH support in 44 health centers to strengthen BEmONC services, improve referrals and linkages, and institutionalize QI approaches. The 44 facilities were supported in two phases: 22 in the first phase during PY1, and an additional 22 in PY2. All were high-caseload facilities selected by their respective zonal offices to receive MCSP's support in MNH.

MCSP conducted an initial baseline assessment in each facility, which showed that most of the health centers were not fully implementing the BEmONC signal functions. An average of only three of the seven BEmONC signal functions were routinely performed in all health centers, mainly due to gaps in skills and available materials and supplies. MCSP therefore focused on closing the identified gaps by building the skills of 47 health care providers through BEmONC trainings, followed by onsite post-training coaching using anatomic models. Follow-up assessments were conducted in June 2016 and showed that, as a result of the training, the number of facilities routinely providing the BEmONC signal functions increased compared to the baseline. By the end of the program in Ethiopia, 13 (30%) of the supported health centers were able to perform all seven BEmONC signal functions.

The establishment of BEmONC in 44 health facilities was reinforced by the introduction of a QI effort that led to improvements in overall MNH services in these facilities. The comprehensive support provided by MCSP coupled with the other facility-based and national initiatives enabled health centers to improve their overall performance in MNH services. Consequently, the health facilities' HMIS data showed considerable improvements in ANC, skilled birth services, and PNC in MCSP-supported facilities when compared with the baseline and with the national average from the 2016 Demographic Health Survey in Ethiopia (see Figure 2 and 3).

1. Central Statistical Agency (CSA), Federal MOH, World Bank. 2014. *Ethiopia Mini Demographic and Health Survey 2014*. Addis Ababa: CSA and Federal MOH.
2. UNICEF. 2009. *National Baseline Assessment for Emergency Obstetric and Newborn Care: Ethiopia, 2008*. New York City: UNICEF.

Figure 2. Change in performance of MNH services at MCSP sites, phase I

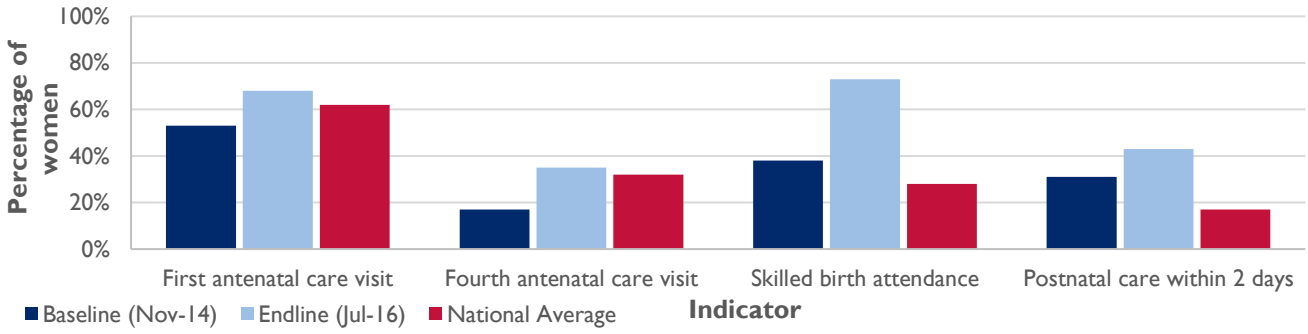
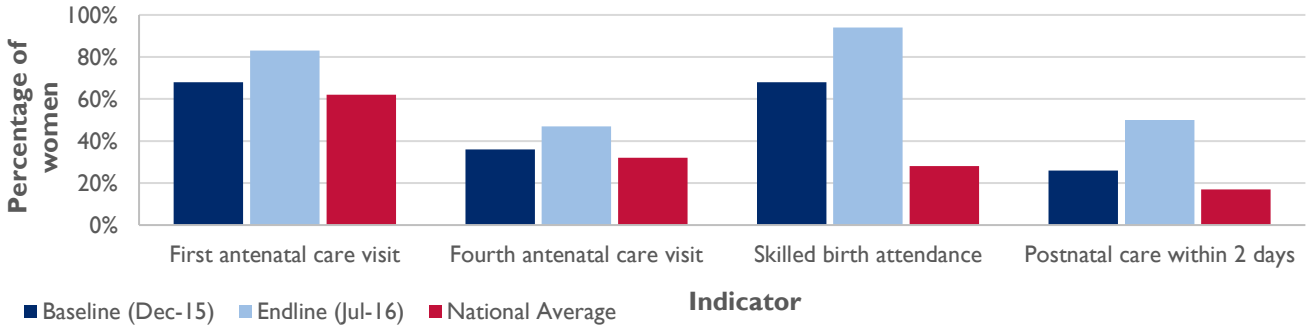


Figure 3. Change in performance of MNH services at MCSP sites, phase II



Sources: Central Statistical Agency and ICF 2016; HMIS reports of health facility data

At the national level, to meet the national quality initiatives and activities, MCSP supported this effort by seconding (temporarily transferring) a senior QI advisor to the Medical Services Directorate/Federal MOH. As a member of the national quality TWG, MCSP actively participated in the development and dissemination of the Ethiopian National Health Care Quality Strategy: 2016–2020 and coordinated other quality initiatives articulated in the quality strategy, including the incorporation of clinical governance and MNH standards into the revised *Ethiopian Hospital Reform Implementation Guidelines*. At the national level, the development of a standard MNH QI tool for primary health care units was identified as a critical need to ensure a uniform approach in the provision of standardized MNH care. Again under the leadership of the Medical Services Directorate, MCSP took the initiative with developing and field-testing the tool. The tool was successfully piloted in 44 MCSP-supported health centers before being rolled out nationally. The QI tool is used for internal/self-assessments by health center staff and during external quality assurance assessments to measure attainment of performance standards. At the national level, MCSP also supported the Federal MOH to institutionalize respectful maternity care by leading the development of training materials for the nationwide scale-up of respectful maternity care.

MCSP implemented selected high-impact, evidence-based interventions and innovations focusing on strengthening services and management, and building MNH capacity. MCSP formally evaluated several interventions piloted under MCHIP, including the introduction of a blended learning approach for BEmONC training and the use of active audit-feedback on the use of magnesium sulfate for the management of severe PE/E. Another intervention, use of the Microlife blood pressure apparatus, was initiated and introduced in Ethiopia by MCSP. While there were plans to introduce and study the implementation of the uterine balloon tamponade for the management of PPH in Ethiopia, local ethical clearance did not permit the study to go ahead. MCSP shared its implementation experiences, study findings, and recommendations with the Federal MOH and stakeholders so that they can use these innovations to further reduce maternal and newborn mortality.

Strengthened Linkages between Primary Health Care Unit and Community Levels to Increase Maternal and Newborn Health Care-Seeking Practices

As reported in 2014, a large majority of women (78%) who did not deliver in a health facility believed that it was either not necessary or not customary to do so. Consequently, the Federal MOH developed a sound strategy to:

- Strengthen referrals and linkages among health facilities.
- Improve health care-seeking behaviors of the community with extensive community-based demand creation.

However, the full operationalization of the referral and linkage system is weak or suboptimal at facility level. MCSP conducted a baseline assessment to determine the functionality of primary health care unit referral and linkages in the 44 supported primary health care units and found that primary health care unit linkages were not being fully implemented as outlined in the guidelines. For example, MCSP's 2014 and 2016 baseline assessments found that it was not standard practice in the health centers to:

- Use national referral registry forms and the referral log sheet.
- Identify a referral focal person within the primary health care unit.
- Hold monthly primary health care unit meetings and pregnant mothers' conferences.
- Provide regular supportive supervision to health posts.

Following the baseline assessment, the project oriented 594 primary health care unit, *woreda*, and zonal health office staff on national primary health care unit strategies and protocols, such as the referral guideline, the primary health care unit linkage manual, pregnant women's conference protocols, and maternity waiting home service guidelines to standardize operationalization of these protocols in supported primary health care units. Though health centers generally have a shared plan with their satellite health posts, MCSP, together with *woreda* and zonal health offices, emphasized the need for primary health care units to adhere to the national guidelines by having a strict schedule for monthly primary health care unit meetings, pregnant women conferences, and supportive supervision visits to health posts. The orientation helped primary health care unit staff to revitalize referral networks and linkages along the continuum of care in their catchment area. Primary health care unit staff identified their gaps in referral and linkage, and developed action plans to realign their referrals and linkages to meet the guidelines. As a result, more than 91% of health centers were subsequently able to:

- Use the national referral registry forms and a referral log sheet.
- Regularly conduct monthly primary health care unit meetings using the guidelines.
- Regularly conduct supportive supervision to health posts using the standard supportive supervision tool.
- Regularly conduct pregnant mothers' meetings.

By the end of the project, 61% of supported health centers had referral focal people. The presence of a proactive referral focal person will not only address issues, such as ensuring referral feedback, but will also ultimately contribute to avoiding two of the "three delays" in birth: delay in transport to care and delay in receiving timely, quality care. MCSP used the primary health care unit monthly meeting as an opportunity to refresh the knowledge of primary health care unit staff by providing them with brief technical updates on supervisory skills and MCHIP's job aids on effective referrals. More importantly, as components of the draft national MNH QI assessment tool, referral and linkages are and will continue to be regularly monitored by the facilities in the ongoing QI activities.

Increased Access to Postpartum Family Planning and Strengthened Service Provision

Responding to the high unmet need for PPFP in Ethiopia, MCHIP initiated a PPFP program in 2012 and introduced immediate postpartum IUD insertion services for the first time in Ethiopia. Building upon the

foundations laid by MCHIP, MCSP continued to support the Federal MOH's efforts to increase the availability of long-acting FP methods and scale up PPFP at the national and facility levels. As part of the national FP TWG, MCSP's contribution at the national level was focused on the integration of PPFP in national sexual and reproductive health policies, including the scale-up of PPFP nationally and the generation of new evidence on PPFP in Ethiopia. During the revision of the national FP training package, MCSP led the revision of the PPFP module according to WHO 2015 Medical Eligibility Criteria and Jhpiego FP resource packages, ensuring inclusion of the latest PPFP and postpartum IUD knowledge and skills.

In response to the Federal MOH's plan to roll out PPFP and postpartum IUD in 100 selected facilities in Oromia; Amhara; Tigray; and Southern Nations, Nationalities, and Peoples' Region, MCSP accomplished the following in collaboration with the Federal MOH.

- Integrated PPFP training modules into the Federal MOH's national FP training package, which incorporated the latest evidence from the 2015 WHO recommendations on FP methods for postpartum women, and ensured that PPFP was sufficiently addressed in the national FP training package.
- Expanded the national pool of skilled PPFP and postpartum IUD trainers. MCSP conducted a teaching skills course for 47 Federal MOH-selected trainers who were already proficient FP providers. These trainers are now able to cascade and roll out planned PPFP and postpartum IUD training at the regional level.

In 18 facilities, MCSP continued supporting PPFP and postpartum IUD services initiated by MCHIP. In addition, the project introduced PPFP and postpartum IUD services in six health centers with high caseloads to further test scalability at health center level. These 24 facilities benefited from capacity-building for health care providers through offsite training, onsite orientation, skill transfer visits, supportive supervision, and phone follow-up. Facilities were also provided with the postpartum IUD insertion materials, registers, and job aids required to provide the service. In the process, it was observed that PPFP services were frequently interrupted in many facilities due to perceived high workload, perhaps influenced by the absence and high turnover of trained health care providers. To address this problem, MCSP designed and tested an onsite training approach in three project-supported hospitals. In total, the project succeeded in training 170 health care providers in 24 facilities in PPFP counseling and postpartum IUD insertion skills, in accordance with USAID's FP compliance regulations. Between October 2014 and July 2016, trained health care providers counseled more than 14,000 pregnant women on the full mix of PPFP methods during ANC and the latent phase of labor. Among those counseled, 1,197 mothers voluntarily chose to receive postpartum IUD insertion services within the first 48 hours after delivery. One of the quality indicators of postpartum IUD insertion is the occurrence of spontaneous expulsion and infection following insertion. In the 22 months of implementation, only one expulsion and one infection were reported, which is considered low for postpartum IUD (see Table 1).

Table 1. PPFP counseling and postpartum IUD insertions, October 2014–July 2016

Facilities implementing PPFP counseling and postpartum IUD insertion	PPFP clients counseled in ANC	Postpartum IUD insertions	Mothers returning for first follow-up visit (6 weeks and 3 months after postpartum IUD insertion)	Reported spontaneous expulsion	Reported infection
24 (15 hospitals and nine health centers)	> 14,000	1,197	278	1 (0.08)	1 (0.08)

Source: Health facilities' PPFP and postpartum IUD registers

Generated Evidence for Improved Policy and Programming

As part of the Federal MOH's national MNH Research Advisory Council, MCSP participated in designing the national-level priority research agenda to guide the Federal MOH on future RMNCAH policies and research. MCSP also trained Federal MOH staff on developing a program learning agenda, and provided financial and technical support to develop the national EmONC assessment. MCSP led cutting-edge research on topics such as respectful maternity care, blended BEmONC learning methods, the continuum of care for PPFP and follow-up, and the use of audit feedback tools for the management of PE/E.

Blended Basic Emergency Obstetric and Newborn Care Learning Methods

Substantial investments are being made by the Government of Ethiopia and partners on training SBAs to fill the skills gaps around BEmONC. However, the conventional 3-week BEmONC training, for which health care providers have to be away from their workplace for an extended period, compromises facilities' MNH services and is also resource intensive. In response, MCHIP designed and tested a 2-week BEmONC training using a blend of classroom training, clinical skills practice and attachment, and follow-up through short message service (SMS) on mobile phones.[33] Based on MCHIP's successful pilot, MCSP further evaluated trainees' knowledge and skills retention. A quasiexperimental study design of post-training comparison was made on 153 health care providers trained by MCSP using the conventional and blended approaches. The study found that the blended learning trainees' knowledge and skills retention was equivalent to those trained with the conventional approach 3 months after training. Blended learning offers an alternative training approach for in-service BEmONC training in Ethiopia—particularly for health care providers who are working in areas with reliable network coverage—and, as shown, results in providers who retain knowledge and skills despite the alternate training approach.

Management of Pre-eclampsia/Eclampsia

Ethiopia is among the countries with high maternal mortality, and severe PE/E is one of the leading direct causes. The majority of deaths related to PE/E could be avoided if women received effective care and delivered according to evidence-based standards. MCSP conducted a study to determine if an active audit-feedback intervention in public referral hospitals in Ethiopia improves the quality of care provided to women who experience either PE/E or a hypertensive crisis. The study revealed that, following the audit-feedback intervention, significantly more women with severe PE/E or mild pre-eclampsia in labor received the correct dose of magnesium sulfate compared with before the audit-feedback intervention. Similarly, compared with before the audit-feedback intervention, more women with acute severe hypertension received the correct dose of antihypertensive therapy. Women with PE/E who received the full correct course of magnesium sulfate in the study hospitals increased from 64.6% at baseline to 92% after five 5 months of the audit-feedback intervention ($p<0.001$). If done properly and with full participation of health care providers, the audit-feedback intervention can bring significant, positive change in quality of health care for women with PE/E. The intervention will hopefully be scaled up to hospitals with similar settings to improve quality of care for women with PE/E and hypertensive crises.

Respectful Maternity Care

As part of the national Health Sector Transformation Plan, the Federal MOH developed a national agenda prioritizing the creation of a compassionate, respectful, and caring health workforce to improve the health status of all citizens. MCSP supported the Federal MOH's agenda by generating evidence on respectful maternity care, one component of the broader compassionate, respectful, and caring agenda. Despite national efforts to increase institutional delivery, the majority of women in Ethiopia still deliver at home.[34] This, along

[33] The training maintains the other standards set in the national BEmONC training manual, such as the use of the national BEmONC training package, use of standardized BEmONC trainers with no more than 16 participants per course at a ratio of four trainers to 16 participants, and use of a clinical setting for training.

[34] CSA, Federal MOH, World Bank. 2014. *Ethiopia Mini Demographic and Health Survey 2014*. Addis Ababa: CSA and Federal MOH.

with other factors, is associated with unfriendly or disrespectful and abusive services in health facilities.[35] MCSP conducted a study on the prevalence of disrespectful and abusive care in selected Ethiopian health facilities to enrich the existing body of literature and contribute to informed national policy and decision-making. Twenty-seven percent of mothers reported at least one form of disrespect or abuse. The findings also revealed that failure to meet professional standards of care was the most common type of disrespect and abuse committed by facility staff.

Recommendations for the Future

MCSP's most notable successes in the 2-year project period included increasing availability and utilization of high-quality MNH and PPFP services; scaling up high-impact interventions; introducing cost- and time-efficient alternatives to health care providers' in-service training; building the government's capacity to scale up respectful maternity care, QI, PPFP; and postpartum IUDs nationally; and strengthening MNH research.

- **Continue to integrate respectful maternity care in all reproductive and maternal health interventions, and utilize national QI tools to assess the quality of MNH services in all health centers.** This should be done through government health offices and MNH partners using and operationalizing the Federal MOH's national MNH QI tool in all facilities. Hospitals and *woredas* should also use this tool to assess their health centers' standards every 3 to 6 months and note that a comprehensive approach to facility support enhanced by a QI activity yields better MNH outcomes.
- **Ensure availability of essential parenteral drugs, equipment, and supplies at health centers to enable implementation of all seven BEmONC signal functions.** Improved forecasting needs to start in health facilities to minimize supplies and commodities gaps.
- **Implement blended training approaches to continue to improve maternal and reproductive health care.** The utilization of blended learning as a training approach followed by regular mentoring offers an alternative to longer offsite training. For example, shifting PPFP and postpartum IUD training from off site to on site and orienting all MNH providers on service delivery helped limit service interruption caused by absences of staff during offsite training or turnover of limited trained staff.
- **Strengthen referral systems and emphasize data quality and accurate reporting practices.** The assignment of a proactive referral focal person in health centers can significantly resolve challenges of referral within the primary health care unit. Additionally, stakeholders should follow up on facility-level data quality issues and improve accuracy of data recording and reporting practices in the HMIS.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people trained with MCSP support	472 (285 BEmONC, 170 PPFP postpartum IUD, 17 infection prevention) (target: 541; 87% achieved)
Percentage (number) of project-supported facilities that provided all seven BEmONC signal functions in the last quarter	30% (13/44 facilities) (target: 90%, 40/44 health centers; 33% achieved)[1]
Percentage of births that received at least four ANC visits	42% (target: 45%; 93% achieved)
Number of facilities that implement the national MNH quality assessment intervention	44 (target: 44; target achieved)
Percentage of births attended by an SBA in MCSP-supported health facility catchment areas	92.5% (target: 60%; target exceeded)
Percentage of mother-baby dyads who received PNC for both mother and baby within 2 days of birth	44% (target: 60%; 73% achieved)

[1] Improvements were impeded by shortages of essential parenteral drugs, equipment, and supplies.

[35] Bohren MA, Hunter EC, Munthe-Kaas HM, Souza JP, Vogel JP, Gulmezoglue AM. 2014. Facilitators and barriers to facility-based delivery in low- and middle-income countries: a qualitative evidence synthesis. *Reprod Health.* 11(1):71. doi: 10.1186/1742-4755-11-71.

Ethiopia Community-Based Newborn Care Summary & Results

Geographic Implementation Areas

Regions
- 4/11 (36%)—Amhara; Oromia; Southern Nations, Nationalities, and Peoples; and Tigray

Woredas
- 136/973 (14% of country total)

Facilities
- 730/3,000 health centers (24%)
- 3,605/7,000 health posts (52%)

Population

Country
- 105 million

MCSP-supported areas
- 19.1 million

Technical Areas

Program Dates
October 1, 2014–February 28, 2019

Total Funding through Life of Project
$13,706,700

Demographic and Health Indicators

Indicator	# or %
Live births/year (per 1,000) [1]	3,258
MMR (per 100,000 live births)[2]	412
NMR (per 1,000 live births)[2]	29
U5MR (per 1,000 live births)[2]	67
TFR[2]	4.6
CPR (modern methods)[2]	35%
ANC 4+[2]	32%
SBA[2]	28%
Penta3[2]	53%
Stunting (height for age < 5)[1]	38%
ORT[2]	30 %
Acute respiratory illness care seeking[2]	29.8%

Sources: [1] UNICEF and WHO count down to 2030, [2] Ethiopia DHS 2016.

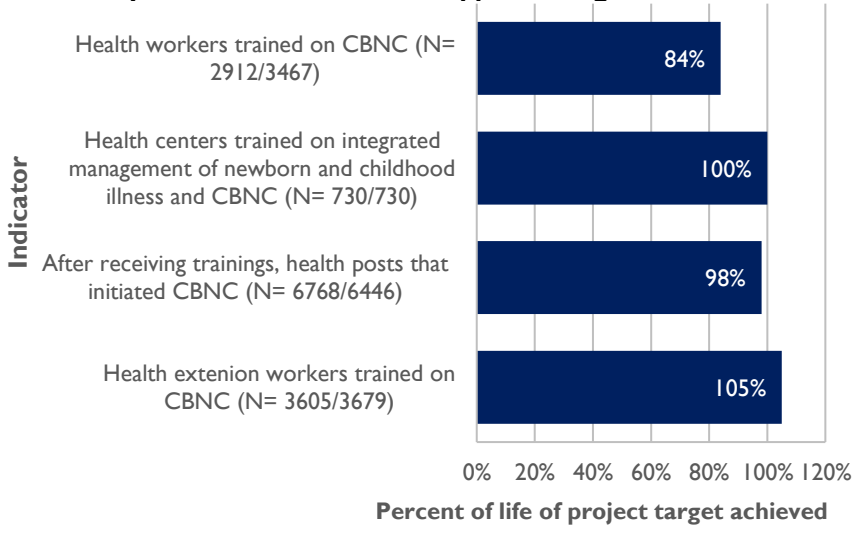
Strategic Objectives through the Life of Project

- Improve community MNH practices and care-seeking behaviors.
- Increase provision of high-impact, quality newborn care services in the community.
- Strengthen supportive systems for provision of newborn health care.

Highlights through the Life of Project

- Supported the Federal MOH to develop a national CBNC demand creation strategy and implement it in 730 health centers and 3,605 health posts to improve service use and build community capacity to solve MNCH issues.
- Trained 2,912 health workers and 6,768 health extension workers on CBNC, enabling them to provide high-impact newborn health services for over 1.2 million beneficiaries (see Figure 1 below).
- Increased day-of-birth QI standards at 13 pilot health centers from 32% at baseline to 92% at reassessment.
- Organized sustainability and handover workshops in 100% of project *woredas* (districts) where participants committed to expansion of successful MCSP CBNC approaches.
- Collaborated with the Federal MOH to initiate the development of the long-term vision for a newborn and child health roadmap in Ethiopia.

Figure 1. MCSP-supported CBNC and IMNCI training targets were consistently met in the four MCSP-supported regions.



Ethiopia—Community-Based Newborn Care

Background

In March 2013, based on the lessons learned from the successful implementation of the Community-Based Intervention for Newborns in Ethiopia research trial, the Federal MOH launched the national CBNC plan. The plan was rolled out to be implemented through the country's existing Health Extension Program. Additionally, the Government of Ethiopia received support from USAID's Integrated Family Health Program to roll out iCCM in the target *woredas*.

Based on the lessons from implementation of iCCM, MCSP's CBNC project was designed to strengthen the linkage among health centers, health posts, and communities. The project aimed to reduce neonatal morbidity and mortality in four regions of Ethiopia from 2014 to 2019. MCSP supported the Government of Ethiopia with the introduction and scale-up of high-impact newborn health services at the community and primary health care unit levels across the Amhara; Oromia; Southern Nations, Nationalities, and Peoples; and Tigray regions. The project implemented the CBNC package in 3,605 health posts and 730 health centers through building the capacity of health workers, health extension workers, and managers to deliver the services at community and facility levels.

Key Accomplishments

Rolled Out a Community-based Newborn Care Package

In close collaboration with and providing support to the regional, zonal, and *woreda* health bureaus, MCSP rolled out elements of the CBNC package in 135 *woredas* across 12 zones located in Amhara; Oromia; Southern Nations, Nationalities, and Regions; and Tigray regional states. Using the national CBNC training materials, MCSP developed a health worker trainer pool at the zonal and *woreda* levels to support the training of health workers and health extension workers in targeted health centers and health posts, respectively. MCSP added a fifth day to the 4-day national CBNC training to integrate topics related to demand creation and pharmaceutical supply management. MCSP's Newborns in Ethiopia Gaining Attention project trained 2,912 health workers (84% of target) and 6,768 health extension workers (105% of target) on CBNC. In collaboration with UNICEF and the Federal MOH, kits containing a 1-year stock of essential CBNC supplies were given to each health post so services could be initiated as soon as the health workers and health extension workers returned to their *kebeles* (neighborhoods).

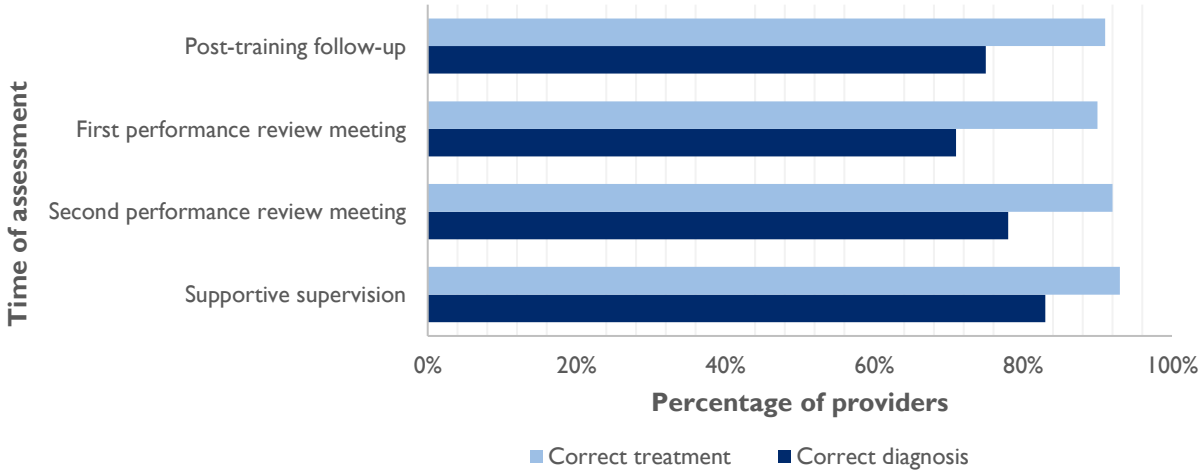
Developed and Implemented a Demand Creation Strategy for Community-based Newborn Care

MCSP worked with Saving Newborn Lives (SNL) to support the Federal MOH to develop a national CBNC demand creation strategy to address barriers to care seeking and improve newborn care practices at home. To help realize this strategy, MCSP encouraged and supported engagement of communities and health care providers through ongoing dialog, planning, collective action, and outcome monitoring. MCSP developed a training module and systematically integrated the demand creation into the CBNC training for health workers and health extension workers to build zonal, *woreda*, and primary health care unit capacity on MNCH-CBNC demand creation. This included the rollout of the strategy to 3,441 target *kebeles*, with 370 of the selected "learning *kebeles*" receiving support that was more intensive in order to serve as learning/model sites for other *kebeles* in their *woredas*. MCSP provided initial trainings to all 370 of these *kebeles*, and more than 70% reached the stage where they were able to share positive experiences with other *kebeles*. MCSP was able to achieve these results despite the civil unrest and drought affecting the country. The project adjusted its plans and supported community-to-community learning visits in 93 project *woredas* that were not affected by the external factors. The majority of the *woredas* that participated in the learning visits integrated elements of the demand creation strategy, such as engagement of the *kebele* command posts (a multisectoral group from the neighborhood within the communities) and faith-based leaders, in their annual work plan. MCSP, in collaboration with the zonal and *woreda* health offices, organized zonal-level experience-sharing workshops for faith-based leaders. Over 90% of the faith-based leaders trained by the project educated their respective *woredas* and communities on positive MNCH behaviors and practices during faith gatherings and through home visitation of followers, particularly pregnant women. (See the full report for additional details.)

Provided Supportive Supervision and Mentorship

Following the CBNC trainings, per the national protocol, MCSP and *woreda* and/or supervising health center staff completed a joint post-training follow-up visit at each of the target health centers and health posts within an average of 8 weeks after the training. Additionally, MCSP conducted two rounds of performance review and clinical mentoring meetings for each project *woreda* at 6 to 8 months after the initial training and again 6 months after the post-training follow-up visit. In addition to the classroom-based discussions, the first performance review and clinical mentoring meeting provided health extension workers opportunities for practical skills mentoring sessions through attachment to a nearby health center. The second performance review and clinical mentoring meeting served as another tailored mentoring and refresher training opportunity to address the major gaps identified from peer review of the health posts' sick young infant registration books. Findings from these assessments can be seen in Figure 2. By the end of the project, all health centers and functional health posts in the project *woredas* initiated CBNC services, including management of possible serious bacterial infection (PSBI) at the community level.

Figure 2. Skills improvement with diagnosis and management of sick young infants by health extension workers and supervising health workers at the health post level (April 2015–June 2017)



Supported Local Use of Data for Decision-Making

When the program began implementation in Ethiopia, the national HMIS did not include indicators to measure coverage of services included in the CBNC package. As an active member of the national child survival working group, MCSP, together with other partners implementing CBNC, successfully influenced the inclusion and/or modification of newborn health indicators focused on PSBI, asphyxia, and small babies in the national HMIS. Specifically, MCSP participated in relevant workshops organized by the Federal MOH to confer and agree on the final set of indicators and advocated for prioritizing the integration of newborn indicators in the HMIS. In addition, to demonstrate the benefits of using data generated at the local level for program improvement, MCSP and SNL developed a CBNC monitoring chart with indicators for use at health post and health center levels. Although initially designed for local program monitoring and decision-making, the chart also helped with identifying challenges in data quality.

Piloted a Day-of-Birth Quality Improvement Intervention

MCSP adapted the draft national *Maternal and Newborn Care QI and Assessment Tool for Health Centers* to focus on day-of-birth care for mother and baby. Jointly with the zonal health offices, the project enrolled 13 health centers with high volume of deliveries for a QI activity. The primary purposes of the activity were to help selected health centers become competent in the use of the assessment tool and improve service quality so that they could serve as learning sites for others health centers in the *woredas*. MCSP revitalized and strengthened the QI teams, and oriented them on the tools to carry forward the assessment that entailed

direct observation, document reviews, and service provider interviews. The assessment tool was categorized into seven areas, 28 standards, and 206 verification criteria, each of which received a composite summary score based on the number of criteria met. The threshold for achieving the Federal MOH national quality standard was 80% of the criteria met for each standard. The average percentage of standards achieved by the facilities increased from 32% at baseline to 92% at endline. The 13 pilot learning facilities organized and hosted QI visits for 593 health workers and staff from 174 health centers and two hospitals to share their own lessons learned about improving the quality of newborn care services.

Ensured Sustainability through Handover and Dissemination

As part of its effort to ensure sustainability, MCSP organized and conducted handover workshops for 2,889 individuals from different zones, *woredas*, and primary health care units; best-performing health extension workers; chairpersons from the strengthened *kebele* command posts; and community members. In addition to identifying promising practices for further strengthening and replication, the *woreda* handover workshops were designed to identify unfinished activities. At the end of each workshop, the *woreda* health bureaus developed action plans (with timeline and responsible person) based on the remaining lists of activities. MCSP conducted supervision visits to each of the *woredas* 1 month following the handover workshop and learned that many integrated activities from the action plans into their annual *woreda* plan.

MCSP also hosted the Federal MOH, regional health bureaus, the USAID Mission in Ethiopia, and other implementing partners, including the USAID-funded Transform: Primary Health Care project, at national-level experience-sharing visits at project sites in Southern Nations, Nationalities, and Peoples Region. Furthermore, MCSP technical staff organized experience-sharing meetings with the USAID Transform: Primary Health Care and Transform: Health in Developing Regions counterparts to share strategies, experiences, lessons, and outstanding challenges that came out of MCSP. Lastly, MCSP initiated the process that led to the development of the national QI and transition plan. The plan outlined criteria that stratified the *woredas* into "poor," "medium," and "good" performance categories to help phase the handover process. USAID expanded the reach of this plan to cover areas supported by other CBNC implementing partners, which led to the stratification of all CBNC *woredas*. While MCSP supported the Federal MOH with developing the transition plans for *woreda* classified as medium performing, support to the poor-performing *woredas* was taken up by the Transform: Primary Health Care project.

Advocated for a Long-Term Vision for a Newborn and Child Health Roadmap

Following the phase-out of MCSP field activities and handover of implementation to the subnational government, MCSP and SNL successfully advocated for the Federal MOH to lead the development of a roadmap that outlines a long-term newborn health visioning document informed by the experiences and lessons of implementing CBNC at scale. The visioning document was based on a critical review and synthesis of lessons learned and framed around forward-looking, long-term aspirations to spur the development of capable and integrated newborn and child health systems. Specifically, the findings from the research studies conducted by MCSP on issues around care for low-birthweight babies and challenges with caretakers' referral compliance when identifying young infants with PSBI were an integral component in synthesizing the background information for the visioning document. Despite some unexpected delays and hurdles, MCSP provided support to the Federal MOH to develop a draft of the roadmap document. Upon closeout, MCSP shared with the Federal MOH a list of recommended steps on finalization of the roadmap.

Recommendations for the Future

Based on its lessons learned, MCSP is hopeful that the following recommendations are taken by the MOH at the national and subnational level and by implementing partners to sustain implementation of the MNCH interventions via the existing CBNC package.

- **Improve uptake of appropriate MNH-related household practices and norms, including timely recognition of and care seeking for maternal and newborn danger signs.** Future initiatives could contribute significantly to the reduction of newborn mortality through community empowerment and demand creation. The facilitative and interactive methods used in demand creation and community

empowerment approaches through MCSP can help to identify deep-rooted challenges and develop tailored strategies to address them. Ethiopia's health workforce requires further capacity-building in these approaches in order to scale them with quality, realize the potential of community empowerment, and create demand to further reduce newborn mortality. The Federal MOH and MNH partners should focus on demand creation/community empowerment approaches to improve care seeking and community MNCH-CBNC literacy.

- **Strengthen service provision and supportive systems, particularly at *woreda* and health care levels, to ensure access to high-quality MNH care.** A functional support system needs to have adequately trained staff, an appropriate mix of human resources, an uninterrupted flow of essential supplies, and a working referral system for pregnant women and newborns. Reinforcing health centers' capacity through trainings and supportive supervision tailored around the various components of the CBNC strategy, such as providing appropriate care for low-birthweight and preterm babies, early PNC for mothers and babies, and comprehensive QI initiatives, is essential. Based on MCSP's experiences, specific recommendations entail:
  - Create a comprehensive QI initiative, as day-of-birth care requires improvement in various aspects of health care provision, including provider motivation, overall cleanliness and hygiene, appropriate use of space, leadership, etc.
  - Engage managers at zonal and *woreda* level for support, oversight, and ultimate accountability.
  - Build an HIS that is monitored regularly in order to improve availability of accurate, high-quality data and to provide appropriate training and follow-up to ensure data are used to support program learning and make program adjustments when needed.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of targeted health extension workers trained (and equipped) on CBNC package	105% (target: 100%; target exceeded)
Percentage of mothers or babies who received early (within 48 hours) postnatal home visits by health extension workers in MCSP-supported areas	15.6% (target: 8%; target exceeded)
Percentage of sick young infants classified as having PSBI who initiated treatment at health posts and received complete 7-day antibiotic treatment at health post	91% (target: 90%; target exceeded)
Percentage of correctly classified sick newborns who are appropriately managed	93% (target: 80%; target exceeded)

Ghana Early Childhood Development

Summary & Results

Geographic Implementation Areas

Regions
- 3/10 (30%)—Central, Eastern, Upper West, Upper East

Districts
- 21/254 (8%)

Community-Based Health Planning and Services zones
- 873/5,488 (16%)

Population

Country
- 28.2 million

MCSP-supported areas
- 9 million

Technical Areas

Program Dates

October 1, 2016–June 30, 2019

Total Funding through Life of Project

$3,600,000

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	776,532
MMR (per 100,000 live births)[4]	319
NMR (per 1,000 live birth)[3]	25
U5MR (per 1,000 live births)[3]	52
IMR (per 1,000 live births)[3]	37
ANC 4+[2]	89%
ECD Index[3]	68%
Social-emotional[3]	67%
Literacy-numeracy[3]	44%

Sources: [1] UNICEF and WHO 2014; [2] Ghana Maternal Survey, 2017; [3] MICS, 2017; [4] World Bank 2015

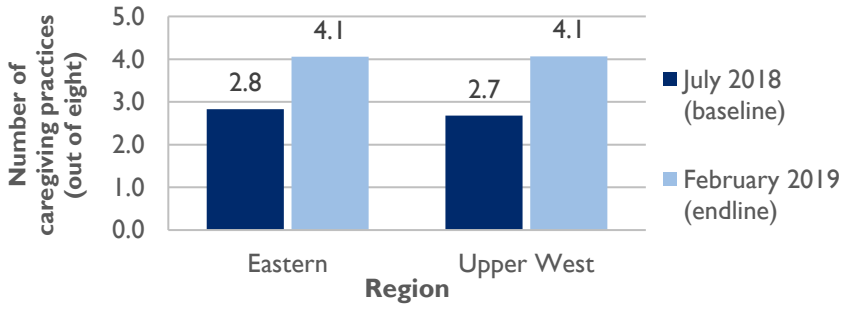
Strategic Objectives through the Life of Project

- Create and disseminate evidence-based early childhood development (ECD) materials focused on early childhood stimulation and responsive parenting for children under age 3.
- Build capacity of Community-Based Health Planning and Services (CHPS) staff, community health volunteers, and social welfare officers to teach caregivers with young children about early stimulation and responsive parenting in targeted districts.
- Assess the ability of CHPS staff, community health volunteers, and social welfare officers to integrate ECD activities into their routine services and document changes in caregiver behaviors and child development.
- Create an enabling environment at the national and regional levels to promote institutionalization of ECD activities into partner and government programming.

Highlights through the Life of Project

- Worked with the Ghana Health Service to develop a comprehensive toolkit and eLearning modules to integrate early stimulation and responsive parenting into community health and nutrition services in response to the global call for cross-sectoral collaboration on ECD.
- Built capacity of 2,268 national-, regional-, district-, and community-level health staff to deliver parenting sessions on ECD with caregivers of children ages 0–3. Staff reached more than 5,715 caregivers with 5,006 children, increasing positive caregiving behaviors that impact child development.
- Supported performance improvement among health staff via ongoing supervision and mentorship, documenting facilitation and use of the ECD toolkit and message retention.
- Revitalized cross-sectoral working groups on ECD for children under age 3 with the Ghana Health Service, United Nations, and other partners.
- Provided technical input to the national ECD standards, Newborn Health Strategy, ECD call to action, and Nurturing Care Strategy.
- Contributed to evidence and learning on ECD for children under age 3 interventions, including improvement in positive caregiving practices.

Figure 1. Changes in positive caregiving practices in two regions



Ghana—Early Childhood Development

Background

The primary focus of MCSP's ECD program in Ghana was to support the integration of ECD interventions into existing health and nutrition activities. The program implemented activities through the CHPS platform, building on MCSP's existing activities focused on capacity-building of CHPS health workers for improved health outcomes. MCSP's ECD activities were based on implementing proven approaches of early stimulation packages globally. The ECD activities focused on engaging parents and caregivers, encouraging them to be responsive to their children's emotional and physical needs from birth onward by responding to their cues, playing, talking, singing, and exposing them to words and numbers while carrying out their daily routines, even before they can verbally respond.

Key Accomplishments

Developed and Disseminated an Evidence-Based Early Childhood Development Toolkit

MCSP developed a toolkit on early childhood stimulation and responsive parenting, and collaborated with the Ghana Health Service to integrate the package into community health and nutrition services. This comprehensive package aligns with WHO's Nurturing Care Framework and responds to the global call for cross-sectoral collaboration on ECD to improve the quality of health services in the pivotal first 1,000 days of life. The final package of materials includes a facilitator training manual, flip chart, parenting session manual, brochure, and wall chart for health facilities, which were rolled out across participating CHPS zones, reaching 5,715 caregivers with 5,006 children. At the end of the project, MCSP digitized the package into a set of eLearning modules to support institutionalization and sustainability. The eLearning course will be used in pre-service training of supervisory staff and support scale-up of ECD activities to other regions.

Strengthened Community Health Workforce through Trainings at the National, Regional, and District Levels

Using a cascade approach, MCSP, in collaboration with the Family Health Division of the Ghana Health Service, completed a TOT with 115 frontline regional and district health administration staff from Eastern, Upper West, Upper East, and Central regions on the ECD 0–3 package. The TOT provided participants with the requisite knowledge and skills to conduct step-down trainings at the district level for effective integration of early childhood stimulation and responsive parenting information with regular health and nutrition activities. TOT participants went on to facilitate cascade trainings for CHPS staff and community health volunteers, training 2,204 community health officers, community health volunteers, and social welfare officers in 21 districts across all four regions. Trainees educated parents and other caregivers to engage in early stimulation activities with their children at the CHPS compound and with their routine activities with the mother-to-mother support groups at the community level. These trainings created a cadre of 2,268 ECD champions who have the skills to conduct early stimulation activities that enable young children to reach their full developmental potential.

Adapted Programming to Urban Settings

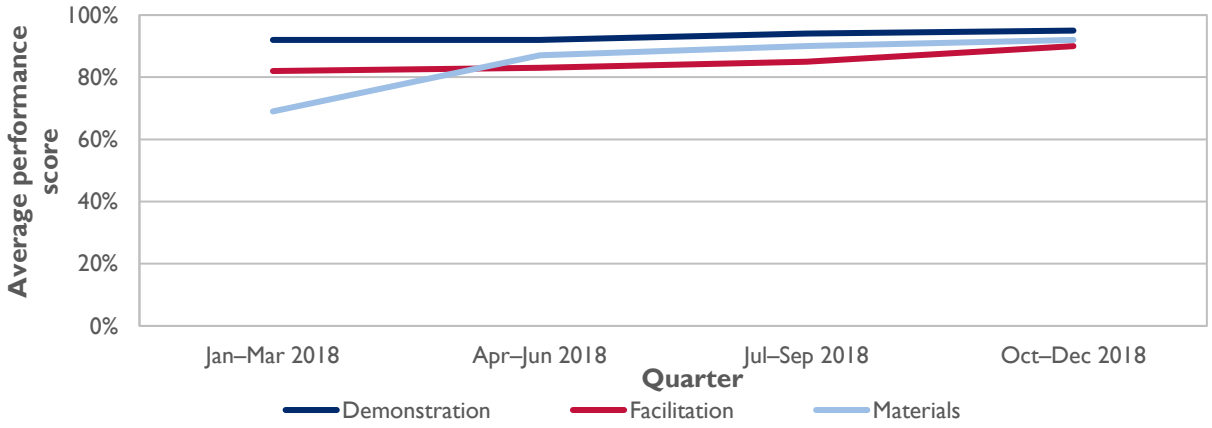
As an investment in adapting ECD to urban settings, MCSP also trained nurses from Princess Marie Louise Children's Hospital in Accra. Nurses trained went on to provide ECD sessions during outpatient and inpatient malnutrition services provided on a daily/weekly basis at the hospital. The hospital has committed staff time and resources to follow the training with internal step-down trainings to cover the full nursing staff. MCSP supported adaptation of the training structure (into smaller, shorter sessions) as well as monitoring tools to fit the hospital's needs. This approach serves as a model for health care facilities throughout Ghana and will help to institutionalize ECD programming and increase sustainability.

Improved Quality through Supportive Supervision and Mentorship

To support continual learning, reinforcement, and ultimately sustainability, MCSP, in collaboration with regional and district trainers, conducted mentorship and supportive supervisory visits in 11 districts using a

standardized observation checklist. MCSP staff, along with regional and district trainers, visited and observed community health officer-led ECD sessions in 44 communities, providing feedback and identifying ways to improve session delivery. The feedback provided during the mentorship and supportive supervisory visits improved the quality of session delivery by community health officers and supported effective integration of ECD messages in their ongoing health and nutrition activities (see Figure 2). Supervisory staff continue to use observation checklists, which can be adapted as the program evolves to ensure quality delivery of ECD sessions and proper integration with health topics.

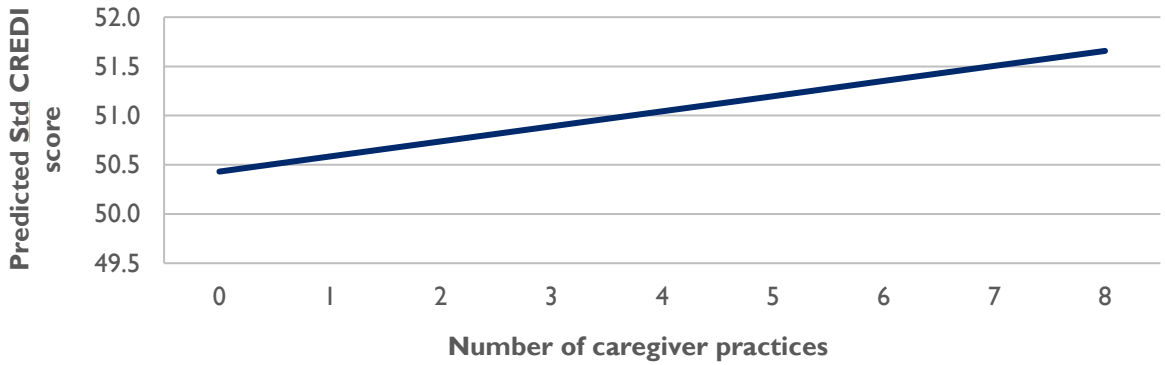
Figure 2. Average observation checklist scores for community health officers delivering parenting group sessions in Eastern and Upper West Regions (n=50)



Assessed Caregiver Behavior and Child Development

In addition to assessing CHPS staff and community health volunteers' knowledge, MCSP assessed caregiver behavior and child development. The main objective of this study was to monitor changes in caregiver behaviors and child development in the ECD program in Ghana. There were significant changes from baseline to endline in the average number of caregiving practices, particularly in activities such as playing with their children and drawing or writing with them. Children whose caregivers reported engaging in more stimulation and care practices displayed stronger overall development than children of caregivers who reported fewer positive caregiving practices (Figure 3). The study confirms the importance of integrated programming for improved child development outcomes.

Figure 3. Relationship between child development and caregiving practices



Note: CREDI: Caregiver Reported ECD Instruments

Institutionalized Early Childhood Development within National-Level Policy and Programming

MCSP played a central role in galvanizing interest in integrative ECD programming, participating in key meetings with TWGs and relevant government institutions. MCSP presented on its activities and shared lessons gleaned from implementation at the first National Maternal/Child Health and Nutrition Conference and launch of the WHO Nurturing Care Framework in Ghana with UNICEF. Additionally, MCSP supported

the finalization of the National Early Childhood Care and Development 0–3 Standards and Newborn Health Strategy, integrating key evidence and technical information. Finally, one of MCSP's significant accomplishments includes coauthoring a call to action for ECD for children under age 3. The call to action elaborates strategic actions that need to be prioritized for ECD for children under age 3 to be successfully rolled out throughout Ghana. It has been endorsed by UNICEF, WHO, the United Nations Population Fund, and other partners, cementing commitment to prioritize programming and funding for ECD.

Recommendations for the Future

Through its experience encouraging parents and caregivers to be responsive to their children's emotional and physical needs, strengthening the health workforce for ECD, and institutionalizing ECD within Ghana's national policies and programming, MCSP generated several recommendations for future programs:

- **Prioritize cross-sectoral collaboration and commitment.** ECD is cross-thematic in nature and requires cross-sectoral collaboration and commitment to achieve optimal development in young children. MCSP, in coordination with the Ghana Health Service, calls upon government agencies, donors, nongovernmental actors, and the media to significantly increase actions, investments, and attention to ECD in Ghana, especially for children under age 3.
- **Work across multiple platforms and leverage existing contact points in health, nutrition, education, and social protection to reach every pregnant woman and child.** Although MCSP's initiative demonstrates that CHWs are well positioned to take on ECD information and activities, integrating ECD messages across multiple platforms will be essential to account for regional, cultural, and economic factors that impact caregiver availability to participate in ECD sessions. Future programming should take these factors, as well as urbanization, into account to meet caregivers where they are.
- **Provide regular reinforcement and supportive supervision to continue introducing ECD.** Supportive supervision was central to the success of implementation across all regions. Given that many of the cadres trained under MCSP had never worked on ECD programming before, consistent reinforcement and support from reliable colleagues were essential. To ensure continued adherence to the ECD toolkit and overall quality, future programming should leverage MCSP's cadre of ECD champions (regional health supervisory staff) to support mentorship efforts.
- **Collect, analyze, and use data on ECD programing and impact.** Evidence and data are critical to providing and targeting ECD interventions in a diverse country such as Ghana. It is vital that data on all areas of development be collected, analyzed, disseminated, and used at various levels to address the needs of children. Previous data collections largely focused on health and nutrition indicators. However, stakeholders can employ various assessment opportunities, such as Demographic and Health Surveys and regular Sustainable Development Goal monitoring, to collect data on early learning and ECD for children under age 3, and, ultimately, bridge existing data gaps.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of Ghana-specific ECD packages developed, field-tested, and finalized	1 (target: 1; target achieved)
Number of people trained through US Government (USG)-supported programs*	2,268 (target: 2,228; target exceeded)
Percentage of community health volunteers and community health officers who received at least two supervision visits during mother-to-mother support groups/partner programs	96% (target: 95%; target exceeded)
Number of national-level ECD and child health materials for which MCSP provided technical inputs	3 (target: 3; target achieved)
Number of national and regional meetings attended	10 (target: 6; target exceeded)[1]

[1] The team reached 167% of its target as staff attended 10 national/regional meetings and conferences.

Ghana Infection Prevention and Control Summary & Results

Geographic Implementation Areas

Regions
- 5/10 (50%)—Ashanti, Brong Ahafo, Eastern, Upper East, and Upper West

Districts
- 70/254 (28% of country total)

Hospitals
- 59/71 (83% in MCSP-supported regions)

Population

Country
- 28.2 million

MCSP-supported areas
- 13.8 million

Technical Areas

Ebola

Program Dates

October 1, 2016–February 28, 2018

Total Funding through Life of Project

$1,500,000 (Ebola funds—Pillar IV)

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)	310
NMR (per 1,000 live births)	25
U5MR (per 1,000 live births)	52
TFR (births per woman)	3.9
CPR (modern methods)	25%
ANC 4+	89%
SBA (percentage of live births)	79%

Source: Ghana Maternal Survey 2017

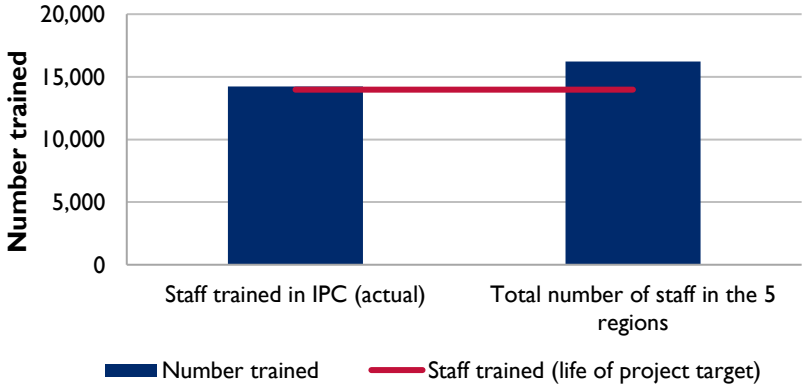
Strategic Objectives through the Life of Project

- Improve technical competency and the ability of technical and administrative staff at targeted health facilities to routinely practice strong IPC.

Highlights through the Life of Project

- Improved IPC readiness in the five MCSP-supported regions through whole-site trainings of 1,987 clinical and administrative facility staff at regional and district hospitals (102% of all targeted health facility staff).
- Raised supervisor awareness of the importance of monitoring infection prevention and hygiene behaviors as part of regular onsite supervision and mentoring visits through inclusion of IPC in the national integrated supportive supervision tool, developed by the Institutional Care Division of the Ghana Health Service
- Developed a training dashboard to help focus on areas where participants need extra support (as indicated by post-test scores), leading to improved provider-reported confidence and knowledge of IPC activities within their facility. Improved IPC practices led to improved access to quality services for the surrounding populations.
- Built the capacity of regional health management teams to receive and manage donor funds via a fixed-amount award mechanism that allowed the subawardee to implement activities and achieve mutually agreed-upon milestones and deliverables as part of an approach to build self-reliance and engage local partners in implementation.

Figure 1. Staff trained at the regional and district levels in five regions



102% of all targeted clinical and administrative facility staff at regional and district level hospitals in five MCSP-supported regions were trained in improved readiness for IPC.

Ghana—Infection Prevention and Control

Background

The 2015 West Africa Ebola virus disease (EVD) outbreak highlighted the vulnerability of health systems in West Africa with regard to IPC. Although Ghana did not have any active cases of EVD, it was classified as a high-risk priority country due to its geographical proximity to countries involved in the outbreak. The Government of Ghana thus established measures to prevent the spread of the disease. Within the scope of Ghana's Ebola preparedness work, the Ghana Health Service, through its Institutional Care Division, launched initiatives to enhance and reinforce IPC practices throughout the country. These initiatives included conducting whole-site IPC trainings at targeted regional and district health facilities in each region. At the request of USAID Washington and the Mission, MCSP supported the Ghana Health Service to implement these initiatives aimed at improving the technical competence and ability of health care workers in targeted health facilities to routinely practice recommended, evidence-based IPC.

Key Accomplishments

Provided Whole-Site Training

MCSP completed whole-site competency-based training in IPC at five regional and 54 districts hospitals in Ashanti, Brong Ahafo, Eastern, Upper East, and Upper West regions. As a result, 14,240 regional and district hospital clinical and nonclinical health workers now have increased knowledge and skills in IPC. A case study conducted under the project included an assessment of eight of the 59 supported facilities using WHO IPC standards assessment, including in-depth interviews with some health care workers. The standards assessment showed that post-training, many of the facilities were performing at standard in key areas, such as availability of a water supply system, waste management system, and facility-level focal person for IPC and WASH activities. While there is no baseline to compare the assessment, the interviews with health care workers showed that they had noticed changes in readiness for IPC in their facilities after the MCSP-supported trainings. Respondents felt that they were able to adhere to IPC and WASH standards after receiving the training, and said they continued to practice to become proficient in their skills. The agency and confidence built during the trainings made participants feel competent and motivated to keep using their new skills and advocate for the resources needed to implement the practices. (For more information, please see the brief on MCSP's IPC training approach.)

Supported Technical Updates to the National Infection Prevention and Control Policy and Guidelines

Under the leadership of the Ghana Health Service, MCSP, in collaboration with USAID's Systems for Health Project, supported the technical update of the national IPC policy and guidelines, and the development of the IPC facilitators' manual, which now serves as the standard reference and training material for IPC activities at all levels of care in Ghana's health care system. MCSP ensured that the revised training materials incorporated current international standards and enhanced information on Ebola prevention and control measures. In addition, MCSP distributed 6,750 copies of IPC job aids to five regional hospitals and 54 district hospitals to reinforce the competency of frontline health care providers. These standardized materials established a common language, knowledge, and practice for the health workforce, and helped foster better communication, improved patient care, and greater adherence to standards of practice in the targeted facilities. During the case study assessment mentioned above, providers noted that the materials helped facilities follow standardized practices, thus enabling an environment for quality health services and prioritize limited resources for improvements.

Developed Dashboard Tool for Identifying Gaps in Infection Prevention and Control Knowledge

MCSP designed an innovative dashboard for use by training facilitators during whole-site trainings, which served as a guide to pinpoint problematic areas in participant comprehension and skills. The dashboard was generated using Excel and printed for facilitator review. This allowed the training facilitators to identify the specific topics where clinical and administrative participants were scoring low so that additional time and practice could be provided in these areas. This helped improve future participant post-test scores, as facilitators were able to focus on specific modules that participants found difficult to understand. For

example, in one regional hospital, average post-test scores with different groups of trainees increased by 12 percentage points after the introduction of the dashboard.

Knowledge that was consistently demonstrated by participants in the post-test included handwashing, disinfectant use, and the concept that all blood, body fluids, and tissues are infectious. Specific areas where providers scored consistently low but improved after the dashboards included use of personal protective equipment and the processing of medical instruments and other medical devices. Future improvements in these areas will play a significant role in preventing and decreasing infections in facilities, thus improving health outcomes for clients.

Fostered Self-Reliance at the Regional Level

From the beginning of the project, MCSP built the capacity of regional health management teams to receive and manage donor funds via a fixed-amount award mechanism. Award recipients, implementers, and beneficiaries benefited from fixed-amount award-funded activities by strengthening regional financial management systems and improving accountability through adherence to reporting, documentation, and financial due diligence. Engagement with regional health management teams also allowed for geographically responsive interventions based on local needs, which aligns with the government's decentralization goals. The award-funded activities yielded impressive gains in the capacity of health system participants.

Recommendations for the Future

- **Prioritize building commitment from facility management teams and other stakeholders.** MCSP designed activities through a sustainability lens to ensure that they would continue after the project ends. This included working closely with the Institutional Care Division and the Ghana Health Service regional health management teams to lead the implementation of project activities. MCSP found that facilities are more likely to make significant improvements in their IPC practices if there is strong management support backed by vibrant and committed IPC focal people. This targeted approach aimed at senior staff and other top management better enables programs to achieve their desired impact.
- **Consider use of fixed-amount award mechanisms to implement activities while improving local project management capacity.** MCSP supported regions through a fixed-amount award mechanism that simultaneously improved capacity and competency among Ghana Health Service leadership and staff, which will ensure viability of program activities following conclusion of funding. Regional health management teams should re-orient all stakeholders and key players in implementation to advocate for use of the fixed-amount award approach and share lessons learned with other regional health management teams. Future projects should consider a similar mechanism to support implementation and to build the technical, financial, and management capacity of local organizations to ensure activities respond directly to local needs and help countries progress on their journey to self-reliance.
- **Provide consistent supportive supervision.** Monitoring IPC is included in the integrated supportive supervision tool developed by the Institutional Care Division of the Ghana Health Service. Although most of the staff who participated in IPC training sessions were enthusiastic and eager to practice their new skills, some were reluctant to change old behaviors. Ongoing supportive supervision, coupled with adept negotiation skills, can support change among slow adopters. Future support needs to include significant opportunities for supervisors to build their coaching skills and provide onsite support.
- **Use a whole-site competency-based training approach similar to what MCSP introduced.** Stakeholders believe that this training approach is sustainable because the highly skilled cadre of government trainers can continue training and monitoring, and because it costs less to continue the approach in existing sites.
- **Scale up IPC training at the lower cadres**. Due to the availability of funding and its timeframe, MCSP was unable to train and coach staff below the district hospital level; however, this only scratches the surface of what is needed, as evidenced from field reports that indicate that basic issues related to routine handwashing, environmental cleaning, and appropriate waste segregation are still pervasive and contribute to increased morbidity and mortality.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of MCSP-supported facilities that received at least one supportive supervision visit	100% (target: 100%; target achieved)
Percentage of facility-level staff trained in IPC who scored at least 85% on the post-test	78% (target: 90%; 87% achieved)
Number of facility-level staff trained in IPC who scored at least 80% on the post-test	10,276 (target: 9,199; target exceeded)
Number of facility-level staff trained in IPC	14,240 (target: 13,975; target exceeded)

Ghana Community-Based Health Planning and Services Summary & Results

Geographic Implementation Areas

Regions
- 10/10 (100%)

Districts
- PSE: 62/254 (24%)
- CHPS: 107/254 (42%)

Sub-district sites
- 70 health training colleges (100%)
- 3,259/5,918 CHPS zones (55%)

Population

Country
- 28.2 million

MCSP-supported areas
- 28.2 million

Technical Areas

Program Dates
October 1, 2014–June 30, 2019

Total Funding through Life of Project
$13,715,891

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	776,532
MMR (per 100,000 live births)[2]	310
NMR (per 1,000 live births)[2]	25
U5MR (per 1,000 live births)[2]	52
IMR (per 1,000 live births)[2]	37
CPR (modern methods)[2]	25%
ANC 4+[2]	89%
TFR (births per woman)[2]	3.9
SBA (%)[2]	80%

Sources: [1] UNICEF and WHO 2014, 2015, [2] Ghana Maternal Survey 2017

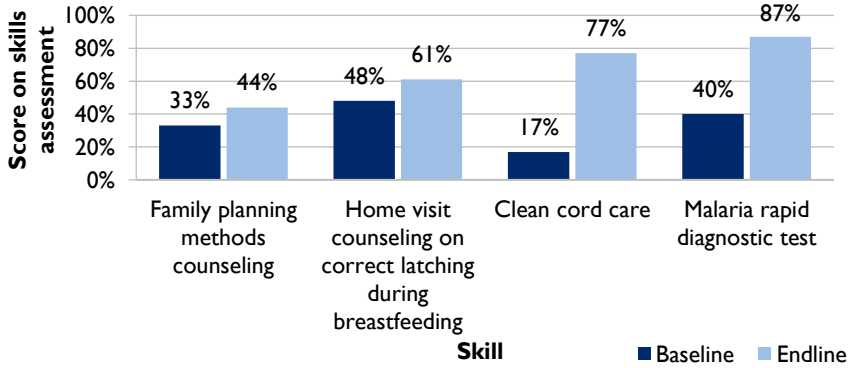
Strategic Objectives through the Life of Project

- Better prepare the midwifery and nursing workforce so that it is equipped with the knowledge and skills to effectively provide HIV, malaria, nutrition, FP, and MNCH services.
- Improve the national and regional capacity to implement a harmonized CHPS model that provides high-quality HIV, malaria, FP, nutrition, and MNCH services in five regions in Ghana.

Highlights through the Life of Project

- Established comprehensive clinical skills labs and trainings for more than 45,000 students from the health training institutions to reinforce knowledge, strengthen practical skills, and improve service delivery capacity.
- Installed a learning management system and eLearning modules in 31 nursing and midwifery training schools, which are often overcrowded.
- Empowered 35,000 nursing and midwifery students to access the eLearning modules and learning management system to strengthen and reinforce their knowledge and better prepare them to serve the population.
- Built the capacity of regional health management teams to design projects addressing their community health priorities through a grant-funding strategy, allowing sustainability beyond MCSP and improving self-reliance.
- Supported the development/revision of nursing and midwifery curricula, the Ghana Nursing and Midwifery Strategic Plan, preceptorship training materials, CHPS implementation guidelines, community health officer training materials, a CHPS costing and resource mobilization tool, and the National Health Insurance Agency's actuarial model for primary care.
- Implemented a task analysis of in-service providers, an assessment of student skills pre- and post-intervention, formative research on urban CHPS implementation, and case studies to inform future midwifery skills building.

Figure 1. Average skills assessment scores (n = 120)



Ghana—Community-Based Health Planning and Services

Background

MCSP's program in Ghana started in October 2014 and was a continuation of the MCHIP PSE work with midwifery and nursing schools from 2010 to 2014. USAID's Mission in Ghana asked MCSP to develop a 5-year program to expand MCHIP's PSE support to all midwifery, community health nursing, public health nursing, general nursing, and medical assistant training schools across all 10 regions in Ghana. USAID further requested that MCSP strengthen CHPS coordination at the national level and in five target regions. In the last year of the program, MCSP also designed and implemented an actuarial model with the National Health Insurance Agency to inform the composition and financial sustainability options for the primary health care benefits package.

Key Accomplishments

Supported Government Adoption of Policy to Create an Enabling Environment

MCSP supported the MOH, Ghana Health Service, and local professional associations to adapt the International Confederation of Midwives' Midwifery Services Framework for Ghana. The framework is a comprehensive review of midwifery services and identifies critical gaps in the current delivery of those services. This framework, supported by MCSP, led to the development of the Nursing and Midwifery Strategic Plan for Ghana, which will expand nursing and midwifery services for sexual and reproductive, maternal, newborn, and adolescent health, and improve the quality of care at health facilities that serve more than 15 million women and their families.

The *Reference Manual for Preceptorship in Nursing and Midwifery Education* and curriculum for teaching was reviewed by MCSP and approved by the MOH. The ministry will use these documents for in-depth preparation of preceptors to enable them to acquire the best skills for quality knowledge enhancement and practical capacity-building for students and residents.

For the primary health care workforce, MCSP supported the Ghana Health Service to build the capacity of national and regional health teams to implement a unified and sustainable CHPS model throughout the country. Through the development of the national CHPS implementation guidelines, standardized community health officer training materials, and a CHPS costing tool, regions have been empowered to plan for and raise resources for quality CHPS implementation. Improving services at the CHPS level will increase access to quality health care for women and their families in Ghana, especially in rural areas, which will improve health outcomes for these populations.

Increased Self-Reliance and Sustainability through Domestic Resource Mobilization

MCSP further supported the Government of Ghana's CHPS national scale-up by providing evidence on the cost of scaling up CHPS and developing tools for mobilizing resources. Both national and regional Ghana Health Service staff from all regions were trained on the tool's use. MCSP also supported the Government of Ghana in the development of an actuarial model for the National Health Insurance Scheme, enabling the government to generate evidence for long-term sustainability of the scheme and funding options for essential services, including malaria, MNCH, and FP. This evidence and these tools will enable informed decision-making on how to implement impactful health programs and support a self-reliant health sector in Ghana.

Using and implementing fixed-amount awards, MCSP built the capacity of the regional health management teams in Ghana to receive and manage donor funds. As a result, these teams worked to train CHPS health workers to deliver high-quality health services and provide medical equipment for the provision of basic and essential services to address the health needs of approximately 900,000 people. Additionally, these funds fostered community ownership of health care for 11,800 CHPS zones by empowering more than 2,800 community health management committees through training and orientation to shape and seek high-quality primary health care for every household in their community.

Under the same grant mechanism, MCSP worked with nursing and midwifery schools to improve preceptors' knowledge and skills and to equip practicum clinical sites. In support of the MOH, the nursing and midwifery professional association reviewed and updated the preceptor manual to promote its use at all nurse training institutions and provide a wider platform for building the capacity for future preceptors. (More information on implementation of fixed amount awards in Ghana can be found here.)

Advocated for Expansion to Universal Health Coverage through Strategic Planning

MCSP worked with government partners, representatives of civil society, and the private sector to develop and install an actuarial model for the National Health Insurance Scheme. The model accounts for costs and revenues for the following service delivery scenarios: outreach, prevention, and promotion at the CHPS level; primary health care-level services, such as MCH, screening, and FP; and secondary- and tertiary-level services per current policies. The model can accommodate changes in service/benefits packages and additional revenue sources, and predict financing gaps for the packages, and will help determine the feasibility of implementing these packages for the next 15 years. The results should inform the scheme's long-term sustainability to ensure access to and solvency of CHPS and to provide cost implications for donor transitions, especially for FP, TB, HIV/AIDS, and malaria commodities.

Additionally, MCSP supported the government to develop a series of policy papers that examined the areas that could be strengthened in Ghana's current primary health care system and provided evidence-based recommendations on how to address these weaknesses to build a stronger primary health care foundation for universal health coverage in Ghana. The recommendations were integrated into the MOH's Universal Health Coverage Roadmap, a policy document that outlines the goals, strategies, and targets for achieving universal health coverage by 2030. The recommendations for strengthening primary health care will contribute to broader strategies for this endeavor.

Supported Health Training Institutions for Improved Learning and Skills

To improve service delivery capacity in Ghana, MCSP set up and equipped comprehensive skills labs for all nursing and midwifery students in 70 schools across the country. The skills lab—the bridge between classroom learning and real-world application—allows students to develop the independence and responsibility they will need as patient care decision-makers and advocates. Students' newly acquired skills will empower the next generation of nurses and midwives to deliver quality health care to women and their families in Ghana.

MCSP strengthened the clinical practices of more than 5,000 community health nursing students in 12 schools through well-equipped model CHPS compounds. These sites are used as practical training sites and prepare nursing students for situations they will face when they join the nursing profession and serve more than 2 million women and their families in target districts through the CHPS model. This placement will enable the students to hone their preparation skills, communication, and bedside manner.

In partnership with the Government of Ghana, MCSP also enabled access to eLearning in 29 nursing and midwifery training schools. A learning management system and eLearning modules were installed in schools across Ghana. These high-quality methods will give 35,000 nursing and midwifery students access to relevant materials to strengthen and reinforce their knowledge to better prepare them to serve the 15 million women living in Ghana. To date, the learning product Hello Nurse, which can be accessed on a computer or through mobile technology, has been downloaded more than 8,000 times.

Recommendations for the Future

MCSP in Ghana actively worked with government partners and beyond to purposefully plan for sustainability beyond the life of the program. Some of the overall lessons from this work relate to the need for systems strengthening, coordination, and leadership, including at the national level for nursing and midwifery education. There are several national-level players whose work impacts nursing, but there is no coordinated and unified approach or vision for nursing and midwifery in Ghana, which will be critical for the achievement of universal health coverage. In-service experience, needs, forecasting, and practice are not fully informing

what is being taught in the schools, nor impacting the number of nurses being produced. MCSP also found that many investments in CHPS have led to a strengthened community approach but weak oversight from the subdistrict and district levels, which have been less supported. Ensuring that investments support the entire system will be critical moving forward. The following are some specific recommendations for future donor-funded programs and counterpart organizations:

- **Incorporate human-centered design and implementation into all future activities to encourage beneficiary ownership and sustainability of project goals.** This process includes stakeholder participation in the design of programs and interventions, and can lead to improved investment in beneficiary ideas, making implementation faster and more sustainable.
- **Support the professional associations to institutionalize skills lab management committees in health training colleges and train additional preceptors to help ensure that the skills labs are available to students after normal school hours.** The health training institutions and the professional associations should include skills lab usage monitoring in their school monitoring visits to ensure sustainability. Usage data are important for advocacy when working to secure additional funding to equip schools without skills labs.
- **Equip preceptors to assist students during clinical practice.** Even though practical experience is recognized as the most critical factor in producing skilled nurses and midwives, preceptorship remains weak in Ghana. With the development of preceptor manuals, schools should train their preceptors to better assist students during clinical practice to improve their quality care skills. Professional associations should train preceptors through a continuous professional development program and award certificates for improved motivation. The eLearning modules developed under MCSP can be used as part of the continual professional development eLearning program, which is under development by the MOH.
- **Establish a structured mentorship and supportive supervision mechanism for regular preceptor engagement and training between health training institutions and professional associations for continued professional development.** MCSP recommends building stronger connections between teaching and practical sites to strengthen clinical practice and ensure that messaging, procedures, and support are aligned across the health system.
- **Generate funds at schools for eLearning secretariat visits to deploy and support eLearning.** The MOH eLearning secretariat and IT tutors should support subject tutors to create and upload content on the learning management system. The MOH eLearning secretariat should continue training subject matter tutors and update IT tutors regularly on how to use the system.
- **Support the Ghana Health Service to incorporate the CHPS costing tool into its annual operational planning and budgeting activities, and use national and regional trainers to disseminate training and adoption of the tool at the district and subdistrict levels.** The CHPS costing tool should be used by stakeholders to assist in developing CHPS cost estimates and advocating for financing for CHPS from their communities, district assemblies, partners, and other sources. To support dissemination and adoption of the tool, the Ghana Health Service should post the costing tool and training resources on the CHPS website.
- **Continue to invest in the analytical capacities of the National Health Insurance Agency's actuarial team to maximize the use of the model and institutionalize the use of evidence in the development of the primary care-focused universal health coverage package of services.** The actuarial model can be used to provide evidence to inform CHPS and primary health care expansion for the UHC2030 agenda and the Ghana Beyond Aid agenda.

Selected Performance Indicators	
Global or Country Performance Monitor Plan Indicators	**Achievement (Target)**
Number of new health workers graduated from MCSP-supported schools	19,683 (target: 18,010; target exceeded)
Number of eLearning modules, learning objects, or mobile platforms developed	9 (target: 18; 50% achieved)

Selected Performance Indicators	
Global or Country Performance Monitor Plan Indicators	**Achievement (Target)**
Number of schools with adequately equipped simulation labs	70 (target: 67; target exceeded)
Percentage of equipped schools having at least one tutor trained on use of novel anatomic models	100% (target: 100%; target achieved)
Percentage of community health nurse schools offering clinical practice experiences in model CHPS compounds upgraded by MCSP	100% (target: 91%; target exceeded)
Number of performance management systems developed and performance table templates published on DHIS2 dashboard by the Policy, Planning, M&E Division of the Ghana Health Service with support from MCSP	1 (target: 1; target achieved)
Number of regional 5-year CHPS implementation plans developed and guided by costing tool that was developed with MCSP support	5 (target: 5; target achieved)
Number of technically up-to-date tools and job aids harmonized and disseminated	3 (target: 3; target achieved)
Number of districts with improved annual CHPS performance in at least one key service delivery area	23 (target: 23; target achieved)

Guatemala Summary & Results

Geographic Implementation Areas

Regions
- 5/22 (23%)—Huehuetenango, San Marcos, Quetzaltenango, Quiché, and Totonicapán

Health areas
- 6/29 country total (21% of country total)

Municipalities
- 30/340 (9% of country total)

Population

Country
- 17.3 million

MCSP-supported areas
- 1.64 million

Technical Areas:

Program Dates

October 1, 2016–October 31, 2019

Total Funding through Life of Project

$10,814,419

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	108
NMR (per 1,000 live births)[2]	18
U5MR (per 1,000 live births)[2]	39
CPR (modern)[3] • National • In 30 municipalities	 60.6% 34%
SBA[2]	65.6%
Stunting [height for age (<5)][3]	59.3%

Sources: [1] Ministry of Public Health and Social Assistance Report 2015, whereas in ENSMI 2014/15 the data are 140; [2] ENSMI 2014; [3] 2018 INCAP Annual Survey representative of the 30 MCSP municipalities

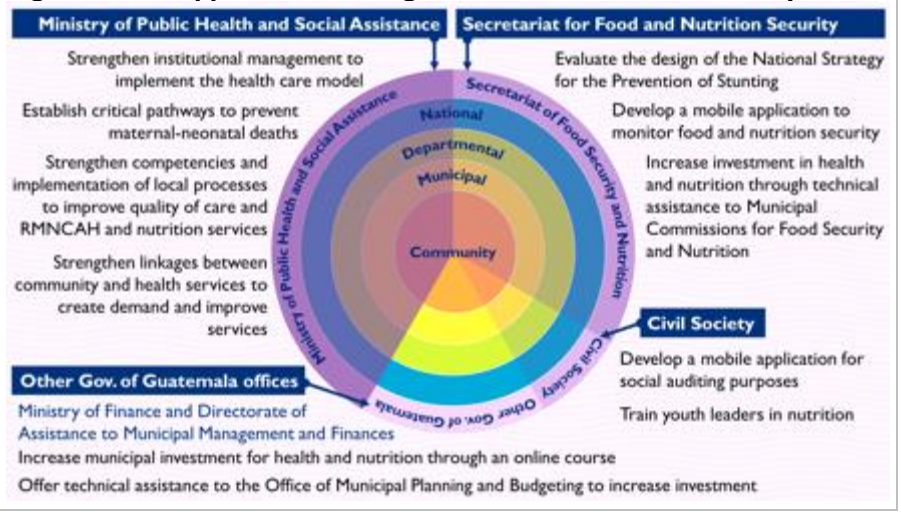
Strategic Objectives through the Life of Project

- Provide technical assistance to the Ministry of Public Health and Social Assistance to improve the provision of RMNCAH and nutrition services within the context of the primary health care model.
- Increase the visibility, collaboration, and multisectoral efforts to prevent chronic malnutrition in the Western Highlands region of Guatemala.

Highlights through the Life of Project

- Supported the Ministry of Public Health and Social Assistance to update and disseminate the Health Management and Care Model for primary health care.
- Worked with the Ministry of Public Health and Social Assistance, University Da Vinci, and University of San Martin de Porres to implement Guatemala's first midwifery technical training program to improve women-centered care that is responsive to indigenous peoples of the Western Highlands.
- Established a national health facility-based WASH strategy, based on MCSP's CCA, and piloted it in 11 health facilities.
- Designed and implemented an evidence-based Continuous Service Delivery Improvement Model in 15 health facilities to systematically assess and improve quality of care in six processes related to day of birth.
- Assisted eight municipal food security commissions to promote inclusion of nutrition interventions in 2019 annual operations plans, resulting in inclusion of nearly USD 650,000 for these activities.
- Implemented the Partnership Defined Quality approach, which increased teamwork among health services, community leaders, civil society, and families in 17 pilot communities and 67 expansion communities.

Figure 1. The approach to strengthen the Guatemalan health system



Guatemala

Background

Following the end of its 36-year civil war and the signing of the 1996 peace accords, Guatemala made important commitments to strengthen its public health system. With a robust national regulatory framework, consolidated health-sector institutions, trained personnel, and centralized financial support for health-sector services, Guatemala's health system improved significantly in the decades following the war. However, Guatemala's public health sector is one of the lowest funded in Latin America, and challenges in organizational efficiency, coordination, and continuity of leadership have left many of its institutions incomplete and/or fragile.[36] To address these challenges, MCSP provided technical assistance to the Ministry of Public Health and Social Assistance and the Secretariat of Food and Nutrition Security to improve the coverage of quality health services. The project provided continuity to prior USAID-funded projects in Guatemala (i.e., Nutri-Salud, PlanFam, FANTA III), working in all 30 of the USAID-prioritized municipalities in Huehuetenango, San Marcos, Quetzaltenango, Totonicapán, and Quiché.

Key Accomplishments

Supported the Ministry of Public Health and Social Assistance to Develop a New Primary Health Care Model

After changes in Ministry of Public Health and Social Assistance leadership, MCSP assisted the new vice minister for primary health care and the Directorate for the Integrated Health Care System to develop and disseminate its new Health Management and Care Model, centered on delivering comprehensive, integrated health care through strengthened health networks. MCSP's technical assistance included review of legal and technical documents, facilitation of ongoing communication and coordination among key stakeholders, and participation in working groups and workshops with the Strategic Planning Unit and the Directorate for the Integrated Health Care System. In November 2018, with MCSP support, the office of the vice minister for primary health care presented the final version of the Health Management and Care Model in a dissemination workshop to more than 29 health area directors, financial-administrative managers, health service provision managers, and regional personnel.

Strengthened Health Management Capacities in the Western Highlands

MCSP worked with the Ministry of Public Health and Social Assistance to co-design and implement a health management course to build the skills of district and health area managers to identify challenges impeding delivery of quality RMNCAH and nutrition services and their root causes, develop action plans, and seek funding from local stakeholders to support implementation. The first cohort of 84 managers from 30 municipal health districts successfully completed the course, achieving competencies in problem identification, information for decision-making, planning and mobilization of resources, intersectoral coordination and collaboration, and supervision and motivation of personnel. Of the 75 plans produced by trainees, 38 were implemented with funding from cooperating agencies, municipalities, and NGOs, and the remaining 37 were financed by the Ministry of Public Health and Social Assistance. The course is fully institutionalized within the ministry's Training Department, which formally recognized the program and created a system to grant those who complete the course professional accreditation, including education credits for medical/nursing school. (For more information, see MCSP's brief on Strengthening Subnational Health Systems Management for Improved RMNCH.)

Established a Clean Clinic Approach in 11 Priority Health Care Facilities

MCSP assisted the Ministry of Public Health and Social Assistance to adapt MCSP's CCA and pilot a WASH program in 11 health facilities providing labor, delivery, and newborn services in four departments with high rates of maternal and newborn mortality. To institutionalize the approach, MCSP assisted the ministry to convene a national WASH commission with the Directorate for the Integrated Health Care System; the

[36] Avila C, Bright R, Gutierrez J, et al. 2015. *Guatemala Health System Assessment.* Bethesda, Maryland: Health Finance & Governance Project, Abt Associates Inc.

Office of Regulation, Control, and Health Monitoring; the Health Promotion and Education Department; Health Area Directorate supervisors; and hospital management. Based on an MCSP-supported baseline assessment of the 11 facilities, MCSP assisted the national WASH commission to adapt the CCA to the Guatemalan context, including defining how to measure eight WASH standards encompassing 79 quality criteria. MCSP provided the facilities with basic cleaning supplies and personal protective equipment, and trained and assisted clinical, administrative, maintenance, and janitorial staff to regularly assess their WASH status and establish improvement targets to achieve locally defined "Clean Clinic" certification. Eight of the clinics certified achieved the "gold" standard (score 81–90%) and three the "diamond" standard (91–100%). The Ministry of Public Health and Social Assistance is committed to expanding the CCA to the national level to involve other health facilities (hospitals, permanent care centers, and integrated maternal child care centers, which provide delivery services), and to adapt the measurement tool to the type of service being assessed. WASH improvements in the 11 facilities are expected to benefit approximately 10,611 births annually (36% of total expected births in these municipalities) as a result of improved quality of care and reduced risk of puerperal and neonatal sepsis infections.

Strengthened Health System Capacity to Continually Improve Quality of Services

MCSP worked with the Ministry of Public Health and Social Assistance to design a Continuous Service Delivery Improvement Model (see Figure 2), which promotes a cyclical, ongoing, and inclusive process of learning, analysis, and improvement, including onsite capacity-building; facilitated practice with peer practice coordinators, mentorship, supervision, and technology use; and supported national and regional initiatives with facility-based quality teams at the local level. The model was approved by the ministry and implemented as a proof of concept in 15 sites with a focus on strengthening critical day-of-birth service competencies. MCSP collaborated with district and facility officials to support formation of QI committees comprising doctors, nurses, and administrative and operational staff, and to help them conduct situational analyses, facilitate collective data analysis using the Collaborative Learning and Exchange of Experiences [37] tool, and generate QI plans. By the end of the project, the 15 proof-of-concept QI committees were actively collecting and reviewing data and using the Collaborative Learning and Exchange of Experiences tool's quality of care assessment methodology as part of regular QA processes. They had also achieved service QIs that included, among other aspects, indicators related to day-of-birth practices and ambulatory care, such as WASH, maternal and neonatal health, and nutrition.

Figure 2. MCSP's Continuous Service Delivery Improvement Model in Guatemala

Strengthened Family Planning Services

MCSP took an integrated approach to expand access to voluntary, high-quality FP services. At the national level, MCSP supported the National Commission for Ensuring the Use of Contraceptives and led a TWG to support and expand use of permanent methods and long-acting reversible contraceptives (LARCs). MCSP and partners assisted the Government of Guatemala in updating FP guidelines, including the *Compendium of Legislation for the Protection and Guarantee of Reproductive Health in Guatemala*. At the facility level, MCSP implemented compliance visits, gap assessments, and a clinical training package applied through MCSP's

[37] An MCSP-developed quality care assessment database known as ACIEX.

mentorship approach. In total, MCSP conducted 129 compliance visits to 66 health services, interviewed 121 health care providers and 186 users in accordance with USG guidance and MCSP's FP compliance plan, and identified and addressed service gaps. Several government institutions have expressed interest in or have adopted MCSP's clinical package and mentorship approach, including the Ministry of Public Health and Social Assistance through its National Reproductive Health Program and the Guatemala Social Security Institute, with which MCSP developed a formal agreement to adopt the clinical package and initiate a mentorship approach to improve FP service quality.

Implemented a Comprehensive Approach to Sexual and Reproductive Health for Adolescents in Rural Guatemala

By age 19, more than 41% of girls in Guatemala have had a child or are pregnant with their first child, and more than 20% of all maternal deaths occur among girls under age 19.[38] Rates of pregnancy in minors ages 14 and under are high, at 197 pregnancies per 100,000 people.[39] Although the Government of Guatemala's legal framework does not prohibit health workers from providing education and promotion of contraceptive methods to minors, findings from MCSP's baseline studies at health facilities indicated that health workers largely lacked understanding of this framework and did not offer contraceptive methods to adolescents ages 14 and under for fear of retribution.

To address these challenges, MCSP involved national-, municipal-, and local-level stakeholders, including adolescents. At the central level, MCSP supported the Ministry of Public Health and Social Assistance to revise its strategy for engaging adolescents at facilities. The resulting MCSP-adapted Friendly Services Approach is based on WHO's five dimensions of youth-friendly services and is a two-pronged strategy to increase access to and use of integrated sexual and reproductive services among adolescents. The approach encourages adolescents to seek health services and prepares health workers to provide adolescents with quality services once they do. MCSP also coordinated with USAID's Health and Education Policy Plus project to train health care personnel on adolescent health care processes, including the legal framework, national protocols, and requirements. Using the Friendly Services Approach, MCSP certified 30 health facilities, trained 457 health service providers on site, and delivered "differentiated care kits" to all facilities. MCSP also trained and certified 22 facility-based mentors in its clinical package on differentiated care for adolescents ages 14 and under who lead ongoing capacity-strengthening activities on site. At the community level, MCSP facilitated a biministerial pilot Youth Champions initiative, led by the Ministry of Public Health and Social Assistance and Guatemala's Ministry of Education in Quiché. The two ministries trained 20 adolescent champions, who have since reached 400 additional youth and adolescents with information on sexual and reproductive health and contraceptive methods. The Ministry of Public Health and Social Assistance has endorsed the Friendly Services Approach and published its first guidelines for health providers on contraceptive methods.

Supported Interventions to Prevent Maternal and Neonatal Deaths

MCSP strengthened three critical pathways developed under Nutri-Salud and Support for International FP Organizations/PlanFam in Huehuetenango, Quiché, and Totonicapán, and helped to develop two additional pathways in San Marcos to strengthen the emergency referral network and improve the management and transfer of emergency obstetric cases between different levels of health care. The pathway consists of linking families, community members, and service providers along an "emergency route" in response to complications during pregnancy or labor so that timely care can be provided to prevent maternal and neonatal deaths. As a result of this intervention, the critical pathway of Pueblo Nuevo-Tajumulco-San Marcos documented the successful referrals of 17 mothers with obstetric complications, and the critical pathway of Pologua-Momostenango documented 39 referrals. In both pathways, no maternal or neonatal deaths occurred after the start of the intervention.

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[38] Ministry of Public Health and Social Assistance (MSPAS), National Statistics Institute (INE), Secretariat of Planning and Programming of the Presidency (Segeplán). 2017. *Informe Final, ENSMI 2014-2015*. Guatemala City: MSPAS, INE, and ICF International.

[39] Ruiz M. 2015. *Situación de embarazos en niñas menores de 14 años, Semana epidemiológica*, Presented at: Semana epidemiológica No. 41, Guatemala, 2015; January 11–October 17.

Assessed Respectful Care in Three District Hospitals of Quiché

The objective of this assessment was to understand the disrespect and abuse of women during facility-based deliveries in three hospitals in Quiché and identify barriers to quality, equitable, respectful care, and potential drivers of disrespectful treatment. MCSP completed the design, validation, and data collection for the respectful care formative assessment, collecting quantitative and qualitative data from Nebaj, Santa Cruz, and Uspantán hospitals to understand women's experience during childbirth, including disrespect and abuse, in facility-based births. In-depth interviews and focus group discussions were held with women of reproductive age who gave birth in health facilities or at home; with maternity care providers and midwives; and with local health officials, including hospital directors. Assessment results were disseminated to the three hospitals, which then worked collaboratively to identify their community's/facility's vision for respectful care and the top three findings from the assessment that their community/facility thinks are the most critical to address. MCSP then convened key stakeholders from the community and Ministry of Public Health and Social Assistance for a co-design workshop to establish a shared vision between the community and health workers and develop action plans to improve respectful care.

Supported the Ministry of Public Health and Social Assistance to Develop Linkages between Health Services and Communities to Create Demand for Quality Services

In Guatemala, communities have limited opportunity to contribute to the definition of quality health services. Additional barriers also hinder interaction between communities and services (i.e., physical distances to services, language barriers, inconvenient working hours of services, lack of respectful care by providers).

To improve linkages between health providers and communities, and create mechanisms for open communication, MCSP adapted the Partnership Defined Quality methodology to the Guatemalan context. This effort was geared toward promoting an increased dialog and partnership among health services and community leaders, civil society, and families. The four phases of this methodology included: 1) promoting a partnership to define health service quality; 2) identifying gaps; 3) planning interventions to bridge gaps; and 4) working together to implement plans and to monitor and evaluate implementation.

MCSP supported the implementation of the Partnership Defined Quality process in 17 pilot communities of nine prioritized health districts and trained Ministry of Public Health and Social Assistance personnel, resulting in the expansion to an additional 67 communities in Quiché, San Marcos, and Huehuetenango. Over the course of the project, 17 action plans were implemented, identifying 69 gaps, 48 of which were closed and 21 of which are in process. These plans addressed improvements in health service infrastructure (particularly bathroom water tanks and hygiene conditions) and in sharing information about available health services, as well as other improvements. In collaboration with the ministry, an operational guide was developed and endorsed for use in other health areas.

Developed Approaches to Prevent Chronic Malnutrition

MCSP supported two processes to improve municipal investment. The first was related to the provision of technical assistance to eight municipal food security commissions to help them plan for and include nutrition-specific and sensitive interventions in their 2019 annual operations plans, resulting in the inclusion of nearly USD 650,000 for nutrition activities. Through the second process, MCSP collaborated with the Guatemalan Ministry of Public Finance/Municipal Administrative Financial Assistance Office. MCSP developed and implemented an online course, Municipal Investment in Health and Nutrition, to sensitize finance staff to the prevalence of chronic malnutrition and build skills for integrating food security and nutrition interventions into annual operations plans and budgets. The course was created on the Municipal Administrative Financial Assistance Office's existing virtual platform and mirrors training activities already carried out by the department. The Municipal Administrative Financial Assistance Office enrolled its first cohort of 83 participants, of which 40 participants from 30 municipalities completed the course and obtained a diploma. The municipal office expressed commitment to scale the course nationally on this platform.
With MCSP support, the Ministry of Public Health and Social Assistance convened a 2-day multisectoral micronutrient technical consultation meeting with international experts (USAID, CDC, Harvest Plus,

Institute of Nutrition of Central America and Panama) and national experts. Taking into consideration that vitamin A deficiency in Guatemala is no longer a public health problem, the ministry modified its vitamin A supplementation guidelines, which were included in the updated National Health Care Norms for first and second level of attention. Specifically, vitamin A supplementation will be provided only to children ages 6 to 12 months and children with moderate or severe acute malnutrition.

MCSP worked with the Institute of Nutrition of Central America and Panama, the Directorate for the Integrated Health Care System, and Guatemala's Food Security and Nutrition Program to expand and update the Maternal and Child Nutrition within the First 1,000 Days Program. The updated program emphasized nutritional assessment and effective counseling to promote behavioral changes related to pregnant women's nutrition, breastfeeding, complementary feeding, and growth monitoring. The methodology trained facilitators responsible for organizing "study circles" at the local level, meeting regularly in small groups with auxiliary nurses to reinforce skills and share experiences and challenges. MCSP certified 36 Ministry of Public Health and Social Assistance facilitators, who formed 37 community nutrition study circles with 458 auxiliary nurses from the six health area directorates, facilitating the course's successful completion.

Developed Digital Health Solutions to Guide Measurements and Improvements in the Enabling Environment and Process for the Provision of Health Services

To strengthen facility capacity to use data to enable health service provision, MCSP developed a mobile application to automate data collection and analysis of health facility readiness, including equipment, infrastructure, service delivery, documentation, human resources, and technology. MCSP provided technical assistance to monitor the use of the mobile application in 56 primary and secondary health facilities, and assisted the teams with conducting a participatory analysis of initial gap assessment data and developing intervention plans to address the identified gaps. The Ministry of Public Health and Social Assistance is committed to using this application and expanding its use by adding a module on blood banks and human milk banks.

In Guatemala, civil society plays a role in holding health services accountable for implementing health and nutrition interventions during the 1,000-day window via social monitoring activities. However, civil society organizations (CSOs) often lack the tools and technical capacities to do this effectively, and health facilities mistrust the process. In partnership with GlaxoSmithKline and the USAID-funded Health and Education Policy Plus project's civil society networks, MCSP designed the 1,000 Days Window mobile application to strengthen data collection, analysis, and dissemination of audit results. A dashboard was developed to facilitate the presentation of consolidated results to local and national authorities. MCSP trained youth CSO members on the mobile app and accompanied them during collaborative monitoring with health facilities. In 2018, CSOs completed 253 monitoring visits (195 primary and 58 secondary facilities) using the mobile app.

MCSP worked with the Secretariat of Food and Nutrition Security to design a mobile application and dashboard to facilitate data collection and analysis of interventions being implemented by the different government actors (Ministry of Public Health and Social Assistance; Ministry of Agriculture, Livestock and Food; Ministry of Education; and municipalities) on key food and nutrition security monitoring indicators. Moving forward, the Secretariat of Food and Nutrition Security will scale the application for national coverage and use by its regional and municipal delegates.

Recommendations for the Future

MCSP held closeout events in Huehuetenango, Quetzaltenango, and Quiché, and a national event in Guatemala City to share results, lessons learned, and best practices regarding interventions carried out. MCSP also organized in-depth handover meetings with the Ministry of Public Health and Social Assistance and the Secretariat of Food and Nutrition Security to transfer methodologies, approaches, and materials so they can be used and institutionalized by technical teams. MCSP has the following recommendations for future RMNCAH project implementers:

- **Work with the Ministry of Public Health and Social Assistance to mainstream person-centered care.** Only half of the interviewees who participated in MCSP's respectful care assessment reported being

willing to return to the hospital in the case of another pregnancy, citing having experienced personally or hearing about mistreatment by health personnel. If hospitals are sincerely interested in increasing institutional births and reducing maternal mortality, women must have positive experiences of care. Although country stakeholders can use results from MCSP's assessment on respectful care to address local challenges, it is important to move beyond standalone interventions and to support the design, implementation, and monitoring of large-scale efforts and integrated solutions to strengthen respectful care across clinical areas and the health system.

- **Use digital tools to empower frontline health actors to create accountability from the bottom up.** Government health workers and CSOs often rely on out-of-date data or time-consuming handwritten documentation, compromising the quality and efficiency of their work and hindering their ability to effect change in their environment. Incorporating the use of digital tools for frontline workers that support their ability to make informed decisions and assert leadership can contribute to a culture of data use.
- **Foster community leadership in health to improve the quality of health services.** Creating space for active dialog between communities and health facilities strengthens accountability structures and supports the co-design and implementation of a mutually agreed-upon vision of quality of care. To promote sustained improvements in the quality of health care, communities must be engaged as active leaders in health solutions rather than as passive "beneficiaries" of health services.
- **Engage youth outside of schools and health facilities.** Embedding youth-responsive sexual and reproductive health activities in schools and health facilities is an important step in addressing gaps in access to high-quality services for youth and adolescents. However, as global evidence has shown, it is essential to engage youth where they are—in community spaces and at home—and to engage them as leaders in health education and promotion activities to increase reach and uptake of services.
- **Plan for an inception phase to study existing strategies.** RMNCAH and nutrition projects financed by USAID and other development agencies have invested much time and resources into the design, development, and validation of practical tools, guides, and educational materials to improve health outcomes. Many of these are lost in the transition between development projects and due to interests in pushing forward branded strategies. The first phase of MCSP rollout was dedicated to identifying strategies and tools from other major RMNCAH and nutrition projects that showed the best evidence to justify continued use, allowing for continuation of learning and best practices.
- **Plan for political changes in a dynamic social climate.** One of the most common and disruptive challenges for development projects is leadership changes in governmental institutions. Frequent changes at the Ministry of Public Health and Social Assistance have become the norm in Guatemala. In 2 years, MCSP worked under two health ministers and two secretariats from the Secretariat of Food and Nutrition Security. MCSP responded to these and several other changes by adjusting its strategies and implementation plan. A change management strategy that is built into future projects from the start would help to balance fidelity to core project principles and objectives with the flexibility to respond to changes.
- **Form strategic public-private partnerships.** The private sector can play a critical role in boosting the efforts of government and NGOs to tackle widespread and systemic health problems. MCSP garnered valuable resources from GlaxoSmithKline to finance several project activities at a time when funds from USAID were not readily available, including the development of a mobile application for CSO monitoring of health services. Opportunities for private-sector support are available, and stakeholders in health should act on them; however, partnerships should be pursued with thoughtful planning to ensure inclusive involvement and leadership of community and government stakeholders.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of active community groups in MCSP target districts implementing RMNCAH activities according to their QI plans	100% (target: 100%; target achieved)
Percentage of targeted communities with community action groups trained	100% (target: 100%; target achieved)

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people trained in child health and nutrition through USG-supported programs (health professionals, primary health care workers, CHWs, volunteers, mothers/caregivers, policymakers, researchers, other nonhealth personnel)	5,354 (target: 3,850; target exceeded)
Number of MCSP target districts that have a systematic approach for continuous QI based on RMNCAH and nutrition indicators	24 (target: 24; target achieved)
Number of MCSP target municipal health district offices that use the dashboard to generate reports or plans, or to address performance gaps	24 (target: 24; target achieved)
Number of personnel trained in maternal and child nutrition	475 (target: 458; target exceeded)
Number of municipal staff trained in investment in water and sanitation	177 (target: 150; target exceeded)

Guinea RMNCH and Gender-Based Violence Summary & Results

Geographic Implementation Areas

Regions
- 4/8 (38%)—Kankan, Faranah, N'zérékoré, and Conakry

Prefectures
- 14/38 (37% of country total)

Facilities
- 150/461 (32% of country total)

Population

Country
- 12.4 million

MCSP-supported areas
- 4.6 million

Technical Areas

Program Dates

January 1, 2015–February 28, 2017

Total Funding through Life of Project

$1,500,000

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	447,000
MMR (per 100,000 live births)[2]	550
NMR (per 1,000 live births)[2]	20
SBA[2]	62.7%
CPR (modern and traditional methods)[2]	8.7%

Sources: [1] 2016, Countdown to 2030 country profile, GIN; [2] MICS 2016.

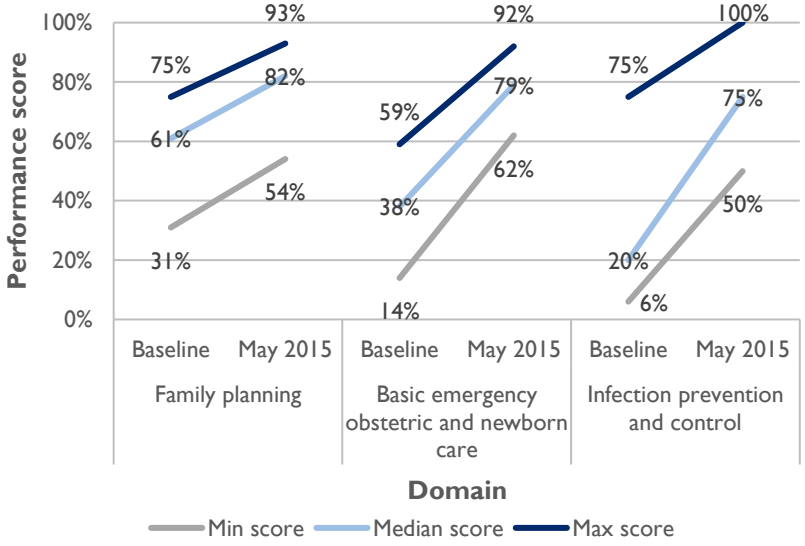
Strategic Objectives through the Life of Project

- Improve and sustain the quality of RMNCAH services in supported health care facilities within the project's targeted area (January 2015 to March 2016).
- Improve the quality of midwifery PSE at the National Public Health School in Kindia and medical education at the School of Medicine in Conakry (January 2015 to March 2016).
- Integrate activities and services for the prevention and management of gender-based violence (GBV) within RMNCAH services at the facility and community levels in Conakry (January 2015 to February 2017).

Highlights through the Life of Project

- Trained 41 providers (34 women) on integration of GBV prevention, detection, and management into the daily activities and services of health providers. Seven facilities managed and treated 110 cases of GBV and referred 65 of those cases to legal assistance.
- Conducted quarterly monitoring of FP service statistics, which showed that availability and voluntary use of FP services remained steady even in the face of the evolving EVD epidemic, including 7,808 adopters of long-acting methods.

Figure 1. Evolution of performance scores for three domains of Standards-Based Management and Recognition among 11 health facilities from baseline to May 2015



Guinea—Reproductive, Maternal, Newborn and Child Health and Gender-Based Violence

Background

The work requested under MCSP was designed to support the accomplishments of MCHIP in Guinea (October 2010 to March 2014), which increased the capacity of health care workers in facilities and in the community to offer quality FP and MNCH services. Also under MCHIP, in 2013, the USAID Mission in Guinea successfully applied for incentive funding for a 3-year project to address GBV reduction. In collaboration with the USAID-funded legal assistance partner, the American Bar Association, MCHIP initiated the first year of activities during the final MCHIP project year to better understand the scope of the problem and what resources exist to prepare for a comprehensive intervention that addresses the health, social support, and legal aspects of victims of GBV, as well as communications to increase community awareness and prevention efforts. MCSP's work in Guinea was originally planned as a 1-year bridge to the Mission's preparations for a bilateral health project, with additional GBV funding added to extend this component of the project.

As the EVD epidemic evolved and spread, MCSP adapted the timeline and activities to the situation at hand. Access to Nzérékoré Region, the epicenter of the epidemic, varied over the life of the project, as the number of cases was high at the beginning but well controlled by late 2015.

Key Accomplishments

Strengthened Quality Improvement Methodology to Achieve Improved RMNCAH Outcomes

MCSP reinforced the use of the SBM-R QI tool at 48 facilities that were using the methodology as of the end of the MCHIP project. This included supportive supervision to follow up on SBM-R performance at 29 facilities (60%) that were accessible as the epidemic evolved, which allowed mentors to check on the functioning of SBM-R teams and suggest ways to address gaps in performance. For a few facilities with more dramatic drops in performance, particularly in Conakry, MCSP advised facility managers and staff to work on improving gaps in performance or risk losing their recognition star. MCSP also supported the development and initiation of a monitoring plan for the MOH's implementation of SBM-R in an effort to support its ownership of the system. The plan and corresponding budget were forwarded to the regional directors of health by the National Directorate for Family Health and Nutrition for integration into the 2015–2017 regional and prefectural (district) health development plans.

An analysis of service delivery data for the 48 facilities using SBM-R for January–September 2015 (Q2–Q4 of PY1) showed high levels of performance of lifesaving skills in RMNCAH:

- 98% of 263 recorded cases of pre-eclampsia/eclampsia were treated with magnesium sulfate.
- 95% of women received active management of the third stage of labor.
- 87% of newborns were put to the breast within the first hour after delivery.
- In total, 2,997 cases of obstetric and newborn complications were treated.

Ongoing follow-up of many of these facilities using SBM-R to monitor performance continued under MCSP's Restoration of Health Services scope of work in Guinea.

Increased Family Planning Uptake and Continued Use

To sustain the quality of services and training of providers under MCHIP, MCSP clinical advisors worked closely with national-, regional-, and district-level supervisors to identify facilities needing support and to provide constructive feedback and support to improve performance during supervision visits. During the visits, clinical advisors assessed provider performance and checked on the availability of critical supplies and equipment needed to perform services. MCSP supported supervision visits to 191 facilities, reaching 572

providers and 238 CHWs. The project was able to add supervision visits in Nzérékoré as the EVD epidemic came under control there, thus exceeding the target of 150 facilities.

MCSP's analysis of quarterly service delivery indicators at its supported facilities demonstrated the following achievements:

- Active management of the third stage of labor using a uterotonic remained a routine practice for 90–96% of all vaginal deliveries (n = 33,136).
- 9,425 complications were managed among 26,033 deliveries assisted by an SBA.
- Of 966 cases of pre-eclampsia/eclampsia, treatment with magnesium sulfate was provided 98–100% of the time over the five quarters of the project.
- Breastfeeding was initiated within an hour of delivery 87% of the time.

Looking specifically at FP services, about one0quarter of the 500 providers who were previously trained on long-acting and postpartum methods were not present at the time of supervision visits due to transfers and extended absences. Nevertheless, quarterly monitoring of FP service statistics (Table 1) showed that availability and voluntary use of FP services remained fairly steady even in the face of the evolving EVD epidemic, including 7,808 adopters of long-acting methods, with implants chosen approximately twice as often as IUDs. The slight decline in community distribution of FP methods, such as the pill and condoms, can be attributed to engagement of CHWs in Ebola outreach and detection activities, taking them away from their usual activities.

Table 1. FP service delivery indicators by quarter, April 2015–March 2016

	April–June 2015	July–September 2015	October–December 2015	January–March 2016
New FP users	32,692	30,714	36,385	40,450
Percentage of new users from community distribution	30%	17%	16%	22%
Continuing FP users	28,270	27,620	30,133	32,548
Percentage of continuing users from community distribution	35%	21%	20%	27%
LARC adopters	1,325	1,194	1,931	3,358
Couple years of protection	20,308	18,370	25,000	27,066

Improved the Quality of Pre-service Education at the National Public Health School in Kindia and the Medical Education at the Faculty of Medicine in Conakry

MCSP followed up on MCHIP's PSE interventions, which included support for the development of skills labs as well as close collaboration with the National Public Health School in Kindia and the Ministry of Professional Education and Technical Training to revise the midwifery training curriculum in accordance with recommendations from the West African Health Organization and the International Confederation of Midwives to ensure a competency-based approach to education.

MCSP conducted quarterly supportive supervision visits at the National Public Health School in Kindia. These visits were an opportunity to monitor preceptors' and students' use of the skills labs, follow up on implementation of improved reproductive health and teaching skills, and follow up on implementation of SBM-R for PSE. During MCHIP, skills labs were set up to offer students hands-on experience using anatomic models and simulators to develop clinical competencies. Faculty and preceptors received training on effective teaching skills, assessing student performance, and clinical training and mentoring skills for MNH. The hospitals and health centers that serve as internship sites were also visited to review their efforts to support student learning. Among the SBM-R components for PSE, the school was doing better with

theoretical and practical teaching, whereas equipment and infrastructure issues remained persistent challenges. During each visit, MCSP staff reviewed observations and provided suggestions for key actions to address persistent challenges and reinforce what was going well. The increased capacity to provide practical experience to students through the skills labs and use of anatomic models became even more important during the EVD epidemic as the MOH prohibited student trainees from going to health facilities for practical sessions for a period during 2015.

MCSP conducted several visits to the Faculty of Medicine to review progress made on implementation of SBM-R for PSE and to engage the dean and department heads in overseeing the action plans to improve student learning. It was particularly challenging to engage with the faculty at this time, as many were pulled into Ebola response activities. An assessment of SBM-R standards and comparison with results from 2011 found a general decline in quality from 55% to 32% across the five performance areas. MCSP helped to focus attention on the quality of education by providing feedback on the performance evaluation and using that feedback to develop action plans to address gaps in performance.

Increased Treatment of Gender-based Violence Cases or Referrals to Legal Aid

Under the project's GBV component, MCSP worked closely with the Ministry of Social Affairs and the Advancement of Women and Children to target communities in the five districts of Conakry, and partnered with two national hospitals and five communal health centers to integrate screening and care for suspected GBV and promotion of related resources. MCSP worked with the American Bar Association's Rule of Law Initiative to support the legal and rights components of the project, training legal aids and community liaisons, operating a legal assistance clinic, and supporting the development of communications materials to increase awareness of both prevention and access to resources for survivors of violence.

MCSP disseminated the findings of the GBV assessment conducted under MCHIP in all five communes of Conakry and one urban commune of Kankan. This assessment informed the development of a set of curricular materials for training health care workers and community educators on detection, management, and prevention of GBV, which began under MCHIP and was finalized and validated with MCSP's support.

Forty-one providers (34 women) from seven facilities across Conakry completed the training workshop to integrate GBV prevention, detection, and management initiatives into the daily activities and services of health providers. Due to the EVD epidemic, the training workshop could not be held until November 2015. Following the training of selected providers, orientations were also provided to the broader facility staff to increase awareness of the services/resources available and promote referral within the facility for suspected GBV cases. At the community level, MCSP trained 123 community and peer educators from the five communes, several secondary and professional schools, and two universities. MCSP, in consultation with local authorities and the Ministry of Social Affairs and the Advancement of Women and Children, set up GBV committees in each of the five communes, and MCSP provided supportive supervision following trainings. At the national level, MCSP worked with the Ministry of Social Affairs and the Advancement of Women and Children to establish an interministerial steering committee to address GBV.

Community educators and paralegals held 707 information and awareness-building sessions, including a door-to-door campaign, to reach 30,787 people. MCSP engaged local stations and provided inputs to produce five radio spots and one TV segment; 10 radio broadcasts and two television broadcasts were aired by the end of the program. Journalists—many of whom had participated in the community orientations—produced 33 articles or communications on GBV (22 on radio and 11 televised). MCSP also put in place a network of mobile phones among community committees; the Office of the Protection of Gender, Children, and Minors; paralegals; and health facilities to facilitate communication and referrals. This system tied into an existing network of phones among health care providers and managers, and MCSP covered the cost of voice calls.

As a result of these community outreach activities, seven facilities managed and treated 110 cases of GBV. In total, facilities referred 65 GBV cases for legal assistance, and 54 cases, including all 27 cases of rape, were pursued. The majority of domestic violence and family abandonment cases, on the other hand, were settled through mediation. Forty-four percent of GBV cases were reported to and managed at the national hospital.

Some of the communal health centers reported few to no cases (zero to four). The reasons for this are unclear, although self-referral by the family to seek assistance outside of their own neighborhood might partially explain this pattern.

At the end of the program, MCSP assessed stakeholder satisfaction with the program's efforts to address GBV prevention and management. MCSP held 19 individual interviews and eight focus groups with those involved in the project. Providers and health educators appreciated the training course and tools, particularly the flipbook. One provider commented, "Before, I really could not manage a case of GBV, and now I can, and I know who I should call." A common suggestion for further improving the available tools was to develop videos on the subject in multiple languages.

Recommendations for the Future

Despite significant challenges due to the EVD epidemic, MCSP's support enabled many facilities to maintain the important gains in availability and quality of RMNCAH services that they had achieved under MCHIP. USAID's continued flexibility also allowed MCSP to implement planned activities when it was safe and appropriate to do so given demands on MOH counterparts. Following MCSP's RMNCAH and GBV work in Guinea, MCSP continued to serve as a mechanism for multiple programs in support of the epidemic response and post-epidemic recovery in Guinea. Recommendations for these programs included:

- **Continue to support SBM-R efforts.** The MOH and donors should continue to support efforts such as SBM-R for QI and quality assurance. The investment during MCHIP and follow-up during MCSP showed promising results in maintaining quality of services, even in the face of the EVD epidemic. Where performance declined, particularly in areas most affected by Ebola, the SBM-R standards served as the reference point to recall what providers and managers should expect of themselves in providing care to the community.
- **Strengthen PSE.** USAID and other donors should continue to support efforts to strengthen PSE. MCSP was able to follow up on some important gains of MCHIP in revising the midwifery curriculum and reinforcing teaching and learning capacity, but more work remains to be done to reap the benefits of the new skilled midwives who are ready to enter the workforce.
- **Integrate GBV prevention and services.** The Ministry of Social Affairs and the Advancement of Women and Children and the MOH should continue to scale up the integration of GBV prevention and services into health facilities and communities, with a focus on geographic areas with high rates of interpersonal violence and GBV, as well as those with increased risk factors, such as internal migration for employment (e.g., mining) and early marriage. Donor support for this will be needed.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of women receiving individual counseling sessions in immediate postpartum or postabortion care for FP/reproductive health as a result of USG assistance	33,271 (target: 29,053; target exceeded)
Number of new acceptors of modern contraceptive methods as a result of USG assistance	174,246 (target: 225,000; 77% achieved)
Number of women delivering with assistance of an SBA	38,294 (target: 37,500; target exceeded)
Number of women receiving active management of the third stage of labor[1]	30,732 (31,250; 98% achieved)

[1] One of the three regions, Conakry, saw a significant decline in overall health service use, including maternity care and FP services, during the EVD epidemic. Kankan and Faranah in the northern part of the country were far less affected by the epidemic.

Guinea Ebola Response Phase I Summary & Results

Geographic Implementation Areas

Regions
- 4/8 (50%)—Conakry, Faranah, Kankan, Kindia, N'zérékoré

Prefectures
- 8/38 (21% of country total)—Beyla, Forécariyah, Kissidougou, Kouroussa, and five communes of Conakry

Facilities
- 55/461 (12% of country total)

Population

Country
- 12.4 million

MCSP-supported areas
- 2.81 million

Technical Areas:

Program Dates

November 17, 2014–August 16, 2015

Total Funding through Life of Project

$3,482,000

Demographic and Health Indicators

Indicator	# or %
Live births (per year)[1]	447,000
MMR (per 100,000 live births)[2]	550
NMR (per 1,000 live births)[2]	20
U5MR (per 1,000 live births)[2]	88
Births with SBA[2]	62.7%
CPR (modern and traditional methods)[2]	8.7%

Sources: [1] Countdown to 2030 country profile, 2016; [2] Multiple Indicator Cluster Survey 2016

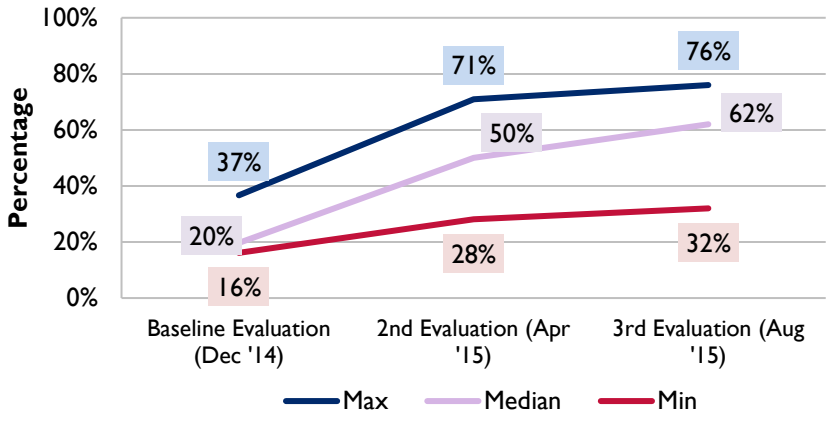
Strategic Objectives through the Life of Project

- Support health care workers and facilities to continue to offer high-quality health services in a safe environment by strengthening IPC practices through training, supportive supervision, and complementary M&E.
- Support communities and their local leaders to combat disease transmission through improved contact tracing, intensified social mobilization, and improved technical assistance to district health teams.

Key Accomplishment Highlights through the Life of Project

- Contributed to the creation of an IPC Technical Committee to oversee facility-level interventions. MCSP's IPC training curriculum was adopted as the national standard for provider training.
- Trained 2,985 providers from 55 facilities, including three national hospitals, and oriented 447 auxiliary staff on IPC on site. Ninety-one percent of trained health care providers and auxiliary staff at all targeted facilities received supervisory support during the project period.
- Observed steady improvement in the short project period through a series of three IPC performance assessments. At 42 health centers supported by the project, the median performance score rose from 19% (baseline) to 42% (second evaluation) to 67% (third evaluation).
- Reached 1,596 members of civil society associations, women's groups, and two police brigades with EVD sensitization. Trained 228 CHWs to carry out contact tracing, successfully following 92% of 3,195 contacts.

Figure 1. Evolution of IPC performance scores in the seven medical centers and three prefectural hospitals in Beyla, Forécariah, and Kissidougou (December 2014–August 2015)



Guinea—Ebola Response Phase I

Background

In response to the EVD epidemic in Guinea and the severe effects it had on the country's health services, including increased risk of EVD for health care providers, USAID Washington and the Mission requested that MCSP develop a program to address IPC practices in facilities and communities to prevent disease transmission. The geographic areas of focus were determined in collaboration with the National Ebola Response Coordinating Committee, CDC, Office of US Foreign Disaster Assistance, and other USG implementing partners.

Key Accomplishments

Participated in the National Ebola Response Coordinating Committee

Throughout the project period, MCSP provided technical support to the National Ebola Response Coordinating Committee, particularly in the effort to improve national protocols for EVD treatment centers, manage community transit centers, and promote safe burial practices. MCSP also participated in the development of a set of community-focused EVD prevention educational materials (health education messages, posters, and visual aids) that the Ministry of Public Health validated; 500,000 copies were distributed with support from donors.

MCSP led the advocacy for the creation of an IPC Technical Committee under the National Ebola Response Coordinating Committee in collaboration with USAID, the Office of US Foreign Disaster Assistance's Disaster Assistance Response Team, the CDC, and WHO. The technical committee, which became an important source of technical support within the National Ebola Response Coordinating Committee, comprised 15 national and international organizations, and led the standardization of IPC training documents and establishment of triage units across the country. Jhpiego's IPC training curriculum, with updates specific to EVD done under MCSP, was adopted as the national standard. This demonstrated that MCSP's work was valued for its technical quality. The Ministry of Public Health wanted to use these materials to guide all partner work in this area.

Trained/Updated Trainers

MCSP initiated the Ebola Response Project with an IPC update for 27 trainers who were previously trained as trainers under MCHIP. In February 2015, five additional MCHIP-trained trainers joined 18 new candidate trainers, who were selected from a group of providers who had completed the IPC training and demonstrated initiative in improving IPC. This group was trained in clinical training skills, resulting in 50 qualified IPC trainers to support the Ministry of Public Health and the National Ebola Response Coordinating Committee's IPC response to EVD.

Conducted Trainings and Provided Routine Quality Assurance Visits and Follow-Up Support

In collaboration with health facility administrators, MCSP trained 2,985 providers in 121 5-day training sessions from December 2014 to March 2015—139% of the initial project target of 2,150. The training sessions targeted all health care personnel working in 55 health facilities located in some of the areas hardest hit by the EVD epidemic. MCSP also conducted 1-day IPC trainings for 447 support staff members (e.g., janitors and orderlies) at seven health facilities using materials developed by the Ministry of Public Health. Using the local language to ensure comprehension, the trainers taught a broad range of fundamental IPC skills, including preparation of chlorine solution and proper waste collection and disposal.

Within 1 month after the training, the trainers conducted follow-up visits to review implementation of IPC practices and assist staff to address challenges. Coaching sessions were organized at least twice a month in Conakry and once a month in prefectures (due to travel time required). As a result, 91% (3,132/3,441) of trained health care providers and auxiliary staff at all 55 targeted facilities received supervisory support during the project period.

In December 2014, April 2015, and August 2015, MCSP conducted performance evaluations using the Standards-Based Management and Recognition (SBM-R®) process to assess the implementation of IPC performance standards at each of the 55 health facilities.[40] SBM-R is a QI methodology that uses checklists of clearly defined clinical and organizational standards to assess performance, establish the level of functionality, and guide corrections toward improved performance and quality. An analysis of performance scores at baseline (December 2014), second (April 2015), and third evaluations (August 2015) revealed the following progress:

- At the national hospitals of Donka, Ignace Deen, and Sino-Guinéen, 66 services were evaluated. The median performance score rose from 24% (baseline) to 50% (second evaluation) to 68% (third evaluation).
- At seven communal medical centers in Conakry and Beyla and at three prefectural hospitals in Beyla, Forécariah, and Kissidougou, the median performance score rose from 20% (baseline) to 50% (second evaluation) to 62% (third evaluation).
- At the remaining 42 health centers supported by the project, the median performance score rose from 19% (baseline) to 42% (second evaluation) to 67% (third evaluation).

Conducted Behavior Change Communication and Sensitization

MCSP carried out a variety of communication activities, including 249 group talks; orientation of members of civil society, women's groups, and police brigades; theatrical performances; and a soccer match, to share information with community members on Ebola prevention and active surveillance. Social and behavior change communication activities targeted the prefectures of Kouroussa, Beyla, and Kankan, and the communes of Conakry. Radio broadcasts on local radio stations and in local languages were used as a way to disseminate information and messages through pre-recorded messages, discussion roundtables, and call-in shows. In-person communications are estimated to have reached 39,500 people and the radio broadcasts another 53,000 community members.

Provided Contact Training and Surveillance

MCSP trained 228 CHWs to carry out contact tracing, successfully following 92% of 3,195 known contacts through the full 21-day period. MCSP also organized orientations for 1,463 people who work as pharmacists, private health care providers, and traditional healers. This approach was developed to address the challenge of declining community confidence in public health facilities, with people seeking care from alternative sources. This training helped to address myths about EVD and reinforce case detection, personal protection, and timely referral.

Recommendations for the Future

The implementation activities of the MCSP Ebola Response Project helped save the lives of service providers; strengthen IPC practices, standards, and protocols in health facilities; and provide a foundation for the restoration of MNCH services post-Ebola. MCSP further implemented a second IPC-focused project and two projects on post-Ebola recovery.

Crucial lessons for epidemic response and preparing health systems to be more resilient to such shocks include:

- **The Ministry of Public Health and partners should include a focus on IPC in routine health services in the initial response to disease outbreaks and as a matter of quality of care more broadly.** Attention to IPC is an essential component of health systems strengthening (HSS) and the initial response to an infectious disease outbreak. IPC in routine health services was not initially a high priority in the epidemic response until the formation of the IPC Technical Committee.

[40] Among the 55 health facilities included in the target for this project, three are national hospitals with many separate services and units. During evaluations, smaller hospitals and health centers were assessed as a whole and received a single score (n = 52), but for the national hospitals, each service was assessed individually and results reported for each of 66 services or units of those three hospitals.

- **The Ministry of Public Health and partners should emphasize that IPC is an issue not only for epidemic response but also for routine quality of care.** Training and skills development need to be practical and set in a broader context of patient and provider safety and quality. The IPC committee observed that in areas where short trainings were very focused on EVD, improved practices were not maintained. Providers viewed these skills as specific to EVD, so if there were no longer cases in their area, they were no longer considered necessary. In addition, post-training follow-up is an integral aspect of ensuring continuing success in changing behaviors and improving IPC or any clinical domain.
- **The Ministry of Public Health should maintain a census of health care facility staff.** The ministry did not have an accurate census of the number of staff working in health facilities, so when the project began to provide training in some facilities, it was discovered that there were many more providers working there than initially reported.
- **IPC materials need to be considered in supply chain management.** Lack of materials for IPC puts providers and patients at risk when they are unable to put the existing guidelines into practice. Routine availability of IPC supplies was poor before the onset of the epidemic, and the limited supplies and donations that were coming in were prioritized for EVD treatment centers.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of staff in health facility who received IPC training	2,985 (target: 2,150; target exceeded)
Number of trained staff who received post-training follow-up supervision at 6 weeks and 3 months	2,582 providers received follow-up at their work sites. 86% of those trained (target: 2,150; target exceeded)
Percentage of staff trained on IPC who achieved a score of 85% or higher on knowledge tests during post-training follow-up supervision visits	91% (target: 100%; 91% achieved)

Guinea Ebola Response Phase II Summary & Results

Geographic Implementation Areas

Regions
- 3/8 (50%)—Boké, Faranah, Kankan

Prefectures
- 5/38 (13% of country total)—Boke, Dabola, Dinguiraye, Faranah, and Mandiana

Facilities
- 59/461 hospitals and health centers (13% of country total)
- 140 health posts and 50 private facilities

Population

Country
- 12.4 million

MCSP-supported areas
- 2.81 million

Technical Areas:

Program Dates

June 2, 2015–May 31, 2016

Total Funding through Life of Project

$2,400,000 (OFDA funding)

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	447,000
MMR (per 100,000 live births)[2]	550
NMR (per 1,000 live births)[2]	20
U5MR (per 1,000 live births)[2]	88
Births with SBA[2]	62.7%
CPR (modern and traditional methods)[2]	8.7%

Sources: [1] Countdown to 2030 country profile, 2016; [2] Guinea MICS 2016

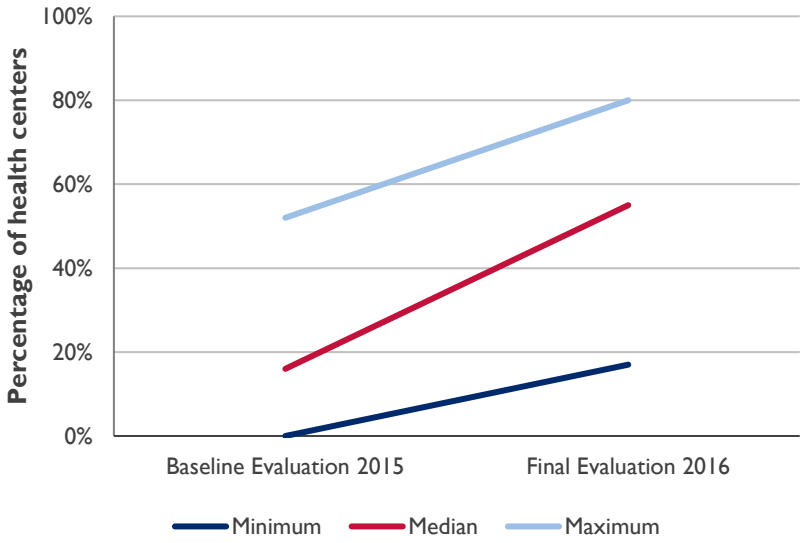
Strategic Objectives through the Life of Project

- Support health care workers and facilities to continue to offer high-quality health services in a safe environment by strengthening IPC practices through training, supportive supervision, materials donation, and monitoring.

Accomplishment Highlights through the Life of Project

- Provided IPC training to 1,345 staff in 249 health facilities in target prefectures.
- Donated IPC materials and consumables to the Ministry of Public Health facilities to support correct and consistent practice of IPC skills. This includes 29 autoclaves and seven incinerators, which were purchased and installed to support instrument processing and waste management.
- Ninety-four percent of health centers (51/54) improved IPC scores from baseline to final assessment (improving by at least one quartile), and six (11%) reached the 75% threshold of desired minimum performance. Among five hospitals that were assessed by service area, 36/48 of services improved IPC scores and 11 (23%) reached or exceeded the 75% threshold.

Figure 1. Evolution of IPC performance at health centers from baseline to final evaluation in Boké, Faranah, Dabola, Dinguiraye, and Mandiana



Guinea—Ebola Response Phase II

Background

The goal of the MCSP Ebola Response Project Phase II in Guinea was to scale up efforts to prevent and control the spread of the EVD and its effect on the quality of RMNCAH services. As requested by USAID Washington and the Mission, this work built on MCSP's previous Ebola Response Project Phase I, which focused on supporting health care workers and facilities to continue to offer high-quality health services in a safe environment by strengthening IPC practices through training, supportive supervision, and complementary M&E. A similar series of activities as the first project was laid out for this US Office of Foreign Disaster Assistance-funded project to increase knowledge and skills, improve service delivery conditions for correct and consistent IPC, and provide coaching and monitoring to help sustain improved practices. For more information on MCSP's response to Ebola, please see the project's brief.

Key Accomplishments

Provided Intensive Infection Prevention and Control Training

Before initiating IPC training in a prefecture, MCSP assessed IPC performance and the availability of key materials for IPC in each of its public hospitals and health centers. The assessment tool for IPC was based on a set of 32 performance standards that originate from the SBM-R methodology for QI. These same performance standards were used throughout the IPC training and for supportive supervision/coaching visits following training.

The MCSP Ebola Response Project Phase II provided intensive IPC training to 1,345 health care providers from 249 health care facilities across the five prefectures. Sixty-two providers also benefited from a 3-day training specifically on setting up and managing triage of patients seeking care at health facilities in Boké. Supervision and coaching visits to support continued IPC performance were conducted at all facilities and reached 78% of trained providers. In addition, 67 staff who were posted to the focus facilities after the training sessions received onsite orientations on IPC during supervision visits. MCSP also provided IPC orientation and coaching in local languages for 271 support staff members.

Procured and Supplied Necessary Infection Prevention and Control and Sanitation/Waste Management Equipment and Training

The availability and utilization of IPC inputs is one of the key pillars of an effective IPC program. As part of the support to these prefectures, MCSP donated IPC materials and consumables to the Ministry of Public Health facilities to support correct and consistent practice of the skills learned and reinforced during the IPC training. The donations included IPC products, personal protective equipment, and consumables, such as examination and sterile gloves, soap, masks, goggles, noncontact thermometers, and handwashing stations, as well as waste management materials, such as buckets for separating waste and used instruments, sharps boxes, trashcans and trash bags, mops, brooms, and chlorine powder. MCSP used these donations to advocate with the Ministry of Public Health and partners to ensure availability of IPC materials through the Ministry of Public Health supply chain so that providers would be able to continue good-quality IPC practice.

Based on the experience of the first phase of this project, waste management and sterilization of instruments were identified as clear gaps in improving IPC in many of the hospitals and high-volume health centers. Often, facilities have old autoclaves that no longer function or are too large for their electrical capacity. MCSP intentionally purchased smaller-capacity autoclaves of 24 L and 39 L that could be operated in these facilities. Nonelectric autoclaves that can be operated by heating them on a propane or compressed natural gas burner were provided to facilities where consistent electrical power is not available. Twenty-nine autoclaves were purchased and distributed to facilities supported by the first and second phases of this project. Nine of the autoclaves were donated to facilities targeted in this project specifically, including all of the public regional or prefectural hospitals.

Organized Routine Quality Assurance Visits and Coaching

For each health district in the project area, six to eight quality assurance coaches were selected from district management teams and health facilities based on their performance in IPC and their availability to monitor the application of hygiene measures. The organization of the coaching activities was coordinated by IPC focal points in larger facilities, department heads, health facility administrators, and members of the health and safety committee of each facility, with monitoring of implementation ensured by the pool of Ministry of Public Health trainers, MCSP staff, and local supervisors. Each facility received an average of two to three supervision visits during the 9-month project period to follow up on coaching activities, provide an external assessment of IPC performance, and give feedback on coaching and performance.

Conducted Infection Prevention and Control Performance Assessments

MCSP conducted baseline assessments in targeted health facilities using the Ministry of Public Health-approved performance standards for IPC to identify the current level of IPC performance and identify gaps to be addressed via training and onsite supportive supervision. The same performance standards were also used during supervision and coaching visits, and for final assessment of all sites. For hospitals, each service was assessed separately and a score generated per service, rather than for the facility as a whole.

Almost all health facilities (51/54, 94%) improved their IPC scores from baseline to final assessment (improving by at least 25 points on a 100-point scale), and six (11%) reached the 75% threshold of desired minimum performance. Among five hospitals that were assessed by service area, 36/48 of services improved IPC scores, and 11 (23%) reached or exceeded the 75% threshold. Several factors likely contributed to the variance in scores among different facilities and why some improved while others did not. The project was implemented in a compressed period, which did not allow for more than two to three coaching visits per facility, particularly in the four eastern prefectures. Training alone may not be sufficient to bring about the behavior change required for correct and consistent IPC performance, given previously poor habits, without additional onsite coaching to reinforce performance over time. Continual challenges with the availability of basic IPC materials, such as gloves and bleach for cleaning surfaces and instruments, are another possible contributing factor; facility managers did not necessarily have the habit or tools to assess IPC needs, and stocks at regional depots were often inadequate for demand.

Table 1. Summary of IPC scores by quartile for baseline and final assessments in health centers and hospital services

	Health Centers				Hospital Services			
	Baseline IPC Assessment		Final IPC Assessment		Baseline IPC Assessment		Final IPC Assessment	
	N = 54	%	N	%	N = 48	%	N	%
Score of 75% or higher	0	0%	6	11%	1	2%	11	23%
Score of 50–74%	1	2%	28	52%	7	15%	13	27%
Score of 25–49%	13	24%	19	35%	11	23%	17	35%
Score of 0–24%	39	72%	1	2%	28	58%	3	6%
Missing Data[1]	1	2%	0	0%	1	2%	4	8%

[1] Missing data due to inaccessibility of a health center because of impassable roads or no staff from a given service available during the assessment team's visit.

Recommendations for the Future

- **The Ministry of Public Health and partners must recognize that training alone is not sufficient and must be accompanied by the materials needed for service provision and onsite support for putting new skills into practice.** Training alone may not be sufficient to bring about the behavior change required for correct and consistent IPC performance, given previously poor habits and continual challenges with the availability of basic IPC materials, such as gloves and bleach for cleaning surfaces and

instruments. While the project was able to reach many providers and facilities in a short period of time, the behavior change for improved IPC appears to require ongoing coaching and supervision to bring about consistent improvement.

- **USAID should consider longer implementation timeframes, even in emergency response.** The project was unable to reach all trained providers with coaching visits due to the short implementation period and resources relative to the number of prefectures covered. If a provider was not present at the time of the visit, there may not have been another opportunity to follow up with him/her. (This project was originally planned for 6 months, which was the timeline used for training and coaching activities. The 6-month extension was requested to complete the installation of incinerators.)
- **The Ministry of Public Health should strengthen accountability at the health facility level.** This experience of working to strengthen IPC in health facilities highlights the need to identify measures to hold health personnel and managers accountable for basic health service functioning, with IPC as one of those basic elements. The project's efforts to train prefectural and facility managers as IPC coaches and feedback on results for managers are steps in this direction, but a formalized system of accountability is recommended to systematize these roles and responsibilities, promote readiness to prevent and respond to future epidemic diseases, and improve routine attention to quality of care in all health care facilities.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement**
Number/percentage of staff in health facility who receive IPC training	1,345 (100% of staff in 60 public facilities, target: 100%; target achieved)
Number of supportive supervision visits conducted on site	421 (target: 400; target exceeded)
Number/percentage of health facilities that have access to disinfecting agents (and sufficient quantity for at least 1 month)	95% in health centers, 76% in hospitals, (target: 100%; 95% and 76% achieved, respectively)

Guinea Health Systems Strengthening

Summary & Results

Geographic Implementation Areas

Regions

- 4/8 regions total (50%)—Boké, Conakry, Kindia, and Nzérékoré

Districts

- 20/38 total (53% of country total)

Population

Country

- 12.4 million

MCSP-supported areas

- 7.65 million

Technical Areas

Program Dates

March 1, 2016–June 30, 2018

Total Funding through Life of Project

$2,750,000 (Ebola funds—Pillar II)

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	447,000
MMR (per 100,000 live births)[2]	550
NMR (per 1,000 live births)[2]	20
SBA[2]	62.7%
CPR (modern and traditional)[2]	8.7%

Sources: [1] 2016, Countdown to 2030 country profile, GIN; [2] MICS 2016.

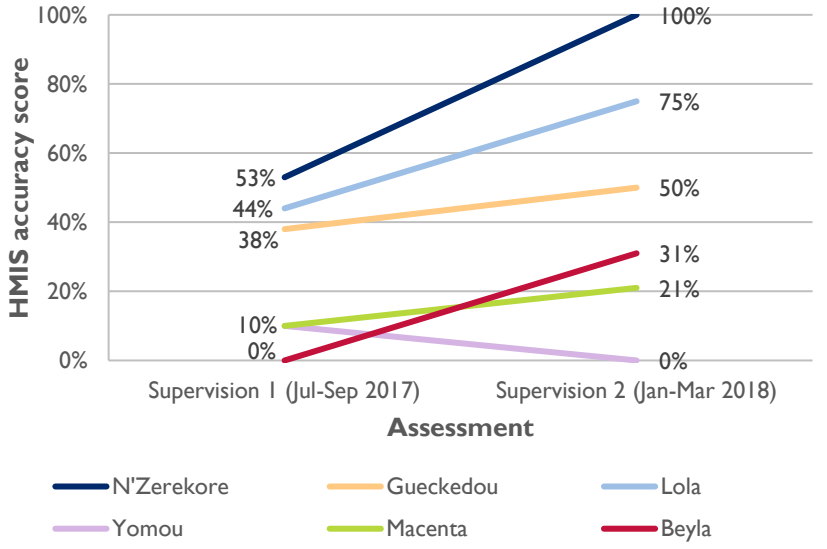
Strategic Objectives through the Life of Project

- Increase coverage and use of high-impact RMNCAH interventions and innovative new approaches.
- Strengthen MOH capacity to manage and scale up high-impact RMNCAH interventions.
- Institutionalize and integrate IPC protocols into the routine RMNCAH package.

Highlights through the Life of Project

- Supported the MOH to complete a census of and improve the functioning of incinerators. Fifty-one hospitals (81%) had a functioning incinerator at the end of the project, compared to 49% at the time of the census.
- Trained district management teams on stakeholder engagement, communication, and resource mobilization, resulting in 104 funding requests drafted, 84 submitted, and 43 funded across all districts.
- Supported 35 facilities using the QI methodology SBM-R, with eight facilities qualifying for recognition. By the end of the project, 50% of facilities were performing at the minimum desired level of 80% on EmONC, FP, and IPC standards.

Figure 1. HMIS data accuracy scores by prefecture in Nzérékoré



Guinea—Health Systems Strengthening

Key Accomplishments

The Ebola outbreak of 2014–2015 had a devastating effect on routine health services in Guinea, especially those related to RMNCAH. Guinea's already weak health system was at a near standstill due to a lack of regular monitoring and supervision, a devastating loss of health workers, and fear by the community to seek services in health facilities. Per the request of USAID Washington and the Mission in Guinea, MCSP's HSS program was the fourth and final Ebola-related project funded through the project and the second country program to focus specifically on post-epidemic recovery and building resilience. The HSS program, which started in March 2016 with Pillar II Ebola Response and Recovery[41] funding, was designed to link the facility-level achievements of the earlier Restoration of Health Services program with health systems-level efforts to reinforce and sustain the management and coordination of improved RMNCAH services. These two programs were planned and monitored in close coordination with USAID's Global Health Ebola Team, which was tasked with overseeing the implementation of the health components of the Ebola Response and Recovery funding.

Improved Infection Prevention and Control and Waste Management

To continue the momentum toward strengthening IPC that was created by the EVD epidemic and post-epidemic recovery, MCSP supported printing costs and orientation sessions for the dissemination of IPC policy documents, which included standards and procedures and a monitoring framework. The policy documents were updated and validated under the Restoration of Health Services project and with funds from the CDC, with this project completing the final step of dissemination. To assist health schools and the faculty of medicine to integrate the new IPC policy, the project supported the development of the IPC curriculum and detailed plans to integrate IPC into PSE for nurses, midwives, and doctors. The project also successfully advocated for the integration of IPC specifications in the revised and validated reproductive health norms and protocols in late 2016. Under the auspices of the MOH, MCSP's HSS program in Guinea provided technical support to the IPC cluster (WHO, MCSP, Expertise France, Catholic Relief Services, and others) to reinvigorate its functioning for continued coordination of IPC and waste management inputs. As a result of these policy- and coordination-level activities, MOH priorities are well articulated and can help to generate financial and technical partner contributions. The IPC standards and procedures also serve to clarify expectations of health care providers as a means to promote accountability for correct and consistent IPC.

Several months into the project, funds were added to focus on improving waste management in MOH facilities. MCSP, in collaboration with IPC cluster partners and the MOH, mapped existing incinerators and their current functioning across the country. Of 63 incinerators identified primarily at hospitals and a few urban health centers, 31 (49%) were in good, working condition. This included seven that were donated and installed by the Office of Foreign Disaster Assistance-funded MCSP IPC 2 project. Among incinerators not functioning at the time of the assessment, some only had minor, repairable problems and/or lacked maintenance. Twelve incinerators donated by another donor during the Ebola epidemic were found at hospitals but had never been installed or put into service. Based on these findings, WHO led a program to repair nonfunctional incinerators with partner support. With MCSP's support, three incinerators that had been donated but never installed were made functional at Mamou Regional Hospital, Labe Regional Hospital, and the temporary annex to the Donka National Hospital at Camp Boiro in Conakry. By the end of the project, 51 hospitals (81%) had functioning incinerators.

Further, MCSP revitalized 23 hygiene and safety committees in three regional hospitals, 14 prefectural hospitals, and six communal medical centers. On average, the project oriented 20 members per health care facility on their roles and responsibilities in overseeing IPC, and developed action plans to implement routine monitoring and formulate corrective actions for performance gaps. By the end of the project, 65% of hygiene and safety committees were meeting regularly to review IPC performance and implementation of their action

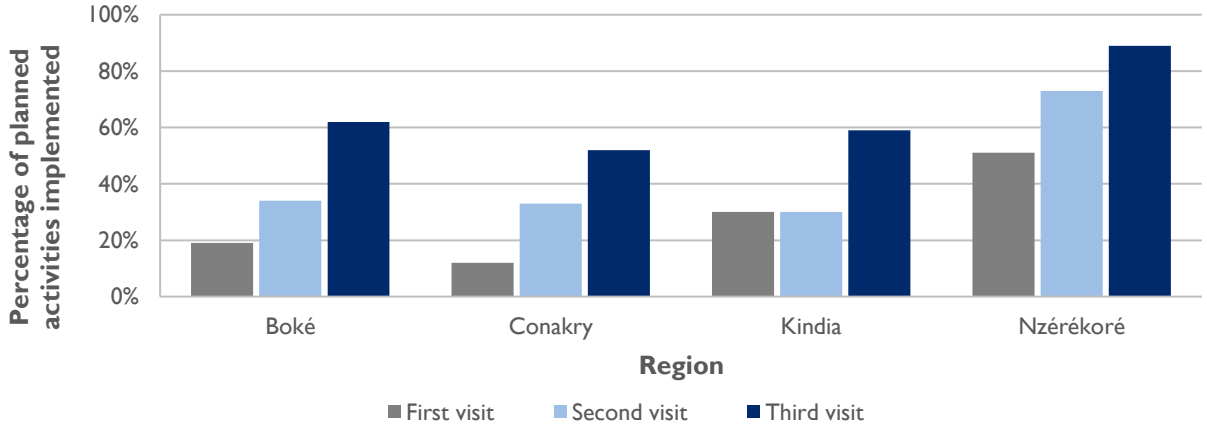
[41] In response to the epidemic, USAID developed a four-pillar strategy to address EVD: Pillar I – Control the outbreak; Pillar II – Recover from second-order impacts of EVD; Pillar III – Build coherent leadership and operations; and Pillar IV – Strengthen global health security in sub-Saharan Africa.

plans. This included reviewing budgets, establishing IPC focal points in each service, monitoring biomedical waste collection and incineration, orienting trainees on IPC procedures, and preparing IPC procurement requests for different departments within the facility. MCSP and other partners funded requests received from the hygiene and safety committees, such as to clean out the septic tanks at four hospitals in Nzérékoré so that toilet and wastewater management could be made functional again.

Implemented a Comprehensive Approach to Health Systems Management

A rapid situational analysis according to the six determinants of the health care system helped to identify strengths and limitations to tailor capacity-building of health managers. This was followed by implementation of the Comprehensive Approach to Health Systems Management for 20 district health teams to identify and analyze challenges, their root causes, and local resources to leverage, and to integrate corrective actions into district teams' annual work plans. Building on the districts' action plans, MCSP built the capacity of 22 district health teams on stakeholder engagement, communication, and resource mobilization, resulting in 104 funding requests drafted, 84 submitted, and 43 funded by a range of local resources and development partners across all districts. Further, during the three quarterly visits that were made during the project, the teams noticed a strong improvement in the implementation of planned activities to solve the priority problems. Overall, the rate of achievement of activities and that of the resolution of priority problems increased from 36% at the first visit to 76% at the third visit. Figure 2 shows the scores by region.

Figure 2. Evolution of the implementation rate of planned Comprehensive Approach to Health Systems Management activities per region



MCSP was able to institutionalize the Comprehensive Approach to Health Systems Management by integrating the tools into the national guidance for annual planning at all levels of the health system (national, regional, district, and facility). MCSP did this at the request of and in close collaboration with the MOH's Bureau of Strategy and Development. As a result of these efforts, prefecture health management teams are now able to better analyze and prioritize local needs in their annual plans.

Provided Quality Assurance Using the Standards-Based Management and Recognition Approach

Since 2012, following a review of the QI processes in Guinea at the time, the MOH expressed its wish to implement the SBM-R methodology nationally. At the end of MCHIP in 2014, 48 health care facilities were using the SBM-R process. MCSP's activities were designed to continue supporting 35 health facilities in the project area (three of the four regions; SBM-R was not previously introduced in Boké) that had been using the process and to reinforce its use in the post-Ebola service restoration period. Building on the Restoration of Health Services work to reinvigorate this QI approach in facilities, MCSP worked at the national and regional levels in Guinea to reinvigorate the external monitoring components of SBM-R. As a result of monitoring the 35 SBM-R sites in the focus regions along with nine validation assessments, eight facilities were successfully validated for recognition of good-quality performance, and three earned a second recognition level developed by the project. The performance level for recognition is 80% across the three core domains of EmONC, FP, and IPC. For the second recognition level, the global score must be above

85%, including some additional service delivery indicators that were added to the performance standards. Financial and technical support (including obtaining donations from partners and communities) for six recognition ceremonies was provided. The recognition ceremonies are a valuable step to engage communities and local government to acknowledge the work of health care providers and motivate providers to maintain quality care. Overall, of the 30 facilities assessed at the end of the project, 50% were performing at the minimum desired level according to the MOH (75–85% depending on domain).

Similar to facilities, whose performance declined during the EVD epidemic, the national SBM-R committee was not functioning well by the end of the epidemic. MCSP advocated with the MOH to reinvigorate the functioning of the national SBM-R committee and also engaged at the national level on the review and prioritization of quality assurance methods and tools in use in Guinea. The issue of the national committee was not entirely resolved by the end of the project, but was an ongoing point of discussion with all partners engaged in QI/quality assurance. Similarly, to reinvigorate regional and prefectural supervisors' use of SBM-R, 21 supervisors were trained on coaching and monitoring using the approach. These trainers/supervisors later went on to support the extension of SBM-R to new facilities under the new bilateral USAID Health Service Delivery project.

Provided Support to Strengthen the Health Information System

MCSP provided technical assistance to the Bureau of Strategy and Development in collaboration with partners (i.e., MEASURE Evaluation and Catholic Relief Services) for configuration of the new DHIS2 platform, including a data validation manual. MCSP contributed a service delivery-level perspective to the revision of data collection tools and the development of training modules for dissemination of new indicators and tools. The project also supported the management and analysis of data through joint periodic supervision visits by the district management teams and regional-level data reviews. As a result of these efforts, data reporting rates were high for three of four quarters but were beginning to slip at the end of the project while some new configuration was underway. Data accuracy assessments for the six prefectures of Nzérékoré saw good improvements in accuracy among the health centers in five of the six prefectures (see Figure 1).

Recommendations for the Future

Despite the limited timeframe, MCSP was able to contribute to several national- and health manager-level initiatives in support of post-Ebola recovery and to establishing a health system that is better prepared to respond to shocks. MCSP's recommendations to the MOH, USAID, and partners include:

- **Continue to support the Comprehensive Approach to strengthen district health management.** Integration of the methodology and tools into the guidance for annual planning has set this up to continue. Since the end of MCSP, the in-country staff who led this work have been asked on several occasions to provide technical assistance to orient national managers on the tools and facilitate the training in new regions. The MOH and partners should encourage the ongoing use of the improved annual planning tools.
- **Provide support for supply chain management and/or installation and maintenance.** The assessment of incinerators highlighted the ongoing development challenge of donating goods without ensuring they are functional and can be maintained. MCSP worked with the MOH and IPC partners to provide support for installation and repairs, and to develop technical resources for incinerator maintenance. There is still a need to develop guidance on planning and budgeting for recurring costs of waste management, as well as to advocate with national-level authorities to include these costs in national budgeting and requests to donors.
- **Prioritize IPC for future projects with longer implementation times.** The short project periods for post-Ebola recovery were not always conducive to sustained change. Behavior change for improved IPC practices remains challenging, as does enlisting managers and hygiene and safety committees to play a role in monitoring IPC and holding staff accountable. MCSP tried to work at many different levels, from policy to skills updates and coaching of providers and managers, to change this behavior, but the results are still difficult to see in terms of sustained performance. The series of short MCSP projects addressing Ebola response and post-Ebola recovery were not always able to link support for IPC performance to

tackle the issues of ongoing monitoring and accountability. It was fortunate that MCSP was an active award across both acute response and post-epidemic, and was able to call on the same group of technical experts, but the short-term nature of epidemic response and recovery funding did not always prioritize synergies from one project to the next. IPC should continue to be a priority for health development assistance beyond immediate epidemic response and post-epidemic recovery, as it is a foundational element of quality care and of health system functioning.

- **Foster collaboration and opportunities to link USG-funded initiatives and projects.** The opportunity for MCSP to collaborate with MEASURE Evaluation on the DHIS2 rollout is an example of an important link between two USG-funded initiatives. MEASURE's mandate was largely at the national level, and MCSP was able to facilitate the rollout to regions and districts. As a global award focused on RMNCAH, and experienced with documentation and data use at the service delivery level, MCSP had much to contribute to the discussions of indicators and challenges with data quality and reporting that originated at the facility level.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of SBM-R facilities achieving the minimum standards of performance as defined by the MOH	50% (target: 60%; 83% achieved)
Number of health districts implementing the Comprehensive Approach to Health Systems Management	22 (target: 20; target exceeded)
Percentage of health districts that have resolved at least 50% of problems identified with the Comprehensive Approach to Health Systems Management	77% (target: 80%; 96% achieved)
Number of health facilities that have functioning incinerators or waste pit	84 (51 incinerators and 33 waste pits; target: 55; target exceeded)

Guinea Restoration of Health Services

Summary & Results

Geographic Implementation Areas

Regions
- 4/8 (50% of country total)—Boké, Conakry, Kindia, Nzérékoré

Prefectures
- 20/38 (53%)

Facilities
- 26/44 (59%) hospitals
- 195/404 (48%) health centers

Population

Country
- 12.4 million

MCSP-supported areas
- 7.65 million

Technical Areas:

Program Dates

July 1, 2015–December 31, 2016

Total Funding through Life of Project

$4,000,000 (Ebola funds—Pillar II)

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	447,000
MMR (per 100,000 live births)[2]	550
NMR (per 1,000 live births)[2]	20
U5MR (per 1,000 live births)[2]	88
SBA[2]	62.7%
CPR (modern and traditional methods)[2]	8.7%

Source: [1] Countdown to 2030 country profile, 2016; [2] Guinea MICS 2016

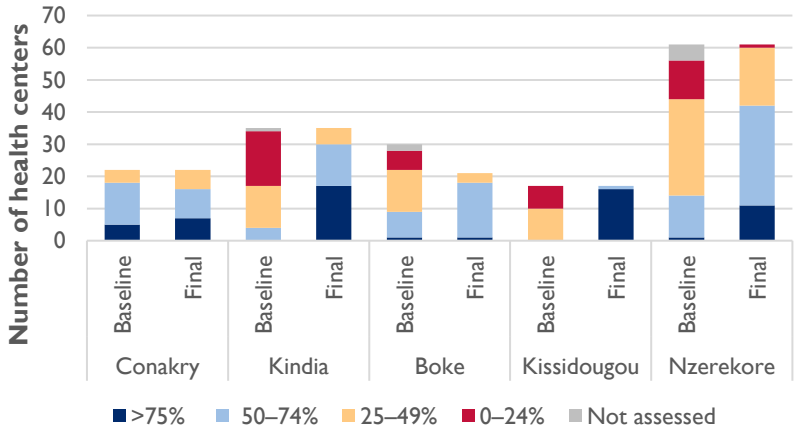
Strategic Objectives through the Life of Project

- Expand integrated and high-quality MNCH services to additional health facilities and communities, building upon the platform of previous USAID-supported work through MCSP and MCHIP, and responding to the impact of the Ebola outbreak.
- Strengthen service delivery for quality EmONC, FP, and IMNCI.
- Create a favorable health care environment and demand in collaboration with the Health Communication Capacity Collaborative.
- Facilitate community engagement in collaboration with the Health Communication Capacity Collaborative.

Highlights through the Life of Project

- Helped providers and managers to improve IPC in almost all facilities, with 46% of health facilities/services meeting the desired minimum performance of 75% of IPC standards, compared to only 5% at baseline.
- Contributed to improved treatment of severe pre-eclampsia and eclampsia with magnesium sulfate from 79% in the first quarter to 97% in the last quarter, and an increase in the monthly average of deliveries from 2,487 before the project to 6,242 in the last quarter of 2016.
- Reinforced of the management of childhood illness by providers and CHWs in three districts, contributing to an increase in cases of pneumonia treated from an average of 328 per month to 2,052 per month.
- Reinvigorated community-based service delivery by training/refreshing 692 CHWs in collaboration with their supervisors, contributing 100,831 group educational sessions that reached 528,728 people.

Figure 1. IPC score distribution for health centers at baseline and final assessment by region



Guinea—Restoration of Health Services

Background

MCSP was requested by USAID Washington and the Mission to develop and implement several projects to reinforce IPC in health care facilities and to assist the MOH to restore confidence in and use of health services as a means to contribute to the response to the EVD epidemic in Guinea and the severe effects on health services, including increased risks for health care providers. This report presents the Restoration of Health Services project, which operated from July 2015 to December 2016 and was designed to address the second-order impacts of the EVD epidemic in Guinea (Pillar 2), specifically the restoration of critical non-Ebola health services. The project was funded with resources from the Ebola Response and Preparedness Fund, and the support of the Global Health Ebola Team.

Interventions were concentrated in geographic areas most impacted by the EVD epidemic. These impacts included high numbers of EVD cases and deaths; loss of health care workers to EVD, transfers, and mobilization for the EVD response; and dramatic reductions in health service utilization for routine preventive care and treatment, such as ANC and delivery for pregnant women, FP, and treatment of diarrheal disease, malaria, and other communicable diseases. Community-based health information and services were also impacted by the mobilization of CHWs to support EVD surveillance, contact tracing, and monitoring, and community awareness building.

Key Accomplishments

Supported Consistent and Correct Infection Prevention and Control Practices

MCSP provided institutional support for updating policies, delivering supportive supervision and coaching for sustained performance of IPC, training health care providers on IPC, providing IPC materials and supplies, rehabilitating facility infrastructure, building the capacity of health and safety committees, and monitoring IPC performance on an ongoing basis. Key accomplishments include training 49 supervisors and coaches on IPC, who, along with IPC trainers, carried out 519 facility visits for IPC coaching across the 221 facilities in the project zone. These visits allowed for 9,468 coaching contacts with health care workers and 1,366 contacts with support staff. Ninety-nine health care providers from 26 facilities received training on IPC in Dubreka district, which was fortunate not to have experienced cases of EVD but also had not received prior support to strengthen IPC.

MCSP worked with 143 health and safety committee members across 10 hospitals to reinforce their capacity to monitor and manage IPC performance. The project also supported minor rehabilitation at three hospitals in the project zone, based on findings from a baseline assessment of service functioning. Repairs focused on access to and storage of water; repair of toilets; and backup solar electricity for labor and delivery rooms, postpartum observation, and operating rooms, where maintaining IPC practices is essential for 24-hour availability of lifesaving services. The three hospitals included the regional hospitals in Kindia and Boké and the prefectural hospital in Dubreka.

Periodic assessments were conducted over the life of the project with feedback provided to staff. MCSP observed a decrease in IPC performance at the end of 2015, when the end of the EVD epidemic was declared in Guinea. Supervision and coaching visits helped address some of the fluctuation in performance levels, but changing behavior in IPC practices remains a fundamental challenge for health systems due to the challenges in changing behavior and ensuring consistent availability of IPC supplies, water, and power for instrument sterilization and waste management. Performance rates improved in almost all health facilities, with 46% of health facilities/services meeting the desired minimum performance of 75% of IPC standards, compared to only 5% at baseline. In addition, 34% of facilities were performing between 50% and 74% versus 22% at baseline. The percentage of health facilities/services with less than 50% achievement of IPC performance standards decreased from 70% to 19% between the initial and final evaluation (see Figure 1).

Improved Quality of RMNCAH Using the Standards-Based Management and Recognition Methodology

MCSP worked to reinvigorate and maintain the use of the nationally adopted SBM-R QI methodology. Focusing on facilities where this process had been introduced by previous USAID-funded projects—ACCESS-FP and MCHIP—MCSP carried out a review of current performance and presence of trained SBM-R team members to determine needs. Forty-five providers and supervisors from 15 facilities received orientations on the process to reinvigorate the SBM-R teams. Fifty supervision visits were carried out to support SBM-R reaching each of the 35 targeted facilities at least once. MCSP worked closely with the Health Communication Capacity Collaborative project, also funded by the USAID Global Health Ebola Team, and focused on communications and behavior change activities to integrate its Shining Star QI model with SBM-R. In particular, Shining Star's communication tools increased information available to communities surrounding the facilities receiving recognition.

The target of 80% of the sites achieving or maintaining overall performance was not reached, as only 21 of 35 health facilities (60%) were able to improve or sustain performance with the support of the project. Of these 21 SBM-R sites, eight are at the level of recognition with an average score of 80% across the three core domains of IPC, FP, and maternity care. Thirteen sites improved their performance from baseline to the end of the project, while 14 did not register improvements in the overall score. This was an ambitious target for 18 months, given the sharp decline in quality and utilization compared to before the epidemic and the multitude of activities taking place in these prefectures post-Ebola to attempt to restore health care services and community trust. Competing activities, from protests against the government to national vaccination days, disrupted planned activities multiple times throughout the project.

Increased Availability and Improved Quality of Maternal and Newborn Health Services

Activities to strengthen the availability of MNH services focused on training, post-training follow-up, and supervision, as well as the provision of medical materials, such as instruments and minor equipment, to focus facilities. A total of 19 of 25 hospitals (76%) and 195 of 195 health centers (100%) benefited from MCSP support to improve the availability of services for pregnant women and newborns. Basic and comprehensive EmONC trainings were offered depending on the level of the facility, with 239 providers completing the competency-based trainings. MCSP adapted the traditional 12-day BEmONC course into a series of three shorter modules for providers from rural health centers. This adaptation was designed to reduce the extended absence of staff from the facility and allow for more practice between modules for skills mastery. The baseline skills of many providers in rural health centers was lower than that of staff in hospitals and urban health centers. To validate skills acquisition and help providers transfer learning to implementation at their work sites, trainers conducted post-training follow-up 1–2 months after training, reaching 84% of trained providers in their work sites.

Using the skills acquired and reinforced during training and post-training follow-up visit and supervision, treatment of severe pre-eclampsia and eclampsia with magnesium sulfate increased from 79% in the first quarter of the project period to 97% in the last quarter. The number of assisted deliveries increased from a monthly average of 2,487 deliveries in the project area (before interventions) to 6,242 in the last quarter of 2016. Improved application of active management of the third stage labor with oxytocin likely contributed to the reduction in cases of PPH from 2.3% in January–March 2016 to 0.8% in October–December 2016, even as the number of deliveries in facilities was increasing.

In addition to the focus on BEmONC, MCSP developed a new training approach to expand the number of providers capable of providing counseling on FP and voluntary access to methods in the immediate postpartum period. Building on efforts to expand access to PPFP under MCHIP, MCSP adapted training materials into a series of smaller modules that can be completed on the job with support of a trainer. The self-directed course consisted of 28 modules and could be completed in a minimum of 1 month, but it often extended out over an average of 3 months. While traditional training programs pick a few staff per facility to be trained, this approach trained all staff in large-volume facilities to offer PPFP counseling across ANC and maternity services. Trainers were selected from trained staff working in the facility and oriented on the individualized, onsite training approach. Twenty-eight trainers at 18 facilities guided 150 providers through

the course, and by December 2016, 129 (86%) had completed all course modules, and 111 (74%) providers had been qualified by an external assessment.

Increased Availability and Improved Quality of Integrated Management of Childhood Illness Services in Facilities

MCSP also worked to reinforce the management of childhood illness beginning with training of a pool of 17 IMCI trainers, who went on to train 177 providers from health centers and health posts in three districts. Trained providers were provided with job aids, management tools/monthly report templates, and the IMCI reference booklet for the care of the sick child. MCSP also responded to a request from the national IMCI program to support supervision in three districts that did not have support of other partners.

Cases of treated pneumonia increased from an average of 328 per month in October–December 2015 to 2,052 per month during the same period in 2016. Treatment for diarrhea also increased, from an average of 114 cases per month in the last quarter of 2015 to 191 cases per month for the last quarter of 2016. In all, 97% of all reported cases of pneumonia and 96% of cases of diarrhea were treated in health facilities.

Reinvigorated Community Health Worker Performance through Community-Focused Interventions

MCSP and MOH trainers trained 682 CHWs in the project area (97% of target), 561 of whom were trained on the integrated curriculum of community services and health messages, and 121 on the dissemination of MNCH/FP/IMNCI/postabortion care messages alone. MCSP worked closely with the district-level community health supervisors and community educators of local NGOs to strengthen their capacity to facilitate CHW monitoring and supervision. Training on supportive supervision of CHWs reached 106 district-level community health supervisors and NGO educators, with 21 trained as trainers for the CHW curriculum. Eighty-five percent (579/682) of new CHWs were reached during post-training visits across all prefectures. CHWs contributed to the conduct of 100,831 group educational sessions that reached 528,728 people (not disaggregated by CHW and provider-led sessions).

Also at the community level, MCSP introduced the community action cycle to assist communities to better understand beliefs and practices related to Ebola and health care seeking. Twenty-four facilitators, including regional health managers and members of community organizations, were trained on the community action cycle and knowledge of community health policies, strategies, and protocols in order to align with national priorities. MCSP was able to provide only the first step in the development of community mobilization teams, in part due to the fact the USAID-funded Health Communication Capacity Collaborative project was also engaged with communities. MCSP therefore put more effort into coordinating with the Health Communication Capacity Collaborative than implementing this process as originally planned. At the national level, MCSP provided technical support to several meetings to review the revised community mobilization strategy document and prepare it for submission to the MOH for validation.

Recommendations for the Future

Based on the lessons learned from the Restoration of Health Services program, MCSP recommends the following for future HSS, IPC, and other projects in Guinea:

- **Carefully consider the timing of post-epidemic recovery interventions supported by USAID and other donors.** Integration of Restoration of Health Services and HSS funding can provide an opportunity for better results/impact than implementation of sequential/independent activities. Restoration of services following an epidemic or emergency depends strongly on functional health systems, while system improvements can result in improvements in health care services when program linkages exist.
- **Prioritize IPC as a fundamental determinant of the quality and safety of health services.** Weaknesses in IPC in health facilities were quickly exploited and exposed by the Ebola virus, and they help to clarify that we should not wait until a potentially epidemic disease is upon us to address fundamental aspects of health care safety and quality. Investments from the MOH and other partners

toward improving IPC from the policy level to the lowest-level facility during an epidemic presents an opportunity to improve attention given to this aspect of health care quality, from protocols and practices of providers and support staff, to consistent budgeting and logistics to ensure supply of commodities.

- **Do not cease behavior change efforts to improve IPC with the post-Ebola response.** Training is not enough, and repeated coaching and supervision were not always enough either. Changing norms and expectations among providers and managers is needed to achieve sustained high-quality IPC performance. Accountability and provider perception of risk remain weak and in need of further exploration of how to improve this in low-resource settings. This was evidenced by the decline in IPC performance after the end of the outbreak (e.g., hand hygiene, triage) because of reduced perception of risk and inconsistent availability of IPC supplies as partner support for materials ended.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people trained (health care workers, CHWs)	701 health care workers (target: 350; target exceeded)[1] 682 CHWs (target: 700; 97% achieved)
Number of group educational sessions conducted	100,831 (target: 16,000; target exceeded)[2]
Number of people reached by education sessions	528,728 (target: 128,000; target exceeded)
Number of consultations at health facilities	January–June 2016: 795,495 (5% increase from same period in 2015; no target identified) July–December 2016: 777,026 (16% increase from same period in 2015; no target identified)
Number of women delivering with assistance of a SBA	118,279 (target: 60,000; target exceeded)

[1] The number of health care workers trained was higher than expected because of change in target for IMNCI training and modular BEmONC training for rural health center staff.
[2] Underestimate of original target, as presence of CHWs unknown before project start and access to communities was rapidly changing as the EVD epidemic neared its end.

Haiti *Services de Santé de Qualité pour Haiti* Summary & Results

Geographic Implementation Areas

Regions
- 10/10 (100%)

Districts
- 64/145 (44%)

Facilities
- 164/966 (17%)
- 2 health posts

Population

Country
- 10.8 million

MCSP-supported areas
- 5.10 million

Technical Areas

Program Dates

August 1, 2014–January 31, 2018

Total Funding through Life of Project

$73,892,711

Demographic and Health Indicators

Indicator	# or %
HIV prevalence[1]	2%
MMR (per 100,000 live births)[3]	529
NMR (per 1,000 live births)[2]	32
U5MR (per 1,000 live births)[3]	81
TFR[1]	3.0
CPR (modern)[1]	32%
SBA delivery[2]	42%
Children between 12 and 23 months receiving DPT3 [2]	55%
ANC4+[2]	67%

Sources: [1] WHO statistics, 2013; [2] UNICEF statistics, 2013; [3] UNICEF, WHO, et al. Levels and Trends in Child Mortality, 2015.

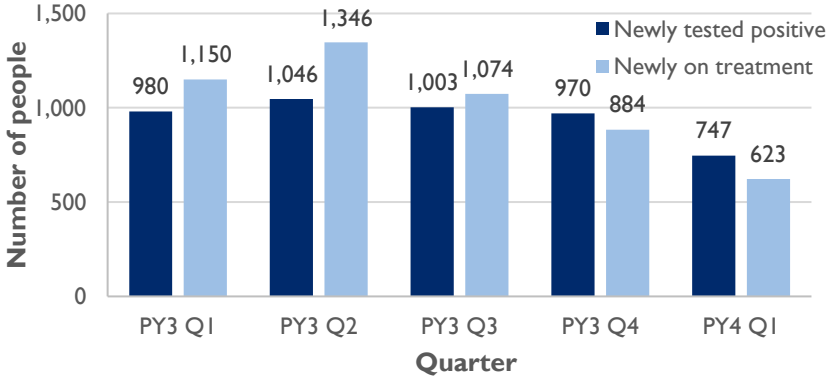
Strategic Objectives through the Life of Project

- Increase utilization of the Ministry of Public Health and Population integrated package of services at the primary care and community levels.
- Improve the functionality of the USG-supported health referral networks.
- Facilitate sustainable delivery of high-quality health services through the institutionalization of management practices at the facility and community levels.
- Strengthen departmental health authorities' capacity to manage and monitor service delivery.
- Provide technical assistance to the Ministry of Public Health and Population to create an enabling national policy and coordination environment for improved RMNCH.

Highlights through the Life of Project

- Strengthened the capacity of health centers to offer PPFP, LARCs, and permanent methods, through which 419,288 couple years of protection were provided between October 2016 and September 2017.
- Established three national training centers to increase the capacity of the national RMNCAH training system to support the development of a trained health provider workforce.
- Introduced a mobile clinic approach to provide HIV testing and treatment, which were previously unattainable for more remote communities.
- Tested 717,010 individuals for HIV and put 11,643 new patients on antiretroviral therapy (ART); 12,027 patients are currently on ART in project-supported facilities (Figure 1).

Figure 1. Number of people newly tested HIV-positive and newly on antiretroviral therapy



Haïti—*Services de Santé de Qualité pour Haïti*

Background

MCSP's work in Haiti began with the Ending Preventable Child and Maternal Deaths program in August 2014. In 2015, USAID requested that MCSP add the *Services de Santé de Qualité pour Haiti* (Quality Services for Haiti) Nord program to its portfolio of activities for a 13-month bridging period. In 2016, USAID requested MCSP Haiti integrate the *Services de Santé de Qualité pour Haiti*-Centre/Sud program with the *Services de Santé de Qualité pour Haiti*-Nord and Ending Preventable Child and Maternal Deaths activities to form a unified MCSP program through December 2017, which expanded MCSP coverage from four departments to all 10, facility coverage from 84 to 164 facilities, and subawards from 13 to 32. Over the course of the project, MCSP strengthened health service delivery at all levels of the health system, updated national clinical standards, built capacity for leadership and governance at the central and departmental levels, and increased quality services at community and facility levels. Below is a summary of MCSP's most meaningful and high-level achievements that resulted from MCSP's work in Haiti.

Key Accomplishments

Improved Coverage and Quality of RMNCAH Services

MCSP worked through national TWGs to adapt and introduce new guidelines, standards, and policies for cervical cancer prevention (CECAP), MNH, PPFP, EmONC, iCCM, IMCI, Zika, and maternal death surveillance and response guidelines. MCSP supported the Ministry of Public Health and Population to implement high-impact interventions aimed at reducing maternal and newborn morbidity and mortality at facility and community levels, with a strong focus on improving quality of care. MCSP used a decentralized and innovative training approach consisting of classroom trainings coupled with LDHF mentoring and supportive supervision to increase use of an integrated package of services at the primary care and community levels. Limited opportunities for in-service training and on-the-job coaching are a challenge in Haiti's health care system. To address this, MCSP established three national training centers as subgrantees at three major hospitals in the north, center, and south of Haiti to provide free capacity-building to health providers. Each of these facilities identified a team of obstetrician-gynecologists, nurses, midwives, and anesthesiologists who trained health workers in various MNH topics.

To encourage institutional deliveries and meet population needs, MCSP motivated polyvalent community health agents and traditional birth attendants to serve as companions and encourage women to seek facility births. The rate of institutional delivery at MCSP sites increased from 10% to 20% during the year of program implementation. MCSP also increased the rate of women attending at least three ANC visits by 15% in 2015 to 39% in 2017 and piloted a feasibility study of misoprostol for PPH prevention at the community level, which found that 79% of study participants used misoprostol effectively and that this lifesaving intervention is feasible for home birth implementation in Haiti. In addition, MCSP initiated the development of maternal death surveillance and response committees at nine facilities across Haiti to review cases of maternal death and propose systemic improvements. These efforts led to the establishment of community maternal health teams and targeted redistribution of nursing teams in certain facilities. (For more information, see MCSP's program brief on MNH.)

Expanded and Improved Family Planning Counseling and Services

MCSP's FP work in Haiti addressed significant challenges facing the country by working toward two primary objectives. First, the project ensured that all 166 MCSP-supported sites that provided FP services were compliant with the USG FP regulations, which include voluntary uptake of FP services based on full and comprehensible information without incentives, targets, or coercion. Second, MCSP supported improving knowledge among women, men, and youth about FP options, and increasing access and use of FP methods, especially LARCs and permanent methods. MCSP strengthened the capacity of 17 health centers to offer PPFP and 27 health centers to offer LARCs and permanent methods. Through this effort, MCSP-supported sites provided 419,288 couple years of protection between October 2016 and September 2017 through various FP methods and by counseling and referring clients for LARCs and permanent methods. MCSP also strengthened the capacity of the Ministry of Public Health and Population's departmental health directorates

by creating, organizing, and training members of designated mobile team units to support regular mobile clinics in six of the 10 regions in the country. This resulted in the increased availability of and access to high-quality FP services for LARCs and permanent methods of FP for women and men living in rural Haiti. (For more information, see MCSP's program brief on FP.)

Strengthened the Routine Immunization System

In Haiti, only 28.4% of children are fully vaccinated by 1 year old. This low vaccination rate is due in part to the inaccessibility to services for those in rural areas and to regular stock-outs of key vaccines and supplies. MCSP worked with UNICEF to strengthen the RI system by improving the vaccine supply and cold chain. Over the life of project, the rates improved from 72% to 91%. In conjunction with immunization efforts, MCSP focused on child health activities, including the expansion and scale-up of IMCI. The IMCI national strategy was rolled out in 2014, and MCSP supported extensive capacity-building to trainers at national level on the new IMCI protocols. MCSP developed customized IMCI and iCCM trainings and forms to supplement national standardized forms throughout the MCSP network to accelerate the rollout.

Implemented Targeted Testing and 'Test and Start' at Health Centers

In 2012, the HIV prevalence in Haiti was reported at 2.2%. The principal strategies undertaken by MCSP to work toward the 90-90-90 Joint United Nations Programme on HIV and AIDS goals were targeted testing and the implementation of "Test and Start" at HIV sites (46/164 health centers). These new approaches were supported by the Ministry of Public Health and Population and rigorously introduced by MCSP through a comprehensive capacity-building approach. They resulted in identifying a higher percentage of people living with HIV (PLHIV) when conducting HIV testing and ensuring the majority of PLHIV started on treatment immediately following a positive test result. Over the course of the project (PY1–PY4 Q1), MCSP tested 717,010 individuals and started 7,196 new patients on ART. Substantial efforts were made to bring clients lost to follow-up back into care and to maintain newly enrolled clients on lifelong ART. MCSP developed tracking tools to collect data via polyvalent community health agents and peer educators, trained and mobilized peer educators to trace and relocate clients lost to follow-up, and supported peer educator distribution of ART and multimonth scripting. At the health facility, MCSP introduced biometric equipment linked to electronic medical records in 36 of 42 sites supported for ARTs, which allowed clients to be registered and receive point-of-care services in multiple sites. In addition, MCSP installed viral load testing in all 42 sites and developed a tool that allowed for better monitoring of viral suppression and improved clinical guidance. (For more information, see MCSP's program brief on HIV/TB.)

Introduced HealthQual to Track Service Quality

MCSP implemented HealthQual, a QI methodology that, in Haiti, is applied in the public-sector system to assess and improve quality of services at MCSP- and US President's Emergency Plan for AIDS Relief-supported sites. MCSP conducted a HealthQual organizational assessment for 42 sites, followed by HealthQual training for coaches. MCSP trained 50 coaches in HealthQual to improve the quality of facility-level health services. All certified coaches assisted these sites in establishing QI committees that developed and executed site QI plans focusing on areas of low performance. The QI plans are available on the national monitoring, evaluation, and surveillance database.

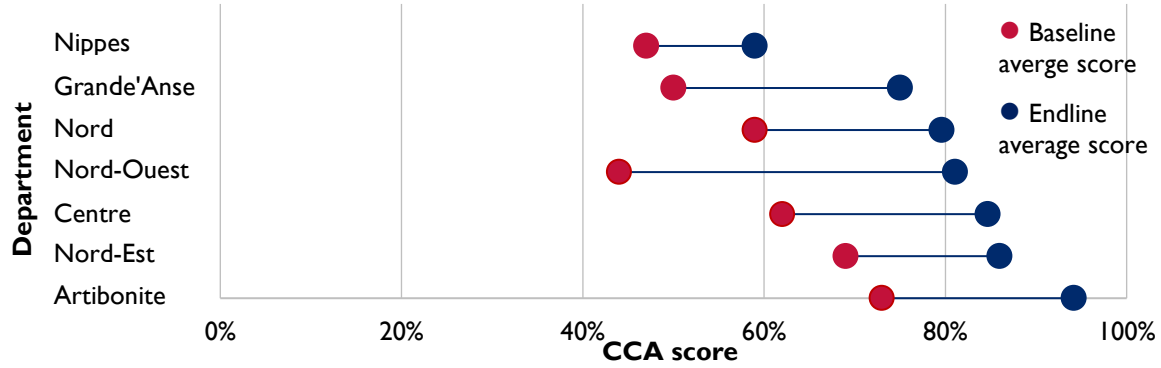
Addressed the Zika Virus Outbreak

When WHO confirmed the presence of the Zika virus in Haiti in January 2016, USAID provided MCSP with additional funds to tackle the threat. MCSP focused its resources on developing social and behavior change communication materials in collaboration with partners and developing a half-day training module on the symptoms of the Zika virus, modes of transmission, protecting the population, and how to refer suspected cases for testing. A total of 726 institutional and 1,709 community health providers from 10 departments were trained. The project also integrated Zika into ANC and FP services.

Implemented the Clean Clinic Approach at Health Facilities and the Participatory Hygiene and Sanitation Transformation Approach within Communities

The CCA empowered health facility staff to identify needs, develop action plans, and incrementally work toward improving WASH practices in facilities. Using the CCA, district-level Ministry of Public Health and Population units supported 22 of 69 sites to increase their "cleanliness" scores up to 37% greater than baseline (see Figure 2). To complement facility-level improvements, MCSP also rolled out the Participatory Hygiene and Sanitation Transformation approach in each CCA facility's catchment area. This approach was spearheaded by polyvalent community health agent and community leaders to identify and manage WASH improvements at the community and household levels. In the Nord-Est department, health managers noted that the Participatory Hygiene and Sanitation Transformation approach contributed to a significant reduction in diarrhea and cholera. (For more information, see MCSP's program brief on WASH.)

Figure 2. CCA baseline and endline inspection score

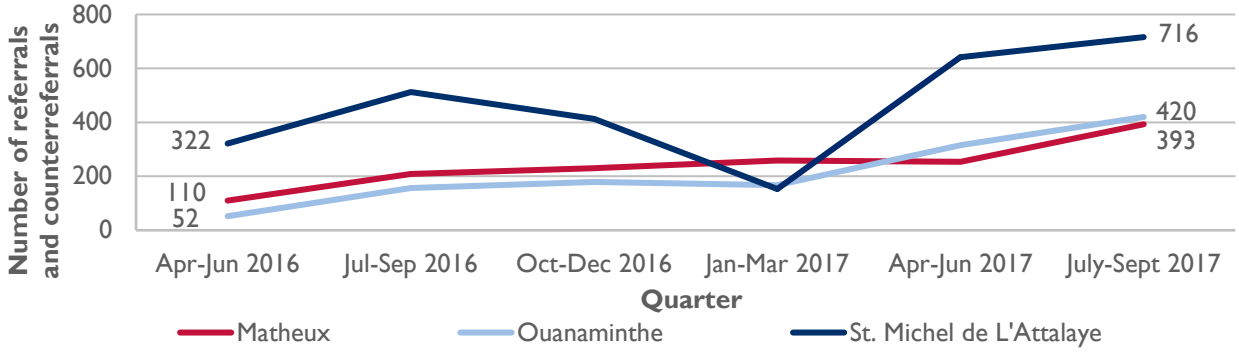


Improved Functionality of US Government-Supported Health Referral Networks

In Haiti, MCSP operationalized three model referral networks at 36 sites with communication and transportation protocols to help improve persistent challenges with referral and counterreferral systems in the country. In addition to these new protocols, MCSP trained providers, CHWs, and ambulance drivers, and equipped ambulances with critical supplies. This is a key achievement because, before MCSP, there was no national/formal referral system or forms, often resulting in patients being referred by word of mouth or written on a piece of scrap paper.

Over the 17-month pilot period, the three model networks referred 4,406 patients (1,848 from community to health center and 2,558 from health center to referral hospital; see Figure 3). While there was no prior referral system with which to compare, implementers reported substantial improvements. Operational research conducted at the end of the pilot period in September to December 2017 found that 93% of network providers made a referral in the 6 months preceding the survey, with 73% of providers regularly using the communication protocols and 51% of providers regularly using the transportation protocol. Of the health center-to-hospital referrals, providers sent 65% of patients to hospitals within the network, with 30% to out-of-network hospitals; the operational research showed that implementers should engage commonly used hospitals even if they are not part of the formal referral network.

Figure 3. Number of referrals among model referral networks in three departments



Strengthened Departmental Health Authorities' Capacity to Manage Service Delivery

At the request of USAID, MCSP administered 32 subawards to NGOs and National Training Centers which managed 65 of the program-supported facilities in Haiti. MCSP worked with the subawaredees to address gaps identified through an assessment conducted in 2016, such as a lack of appropriate management tools and qualified staff. In partnership with the NGOs, MCSP developed and executed customized improvement plans, largely focused on building the organizations' financial, technical, programmatic, and administrative capacities to provide high-quality services.

In an effort to reach universal health coverage with high-quality primary health care services and increase the administrative capacity of additional local stakeholders, MCSP also assisted the Ministry of Public Health and Population to launch the results-based financing strategy in 33 sites within the MCSP network. The strategy contributed to improved service quality by introducing management systems and business processes to sustain the availability of health care services while motivating and retaining staff. MCSP also supported the department health directorates to supervise and manage the results-based financing facilities by assisting each to develop business and QI plans, and coordinating contracts with the departmental health directorates. The project reinforced results-based financing site performance by training coaches, including department health directorates' staff, to work with sites in their respective regions to improve service quality per their work plans.

MCSP also built the capacity within department health directorates to better manage their health systems and evaluate data to make resource decisions. For example, after reviewing vaccination coverage rates, the department health directorates planned rally posts more strategically to improve coverage in under-reached areas. MCSP's interventions significantly improved department health directorate leadership; the directorates now lead regular quarterly coordination meetings (*tables sectorielles*) with health facilities and other health-sector stakeholders and partners to discuss progress to date, current health intervention challenges, and collaborative solutions to guide the way forward.

MCSP improved reporting on data essential to health system management. Data collection from health facilities for input into the Ministry of Public Health and Population health information database improved, in part because of MCSP's embedded M&E officers at the departmental level. Support from these officers helped enter data into the Ministry of Public Health and Population database to grow from a completion rate of 30% to 90–100%. These M&E system improvements at both the department health directorate and facility levels streamlined data collection and rendered the data more complete and reliable, laying the foundation for an evidence-based decision-making process.

Finally, MCSP helped strengthen essential functions of MNH care through QI approaches, such as regular supportive supervision and performance reviews in health facilities. MCSP staff within the department health directorate offices supported directorate staff to visit every program site on a monthly basis. These supportive supervision visits were opportunities to monitor patient care documentation, assess priority performance indicators, and reinforce best clinical practices, with the goal of improving the quality of health service delivery. For low-performing facilities, the department health directorate team organized performance review

meetings with health providers and made recommendations to address weaknesses. At sites with significant challenges, MCSP technical advisors joined department health directorate staff to reinforce expertise and close critical quality gaps. (For more information, see MCSP's program brief on government support.)

Recommendations for the Future

- **Better integrate department health directorates' work with NGOs and other partners.** Similar programs should continue align and harmonize activities with the department health directorates' work plans, rather than operate in parallel. The quarterly *tables sectorielles* meetings support these harmonization efforts, as they include a variety of government and nongovernment partners, reduce duplication of efforts, and increase Ministry of Public Health and Population ownership of health programming and implementation.
- **Maintain a results-based contract with departments.** MCSP support was based on processes rather than results; future programs should develop contracts that are based on processes and deliverables. Receipt of funds based on performance may increase staff motivation to excel in their roles, thus building leadership at the departmental level, but the system and timing of payments need to be well coordinated.
- **Prepare for natural disasters and epidemics at all levels of the national health system.** Haiti is vulnerable to severe weather and earthquakes. In areas at high risk of natural disasters and epidemics, incorporating emergency plans into regular department-level planning—including stocks of medicine, vaccines, and WASH elements—will strengthen the health system's ability to withstand shocks.
- **Ensure access to FP consumables, especially to satisfy unmet need for LARCs and permanent methods.** While facilities provide FP commodities free of charge, clients must pay for the associated consumables. However, because consumable costs are high for long-term methods, women often opt for the lower costs associated with shorter-term methods. Yet, the cost per couple years of protection of most long-term methods is more economical to the health system and the beneficiary. Future programs could subsidize consumable costs or advocate for the Ministry of Public Health and Population to do so.
- **Provide onsite training and support to smaller sites that provide basic MNH care.** MCSP trained providers at all 41 EmONC sites through the national training centers, equipping these sites to manage common obstetric complications. However, women living in remote areas often only have access to small sites with fewer resources that are not classified as EmONC sites. These women depend on the providers at these sites to promptly detect danger signs, initiate lifesaving treatments, and refer them and their newborns with complications to higher-level facilities, yet staff at these sites often lack the necessary skills and materials needed to provide high-impact obstetric and newborn care. Future projects can continue onsite trainings and link providers to training and clinical rotations at larger sites nearby. Both are cost-effective ways to build capacity and bolster the national health system.
- **Collaborate with future programs and the Ministry of Public Health and Population to standardize and implement iCCM/IMCI training materials and roll out RED/REC**. MCSP encountered delays with the Ministry of Public Health and Population in developing a national-level strategy to advance IMCI and iCCM. The project, with acknowledgment from Ministry of Public Health and Population, developed customized IMCI and iCCM trainings and forms to supplement national standardized forms throughout the MCSP network. The next step should include the standardization and implementation of these training materials at the national level, as well as completion of the RED/REC rollout.
- **Advocate for improved data systems.** MCSP worked with the department health directorates to improve the quality and the timeliness of service delivery data reported in information systems, yet the quality of registers continued to pose a problem. MCSP lobbied the Ministry of Public Health and Population for a greater number of printed, up-to-date registers. It will be important to ensure that the registers are in place in adequate numbers and locations.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**[1]
Number of individuals who received HIV testing services and received their test results	256,656 (target: 219,469; target exceeded)
Number of adults and children newly enrolled on ART	5,077 (target: 4,611; target exceeded)
Percentage of births attended by SBAs in USG-supported programs	16% (target: 25%; 65% achieved)
Number of newborns receiving postnatal health check within 3 days of birth	62,038 (target: 63,129; 98% achieved)
Couple years of protection in USG-supported programs	634,842 (target: 623,738; target exceeded)
Percentage of children under 1 year old who were fully vaccinated in project areas	87% (target: 80%; target exceeded)

[1] Achievement and target reflects PY3 and PY4Q1 results.

Haiti Social Marketing Summary & Results

Geographic Implementation Areas

Departments

- 10/10 (100%)

Population

Country

- 10.8 million

MCSP-supported areas

- 10.8 million

Technical Areas

Program Dates

July 1, 2014–September 30, 2015

Total Funding through Life of Project

$3,334,257

Demographic and Health Indicators

Indicator	# or %
GDP per capita (USD)[1]	819.90
Total health expenditure per capita[1]	77
MMR (deaths/100,000 live births)[1]	359
NMR (deaths/1,000 live births)[1]	25
IMR (deaths/1,000 live births)[1]	52
U5MR (deaths/1,000 live births)[1]	69
ORT for diarrhea[2]	53%
CPR (modern)[2]	22%
TFR[3]	3.1

Sources: [1] World Bank; [2] WHO, Haiti 2013; [3] EMMUS V, 2013

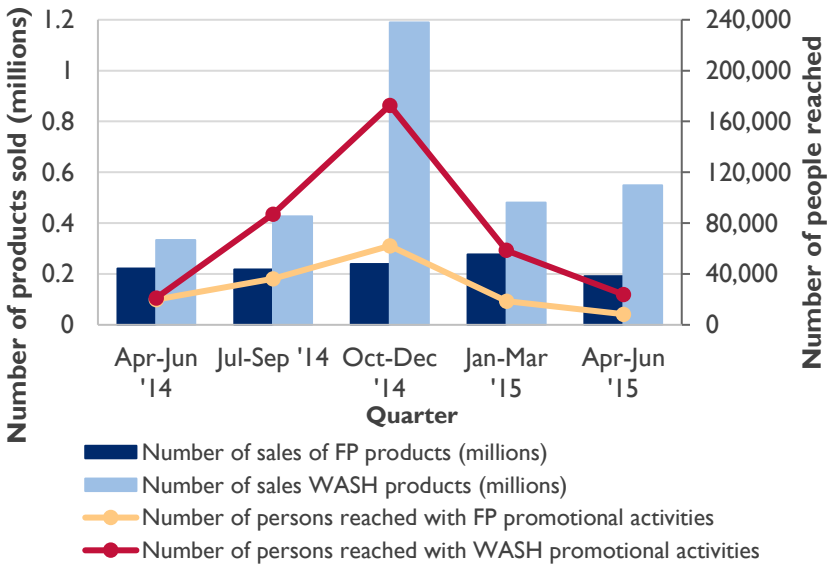
Strategic Objectives through the Life of Project

- Improve health behaviors among the target audience through evidence-based and comprehensive behavior change communications.
- Increase access to high-quality health products for WASH (safe water treatment), MCH (ORS and zinc for diarrhea treatment), and FP products (oral and injectable contraceptives, and long-term methods, such as IUDs).

Highlights through the Life of Project

- Contributed to the sale of 1.45 million units of FP products (injectables, oral contraceptives, and IUDs) across the county's 10 departments, helping to avert 44,687 disability-adjusted life years and provide 158,672 couple years of protection.
- Generated the sale of over 2.7 million water treatment tablets and 642,240 ORS units, helping to avert approximately 7,630 disability-adjusted life years.
- Conducted 87 Cinemobile projections across 42 communes within the 10 departments of Haiti, reaching an estimated 44,600 people with FP, MCH, and WASH messages. In addition, 21 special events were organized, reaching about 23,500 people.

Figure 1: Reach of FP and WASH promotional activities and products sold



Haiti—Social Marketing

Background

In Haiti, MCSP's primary goal was to contribute to reductions in maternal and child mortality by increasing women's knowledge about child health topics (e.g., nutrition, diarrhea, hygiene, and immunization) and access to information about reproductive health and FP services. MCSP utilized a social marketing approach to increase coverage and utilization of evidence-based, high-quality maternal and child survival products and services at the household, community, and health facility levels. The program included multichannel behavior change communication strategies, as well as marketing, sales, and distribution of health products, including oral contraceptive pills, a 3-month injectable form of FP, IUDs, ORS, and chlorine tabs.

To generate demand for health-seeking behavior and service uptake, MCSP used three primary communication channels as defined by the program: interpersonal communication, targeted radio, and "Cinemobile" teams of skilled and trained animators who traveled from town to town with a sound truck and audio-visual equipment, conducting interactive sessions in town squares and parks during daylight hours and projecting films with health messages after dark. These channels were coordinated across all departments of the country so that the general population and targeted groups were surrounded by accurate and consistent messaging from trusted sources, including community leaders, health providers, and the news media.

Key Accomplishments

Conducted Community-Level Interpersonal Communication Training

MCSP provided interpersonal communication training on MCH, WASH, and FP for 100 members from 20 support groups and three "model couples" who were married, belonged to the Haitian Christian community, and had used FP for a number of years. The 20 trained support groups conducted 4,296 IPC sessions across the 10 departments on FP and reached 92,874 people, 66% of whom were women. MCSP's model couples conducted an additional 426 outreach sessions on FP, reaching 12,683 people in a number of settings, including health centers, churches, and women's associations. Support group activities were supervised by MCSP field coordinators over the course of 30 monitoring trips between April 2014 and March 2015. Supervisory visit reports show that messages transmitted during IPC sessions were clear and well received by participants. Hospitals and health centers also expressed gratitude, as they lacked the staff and capacity to conduct these activities on their own. At the end of each session, the groups always provided referral information for voluntary FP services. The support groups also conducted 3,211 outreach sessions and 7,906 household visits regarding MCH, reaching 66,703 people. MCSP focused on delivering key messages on child nutrition and immunization, pregnancy follow-up, and facility-based delivery with an SBA. The model couples conducted an additional 318 outreach sessions, reaching 9,258 people on MCH. Finally, the support groups conducted 3,509 outreach activities and 8,586 home visits on WASH, reaching 90,092 people, including 28,789 men, 53,056 women, and 8,247 children. The sessions focused on handwashing, hygiene, water treatment, use of latrines, and the preparation of ORS. They took place in health centers, schools, women's associations, and water collection points.

Employed Behavior Change Communication via Cinemobile Outreach Events and Mass Media

The Cinemobile strategy, an "edutainment" activity, consisted of a film screening and interactive discussion on a topic such as FP. Following the screenings, MCSP asked filmgoers questions and facilitated discussion to focus on the key messages to be retained. MCSP worked with peer education network groups to conduct Cinemobile activities that allowed the program to reach a large number of consumers with behavior change messages. Eighty-seven Cinemobile events were organized and conducted across 42 communes in the 10 departments, reaching an estimated 44,600 people. Of these:

- Sixteen events focused on FP and reached over 5,900 people with messages on healthy timing and spacing of pregnancy.
- Forty-four events relayed WASH information to over 24,800 people to help mitigate the impact of floods, which occurred in a number of targeted communes.

- Twenty-seven events provided information on MCH, including the use of ORS for treatment of diarrhea and prevention of water-borne illnesses, to over 13,800 people.

MCSP additionally worked with 54 radio stations and four television stations to relay health messages. Over the life of the project, over 133,500 spots aired, including more than 90,900 (68%) health product-specific radio promotions (see below for information about the products) and 42,600 (32%) radio and television spots on generic health information.

Expanded Access to High-Quality Maternal and Child Health; Water, Sanitation, and Hygiene, and Family Planning Products

MCSP conducted social marketing activities and expanded access to five health products: Pilplan (an oral contraceptive), Confiance (a 3-month injectable), Confiance Plus (a copper IUD), Sel Lavi (ORS), and Dlo Lavi (chlorine water treatment tabs). MCSP conducted promotional activities for each of the products, reaching an estimated 145,000 people with information about the FP methods and over 363,000 people with messages about Sel Lavi and Dlo Lavi. The project also produced 25 billboards to promote Pilplan and Confiance.

The five products were distributed nationally through MCSP's network of more than 6,000 sales points served by 142 wholesalers. MCSP also implemented a strategy to link wholesalers, retailers, sales force, and consumers to address issues with procurement or stocks. Sales of almost all of the products surpassed the program's targets, with the exception of Confiance Plus due to limited market penetration and the need for additional provider behavior change and training. In total, over six quarters, MCSP contributed to the sales of more than:

- 400 copper IUDs (25% of target)
- 327,000 3-month injectables (133% of target)
- 1,123,000 oral contraceptives (157% of target)
- 642,000 ORS treatments (206% of target)
- 2,772,000 chlorine water treatment tabs (143% of target)

In total, sales of these products constituted an estimated 158,672 couple years of protection and saved approximately 44,687 disability-adjusted life years in Haiti.

Recommendations for the Future

Based on the lessons learned from its social marketing project in Haiti, MCSP would like to make the following recommendations for future activities:

- **Coordinate with NGOs and community-based organizations that have deep community ties to help ensure the success of communications activities.** Programs should continue to recruit peers from existing networks of community leaders to conduct IPC activities, as they have existing deep community ties and respect from peers.
- **Use a total market approach and work across sectors—particularly targeting health providers—to improve recognition of IUDs as a reliable FP method.** MCSP did not meet projected targets in sales of IUDs, though initially these services were welcomed and communities showed interest. MCSP was unable to increase use of this method by women of reproductive age. There is a need for an intense marketing campaign of this long-term method and a greater need for social and behavior change communication activities focusing on FP, management of side effects, and emphasis on long-term methods.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people receiving information about FP through IPC by support groups and model couples	105,557 (target: 125,000; 84% achieved)
Couple years of protection provided through contraceptive sales	158,672 (target: 117,041; target exceeded)
Number of people receiving information about WASH through IPC by support groups	90,092 (target: 110,000; 82% achieved)
Number of households visited with children under 5 receiving WASH information	8,586 (target: 6,500; target exceeded)
Number of branded clean water product units sold	2,772,000 (target: 1,940,400; target exceeded)
Number of branded ORS product units sold	642,240 (target: 311,500; target exceeded)
Number of persons reached through MCSP's promotional activities	508,866 (target: 350,000; target exceeded)
Number of mass activities/special events/Cinemobile conducted	109 (target: 115; 95% achieved)

India Family Planning Summary & Results

Geographic Implementation Areas

National (adolescent health)

States (FP and Health and Wellness Centers)

- 14/29 (48%)—Arunachal Pradesh, Assam, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Sikkim, Telangana, Tripura

Districts (FP and Health and Wellness Centers)

- 73/785 (9% of the 14 states)

Facilities

- FP: 191/1,111 (17% of the 14 states)
- Health and Wellness Centers: 4,864 (1,607 direct intervention facilities)

Population

Country

- 1.21 billion

MCSP-supported areas

- FP and Health and Wellness Centers: 85.6 million
- Adolescent health: 25.3 million adolescents

Technical Areas

Program Dates

March 1, 2015–September 30, 2019

Total Funding through Life of Project

$12,797,822

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[2]	130
IMR (per 1,000 live births)[1]	41
TFR[1]	2.2
CPR (currently married women ages 15–19)[1]	14.9%
CPR (modern)[1]	47.8%
Teenage pregnancy (women ages 15–19)[1]	7.9%
Unmet contraceptive need (currently married women ages 15–19)[1]	22.2%
Anemia among girls, boys (ages 15–19)[1]	54%, 29%
High blood sugar among women, men[1]	5.8%, 8.0%
Hypertension among women, men[1]	6.7%, 10.4%

Sources: [1] NFHS-4; [2] Niti Aayog, Government of India.

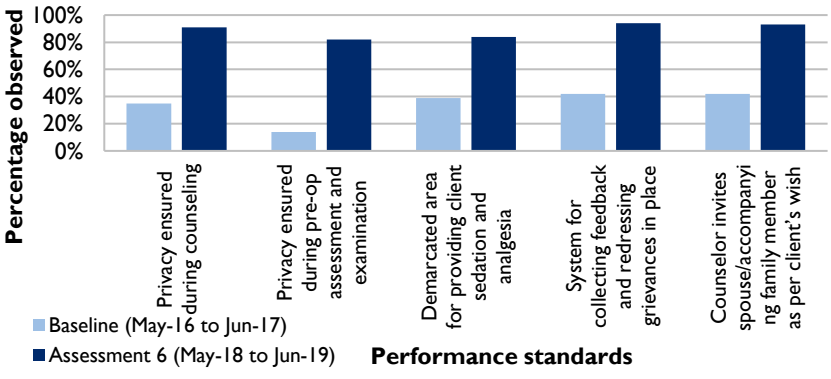
Strategic Objectives through the Life of Project

- Promote expansion of the basket of contraceptives by advocating for and demonstrating inclusion of approved modern methods.
- Strengthen quality of FP services in the public health system through improved clinical governance and other innovative processes and systems, and advocate for scale-up to other states.
- Support the Ministry of Health and Family Welfare in strengthening interventions under the National Adolescent Health Program, and institutionalize monitoring and reporting systems for convergence with other government departments and partners.
- Assist intervention states to develop roadmaps, operational plans, and financial proposals for operationalizing Health and Wellness Centers to deliver comprehensive primary care services.
- Build the capacity of intervention states to train community health officers in the 6-month certificate course in community health through establishment and operationalization of training sites.

Highlights through the Life of Project

- Increased immediate voluntary PPFP acceptors at focus facilities by 12%.
- Raised FP service assessment score by 50% and supported establishment of counseling corners at 90% of focus facilities, reaching 584,262 clients.
- Developed and implemented revised guidelines for the National Adolescent Health Program and national School Health Program.
- Operationalized 3921 Health and Wellness Centers across 12 states and 68 training sites across 11 states.

Figure 1. Improvement in observed FP service delivery in terms of respectful care in 186 MCSP-support facilities



India—Family Planning

Background

India was the first country to launch a national FP program more than half a century ago. To increase access to voluntary FP services and respond to unmet need, the program has adopted several strategic approaches. However, couples in India continue to have significant unmet need for FP (12.9%), for both limiting family size (7.2%) and spacing births (5.7%).[42] Given the increased demand for reproductive health services in India, the quality of care for these services requires more attention. The Government of India devised strategies to accelerate progress of its FP program, realizing the urgent need to revitalize and energize programmatic efforts. As a key partner in these efforts, MCSP's initial focus was on expanding access to high-quality FP services and contributing to India's Family Planning 2020 commitments by promoting the expansion of the basket of contraceptives by advocating for the inclusion of more proven modern contraceptive options. Subsequently, other components based on Government of India priorities were added, including adolescent health programming (aligning with the National Adolescent Health Program [*Rashtriya Kishor Swasthya Karyakram*]) and Health and Wellness Centers (aimed at achieving universal health coverage by upgrading 150,000 subcenters and existing primary health centers into Health and Wellness Centers by 2020 under the Ayushman Bharat initiative, the world's largest government-funded health care program).

Key Accomplishments

Expanded FP Basket in Public Health Facilities and Strengthened PPFP

MCSP successfully advocated for introduction of newer contraceptives in India's FP basket: progestin-only pills and centchroman. The program undertook a strategic demonstration at 52 public health facilities for the introduction of these two new methods, which led to an increase in the number of women choosing a PPFP method by 11 percentage points in 27 months (see Figure 2). Of the postpartum women who delivered at a program-supported facility (220,807), 5.5% accepted either progestin-only pills (5,088) or centchroman (6,994).

Between April 2017 and June 2019, MCSP followed up with eligible acceptors to assess continuation of their chosen method. Among progestin-only pills acceptors reached at 6 months, 89% (2,915 of 3,276) reported using progestin-only pills, with 57% (1,662) of those who continued switching to a more effective method after completion of 6 months (see Figure 3). Among centchroman acceptors contacted at 6 months, 72% (3,070 of 4,259) reported that they were still using centchroman. In line with global literature around postpartum contraceptive pill use, utilization of both methods declined near the 6-month mark, particularly for centchroman users[43,44]. The reasons cited by women for this reduction included: side effects including pain, physiological body changes, and bleeding/menstrual problems; access or supply issues; family reasons or opposition to the method; and method switching. MCSP shared the demonstration results with Government of India to advocate for the inclusion of progestin-only pills in the public-sector FP basket across the country.[45]

[42] Ministry of Health and Family Welfare. 2016. India Fact Sheet: National Family Health Survey (NFHS-4) 2015-16. New Delhi: Ministry of Health and Family Welfare.
[43] Kopp DM, Rosenberg NE, Stuart GS, Miller WC, Hosseinipour MC, Bonongwe P, et al. 2017 "Patterns of Contraceptive Adoption, Continuation, and Switching after Delivery among Malawian Women". PLoS ONE 12(1): e0170284.doi:10.1371/journal.pone.0170284
[44] Contraceptive Use Dynamics in India, Cohort Study of Modern Spacing Contraceptive Users. Population Council, March 2016
[45] Centchroman is already included in the public-sector FP basket in India.

Figure 2. (a) Postpartum women who accepted a PPFP method at an MCSP focus facility; (b) PPFP method choice among women who delivered in an MCSP focus facility

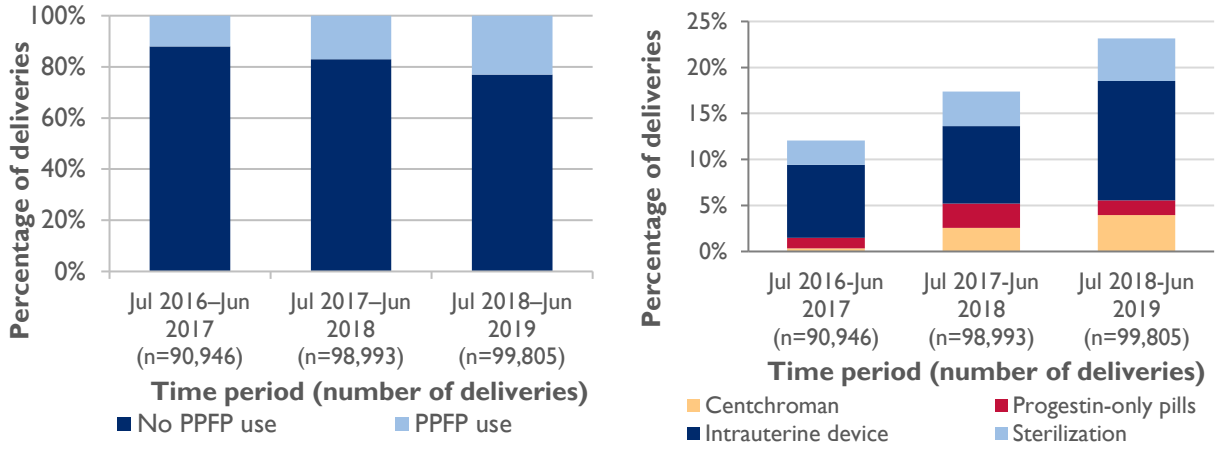
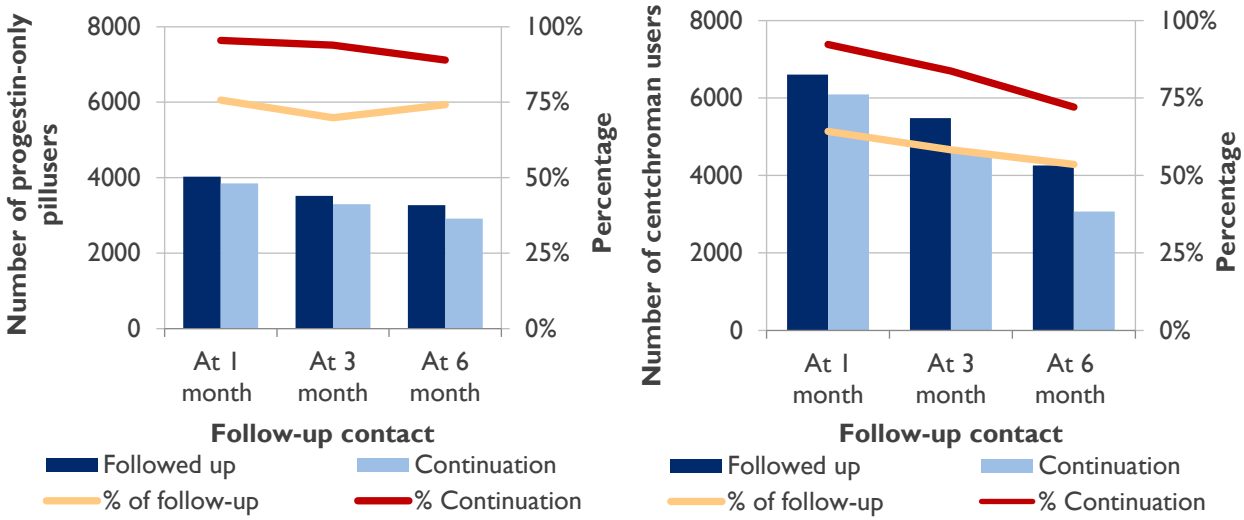


Figure 3. Continued use of chosen PPFP method reported during follow-up contact*: (a) progestin-only pill users (b) centchroman users



* Continuation data was taken from the 52 facilities where MCSP supported introduction of progestin-only pills and centchroman. In line with global literature around postpartum contraceptive pill use, utilization of both methods declined near the 6-month mark, particularly for centchroman users. The reasons cited by women for this reduction included: side effects including pain, physiological body changes, and bleeding/menstrual problems; access or supply issues; family reasons or opposition to the method; and method switching.

Institutionalized Improved Quality of Fixed Day Static Services

To move away from the camp approach for voluntary female sterilization services, which were provided on an ad hoc basis, MCSP strengthened the fixed day static (FDS)[46] approach for voluntary female sterilization services at 84% (157) of focus facilities. Over the life of the program, 14,322 FDS days were planned across these 157 facilities, and 9,384 days were conducted. Frontline workers preregistered 42,400 clients to receive services on these 9,384 FDS days; of these, 39,222 (93%) clients turned up for services on their designated days, and, of these clients in attendance, 38,388 (98%) received services. Improved FDS compliance (FDS days conducted as per the FDS calendar set) led to improved quality and assurance of service provision, as well as better client satisfaction due to a decline in refusal of services by the system (due to unpreparedness and lack of resources), improved provider-client interaction, and reduced out-of-pocket expenditure as a result of improving community-level screening of clients for fitness for surgery and client follow-up.

[46] The FDS approach in sterilization services is defined as "providing sterilization services in a health facility by trained providers on fixed days, throughout the year on a regular routine manner."

Developed an Interactive Voice Response System

MCSP supported the development and rollout of an interactive voice response system platform, *Parivar Swathya Vaani*, in 12 districts in Chhattisgarh and Odisha in July 2018 to provide clients and communities with information on FP, collect feedback on service quality, and preregister clients to streamline facility processes. By the end of the project, *Parivar Swathya Vaani* had received 23,740 calls, of which 4,630 provided information on FP, 4,968 collected feedback on the quality of FP service provision, and 14,142 preregistered clients to receive FDS services across 103 program facilities. In Chhattisgarh, *Parivar Swathya Vaani* was integrated into the state-owned toll-free helpline for clients. MCSP provided technical and implementation support to the Government of Odisha for scale-up of the application across all 30 districts in the state.

Institutionalized Quality FP Service Provision

Through regular assessment of facilities, technical support, and advocacy, MCSP improved infrastructure and basic amenities using system resources and strengthened existing systems at the focus facilities. MCSP supported the formation of quality circles at 98% (183) of the focus facilities, strengthening the capacity and functioning of local-level management teams. MCSP facilitated the review of the FP dashboard, capturing key FP indicators during these meetings along with client feedback received via the interactive voice response system platform, thus promoting use of data for better decision-making. At the district level, MCSP revitalized district quality assurance mechanisms—district quality assurance circles—leading to mobilization of funds and regular tracking of empaneled providers. With MCSP's advocacy to make quality a pillar of service provision, district quality assurance circles and quality circle meetings now include quality of FP service provision as a part of their agenda and discussion. As of June 2019, the sixth quarterly assessments using service delivery performance standards recorded a 50% improvement in overall facility assessment scores over baseline.

Promoted Gender Equity and Respectful Care in FP Services

MCSP, through the Centre for Catalyzing Change,[47] built the capacity of 2,336 facility-based service providers and 24,827 frontline workers on gender, social inclusion, and respectful care. The program promoted gender-sensitive FP services that respect women's autonomy, dignity, and privacy, leading to strengthened health systems for better interactions with women and communities. MCSP leaves behind a legacy of strengthened counseling services promoting voluntarism and informed choice. The program developed counseling tools and job aids, built the capacity of 461 service providers on counseling, and supported the establishment of dedicated counseling corners at 90% of focus facilities, ensuring provision of high-quality counseling services to 584,262 clients over the life of the program. (For more information, see MCSP's stories "Going the Extra Mile to Ensure Voluntary Contraceptive Uptake in India" and "Engaging Indian Women Directly is Improving Contraceptive Uptake".)

Supported the National and State Governments in Effective Implementation of the National Adolescent Health Program

In 2014, adolescent health programming in India got a much-needed fillip with the government-led *Rashtriya Kishor Swasthya Karyakram*—an initiative aimed at providing health information and services to all adolescents (10–19 years) in and out of school, married or unmarried, and within vulnerable groups. *Rashtriya Kishor Swasthya Karyakram* brought all adolescent-targeted interventions in the Indian health system under one umbrella. MCSP supported the Adolescent Health Division of the Ministry of Health and Family Welfare with rolling out the revised *Rashtriya Kishor Swasthya Karyakram* strategies, specifically the School Health Program. MCSP supported the Ministry of Health and Family Welfare to develop the revised National Adolescent Health Program operational guidelines, which WHO released in July 2018. The program also revised the existing supportive supervision checklist for adolescent-friendly health clinics and prepared a document summarizing the operationalization of adolescent health days at the community and school levels.

[47] MCSP had issued a subaward to the Centre for Catalyzing Change to conceptualize and implement innovative strategies to enhance community participation.

MCSP also supported regional review meetings, covering all states/union territories, to assess the implementation of the National Adolescent Health Program. The primary objectives were to assess critical implementation gaps and challenges encountered across states and find context-specific solutions. MCSP conducted a series of consultation meetings with individuals and organizations on new, emerging adolescent needs, such as mental health, engaging boys and parents, and access to contraception. Advocacy briefs highlighting policy-level recommendations were prepared and shared with the Ministry of Health and Family Welfare as an outcome of the meetings.

Given that adolescent health is a multisectoral issue, MCSP supported the Ministry of Health and Family Welfare in drafting a memorandum of understanding (MOU) with the Ministry of Tribal Affairs that was ultimately signed by secretaries of both ministries. MCSP facilitated establishment of a technical resource group to harmonize the existing training materials and develop the school health curriculum with support from the National Council of Education, Research, and Training, and other development partners. MCSP was an integral part of the adolescent health working group under the RMNCH+A coalition of the Government of India and supported the development of a national position paper on adolescent health.

Supported Operationalization of the School Health Program

MCSP developed the operational guidelines on the School Health Program under *Ayushman Bharat*. MCSP also worked closely with the Ministry of Education to draft the curriculum and training materials for teachers under the School Health Program. An operational plan was submitted to the Ministry of Health and Family Welfare and Ministry of Human Resource and Development, for roll-out of the program across the country. Moreover, 28 states/union territories budgeted for the School Health Program, amounting to USD 6 million in fiscal year 2019–2020.

Supported Institutionalization of Robust M&E Systems

MCSP developed dashboards, score cards, and state fact sheets using adolescent program data and secondary data. The dashboard provides at-a-glance information on progress on performance indicators for the adolescent health program. To improve the quality of adolescent-friendly health clinics data, a mobile app was developed and is currently being implemented by the Ministry of Health and Family Welfare in five states as a pilot.

MCSP also implemented the data use interventions in select public health facilities in providing minilaparotomy services within two districts of both Chhattisgarh and Odisha. MCSP aimed to improve the use of data for action in its project focus facilities and districts through the development and use of FP data dashboards that included user-friendly visualizations of the compiled monthly data for FP indicators. With health facility staff and FP stakeholders, MCSP identified routine FP program data for a small set of actionable indicators. MCSP conducted a study in collaboration with Governments of Odisha and Chhattisgarh introducing two different types of data FP dashboards to compare approaches for visualizing FP data. The study helped to improve use of FP data for programmatic review, improve interpretation and analysis of routine FP data, improve data quality, and inform decision-making at the facility level.

Leveraged Funds for Establishing Health and Wellness Centers and Training Ecosystems

MCSP leveraged government funds to establish Health and Wellness Centers and training ecosystems under the National Health Mission's annual program implementation plans. This amounted to USD 46.3 million from 11 state governments after an initial investment by USAID of USD 2.9 million. These Health and Wellness Centers will bring comprehensive primary health care closer to people's homes (within 30 minutes) via an expanded package of 12 services coupled with provision of free essential drugs and diagnostics.

Created Institutional Mechanisms at State and District Levels

MCSP was instrumental in advocating for and establishing institutional mechanisms for Health and Wellness Centers, such as steering committees and task forces at state and district levels, and responsible for reviewing program implementation, monitoring progress, and ensuring timely corrective action. By the end of the

project, 70 district-level committees and eight state-level committees were formed in states where MCSP supported the establishment of Health and Wellness Centers (Chhattisgarh, Madhya Pradesh, Odisha, Jharkhand, Nagaland, Meghalaya, Mizoram, and Sikkim). These mechanisms will be critical for ensuring the program's long-term quality and sustainability.

Provided Technical Assistance for Health and Wellness Center Operations in Intervention States

MCSP's supported almost every element of the process to establish well-functioning Health and Wellness Centers. Beginning with enhancing the capacity of state governments to address the gaps in establishing a robust primary health care system through regular mentoring support; providing prototypes for infrastructural upgrades and internal branding; developing community mobilization materials; ensuring the production of adequate, competent, confident, and skilled community health officers to run the centers; and supporting the establishment of actual service delivery. A total of 3,921 facilities are operational across 12 states. MCSP also built the capacity of 27,270 service providers and frontline health workers (1,174 medical officers, 661 staff nurses, 4,699 auxiliary nurse-midwives, and 20,736 accredited social health activists) to manage noncommunicable diseases. (For more information, see MCSP's stories "Health and Wellness Centers 'Reach the Unreached' in India" and "No matter age, gender, religion, or caste: Improving access for all in India".)

Created an Ecosystem for Training Community Health Officers at Health and Wellness Centers

Each Health and Wellness Center will be led by a community health officer who successfully completed a 6-month certificate course in community health imparted at the training sites known as program study centers. MCSP supported the intervention states to roll out the certificate course and establish a training ecosystem. To date, MCSP has supported establishment of 68 program study centers, which trained approximately 2,500 community health officers. MCSP developed a comprehensive learning resource package with standardized training sessions and used it with the community health certificate course to train 1,228 academic counselors and program study center in-charges across intervention states.

Recommendations for the Future

MCSP in India successfully expanded access to quality FP services, demonstrated the inclusion of newer modern contraceptive methods in the public-sector health basket, provided technical support to the national government for adolescent health programming, and supported the government in bringing comprehensive primary health care closer to communities. The following recommendations are made in light of the overall experience gained in implementing MCSP in India:

- **Invest in capacity-building around informed choice/voluntarism among frontline workers and service providers.** To ensure that informed choice and voluntarism are maintained and promoted during FP messaging and counseling, MCSP recommends that the Ministry of Health and Family Welfare and state governments invest in the capacity-building of frontline workers and service providers.
- **Engage communities and bridge gaps between facility and community.** Taking lessons from MCSP's model facilities,[48] the program recommends developing collaborations between facility-based quality circles and patient welfare societies to develop sustainable models for improved accountability of health systems and community participation. This would lead to institutionalization of community engagement for incorporating client feedback and standardization of the community perspective of quality into the system, and help facility administration to identify gaps in the provision of quality FP services and take corrective action in a timely manner.
- **Capture and use client feedback to improve services:** MCSP recommends developing robust institutional mechanisms at all levels of service delivery to capture client feedback on services, initiate corrective measures, and harness the potential of digital technology to reach out to adolescents.

[48] Selected facilities in Chhattisgarh and Odisha were identified to demonstrate improved practices related to community engagement and respectful care in FP service provision, with the purpose of sharing results from these facilities with the state governments for institutionalization of the processes adopted in the public health systems and scale-up across all public health facilities in the respective states.

- **Mobilize and ensure commitment of domestic resources—public and private—at the outset.** National and state governments need to ensure increased and sustained financial resource allocation for strengthening primary health care initiatives to achieve sustainable results. MCSP's initial advocacy efforts for leveraging government funds played a critical role in establishing the Health and Wellness Centers and institutionalizing project efforts. Furthermore, there is a need for increased commitment from the private sector to strengthen primary health care initiatives in the country.
- **Develop dynamic and contextualized interventions.** Working across 12 states meant 12 different contexts, geographies, populations, and health-seeking behaviors. Keeping in mind these diverse settings, MCSP, in consultation with its government counterparts, customized and contextualized interventions based on local needs. This ultimately resulted in increased acceptability among beneficiaries. To increase use of essential health services among vulnerable populations, especially in India, given the dynamic population with large pockets of marginalized and vulnerable communities, it is critical to develop dynamic and contextualized interventions, which will go a long way in ensuring health for all.
- **Co-design health care solutions with the community.** Local ownership and partnership, and a comprehensive systems strengthening approach, are necessary to achieve sustainable results. Along with building resilient health systems, it is essential to co-design health care solutions with the community through concerted community engagement efforts and social and behavior change campaigns to ensure effective and optimum use of quality primary health care services.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of demonstration sites having at least one provider trained in FP counseling, including counseling skills on the two newer methods (progestin-only pill and centchroman)	98% (target: 80%; target exceeded)
Percentage of women delivering at an MCSP-supported health facility who accept progestin-only pill or centchroman as a method of FP	5.5% (actual; no target defined)
Percentage of frontline workers attached to MCSP-supported health facility trained in key messages about all FP methods, including newer contraceptives	96.6% (target: 80%; target exceeded)
Percentage of FDS sites that have a functional redressal mechanism to strengthen quality of FP services	98% (target: 70%; target exceeded)
Percentage of female sterilization clients receiving sterilization services on the assigned FDS day who were preregistered with the facility	67% (target: 70%; 96% achieved)
Number of states that have budgeted for initiative under the School Health Program under *Ayushman Bharat*	Approval of budget allocation for School Health Program under *Ayushman Bharat* in Record of Proceeding. Out of 36 states, 28 states have allocated budgets.
Amount of National Health Mission/state government funds leveraged for establishment of Health and Wellness Centers	USD 46.3 million (no target defined)
Number of targeted (direct intervention) subcenters/primary health centers/urban primary health centers where process of upgradation to Health and Wellness Centers has been initiated (n = 1,607)	1,653 (target: 964; target exceeded)
Number of training institutions established to initiate the 6-month Certificate Course in Community Health	68 (target: 29; target exceeded)
Number of health care workers who completed an in-service training program (6-month certificate course) within the reporting period with USG support	1,228 counselors, 2,500 community health officers (targets: 200 counselors, 870 community health officers; targets exceeded)

India The Challenge Initiative for Health Cities Summary & Results

Geographic Implementation Areas

States
- 3/29 (10%)—Madhya Pradesh, Odisha, and Uttar Pradesh

Cities
- 8/52 (15% cities in Madhya Pradesh)
- 3/36 (8% cities in Odisha)
- 20/75 (27% cities in Uttar Pradesh)

Population

Country
- 1.21 billion

MCSP-supported areas
- 28 million (including 10 million in slum areas)

Technical Areas

Program Dates

March 1, 2016–September 30, 2019

Total Funding through Life of Project

$ 6,000,000 (as well as $11,200,000 co-funding from the Bill and Melinda Gates Foundation)

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	25,427,955
MMR (per 100,000 live births)[2]	130
NMR (per 1,000 live births)[3]	23
U5MR (per 1,000 live births)[3]	37
TFR (births per woman)[4]	2.2
CPR (modern methods)[4]	47.8%
ANC 4+[4]	51.2%

Sources: [1] 2011 Census of India; [2] Special Bulletin on Maternal Mortality, Office of RGI, -SRS (2014–2016); [3] Office of RGI, SRS (2014–2016), Census of India, New Delhi; [4] IIPS and ICF. 2017. NFHS-4, 2015-16, Mumbai

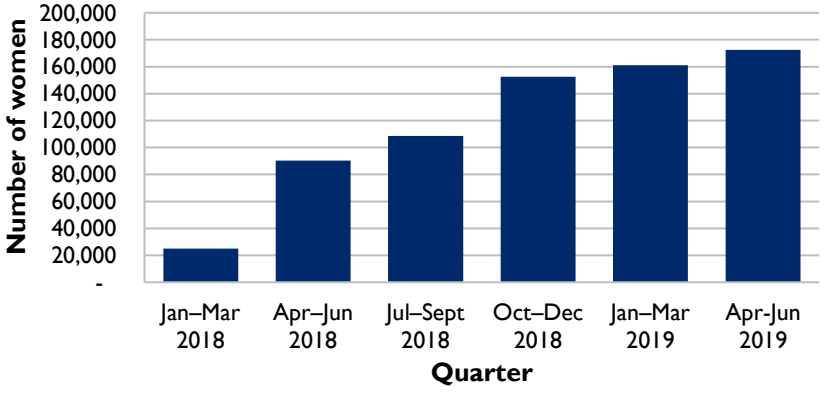
Strategic Objectives through the Life of Project

- Increase the use of modern contraceptive methods and improve the coverage and quality of evidence-based FP and MNH interventions in 31 cities.
- Support cities implementing urban best practices and evidence-based interventions on a demand-driven basis.
- Increase access to and demand for quality FP and MNH products and services by the urban poor.
- Establish an enabling environment and health systems improvements that support the sustained delivery and use of a quality package of FP and MNH services by the urban poor.

Highlights through the Life of Project

- Helped increase the number of health facilities in the 31 cities offering FDS FP services from 87 to 493, expanded contraceptive choice at facilities, enhanced counseling skills of more than 5,100 providers, and saw an average 2.49% increase in new FP acceptors per month by the end of MCSP's support.
- Introduced the urban primary health center readiness assessment tools and processes to 66 urban local bodies; assessed 100% (n = 76) of urban primary health centers in the 11 MNH The Challenge Initiative for Healthy Cities (TCIHC) cities in Madhya Pradesh and Odisha, assisted Madhya Pradesh and Odisha to roll out new referral mechanisms in three cities, and helped to introduce the concept of an integrated pediatric unit in one secondary hospital.
- Leveraged more than USD 60 million for FP/MNH best practices during the 3-year period of TCIHC through the annual program implementation process of the National Health Mission to expand high impact approaches and evidence-based interventions.

Figure 1. Women reached with FP counseling during TCIHC implementation in India



India—The Challenge Initiative for Healthy Cities

Through TCIHC, MCSP provided technical assistance and implementation support to activate the National Urban Health Mission's service delivery model in 31 cities across three states: Madhya Pradesh, Odisha, and Uttar Pradesh. The initiative aimed to prevent maternal and newborn deaths among the urban poor by strengthening city-level health systems to improve access to and demand for FP and MNH care, information, products, and services, especially by the urban poor.

TCIHC was supported until September 30, 2019, by USAID's MCSP and by the Bill & Melinda Gates Foundation through The Challenge Initiative at the Johns Hopkins University, Gates Institute; the Gates Institute will continue support of TCIHC through June 2021. TCIHC works with state and city health officials to identify health service gaps and, through the annual program implementation planning process, works to leverage or "unlock"[49] resources available for FP; MNH; adolescent, youth, and sexual reproductive health; and urban health through the National Health Mission and other government health schemes. TCIHC also links private-sector service providers to the government health system and supports community outreach, QI, and behavior change campaigns to raise awareness and increase demand for quality FP and MNH services.

Key Accomplishments

Between TCIHC's formal launch in May 2017 and MCSP's close out in 2019, government HMIS showed a 44% increase in FP acceptors across the 31 TCIHC cities, and an 80% increase when considering only the TCIHC-assisted urban primary health centers. The increase in overall "footfall" or utilization also increased by 36.6% in the cities receiving TCIHC's MNH support. TCIHC contributed to these impressive results by working with the 3 states and 31 cities in the following ways.

Supported Rapid Introduction and Scale-Up

In the first year of implementation, TCIHC focused on informing national, state, and city government leadership about the program and its "business unusual" model. This demand-driven model is based on local governments self-selecting to participate in and demonstrate political commitment by bringing their own financial, material, and human resources. In return, TCIHC provided technical assistance. By October 2017, TCIHC had secured government buy-in for the first 12 cities that would benefit from program support and promoted adoption by the National Urban Health Mission of the evidence-based high-impact approach. Thereafter, TCIHC completed expansion into a total of 31 cities and initiated facility and community programming in "ready to start" urban primary health centers and their surrounding communities. With TCIHC support, all 31 cities started implementation of various high-impact approaches that aim to improve FP and MNH service provision.

TCIHC initiated support using the demand-driven approach. Cities submitted an expression of interest to receive support to scale up and implement the high-impact approaches. Once a city was selected, TCIHC conducted a city consultation workshop, which is an interdepartmental meeting of government stakeholders to review the city as a whole by mapping urban stakeholders and their roles and responsibilities. These workshops aimed to identify bottlenecks and solutions through complete analysis of a city's FP and MNH strengths and opportunities. TCIHC also conducted city mapping and listing exercises to identify vulnerable populations. After the city consultation workshops were held and city mappings had been conducted, TCIHC worked to activate urban primary health centers and initiated coaching and mentoring of frontline workers. The activation of city health systems resulted in improved city capacity and, ultimately, FP service provision. The specific outcomes are outlined through the rest of this summary.

[49] Leveraging: using existing financial and human resources, and/or platforms for FP and MNH activities. Unlocking: obtaining appropriate public (through the program implementation plan process) and private resources that have already been allocated for urban health services to specific FP and MNH activities.

Achieved Government Ownership and Support

TCIHC supported state and city officials across the 31 cities to prepare elements of their 2017/2018, 2018/2019, and 2019/2020 National Health Mission program implementation plans. TCIHC's engagement in the annual program planning process resulted in the successful leveraging and/or unlocking of approximately USD 60 million[50] of Government of India funding for the implementation and expansion of FP, MNH, and urban health programming.

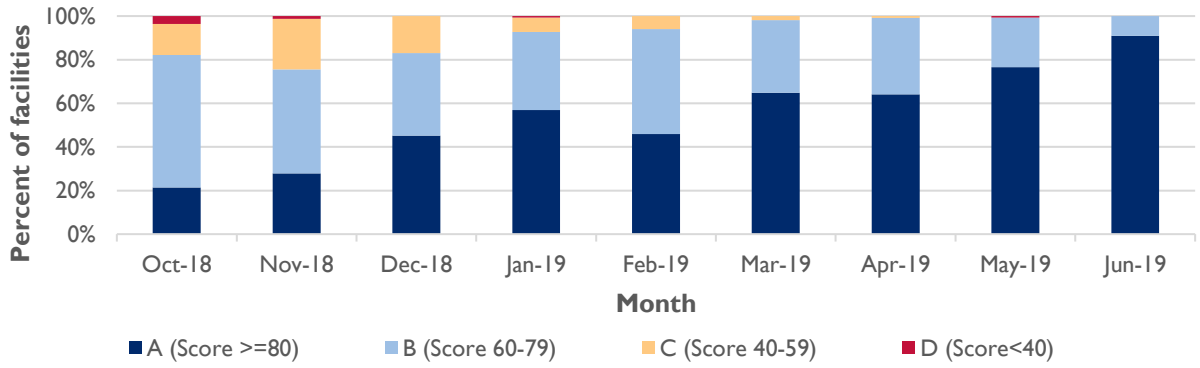
TCIHC's approach is based on the scale-up of high-impact approaches and proven health solutions for the urban poor in resource-constrained settings. High-impact approaches include tools for service strengthening, demand generation, and advocacy. TCIHC promoted high-impact approaches that focus on and include tools for service delivery, demand generation, and advocacy from India's earlier urban health projects, including the Urban Health Initiative, Expanded Access and Quality, and SNL, funded by the Bill & Melinda Gates Foundation, and Health of the Urban Poor, funded by USAID. A coordinated set of high-level advocacy activities led to TCIHC's approach being formally endorsed by the governments of Uttar Pradesh, Madhya Pradesh, and Odisha. The states are moving to scale up and replicate some of the FP/MNH high-impact approaches, including FP FDS services, facility readiness assessments, maternal and newborn care units in secondary facilities, and the reproductive and MNH referral mechanism in non-TCIHC cities using government resources.

Increased Access to Quality FP and MNH Services for Urban Poor

In working with the cities to roll out the National Urban Health Mission service delivery model, TCIHC supported the mapping of urban poor communities, their existing service delivery points, and the catchment areas of their urban primary health centers, district hospitals and other referral facilities. The program promoted the scale up of FDS and other high impact approaches and tools; carried out urban primary health center readiness assessments of different types; supported the upgrading of FP and MNH services at urban primary health centers (each having a catchment area of about 50,000) and during urban health and nutrition day (catchment area of roughly 2,000 people); and, coached community health workers, auxiliary nurse midwives, and other health staff to generate demand for FP and MNH services.

- **Improved urban primary health center readiness to deliver quality FP services.** TCIHC conducted assessments and provided technical support in all three states to improve the readiness and quality of UPHCs to deliver FP services, both during FDS and regular clinic sessions. Using a facility-based checklist, TCIHC assessed each facility's inputs (staff, equipment, supplies and systems) to provide FP services, the processes involved and the outcomes or quality of service delivery. The distribution of overall facility scores as an average of the three domains--input, process and outcome—showed significant improvement, with the proportion of urban primary health centerss earning overall Grade A scores increasing from 21% of those assessed in October 2018 to 91% assessed in June 2019 (Figure 2).

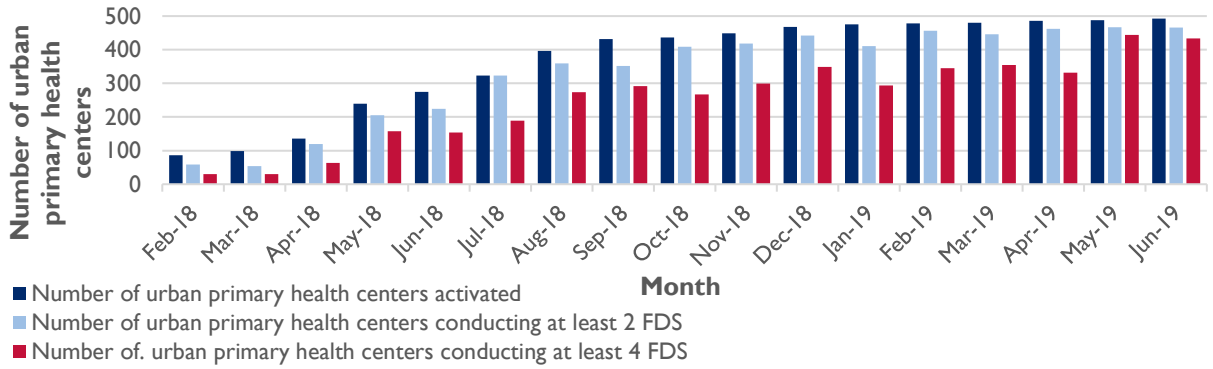
Figure 2. Percent distribution of facilities by overall FP scores



[50] Source: TCIHC project management information system. Figure is reflective of the 2017/2018 and 2018/2019 program implementation plan periods.

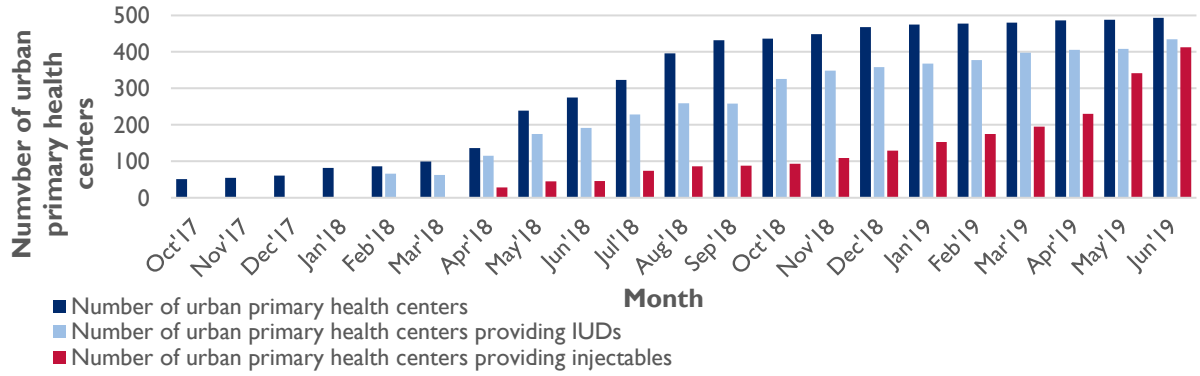
- **Increased access to FP services through FDS at urban primary health centers.** In the 31 activated cities, TCIHC coordinated efforts with city governments to conduct at least one FDS per week at each urban primary health center. As a result, by June 2019, more than 95% of urban primary health centers were conducting at least one FP FDS per month, and on average, 85% were conducting four or more FDSs per month (Figure 3). Providing FP services on a set date improved accessibility of services and increased voluntary acceptance of FP methods. From February 2018–March 2019, 719,589 clients accepted an FP method during FDS services, outreach camps, and urban health and nutrition days. (For information, see the TCIHC learning page on FDS.) During 3 years of TCIHC, (from July 2016 to June 2019), a total of 858,311 clients accepted an FP method at all public health facilities at city level and about 51% (437,695) of these clients received services from the urban primary health center level.

Figure 3. Expansion of urban primary health centers conducting FDS services in Madhya Pradesh, Odisha, and Uttar Pradesh, February 2018–June 2019



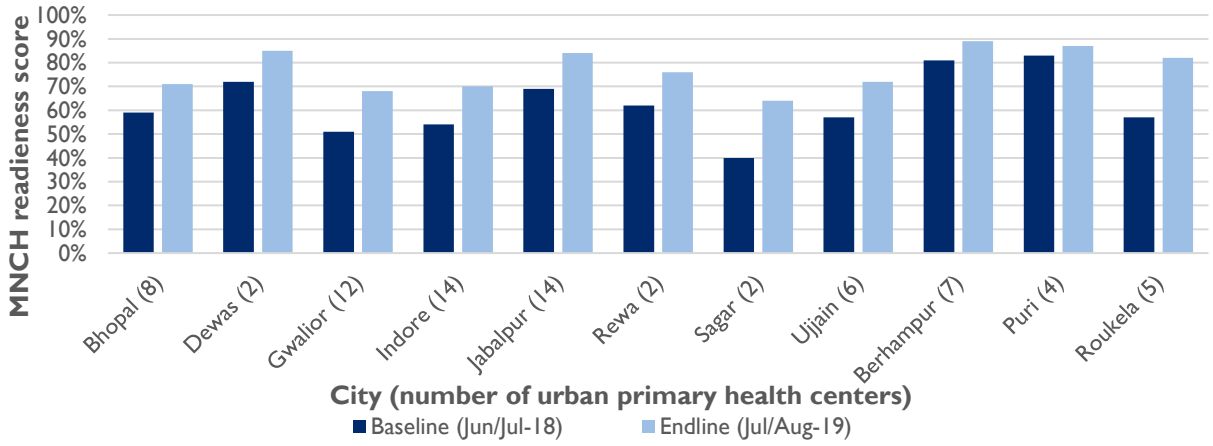
- **Increased contraceptive choice at urban primary health centers.** In addition to increasing the availability of voluntary FP services through FDS in all three states, the TCIHC team advocated with city and state governments to expand FP options by adding the provision of IUDs and injectable contraceptives to the existing methods of pills and condoms at most urban primary health centers. TCIHC also supported the Government of India's introduction of "Chhaya", a non-hormonal oral contraceptive with centchroman that is appropriate for use by breastfeeding women. As a result, by June 2019, 435 of 508 (86%) of TCIHC-assisted urban primary health centers were providing IUDs (up from 66 in February 2018), 413 (81%) were providing injectables (up from 28 in April 2018), and 90% were providing either injectables or IUDs (see Figure 4). The supply of Chhaya also improved during the first six months of 2019, when 454 of 508 (89%) TCIHC-assisted urban primary health centers providing this new method. The expansion of FDS and method choice dramatically increased acceptance of LARCs, from 67% at the start of the project to 95% in March 2019.

Figure 4. Expansion of urban primary health centers offering IUDs or injectable contraceptives in Madhya Pradesh, Odisha, and Uttar Pradesh, October 2018–June 2019



- **Increased readiness of MNCH services at 76 urban primary health centers in Madhya Pradesh and Odisha:** In conjunction with its MNH work in Madhya Pradesh and Odisha, TCIHC developed a general MNCH readiness assessment checklist based on the WHO Service Availability and Readiness Assessment framework and used it in all 76 urban primary health centers in the 11 TCIHC-assisted cities in Madhya Pradesh and Odisha. By July 2019, 100% of these centers had undergone formative, baseline, and endline readiness assessments. Based on findings from the initial round, TCIHC advocated for investments in high impact approaches in the annual program implementation plans and supported the district health offices and cities to implement those plans, once funded. TCIHC also contributed to the training and coaching of urban medical and nursing staff and the network of community health workers accredited social health activists who are responsible for generating demand in urban areas. The percentage of urban primary health centers with high overall MNCH readiness scores (>75%) increased from 15.8% to 61.8% between the baseline and endline assessments, with cumulative scores improving in all 11 cities (Figure 5). The most noticeable improvements were in training status of urban primary health center staff; service availability at the centers; and availability of essential medicines, supplies and equipment. Smaller increases were observed in areas of infrastructure and community level services.

Figure 5. Changes in UPHC MNCH readiness scores at 76 UPHCs in MP and Odisha, by city, Jun 2018-July 2019



- **Improved access to quality pediatric care at referral hospitals in Madhya Pradesh.** TCIHC provided support to strengthen existing secondary-level facilities for maternal and pediatric care, advocated for the establishment of specialized units in these facilities, and provided technical advice on the organization, layout, and functions of the enhanced units. At six secondary-level public facilities/maternity homes in Indore, Gwalior, and Berhampur (three MNH learning cities) and one urban primary health center providing delivery services in Puri, Odisha, 15,673 pregnant women delivered from April 2017 to December 2018. At baseline (July–September 2017), 36% of women who delivered at the facilities received oxytocin during the third stage of labor, and 50% of their newborns received vitamin K. These figures rose to 52% and 96%, respectively, during the October–December 2018 quarter as a result of TCIHC's service delivery strengthening work.
- **Introduced and assessed a RMNCAH referral mechanism.** Building on a model developed by an earlier SNL program, TCIHC worked with local government bodies and public health facilities to strengthen referral for MNH and FP services in demonstration cities in Madhya Pradesh (Indore and Gwalior) and Odisha (Berhampur). This included facilitating learning visits, establishing city-level technical committees on referrals, formally linking accredited social health activists and auxiliary nurse-midwives with urban primary health centers and secondary facilities, and developing and rolling out referral slips and protocols. TCIHC supported expansion of the referral mechanism to all four zones of Indore city and to Gwalior by mid-2018 and in Berhampur in early 2019. The Government of Madhya Pradesh was among the referral mechanism's most enthusiastic adopters, introducing it in a fourth city (Bhopal) in the final year of MCSP's involvement and allocating funding to expand the approach to a total of 10 cities in its 2018/2019 and 2019/2020 program implementation plans. By the end of March

2019, 828 providers in the MNH learning cities had received training on referrals. From January to July 2019, there were 3,627 referrals from community-to-facility level in Indore for reasons mostly related to MNH (93%). Of referrals to higher-level facilities, 67% were for ANC, 4% for management of high-risk pregnancies, 7% for treatment of sick children, and 11% for FP.

  - In 2019, TCIHC commissioned a qualitative assessment of the referral mechanism in the four cities. The assessment found that the referral mechanism was well accepted by providers, clients, health facility managers, and district health departments, and that community health workers were actively embracing and able to use the mechanism. The assessment also highlighted a deeply engrained preference for hospital care requiring focused intervention if one of the main objectives of the referral mechanism is to be achieved: decongesting higher-level facilities and increasing utilization of urban primary health centers.

- **Established an integrated pediatric unit in Indore.** With the Government of Madhya Pradesh, TCIHC co-designed and piloted an integrated pediatric unit in Prakashchandra Sethi Hospital in Indore. This brought together all newborn and pediatric services within one unit in the hospital to improve patient flow, coordination of care, continuity of services, and efficiency of human/financial resources. The Government of Madhya Pradesh budgeted, through the program implementation plan process, for similar units in a total of 10 districts (four TCIHC cities and six non-TCIHC cities). At the end of the program, the facilities were operational in Indore and Ratlam.

Ensured Quality in Service Delivery

The Government of India's quality assurance program follows a unified structure at every level, with QI teams on the city and district quality assurance committees. In support of the government, TCIHC assisted the 31 supported cities to activate QI teams and support monthly meetings. QI teams were formed at 497 of the 508 TCIHC-assisted facilities (98%), with 593 QI meetings reported from January–March 2019. During the QI meetings, the participants reviewed and developed action plans based on identified gaps, and decided on next steps to improve infection prevention, hygiene, informed choice, and patient record maintenance.

The district quality assurance committee is responsible for disseminating quality assurance policy/guidelines, ensuring the standards for quality of care, and capacity-building on quality assurance issues. With TCIHC support, committees were activated in all 31 cities, and committee team members started conducting facility visits to urban primary health centers to ensure their readiness to conduct FDS. They also certified 224 urban primary health centers for FP services according to Ministry of Health and Family Welfare standards.

Additionally, TCIHC, in consultation with National Urban Health Mission teams, introduced a new cadre of field program service assistants (qualified staff nurses) to increase quality assurance at urban primary health centers. Field program service assistants provide coaching to accredited social health activists, observe FP service delivery, and ensure facility readiness using an observation tool. During the September 2018–March 2019 period, 24 cities were visited, and a field program service assistant visited 98% of 461 urban primary health centers at least once in a 6-month period. Preliminary analysis from these visits indicated an improvement in the facility FP readiness scores (as reported above). Reflecting the project's attention to QI, 13 urban primary health centers from three TCIHC-assisted cities in Odisha (seven in Berhampur, four in Puri, and two in Rourkela) were awarded the prestigious Kayakalp prize for excellence in cleanliness and hygiene. Three urban primary health centers in Berhampur were also awarded National Quality Assurance Standards certification. For more information, see TCIHC's learning page on quality assurance.)

Increased Demand for and Utilization of FP and MNH services

TCIHC worked with the community health workers, auxiliary nurse-midwives, and village women's groups to identify couples for informed choice counselling and referral to voluntary FP services. Community health workers were coached and mentored to identify households with unmet need for FP, including young, recently married couples and first time parents, and to link women and men to existing FP service delivery points. In total, 5,789 accredited social health activists received coaching visits from TCIHC and reported reaching 709,972 women with counselling from January 2018 to June 2019. This enhanced their capacity to address clients' concerns and contributed to increased demand and more clients seeking FP services at urban

primary health centers in TCIHC-assisted cities. TCIHC also contributed to the Ministry of Health and Family Welfare's revised training guide for community health workers, which the state governments used to train over 5,000 community health workers and 2,500 auxiliary nurse-midwives during the three years of MCSP involvement. Pilot activities in five cities of Uttar Pradesh demonstrated the capacity of the community health workers to counsel and refer clients to both public and private FP providers. Another male participation model was piloted in 20 cities in Uttar Pradesh to increase demand for voluntary sterilization. Finally, a successful adolescent and youth sexual and reproductive health mid-media campaign reached over 78,000 individuals, including 12,000 individuals through SMS messages.

Recommendations for the Future

The Gates Institute will continue to support TCIHC during the second phase of The Challenge Initiative through 2021. The Gates Institute is only planned to take forward FP and adolescent, youth, and sexual reproductive health activities, but TCIHC has proposed to the Gates Institute that select MNH activities are picked up with various levels of support—strictly technical assistance to the government to ensure smooth transition/uptake or full support to continue the activity. TCIHC has developed a transition plan to hand over all MNH activities to the government. To improve FP and MNH services moving forward, TCIHC recommends that the Government of India and the Gates Institute take the following actions:

- **Identify a point person within the government to carry forward MNH activities that will be transitioned from TCIHC.**
- **Continue technical assistance to the governments of Madhya Pradesh and Odisha.** This should be done for the expansion of the referral mechanism and urban primary health center readiness assessments, including training, supportive supervision, recording, and reporting.
- **Include referral indicators in the HMIS and disaggregation of MNH and FP indicators by urban/rural location.**
- **Further investigate motivators and bottlenecks to more appropriate care-seeking at urban primary health centers.** This should include development of client-centered enhancements to the referral mechanism to address client needs and concerns.
- **Support the state governments to take successful approaches beyond TCIHC-assisted cities.** This should include FDS, urban primary health center readiness assessment, quality assurance/QI approaches, the reproductive and MNH referral mechanism, and other high-impact approaches.
- **Evaluate the first 3 years of TCIHC to inform the second phase.**

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of TCIHC-supported cities establishing urban health advisory committees/city coordination committees/other coordination units	31 (target: 31; target achieved)
Number of public health facilities conducting FDS for FP services	482 (target: 400; target exceeded)
Percentage of public health facilities conducting FDS for FP services	95% (target: 80%; target exceeded)
Number of health care workers trained on FP and MNH (disaggregated by type of training, level of worker, male/female workers, and place of work)[1]	Auxiliary nurse-midwives and accredited social heath activists on FP: 3,113; on referral: 735 Doctor and staff nurse on referral: 93; on adolescent, youth, and sexual reproductive health: 75; on injectable/IUD: 99
Number of people reached through FP communication activities[2]	700,000 (target: 400,000; target exceeded)

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people benefited/reached through FP services using existing service delivery model (FDS, urban health and nutrition days, outreach camps)[3]	719,589 (target not defined)
Percentage of referred cases pertaining to high-risk/complication pregnancy from urban primary health center/lower to higher level of facilities[4]	100% (target: 20%; target exceeded)
Number of outpatient department cases (all urban primary health centers and civil dispensaries, in all TCIHC cities)	296,732 in final quarter (target: 300,000/quarter)

[1] Any training of less than 1 day is not included in this count.

[2] This is the volume of contacts made through IPC and mid-media activities from February 2018–April 2019, with adjustment for the estimated repeat visits (30%). The target was conservatively set using assumptions around the team size, pace of programming, and staff turnover. However, skills building, supportive supervision, and advocacy helped field program associates to perform at their optimal level and cities to recruit more accredited social health activists, expanding the reach of these activities.

[3] This is a cumulative number of people who received an FP method at a public facility or outreach site in TCIHC cities during February 2018–March 2019. It includes client revisits for short-term methods (injectables, oral contraceptive pills, and condoms).

[4] There was no evidence on the potential increase in the beginning. Therefore, a low target was set for this indicator.

Indonesia Summary & Results

Geographic Implementation Areas

National level (Evidence Summit)

Provinces (maternal and newborn mortality study)

- 1/34 (3%)—Banten Province

Districts and Municipalities

- 3/405 (1%)—Serang municipality, Serang District, and Pandeglang District

Population

Country

- 252 million

MCSP-supported areas

- 11.8 million

Technical Areas

Program Dates

December 1, 2016–May 31, 2018

Total Funding through Life of Project

$2,687,919

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	359
NMR (per 1,000 live births)[2]	19
IMR (per 1,000 live births)[2]	32
U5MR (per 1,000 live births)[2]	40
Births with SBA[2]	83.1%

Sources: [1] Population Reference Bureau 2014 Population Data Sheet, [2] Indonesia DHS 2012

Strategic Objectives through the Life of Project

Evidence Summit

- Provide technical and operational assistance to the Indonesian Academy of Sciences to ensure successful completion of the first Evidence Summit on Reducing Maternal and Neonatal Mortality, develop the capacity of the Indonesian Academy of Sciences to conduct Evidence Summits in the future, translate evidence from the summit into policies at all health system levels, and introduce it to the global knowledge base.
- Identify areas where further analysis of USAID's Expanding Maternal and Neonatal Survival program data can fill gaps or answer MNH questions.

Banten Studies

- Systematically measure maternal mortality in Banten Province using Maternal Death from Informants/Maternal Death Follow-On Review methodology.
- Assess whether maternal mortality has changed since Banten I study was conducted in Indonesia over 10 years ago.
- Pilot Maternal Death from Informants/Maternal Death Follow-On Review methodology to measure neonatal mortality in three subdistricts.
- Contribute important new data to Indonesia's MNH evidence base.

Highlights through the Life of Project

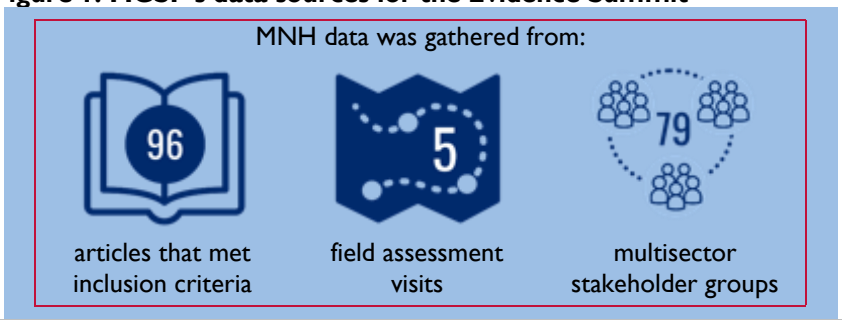
Evidence Summit

- Built capacity of the Indonesian Academy of Sciences to convene the first Indonesian MNH Evidence Summit and similar events in the future.
- Contributed to the Indonesian MNH evidence base and informed future programming through a supplement published in the *International Journal of Gynecology & Obstetrics*.

Banten Studies

- Piloted and validated use of the Maternal Death from Informants/Maternal Death Follow-On Review methodology to measure neonatal mortality.
- Informed MNH strategies to reduce the MMR by disseminating results and recommendations to major stakeholders through a series of district- and provincial-level meetings.

Figure 1. MCSP's data sources for the Evidence Summit



Indonesia—Evidence Summit and Banten II

Background

MCSP undertook two scopes of work to strengthen the capacity of local institutions and meaningfully contribute to the MNH evidence base in Indonesia. The first scope was to build upon the 2013 USAID-funded report *Reducing Maternal and Neonatal Mortality in Indonesia: Saving Lives, Saving the Future* and apply the global Evidence Summit methodology at an individual country level for the first time through MCSP's support of the Indonesian Academy of Sciences to conduct the first ever Indonesian Evidence Summit. To add to the evidence reviewed through the Evidence Summit process, MCSP assembled a team to analyze data from the USAID-funded Expanding Maternal and Neonatal Survival program, which was implemented in six Indonesian provinces from 2011–2017. The purpose was to document successful approaches to inform future MNH programming. Under its second scope of work, MCSP supported the University of Indonesia Center for Family Welfare to replicate the 2005–2006 Banten I maternal mortality study conducted in Banten Province and to pilot a new methodology for measuring newborn mortality.

Key Accomplishments

Shaped National-Level Strategic Planning

The past two Demographic Health Surveys in Indonesia reflect an increasing MMR, jumping from 228 maternal deaths per 100,000 live births in 2007 to 359 in 2012. While the country's many survey-based MMR estimates have varied widely, Indonesia's MMR has remained one of the highest in Southeast Asia, similar to its newborn mortality ratio. To support efforts to reduce Indonesia's MMR and newborn mortality ratio, MCSP worked closely with the Indonesian Academy of Sciences to conduct the MNH Evidence Summit, titled Policy Development Dialogue on Reducing Maternal and Neonatal Mortality in Indonesia: Using Evidence and Information with Stakeholder Engagement, in October 2017. The Evidence Summit process pulled together existing evidence on maternal and newborn mortality in Indonesia and identified areas where there are research gaps. Reviewing all existing published and nonpublished (gray) evidence related to maternal and newborn mortality in Indonesia was a significant task that amounted to gathering nearly 8,000 examples of literature from scientific journals, nongovernmental program reports, government findings, student theses, qualitative research, etc. MCSP tapped into its networks of global health experts to provide technical assistance to the Indonesian Academy of Sciences in six topic areas[51] and in the systematic review process itself.

The Evidence Summit was held October 4–5, 2017, at the National Library in Jakarta with over 150 stakeholder participants. The MOH used the recommendations from the Evidence Summit to inform its own decision-making on how to reduce maternal and newborn mortality and inform MNH policy. Major Evidence Summit recommendations that the MOH has endorsed during its 2019 strategic planning include (but are not limited to) accrediting all health facilities to better assess compliance with maternal and newborn care regulations, and implementing policies that encourage facility-based births.

The Indonesian Academy of Sciences aims to be an independent, scientific body that can advise the government and the people of Indonesia on the development and application of science and technology in society. As such, MCSP played a significant "behind-the-scenes" role to build the capacity of the Indonesian Academy of Sciences to conduct similar summits independently in the future. This involved introducing new concepts, such as stakeholder mapping and targeted communications strategies, and overcoming financial and operational hurdles to function independently and in compliance with donor requirements. MCSP finance, programs, and communications staff worked hand in hand with the academy to strengthen its capacity as an organization so that it can achieve its vision of becoming a leading, respected advisor on scientific topics. MCSP program staff worked with academy counterparts to introduce program management and internal communication tools to streamline processes and solve problems. Applying MCSP's expertise to strengthen the organizational capacity of the Indonesian Academy of Sciences to prepare for the Evidence Summit is an achievement that will have a lasting impact on the future of health and science in Indonesia.

[51] Topic areas included: (1) quality of health services, (2) referral systems, (3) implementation of National Health Insurance, (4) contributions of local government, (5) data utilization in decision-making, and (6) women's equality.

Validated Maternal and Newborn Mortality Research Methodologies

Given Indonesia's inconsistent results with measuring its MMR, trends in maternal deaths have been obscured. Under the Banten II study, MCSP validated the use of Maternal Deaths from Informants/Maternal Deaths Follow-On Review as a methodology to systematically measure maternal mortality. In a separate but related newborn mortality study, MCSP supported the research team to pilot the Maternal Deaths from Informants/Maternal Deaths Follow-On Review methodology for newborn mortality, known as the Neonatal Deaths from Informants/Neonatal Deaths Follow-On Review methodology. The methodologies are already being replicated in six additional districts in Indonesia (one district in each of six different provinces) by USAID's follow-on MNH bilateral to the Expanding Maternal and Neonatal Survival program, Jalin, bolstering the evidence for their utility and demonstrating that MCSP's work still advances even after project completion. Select findings from the studies include:

- Banten II showed an overall estimated reduction of 29% in MMR in three districts in Banten Province between 2006 and 2017.
- Place of delivery and where deaths occur has changed since significantly Banten I, from 32% and 65% of maternal deaths occurring at the health facility and at home, respectively, to 65% and 25%.
- Hemorrhage remained the main cause of maternal death; deaths related to pregnancy-induced hypertension increased sharply, and sepsis-related deaths decreased sharply.
- No significant improvements were seen in maternal death recording/reporting through health centers/district health offices or the hospital systems since Banten I.
- The newborn mortality pilot study showed that it is feasible to implement the adapted Maternal Deaths from Informants/Maternal Deaths Follow-On Review methodology; implementation on a larger geographic scale is needed for further testing to assess the sensitivity of the method.

These findings have encouraged further research about the characteristics of maternal deaths in order to develop more targeted strategies to improve postpartum care and ultimately reduce maternal mortality. Please see next sections on how the findings are also informing Jalin approaches.

Informed MNH Initiatives and Priorities

Following the Evidence Summit, a team of international and Indonesian researchers and statisticians led by the Johns Hopkins Bloomberg School of Public Health performed extensive data analysis (from routine monitoring and an independent study) of the Expanding Maternal and Neonatal Survival program. Researchers found that the program impacted the quality of EmONC, improved the efficiency and effectiveness of referrals, and increased accountability through mentoring. Given the richness of the data and analysis, a journal supplement comprising nine papers (six articles), "Expanding Maternal and Neonatal Survival Opportunities in Indonesia," was accepted by and published in the *International Journal of Gynecology & Obstetrics*, the official journal of the International Federation of Gynecology and Obstetrics. This publication contributes valuable evidence, including recommended approaches to improve facility readiness and better manage obstetric complications, to inform future efforts to reduce maternal and newborn mortality. Results from this analysis have been referenced by Jalin to identify the most effective approaches to incorporate into its own MNH programming.

MCSP submitted another manuscript, under its Banten II study, titled "No one data source captures all: a nested case-control study of maternal death reporting coverage from the routine health office reporting system and characteristics of missed maternal deaths in Banten Province, Indonesia," to peer-reviewed journal *PLOS One* with publication expected by December 2019. The manuscript concludes that the district health office reporting system needs to be improved to capture and characterize all maternal deaths. Additional recommendations resulting from the Banten II and newborn mortality studies that are being considered by Jalin and by district- and provincial-level health representatives include increasing the quality of care through staff training, emphasizing better coordination to reduce response time to complications, improving ANC and PNC, and partnering with traditional birth attendants to quell common pregnancy and childbirth myths.

Recommendations for the Future

MCSP's work has already had significant implications on future health policy and programming in Indonesia. The Indonesian MOH is taking the lessons learned from the Evidence Summit to inform its strategic efforts to reduce maternal and newborn mortality. Likewise, Jalin is informing its own approaches with MCSP's Expanding Maternal and Neonatal Survival analysis. To ensure these achievements are sustained and replicated, MCSP recommends the following:

- **Prioritize an inclusive approach for future programs and engage local stakeholders throughout to increase acceptance and sustainability of generated policy recommendations.** MCSP prioritized the involvement of the MOH and other essential stakeholders throughout its work. This enabled MCSP to ensure buy-in and to prepare stakeholders to apply recommendations to policy decisions.
- **Use the Banten II methodology and the newborn mortality adaptation developed under MCSP—which are already being applied in additional districts in Indonesia—in additional countries to determine MMR/newborn mortality ratio and gather more detailed information about maternal and newborn deaths at subnational levels.** MCSP anticipates that its work under the Banten II and newborn mortality studies will contribute to improved recording and reporting systems for maternal and newborn deaths in Indonesia and elsewhere.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Banten II	
Number of local partners whose capacity MCSP has built	1 (target: 1; target achieved)
Number of studies completed	2 (target: 2; target achieved)
Number of articles submitted for publication in peer-reviewed journals	1 (target: 4; 25% achieved)[1]
Evidence Summit	
Number of (national) policies/strategy documents drafted with USG (MCSP) support	1 (target: 1; target achieved)
Number of local partners whose capacity MCSP has built	1 (target: 1; target achieved)
Number of articles submitted for publication in peer-reviewed journals	6 (target: 5; target exceeded)

[1] Additional articles are forthcoming

Kenya Summary & Results

Geographic Implementation Areas

Counties
- 6/47 (13%)—Migori, Kisumu, Meru, Baringo, Bungoma, and Homa Bay

Subcounties
- 30/290 (10%)

Facilities
- 302/9,600 (3%)

Population

Country
- 50.4 million

MCSP-supported areas
- 10.3 million

Technical Areas

Program Dates

October 1, 2014–December 31, 2017

Total Funding through Life of Project

$15,536,494

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)	362
IMR (per 1,000 live births)	39
U5MR (per 1,000 live births)	52
SBA	62%
DTP3	90%
ORS for treatment of diarrhea	78.1%
TFR	3.9
CPR (modern, among currently married women)	53%
Stunting	26%

Sources: Kenya DHS 2014

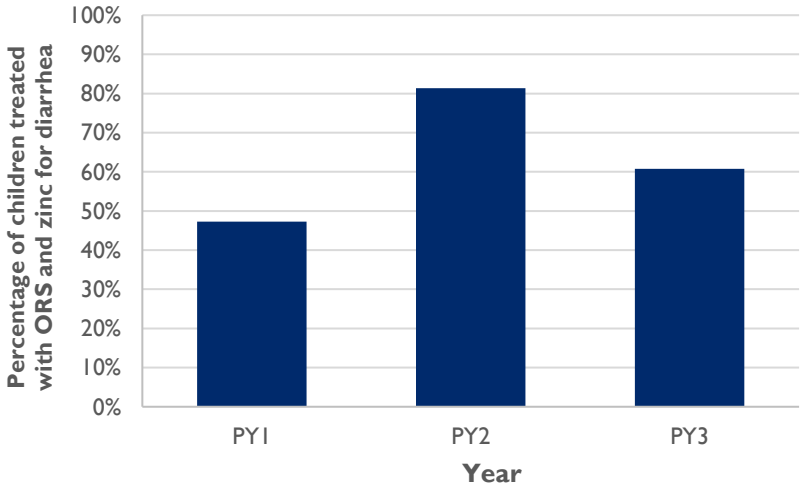
Strategic Objectives through the Life of Project

- Strengthen the core capacities of county governments and health teams to increase coverage and utilization of evidence-based, sustainable, high-impact RMNCAH, nutrition, and WASH interventions.
- Foster an enabling environment and promote program learning documentation and dissemination for improved RMNCAH, nutrition, and WASH outcomes.

Highlights through the Life of Project

- Worked with county-level leadership and service providers to strengthen reproductive health services targeted to adolescents, resulting in a 17% increase in selection of an FP method among young women and girls ages 10–19 in Migori and Kisumu counties.
- Increased the number of facilities providing quality EmONC services from 23 to 67, with 10 able to offer comprehensive EmONC services.
- Increased the number of women who received their first ANC visit from 48.3% in 2014 to 59.5% in 2016 and increased delivery with an SBA from 18.8% of pregnant women to 24.1% during the same timeframe in three subcounties in Kenya, as a result of MCSP's comprehensive HSS approach.

Figure 1. Percentage of children treated with ORS and zinc for diarrhea in Migori and Kisumu



Kenya

Background

MCSP worked in some of Kenya's counties with the poorest health indicators for women and children. MCSP began implementing activities in Migori and Kisumu counties in 2014 while continuing to support the subcounties of Igembe Central and Igembe North of Meru County and East Pokot of Baringo County through September 2016. For MiP interventions, MCSP expanded its geographical scope beyond Kisumu and Migori to include Bungoma and Homa Bay counties. The program also provided technical assistance at the national level to the Division of Family Health. MCSP supported capacity-building for county and subcounty health management teams, advocacy and resource mobilization, TWG strengthening and stakeholder engagement, commodity and supplies oversight, integrated supportive supervision, and M&E strengthening.

Key Accomplishments

Increased Capacity of County Health Management Teams

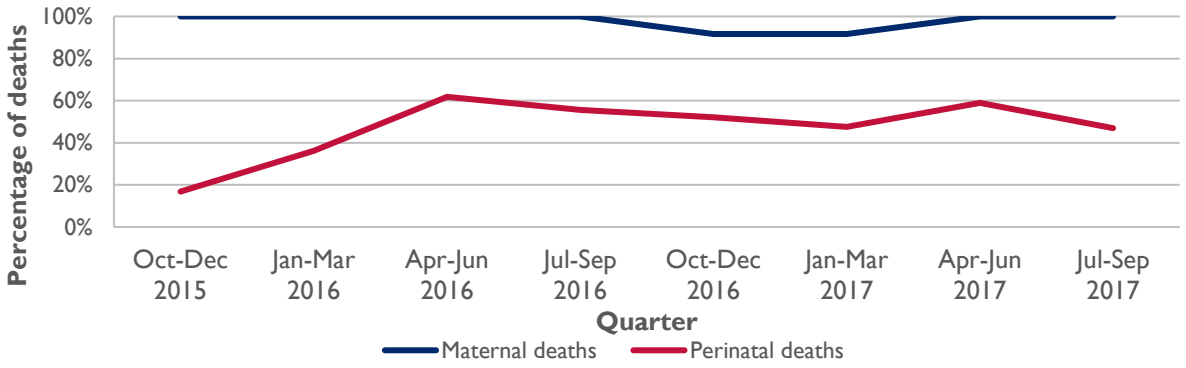
MCSP built implementation capacity of county health management teams and subcounty health management teams through on-the-job training and training in supportive supervision, mentoring, and commodity management. At the national level, MCSP strengthened the national FP program by developing 26 national LARC trainers to support the northern Arid Lands and 57 FP mentors in MCSP focus counties. Stronger countywide FP capacity will allow women and girls to make informed choices about childbearing and healthy timing and spacing of pregnancy. To improve the management of high-quality malaria services, MCSP developed 700 clinical mentors from county and subcounty health management teams as trainers and supervisors in facilities in the four malaria-endemic counties, creating stronger capacity for Kenya to continue providing MiP services and to continue its progress toward reaching national intermittent preventive treatment of MiP (IPTp) coverage targets.

MCSP mentored county and subcounty EPI supervisors to conduct supportive supervision, on-the-job training, and mentorship. The supervisors transferred their new skills to immunization champions among frontline health workers and helped subcounty teams identify local solutions to problems affecting the EPI. For example, Migori County Referral Hospital introduced vaccination sessions on weekends and public holidays, and Nyatike Subcounty screened all children at MCH clinics for immunization status. These interventions improved defaulter tracking and increased the number of children receiving the second dose of the measles vaccine. To address the frequent breakdown of cold chain equipment, MCSP supported capacity-building of cold chain technicians in Kisumu, Migori, and Igembe Central counties, contributing to an increase in the number of immunizing facilities and in the fully immunized child rate from 22% to 39% between 2014 and 2016 in East Pokot.

Improved the Quality of MNH Services

MCSP strengthened the quality of MNH services by combining established training, supervision, mentoring, and facility readiness activities with QI teams at 67 EmONC sites. Health facilities received training and material support to measure performance of MNH services and IPC measures against MOH standards using the SBM-R methodology to ensure the quality of care. MCSP institutionalized maternal and perinatal death surveillance and response (MPDSR) in Kisumu and Migori counties, leading to a review of 100% of maternal deaths and improvements in the percentage of perinatal deaths reviewed, from 17% in 2014 to 47% in 2017 (see Figure 2). Furthermore, 14 MCSP-supported KMC centers enrolled 756 preterm or low-birthweight infants, 658 (87%) of whom survived.

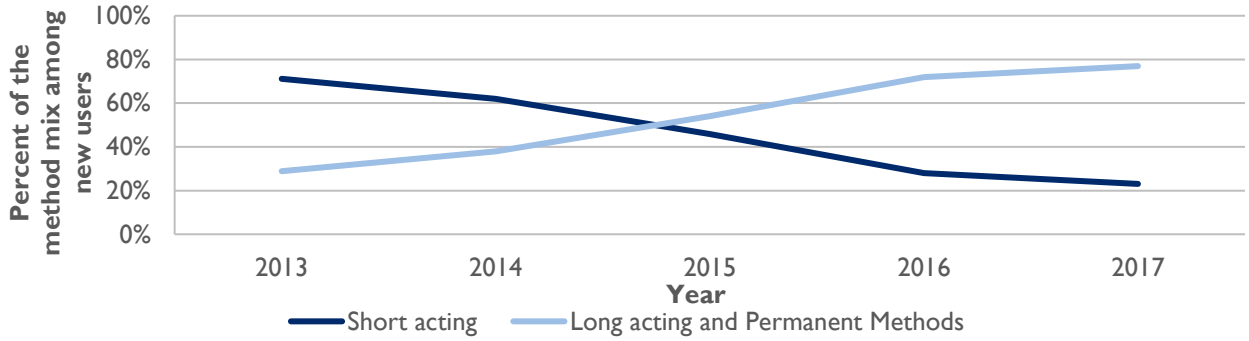
Figure 2. Percentage of audited maternal and perinatal deaths



Introduced Levonorgestrel Intrauterine System into Public Sector

While over 99% effective and safe, the levonorgestrel intrauterine system (LNG-IUS) method of FP has only been available to women in Kenya via the private sector due to its relatively high cost. In partnership with the International Contraceptive Access Foundation and in collaboration with the MOH at the national and subnational levels, MCSP supported the introduction of the LNG-IUS in 31 public facilities in Kisumu and Migori counties. The program used a structured mentorship model to build the capacity of health care workers, which helped ensure that facility-level service providers were competent in inserting and removing LNG-IUSs. In this model, mentorship and supervision were led by county-level MOH staff who had been trained in LNG-IUS provision via the MCSP-developed national LARC learning resource package. Following the introduction, over 1,000 women voluntarily took up the method, with 70% of the adopters being new contraceptive users or switching from short-term methods. This contributed to the improved LARC uptake from 8% at project inception to 40% at end of the project.

Figure 3. Trend of the contraceptive method mix among new FP users in Migori



Increased Coverage of IPTp

MCSP's work on MiP in Kenya saw a steady improvement in coverage of pregnant women receiving at least two doses of IPTp since the project's inception: IPTp1 uptake increased from 68% in 2015 to 79% in 2017, and IPTp2 uptake increased from 55% to 66% in the same timeframe across the supported facilities in the four MiP focus counties of Bungoma, Homa Bay, Migori, and Kisumu. To gain these achievements, MCSP invested in capacity-building at the national, county, health facility, and community levels. Nationally, MCSP participated in malaria case management and M&E TWGs. It also provided technical inputs for the revision of four MiP information, education, and communication materials and the adaptation of the WHO third edition of *Prevention and Control of Malaria during Pregnancy: Reference Manual for Health Care Providers*. At the county and subcounty levels, MCSP developed 410 clinical mentors and community health assistant trainers to serve as an ongoing resource for MiP in facilities and communities, reaching 1,864 health care workers and 11,500 community health volunteers in the four focus counties, all of which have high malaria prevalence. The 2,344 community health volunteers were trained to promote MiP at the community level and encourage pregnant women to start IPTp early in the second trimester. This resulted in a 14% increase in the percentage

of pregnant women attending ANC at ≤ 20 weeks' gestation in the year following the training. The increase in early ANC attendance is likely associated with community health volunteer MiP promotional efforts, which are being replicated in three additional counties and extended to other malaria-endemic counties.

Scaled Up Implementation of the RED Approach

To reduce the numbers of unvaccinated and undervaccinated children, MCSP provided targeted support to the subcounties to implement the five components of the WHO RED approach. With MCSP support, all facilities developed and implemented microplans using diverse strategies to reach target populations while addressing facility-specific challenges affecting immunization services. MCSP focused particularly on linking services to the community through the use of community health volunteers to mobilize clients and track defaulters, and through outreach for hard-to-reach areas. For instance, facility data showed that in East Pokot, 8% of children who were vaccinated were reached through outreach. MCSP's support contributed to an increase in the number of children receiving the third dose of pentavalent vaccine from 68,460 to 70,246 in Kisumu and Migori between 2014 and 2016. In the same period, the number of fully immunized children in the counties increased from 63,605 to 67,844, and fully immunized coverage increased from 76% to 84%.

Strengthened Primary-Level Health Care Providers' Knowledge, Skills, and Practices of IMCI Service Provision

Leveraging the existing pool of experienced county and subcounty IMCI trainers, MCSP trained facilitators in administering the IMCI mentorship tool, its analysis, and provision of feedback to health care providers. The program further facilitated mentorship of 934 health care providers to provide correct treatment and increase coverage of lifesaving interventions. It also worked with the county MOH to further institutionalize this mentorship approach by advising on the development of a county IMCI mentorship model. The model outlines key competencies required of service providers and uses an adapted WHO supportive supervision checklist to help mentors assess and address gaps in service providers' knowledge, skills, and practices. It is now part of activities included in the counties' annual work plan.

Implemented the National Baby Friendly Community Initiative Package

MCSP supported the finalization of the Baby Friendly Community Initiative package, a process that begun under MCHIP. This was followed by implementation in Kisumu and Migori counties between September 2016 and September 2017. As a result, rates of prelacteal feeding reduced from 25% to 10% overall, while introduction of solid and semisolid foods among children between ages 6–8 months improved from 71% to 85% (October 2016 to June 2017). With support of the MOH's Nutrition and Dietetics Unit, the package has been scaled up in other counties not supported by MCSP through other local implementing partners.

Recommendations for the Future

Through its experience in Kenya, MCSP developed a number of recommendations to be considered by the MOH and future projects working in the country.

- **Create a local pool of specialists to act as clinical mentors.** MCSP's approach of creating a local pool of specialists to serve as clinical mentors in various technical areas ensured that training was cascaded to reach a critical number of service providers. This was a best practice and a strategy that should be adopted and scaled up, especially in areas with inadequate numbers of health care providers, as it avoids closure of health facilities that are manned by one health care provider due to classroom training.
- **Enhance public-private partnerships.** Community health volunteers should be used more often to promote access for health services through mobilization and enrollment of community members in health insurance schemes, such as the National Hospital Insurance Fund and Linda Mama. Public-private partnerships should be further enhanced, as they largely contribute to service delivery data that inform decision-making in counties.

- **Prioritize construction and staffing of new health centers.** There is a need for continued advocacy with county management to prioritize construction and staffing of new health centers at the subcounty level to make services accessible to all.
- **Strengthen county-level leadership.** Creation of county-level thematic TWGs and strengthening of existing ones provides a forum where the county health management team spearheads and provides leadership in technical areas.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of pregnant women delivering with an SBA	62% (70%; 89% achieved)
Percentage of pregnant women given IPTp2 among women attending ANC visit	79% (80%; 99% achieved)
Couple years of protection	667,488 (591,861; target exceeded)
Percentage of children under 1 year who are fully immunized	85% (67%; target exceeded)
Percentage of children receiving the diphtheria-tetanus-pertussis vaccine	85% (72%; target exceeded)
Percentage of children under 5 with diarrhea treated with ORS and zinc	85% (63%; target exceeded)
Percentage of pregnant women who receive iron with folic acid supplementation during ANC	85% (65%; target exceeded)
Percentage of pregnant women delivering with an SBA	85% (61%; target exceeded)

Lao People's Democratic Republic

Summary & Results

Geographic Implementation Areas

Provinces
- 2/18 (11%)—Luang Prabang and Sayaboury

Districts
- 10/23 (43% in 2 provinces)

Facilities
- 12/25 (48% in 2 provinces)

Population

Country
- 6.49 million

MCSP-supported areas
- 813,200

Technical Areas

Program Dates

October 1, 2015–March 31, 2019

Total Funding through Life of Project

$1,800,000 (Asia Bureau)

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	125,614
MMR (per 100,000 live births)[2]	206
NMR (per 1,000 live births)[2]	32
IMR (per 1,000 live births)[2]	57
Percentage institutional deliveries[2]	37.5%
Percentage of births with SBA[2]	41.5%
Newborns breastfed within 1 hour (%)[2]	39%

Sources: [1] Results of Population and Housing Census 2015; [2] Lao Social Indicator Survey DHS 2011–2012

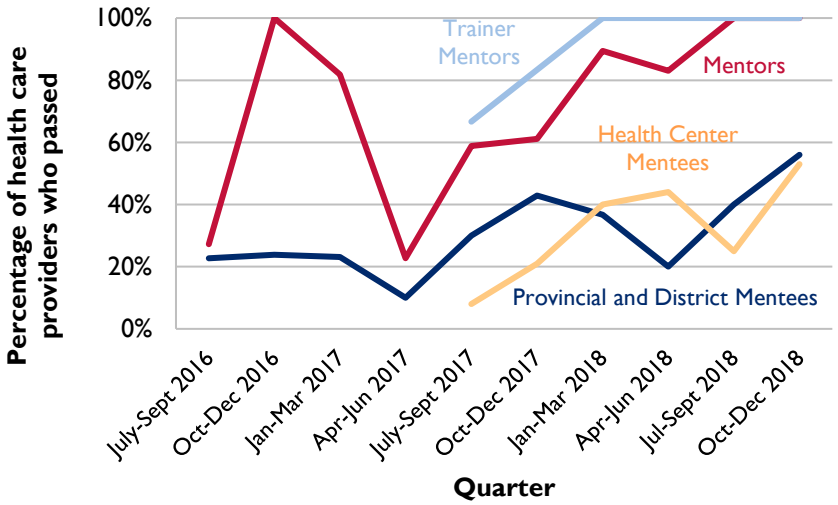
Strategic Objectives through the Life of Project

- Improve the quality of maternal and newborn care in Luang Prabang and Sayaboury provinces by strengthening key skills for maternal and newborn care among MNH care providers, their educators, and their supervisors.
- Support process documentation of program learning to inform the MOH's and other stakeholders' efforts to improve MNH care.

Key Accomplishment Highlights through the Life of Project

- Facilitated dramatic improvements at MCSP-supported health facilities in completion of partographs (10% to 79%), early breastfeeding (34% to 99%), and skin-to-skin contact (36% to 99%).
- Improved evidence-based clinical competencies among mentees from district facilities and remote health centers.
- Improved MNH clinical and mentoring skills among MCSP-trained health providers, and developed of a pool of champions with mentoring skills.
- Developed a case study and mentoring implementation guide on building human capacity through peer mentorship in the Lao People's Democratic Republic (Laos) to support future implementation of the mentoring program.
- Secured commitments from provincial health departments and new external funding (Save the Children Japan, Australia, and Korea, and the European Union Scaling Program), ensuring that mentoring will continue beyond MCSP.

Figure 1. Percentage of health care providers in Luang Prabang Province who demonstrate at least seven of nine key skills for normal delivery if the baby is not breathing, according to objective structured clinical examination standards



Lao People's Democratic Republic

Background

For 23 years, there was no midwifery education in Laos. By 2009, there were only 100 midwives left in the country. To address this shortage, the government introduced the SBA plan, which aimed to deploy 1,500 midwives by 2015. A rapid training plan was initiated, which resulted in over 1,784 midwives in the country by 2015. However, these mostly young, newly qualified midwives were often deployed to remote health centers without support or continuing professional development opportunities. The rapid training had not equipped them with the skills, experience, or confidence to provide high-quality care, nor the supportive supervision that is essential to the effective functioning of a health system.

MCSP's program in Laos supported capacity-building for MNH providers through a mentorship approach. This approach focused on improving the skills and confidence of MNH providers to ensure high-quality care at the time of birth and to reduce infant and maternal mortality. The approach included training district-level health providers to mentor their peers and colleagues as part of their daily work in district facilities, with the aim of ensuring that evidence-based, high-impact practices become the norm. Additional details can be found in the case study *Building Human Capacity through Peer Mentorship in Lao PDR*.

Key Accomplishments

Improved Provider Skills

Results from MCSP's mentorship activities to improve MNH provider skills and practices were promising. As seen in Figure 1, pass rates on objective structured clinical examinations increased overall between October 2016 and September 2018 for all skills for the trainer mentors, mentors, and provincial and district mentees. For health center midwives, the overall trend in pass rates increased from July 2017 to December 2018 for nearly all quarters and for all standards except bag and mask ventilation for newborns.

Improved Mentor Skills, Relationships, and Provider Capacity

Over the course of the program, MCSP trained and supported mentorship activities for four cadres of health providers: provincial mentors, district mentors, health center midwives, and community volunteers. This included training for 18 provincial mentors and 40 district-level mentors, mentorship of 60 district-level MNH providers, and mentorship of 54 health center midwives from all 45 health centers in Luang Prabang. It also encompassed training for 25 health center midwives to support community volunteers as part of a social and behavior change approach; these volunteers will provide home visits to households in a child's first 1,000 days, from pregnancy until the child is 2 years old.

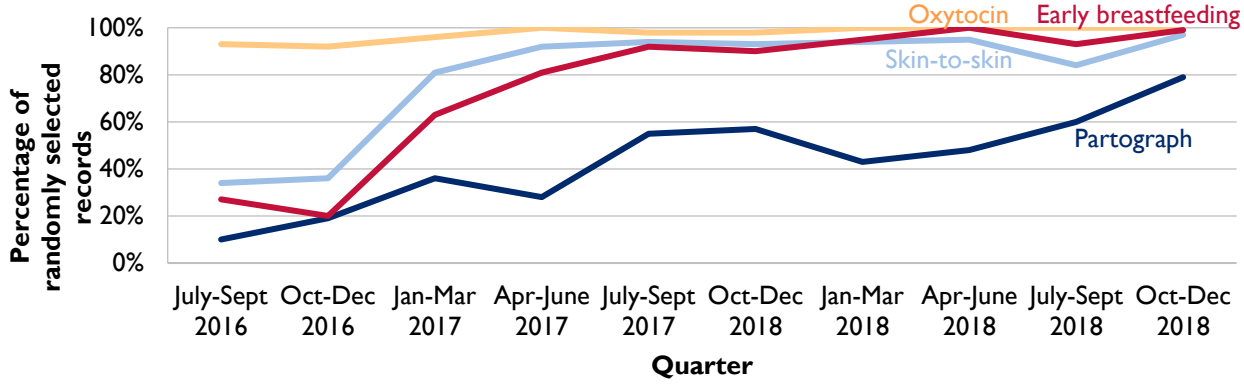
The results from mentoring skill assessments showed significant improvements between July and December 2016, when the target of 90% of mentees achieving a passing score was surpassed. Data from follow-up assessments in 2018 and 2019 show that these skills have been maintained. These results are encouraging, demonstrating that an alternative human capacity development approach, such as mentoring, can be effective even in a culture of didactic teaching and learning styles. Nearly every provider interviewed during the qualitative program review commented on the positive contribution of mentorship toward strengthening relationships among providers in the facilities. Providers noted increased communication, improved feedback, stronger relationships between supervisors and direct reports, and more active staff who learn from each other and give feedback to colleagues on areas for improvement.

Improved Quality of Care in Facilities

MCSP collected data on indicators associated with the mentorship and training activities from randomly selected clinical records in MCSP-supported facilities to understand changes in practice. During the life of the project in Laos, the percentage of women receiving a uterotonic in the third stage of labor in MCSP-supported areas was high when MCSP data collection began, and it showed incremental increases during initial quarters and reached 100% during the last few quarters. Newborns achieving early initiation of breastfeeding within 90 minutes at targeted health facilities increased from 34% to 99% and those placed skin

to skin immediately after birth for at least 90 minutes in targeted facilities increased from 36% to 99%. Additionally, randomly selected partographs that were filled in as per protocol at target health facilities increased from 10% to 79% (see Figure 2).

Figure 2. Percentage of randomly selected records that demonstrate implementation of key quality of care interventions for mothers and newborns during labor, delivery, and predischarge postpartum



Development of Mentorship Resources

MCSP developed three educational films to illustrate MCSP's mentoring approach and guide those who would like to introduce a similar project. The films were produced as complementary tools for the implementation manual, which provides an overview of how the program evolved from the first workshop and includes essential materials, lesson plans, and guidelines. An M&E system and data collection methodology were also developed to help districts take ownership and lead collection, analysis, and use of data. These resources, all included in the implementation manual, will assist others in replicating mentoring or integrating parts of the approach in their programs.

Recommendations for the Future

MCSP made significant progress in establishing the mentoring approach in Luang Prabang and Sayaboury provinces, but more work is needed to build on these achievements. As the MCSP program was embedded in Save the Children's Primary Health Care program, gains achieved under MCSP will continue and be expanded with support from other donors. The following recommendations are made for the next phase of the mentoring program:

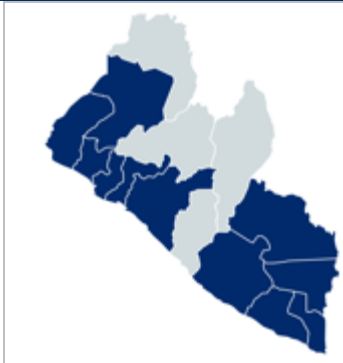
- **Continue national promotion and expansion of the mentorship program.** At the national level, it will be important to build the evidence base for mentoring as an effective approach in Luang Prabang and maintain the interest gained following the dissemination workshop in July 2018. Luang Prabang should be established as a learning site for other stakeholders to understand the mentoring approach and how to scale it up, with plans to expand the mentoring program to three new districts in Luang Prabang and three new northern provinces (Phongsaly, Luang Namtha, Huapan). The mentorship approach should also be promoted through platforms such as the national RMNCAH meetings and other opportunities for the mentors to advocate for this approach.
- **Empower and train mentors.** At the provincial and district levels, mentors should be empowered by ensuring the continued engagement of leadership and recognition. Future programs should build the training skills of district mentors, advocate for mentors to be part of the regular supervision team, and seek opportunities to train the provincial supervision teams in a mentoring approach and guide them toward a supportive capacity-building approach rather than checklist monitoring. Mentors should additionally be supported to continue to self-monitor and train them in understanding and using monitoring data for decision-making.

- **Use a mentorship approach to support health center midwives and community volunteers.** The health center and community levels should use a mentoring approach to build midwives' skills to provide care at the time of birth and provide opportunities for them to train and support community volunteers to conduct household visits, facilitate peer group meetings, and promote MNH interventions, such as skin-to-skin contact, delayed bathing, and recognition of dangers signs for the mother and newborn.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of newborns from randomly selected clinical records who achieve early initiation of breastfeeding within 90 minutes at targeted health facilities	99% (target: 44%; target exceeded)
Percentage of women from randomly selected clinical records who received a uterotonic (oxytocin IM) in the third stage of labor in MCSP-supported areas	100% (target: 90%; target exceeded)
Percentage of mentors correctly demonstrating five of seven key mentoring skills according to mentoring standards	94% (target: 90%; target exceeded)

Liberia Enhancing Malaria Services

Summary & Results



Geographic Implementation Areas

Counties
- 11/15 (73%)—Bomi, Gbarpolu, Grand Bassa, Grand Cape Mount, Grand Gedeh, Grand Kru, Margibi, Maryland, Montserrado, River Gee, and Sinoe

Districts
- 33/96 (69%)

Facilities
- 270/493 (55%)

Population

Country
- 4.73 million

MCSP-supported areas
- 4,433,329 (89%)

Technical Areas

Program Dates
October 1, 2017–September 30, 2019

Total Funding through Life of Project
$3,469,791

Demographic and Health Indicators

Indicator	# or %
Children ages 6–59 months who tested positive for malaria by rapid diagnostic tests	45%
Households with at least one ITN	62%
Children under 5 and pregnant women ages 15–49 who slept under an ITN the night before the survey	<5: 44% Pregnant women: 40%
Pregnant women receiving IPTp	IPTp2: 55% IPTp3+: 22%

Source: 2016 Liberia Malaria Indicator Survey

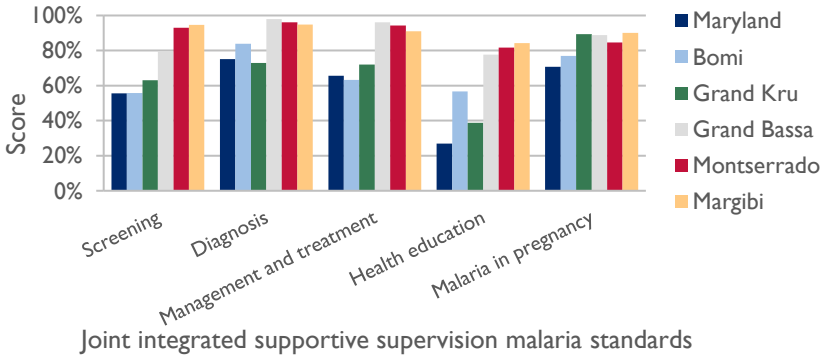
Strategic Objectives through the Life of Project

- Provide national level support to aid the MOH, NMCP, and Family Health Division to improve uptake of malaria case management and malaria in pregnancy services (October 2017-September 2018)
- Strengthen five county health teams' ability to implement, manage, and monitor malaria programming (October 2017-September 2018)
- Provide technical assistance to a Fixed Amount Reimbursement Agreement to implement, manage, and monitor health programs in six counties (Bong, Nimba, Lofa, River Gee, Grand Gedeh, and Grand Cape Mount, October 2018-September 2019)
- Strengthen two county health teams' ability to implement, manage, and monitor malaria programming in Margibi and Grand Bassa counties (October 2018-September 2019)
- Strengthen four county health teams' ability to implement, manage, and monitor malaria programming in Bomi, Montserrado, Grand Kru, and Maryland counties (October 2018-September 2019)
- Strengthen needed national level support for counties to optimize their delivery of critical health services (October 2018-September 2019)

Highlights through the Life of Project

- Trained 575 clinicians (facility staff and county supervisors) on proper screening, testing, diagnosis, management, and treatment of malaria using the MOH-revised MiP and case management technical guidelines.
- Built capacity of 20 national-level supervisors on the NMCP onsite mentoring and coaching tool that will be used for NMCP biannual supportive supervision.
- Reached 100% (359) of facilities through joint integrated supportive supervision, with each facility receiving at least one visit per quarter.

Figure 1. Country malaria standards scores (January–March 2019)



Liberia—Expansion of Malaria Services

Background

In Liberia, PMI has supported the NMCP since 2008 to implement high-impact, proven malaria interventions at the central, county, and district levels through several implementing partners. Traditionally, USAID/PMI in Liberia has provided county- and district-level support in three USAID focus counties: Bong, Lofa, and Nimba. In 2016, USAID added three new counties: Grand Bassa, Margibi, and rural Montserrado. The agency contributes to the NMCP's vision of achieving a healthier Liberia with universal access to high-quality malaria interventions and no malaria deaths.

Beginning in 2017, PMI expanded program management assistance in Liberia to five of the nine remaining counties, to eventually cover all 15 counties in Liberia. From October 2017 to December 2018, MCSP's Expansion of Malaria Service program in Liberia focused on county-level activities in the three southeastern counties (Grand Gedeh, River Gee, and Sinoe) with the highest malaria burden and in two northwestern counties (Gbarpolu and Grand Cape Mount) where the program had partner support. PMI also asked MCSP to work alongside the NMCP to fill in gaps and strengthen national-level planning and activity implementation in counties through effective and timely supportive supervision, onsite mentoring and coaching, training facility staff and county and district supervisors, regularly updating protocols, providing job aids, and providing technical assistance to county health teams to effectively manage malaria interventions.

In September 2018, MCSP transitioned Gbarpolu and Sinoe counties to the World Bank. In October 2018, MCSP expanded to Grand Bassa and Margibi counties, and on December 31, 2018, it transitioned River Gee, Grand Gedeh, and Grand Cape Mount counties to USAID's Fixed-Amount Reimbursement Agreement mechanism. Beginning in January 2019, MCSP's support expanded to four additional counties: Bomi, Grand Kru, Maryland, and Montserrado.

Key Accomplishments

Built Capacity of Health Workers

In Liberia, the MOH, county and district health teams, and implementing partners utilize the joint integrated supportive supervision tool, which supervisors use during supportive supervision visits to review quality of care provided by health workers, including skills they learned in trainings. Using the MOH-revised joint integrated supportive supervision tool, MCSP, in collaboration with county and district health team staff, strengthened the regular, 1-day mentoring and monthly supportive supervision visits in 359 facilities. During these visits, MCSP and the county/district health teams conducted on-the-job mentoring and coaching on MiP and case management skills, and mentored facility and county/district health team staff on data validation to strengthen data quality and timely reporting. These supervision visits included direct observation, simulation, and records review. Each supervision focused on areas of malaria program quality at health facilities, including screening, diagnosis, treatment, stock management, prevention, and data quality. After assessing the core areas, MCSP and the county/district health teams supervised health workers to ensure services adhered to revised national guidelines and received mentoring from MCSP based on the gaps identified. At the end of each visit, staff held feedback sessions to discuss the key findings, improvements made, action items, and recommendations. The involvement of the county and district health teams during supportive supervision and mentoring visits encourages ownership and skills transfer from MCSP staff to the local stakeholders, thereby increasing institutionalization of skills and practices at the facilities.

Findings from the supportive supervision visits revealed that facilities were adhering to confirmatory diagnosis requirements before treating clients. Supervisors assessed the following: staff knowledge on malaria interventions, availability of standard protocols at the facilities, availability of antimalarial commodities, and adherence to national guidelines and protocols. Additionally, supervisors worked with facility staff to identify gaps, provide mentoring and coaching, and develop action points to mitigate the identified gaps. By conducting these visits jointly with the county and district health teams, MCSP built their capacity to provide supportive supervision after the program closes.

Tested Facility-Based Performance Tracking Wall Chart

MCSP collaborated and coordinated with the NMCP and MEASURE Evaluation to review and finalize the facility-based indicator performance tracking wall chart for malaria interventions. Following finalization of the chart, MCSP, with NMCP supervisors, conducted a pre-pilot field test of the chart at two health facilities. The team conducting this field test observed that all data elements on the wall chart could be collected from health facilities' routine registers. Using the field test's findings and stakeholders' inputs, MCSP finalized the wall chart and printed copies in a reusable, poster-size format. MCSP also developed standard operating procedures on how facility staff will use the wall charts and supported a pilot of the charts at 50% of health facilities in Bomi, Grand Bassa, and Margibi counties. Findings from the pilot test indicate that future programs and the NMCP should roll out the chart to additional counties and facilities.

Developed Human Capacity to Improve Malaria Services

MCSP trained 575 health team staff from 11 MCSP-supported counties on integrated MiP and case management, and all 270 county and district supervisors who work in malaria on the revised joint integrated supportive supervision tool and process. The training focused on updates to the revised MOH MiP and case management guidelines, supervision, coaching, and team-based mentoring skills to enable supervisors to provide onsite team and individual mentoring and coaching during supportive supervision visits and to allow them to act on gaps observed during these visits. In addition to staff training, MCSP worked with the county health teams to identify malaria focal people in each county to strengthen planning, coordination, and supervision of malaria interventions. Supported clinicians and supervisors are now empowered and feel confident to deliver quality malaria services. (See the MiP country profile for Liberia for more information.)

Supported County Health Teams and Coordination with Partners

MCSP supported the county health teams in the project-supported counties to successfully conduct regular health-sector coordination committee meetings. During these monthly meetings, MCSP discussed updates on project activities implemented in collaboration with county health teams; gaps in staff performance identified during supportive supervision; data quality issues; and coordination with county health teams, district health teams, and partners. MCSP and the county health teams also reviewed action plans developed to mitigate or resolve gaps. As a result of these meetings, plans (with defined responsibilities and timelines) for the following months were developed and reviewed by all stakeholders. This work ensured that duplication of efforts was avoided by partners and that time and resources were maximized.

MCSP worked with the MOH and county health teams to organize and reactivate quarterly performance review meetings in the supported counties. Participants included district health officers, district supervisors, county health officers, county M&E focal points, and county supervisors. MCSP, in collaboration with the county health teams, conducted these meetings to discuss activities in the previous quarter relating to MiP, case management, data use, IPC, and RMNCAH. These meetings provide districts with a forum in which to share best practices and work collaboratively to set realistic and achievable targets for the upcoming quarters.

MCSP provided further quarterly needs-based support to the county health teams to help with malaria services implementation, including logistics support, provision of generator fuel, and delivery of MiP and case management treatment guides, for all 270 intervention facilities. In addition, MCSP provided financial and technical support for the successful hosting of World Malaria Day celebrations in the six supported counties and participated in the national-level celebration. Finally, MCSP collaborated with county health teams to strengthen the link among the county health teams, Chemonics/procurement supply management, and the National Drug Service (supply chain unit of the MOH) to ensure adequate quantification, procurement, distribution, and supply of necessary commodities, supplies, and essential drugs at the MCSP-supported health facilities in the five counties.

Supported the Malaria Control Program

MCSP supported the NMCP to conduct the midterm review of the national malaria strategic plan (2017–2021), enabling the NMCP to make necessary updates and corrections. MCSP also supported coordination of

national-level malaria programming through the revision of the MiP and case management TWGs' terms of reference. Additionally, MCSP supported the merger of the two groups, making it one malaria case management TWG for effective coordination of all malaria implementing partners at the national level.

Recommendations for the Future

MCSP built county health teams' capacity to implement, manage, and monitor malaria programming, which will support their move to self-reliance. MCSP recommends that future implementers continue to conduct coordinated supervision and monitoring, and further strengthen malaria programming capacity through the following:

- **Roll out guidelines revised at the national level.** The revised guidelines should be shared with facilities in a timely fashion to achieve improved outcomes.
- **Provide financial and logistical support to enable timely supportive supervision, feedback, and follow-up.** Without this additional support, counties are currently unable to carry out timely interventions.
- **Maintain the malaria focal people within each county health team.** This was a major contributing factor to MCSP's achievements in the counties.
- **Prioritize and strengthen district leadership needs, and link facilities with the county health team.**
- **Ensure that transitions between implementers and/or the MOH are discussed from the beginning of each project to promote ownership and sustainability.**

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of health care workers who successfully completed an in-service training program within the reporting period	286 (target: 300; 95% achieved)
Insecticide-treated net coverage for pregnant women	74% (target: 95%; 78% achieved)
Percentage of people presenting with fever tested for malaria with rapid diagnostic test or microscopy at supported health facilities (< 5 years)	84% (target: 76%; target exceeded)
Number of county health team supervision visits conducted using the joint integrated supportive supervision tool /form	189 (target: 68; target exceeded)

Liberia Human Resources for Health

Summary & Results

Geographic Implementation Areas

Regions
- 4/15 (27%)—Bong, Grand Gedeh, Lofa, and Montserrado

Districts
- 20/88 (23%)

Facilities
- 20/829 (2%)

Population

Country
- 4.73 million

MCSP-supported areas
- 2.24 million

Technical Areas

Ebola

Program Dates

April 1, 2016–January 31, 2019

Total Funding through Life of Project

$10,589,600 (Ebola funds—Pillar II)

Demographic and Health Indicators

Indicator	# or %
Total health workforce density (per 1,000 population)[1]	0.86
Estimated workforce affected by EVD[1]	4%
Workforce who contracted EVD[1]	372
Workforce who died by EVD[1]	180
Number of midwives deployed and working in the health system[2]	927

Source: [1] Liberian MOH Report 2015; [2] MOH Human Resources Information System.

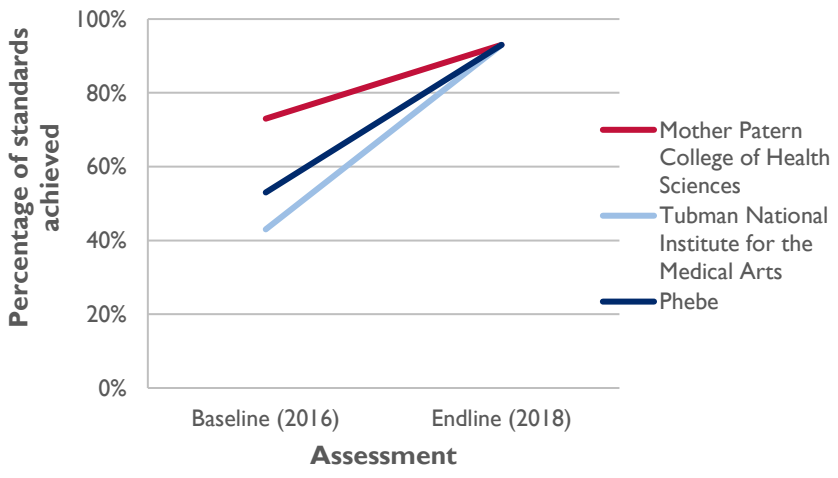
Strategic Objectives through the Life of Project

- Increase the quality of instruction at targeted pre-service training institutions by upgrading the technical competencies and teaching skills of faculty, including clinical preceptors, and strengthening curricula, course materials, and delivery of both didactic and clinical training.
- Strengthen the learning environment at targeted pre-service training institutions and clinical teaching sites comprehensively through improved access to high-quality instructional resources, equipment, and technology.

Highlights through the Life of Project

- Improved the quality of learning, student performance, and institutional standards across all three medical laboratory technician and five midwifery programs.
- Established effective working relationships with clinical practice sites and equipped them with functional frameworks and minisimulation centers, which increased students' competency and confidence and resulted in improvements in performance from 18% at baseline to 82% at endline.
- Improved management and leadership capacities of institution deans and directors in resource mobilization; creation of asset inventories; data for decision-making and documentation; budgeting; enabling sustainable, high-quality, competency-based programs; and establishing professional human resources management practices through the Leadership and Management Development Program.

Figure 1. All three medical laboratory programs achieved 93% of standards at endline following MCSP support



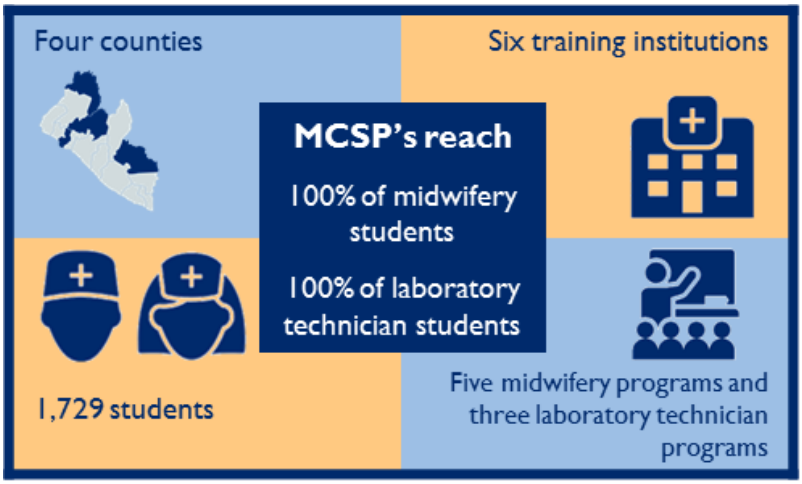
Liberia—Human Resources for Health

Background

In light of the Ebola crisis, USAID Washington and the Mission in Liberia asked MCSP to support its commitment to strengthening Liberia's health workforce through MCSP's Liberia Human Resources for Health project. MCSP's goal was to strengthen the capability and resilience of Liberia's frontline health workforce to address second-order impacts from the Ebola crisis by strengthening pre-service training of midwives and laboratory personnel, two critical cadres whose shortage and lack of adequate training contribute to Liberia's vulnerability to public health crises.

MCSP envisioned that at the end of the program, Liberia would have proficient midwifery and laboratory educators, prepared clinical teaching sites, a larger and better-prepared graduating class of midwives and laboratory personnel with the required practical skills, and better-equipped and -managed pre-service training institutions (see Figure 2). In collaboration with the Liberia MOH, MCSP enabled Liberia to have a more resilient health and laboratory workforce to improve provision of quality health services and prevent future outbreaks of Ebola and other infectious diseases.

Figure 2. Scope of MCSP's Human Resources for Health programmatic reach in Liberia*



* Some institutions had both a midwifery and a laboratory technician program, while others only had one program or the other.

MCSP focused on improving access to high-quality instructional resources, equipment, and technology, and strengthened curricula, course materials, and didactic and clinical training. MCSP also strengthened the learning environment at six targeted pre-service training institutions in total, some of which had both a medical laboratory technician programs and a midwifery program (each with an associated clinical practice site), while others had one program.

Key Accomplishments

Improved Leadership and Management in Schools

MCSP's rapid assessments at the start of the program showed that school directors did not feel fully empowered or enabled to lead and manage their academic institutions. Many lacked key management skills and practices, and had limited capacity to access data on budget, student intake, attrition, or graduation rates. This gap in leadership and management led to limited retention of staff, inability to perform basic financial management tasks, poor teaching quality, insufficient student-to-teacher ratios, poor learning environment quality, and inadequate management of clinical and other critical issues.

MCSP developed the Leadership and Management Development Program to build the capacity of school directors to perform skills that follow the LEADER acronym: learning environment management, effective communication, assertive negotiation, data utilization and management, engaged problem-solving, and resource mobilization and management. MCSP led four 2- to 3-day training sessions, totaling 9 days, from

May 2017 to March 2018. The Leadership and Management Development Program resulted in improved budgeting (a new topic for most deans and directors), management, and human resource practices. By the end of the training, all directors and deans were developing budgets. In one example, a school director reported that skills he learned through the Leadership and Management Development Program enabled him to create a resource mobilization strategy to successfully fill a chronic gap in funding for student clinical practice internships.

Students work with an MCSP staff member in one of the new simulation centers. Photo by Erica Chin, MCSP.

MCSP also created an academic management information system database and online interface called the PSE Information System, which allows schools to properly manage all students' personal, academic, enrollment, admission, and graduation records, enabling accurate reporting for decision-making that promotes improved educational quality. The PSE Information System helps meet MOH HMIS goals and priorities to gather information on student records, performance, and graduation rates from the PSE institutions, and allows deans and directors to easily access data for use in planning and budgeting.

Improved the Quality of Faculty and Preceptors

In July 2016, MCSP conducted a rapid needs assessment of the country's five midwifery and three medical laboratory technician schools and their related clinical settings. One of the key gaps that emerged was a lack of teaching skills among faculty in the schools and preceptors who observe and teach students in clinical settings. Some were competent health workers, but many had never received any training on how to be effective faculty.

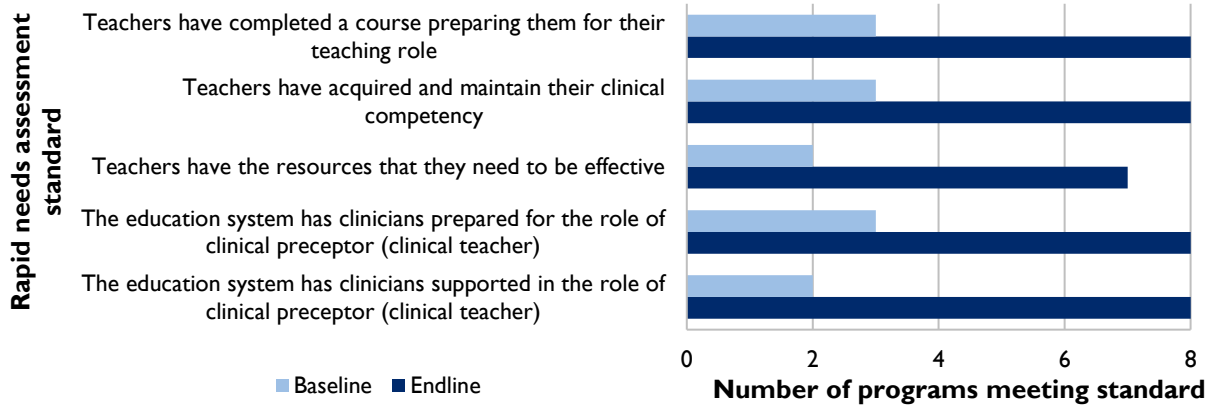
To address this need, MCSP delivered a series of 3- to 5-day workshops to build teaching and student assessment capacity. MCSP combined the workshops into a blended learning Faculty Development Program that provides comprehensive training to both faculty and preceptors. The first cohort of 18 participants graduated in March 2018. In late 2018, MCSP transferred management of the program to a local university so it will continue after MCSP's closeout. The Liberia Board of Nursing and Midwifery approved the Faculty Development Program as a certificate course for continuing education credits, and schools can use the program to meet educational institution accreditation requirements.

MCSP also delivered clinical skills trainings to provide technical updates to faculty and preceptors. To provide normal and EmONC trainings for midwifery faculty and preceptors, and key skills trainings for medical laboratory technician faculty and preceptors, the project followed an evidence-based training approach involving brief workshops; short, facility-based practice sessions repeated over time; and mMentoring through regular text message reminders.

To further strengthen faculty and preceptor capacity, MCSP embedded PSE mentors in each school to support participants in training their peers. These mentors also engaged with faculty and preceptors through supportive supervision and mentorship visits intended to reinforce their learning, aid in applying new skills, and support continuous improvement.

MCSP's evaluations of faculty and preceptors showed steady improvements in performance quality. At baseline (conducted in March/April 2017), faculty and preceptors met an average of 48% of criteria on presentation checklists to evaluate the quality of their teaching; this increased to an average of 94% at endline (conducted in March 2018). At baseline, faculty and preceptors met an average of 77% of pre-established standards for their qualifications and performance, whereas at endline, they met an average of 97% of the standards. Figure 3 shows the number of programs meeting standards at baseline and endline.

Figure 3. Number of programs meeting standards on a rapid needs assessment to evaluate faculty and preceptor performance in five midwifery and three medical laboratory technician programs



Improved Infrastructure

Sufficient infrastructure for practice in simulation and integration of technology are essential for improving PSE. MCSP found that simulation centers and practicum laboratories in schools, which allow students to practice new skills and increase their competencies, did not exist or were poorly resourced and managed, preventing students from using them. Starting in September 2016, MCSP PSE mentors and other staff worked with each school to identify and invest its own funds to establish a space for a simulation center and/or practicum laboratory. MCSP also worked with the schools to ensure that trained, full-time simulation center/practicum laboratory clinical instructors were assigned at each school. MCSP then procured all equipment and supplies for the centers and laboratories. In total, MCSP established or upgraded five simulation centers and three practicum laboratories.

In addition, MCSP set up computer labs in each school. The program hired personnel to support and train existing information technology staff in each school and to support delivery of an introductory computer technology course for faculty, staff, and students. MCSP coordinated with the schools, the MOH, and other partners and donors on these interventions; thus, the schools have been able to retain Internet connectivity and, in some cases, information technology staff. These infrastructure improvements will contribute to continued educational quality beyond the life of the project.

Improved Clinical Practice

Before MCSP's interventions, schools did not have effective working relationships with clinical practice sites. MOUs previously in place were not observed, and no frameworks, schedules, or communication mechanisms were established to ensure that students could practice the skills they were taught in school. In addition, preceptors were not oriented or prepared to supervise students in practical rotations or assess their clinical skills. To address these issues, MCSP facilitated key stakeholder meetings to bring staff from schools and clinical settings together to develop a structured framework for coordination. Following the meetings, MCSP's PSE mentors continued to work with schools and clinical settings to follow up on their action plans and continue coordination.

MCSP also established minisimulation centers called preceptor corners at the associated clinical sites to provide a safe and appropriate space for preceptors to practice certain skills before demonstrating them for students and to train students on models before performing procedures on patients. MCSP developed mobile preceptor corner kits, which included simulation equipment that was easy to move when space limitations were an issue or equipment could not be securely stored in the facility. Facility staff credited preceptor corners and repeated practice opportunities for the significant improvements in services.

As Figure 4 shows, clinical practice sites reported dramatic improvements in performance on standards related to ANC (meeting an average of 26% at baseline in July 2016 compared to 90% at endline in July 2018), normal labor and delivery (17% to 97%), obstetric complications (57% to 96%), and postpartum care (8% to 92%). Figure 5 shows the increase in the correct use of the partograph and reduction in stillbirths at the practice sites. (For more information on improvements to clinical practice and the sections above, see MCSP's case study "Strengthening Pre-Service Education in Liberia: A Systems Approach".)

Figure 4. Changes in clinical standards results by service area in MCSP-supported clinical practice sites

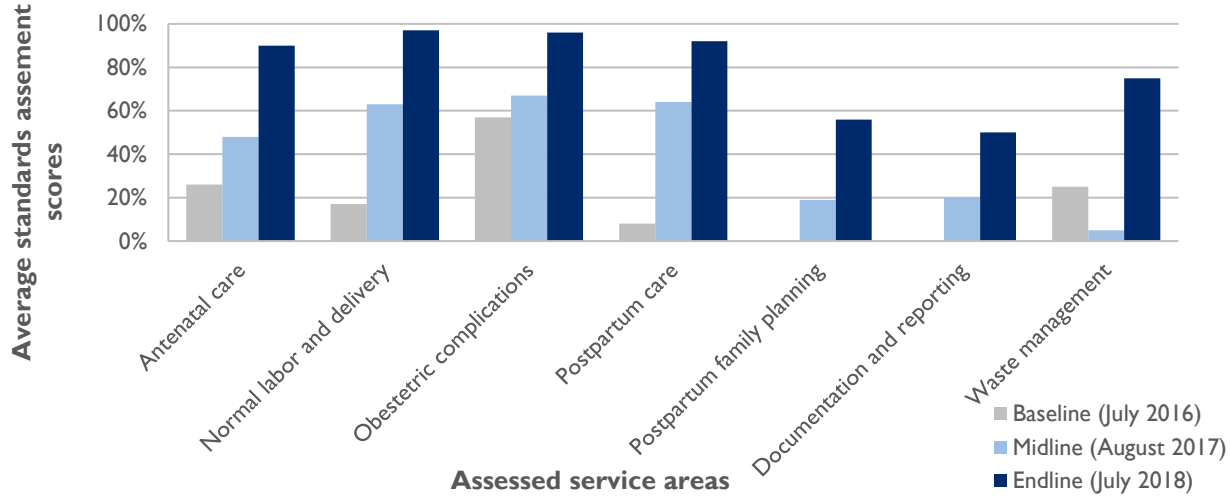
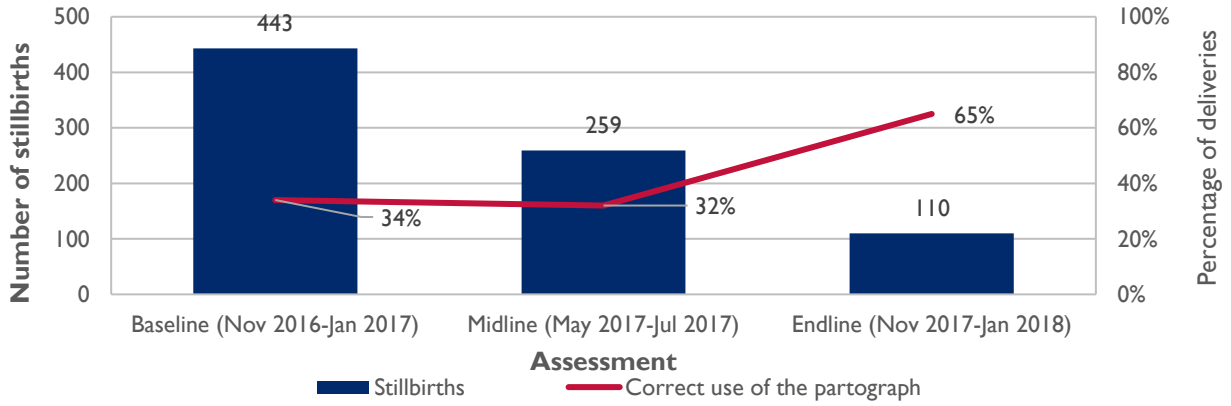


Figure 5. Percentage of deliveries for which a partograph was correctly used versus number of stillbirths, November 2016–January 2018



Supported Student Success

MCSP conducted the first gender analysis ever conducted in Liberia PSE institutions. Based on the findings from this analysis, MCSP supported the regulatory bodies to integrate gender standards into the PSE standards for prevention of sexual harassment and support to pregnant students. MCSP supported the implementation of gender-responsive pedagogy, adding gender-responsive standards to the educational accreditation standards. This has included initiating an FP community-based distribution peer provider program in PSE institutions based on an adapted version of the MOH's community-based distribution training program, establishing sexual harassment prevention policies, and reversing policies requiring schools to expel pregnant students. All six MCSP-supported PSE institutions in Liberia are now operating with these updated policies, and hundreds of students, especially female, have been positively affected. Within 3 months of initiation, 219 students received counseling on FP methods, 198 were given a modern contraceptive at their request, and 150 learned how to better prevent and report sexual harassment. These changes respond directly to global evidence on causes of higher female student attrition and will have long-term impacts on

reducing this trend. MCSP also worked closely with professional associations to advocate for increasing efforts to recruit new students.

MCSP supported two medical laboratory technician career days in Montserrado and Bong counties on May 1 and 5, 2017, respectively. The events brought together 150 participants, the majority of whom were senior high school students (120) from nine of the top schools in Montserrado and Bong counties. The career day focused on demand generation and awareness for more laboratory technicians, especially females, to enter into Liberia's health sector. Two institutions reported record numbers of students taking the entrance exams (400). At the closeout events, administrators reported that for the first time, they had students at the institutions who were choosing to become medical laboratory technicians not because there was not space in other programs, but because medical laboratory technician was their chosen career path. At the end of the program, the percentage of female students enrolled in medical laboratory technician institutions increased from 28% to 35% in 2 years, providing additional economic empowerment opportunities for women and promoting equity in the medical laboratory technician health cadre. MCSP also worked closely with professional associations emphasizing gender inclusion to advocate for increasing recruitment efforts for new student enrollment.

Recommendations for the Future

MCSP supported the MOH to build a fit-for-purpose, productive, and motivated health workforce. It is important that a sustained and intentional effort is in place to ensure PSE is robust and will have a long-lasting impact on the quality of health care, especially for the women and children of Liberia. Therefore, MCSP developed the following recommendations for the PSE institutions, regulatory bodies, professional associations, MOH, and donors to sustain and build on the gains made toward an increased number of students entering and graduating from PSE programs, and producing a stronger and more qualified health workforce:

- **Develop clear MOH policies to support and monitor PSE.** These should be used to ensure that interventions now in place are maintained and continuously updated.
- **Foster collaboration among regulatory bodies, PSE institutions, the MOH, and other stakeholders.** MCSP's work with the regulatory bodies led to the establishment of national best practice standards in PSE, ensuring quality service delivery and care. MCSP recommends that the regulatory bodies work with the PSE institutions, the MOH, and other stakeholders to revise, update, and implement policies and interventions to promote enrollment and deployment of students to serve in underserved populations to achieve equitable distribution of health workers, even from onset of training. Regulatory bodies should clearly assert their authority over PSE institutions and use the newly established systems, putting emphasis on faculty and preceptors, curriculum, students, clinical sites, leadership/management, and infrastructure to ensure that the quality of staff employed by training intuitions and of students graduating from these institutions continues to improve.
- **Establish permanent staff as PSE mentors embedded in each school.** MCSP's PSE mentors in each school were critical to the project's success. These clinicians had four major roles: school leadership support, faculty capacity-building follow-up, clinical setting improvement support, and liaison support between MCSP and the schools. The mentors were embedded at the school and therefore able to ensure quick and efficient follow-up for completion of activities according to the action plan. Embedded project mentors enabled the PSE institutions to expedite the process of identifying program gaps and addressing them. MCSP recommends that for sustainability of this intervention, this role is allocated to a permanent member of staff and embedded in the PSE institutions. PSE institutions should continue activities at their level, including conducting faculty and preceptor trainings each semester, performing supportive supervision and mentoring using checklists, and continuing to use the PSE information system to support better use of data for decision-making and advocacy.
- **Maintain clinical learning to provide a competency-based environment for skills improvement.** PSE institutions should maintain program activities, including conducting faculty and preceptor trainings each semester, performing supportive supervision and mentoring with checklists, and using the pre-service information system for better use of data for decision-making and advocacy. Partners should

build upon existing work and materials, such as LDHF approaches, curricula, objective structured clinical examination implementation, and use of job aids, and continue to prioritize clinical practice strengthening to ensure competence of students at graduation.

- **Scale the use of the LDHF approach to improve MNH service quality.** MCSP introduced the LDHF approach for QI of maternal and newborn care in five teaching hospitals affiliated with midwifery PSE institutions. The hospitals showed an average improvement of 40% in meeting MOH QI in reproductive, maternal, and newborn health clinical standards, and subsequently doubled the number of facility deliveries in 1 year at these facilities. As the LDHF approach has been proven as a process for ensuring quality care, it is important to scale it up to continue to improve MNH services.
- **Provide health care workers with necessary updates in midwifery and medical laboratory technology.** MCSP provided technical updates in midwifery and medical laboratory technology to ensure that providers were working according to global best practices. MCSP recommends that regulatory bodies continue to include similar technical updates as part of the continuing professional development program to ensure that updated, evidence-based procedures and skills are performed with confidence.
- **Prioritize improvements to academic leadership and management in PSE institutions.** Leadership and governance are key to ensuring sustainability of best practices for PSE. Addressing academic leadership and management, not just faculty and clinicians, via the Leadership and Management Development Program resulted in important improvements in school management, budgeting, resource mobilization, and use of data for decision-making that is being sustained. MCSP recommends that these activities be conducted earlier in a PSE program, before the Faculty Development Program coursework.
- **Promote gender equity in PSE through policy development and monitoring of PSE institutions.** Addressing inequities will help create an essential supportive environment for increased student enrollment and retention. MCSP recommends that the MOH develop clear policies to support and monitor PSE to ensure that interventions now in place are maintained and continuously updated. The MOH, regulatory bodies, and PSE institutions need to continue to prioritize gender equity if learning environments are to improve, especially for women.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of new health care workers who graduated from a pre-service training institution supported by MCSP during the reporting period	355 (target: 282; target exceeded)
Number of schools that are recognized or accredited by credible, relevant regulatory bodies in their country	6 (target: 5; target exceeded)
Number of programs where preceptors/clinical instructors have the necessary resources to effectively guide students in clinical practice	8 (target: 8; target achieved)
Number of people trained in priority technical areas with MCSP support	537 (target: 250; target exceeded)
Percentage of people trained and proficient in key technical areas	80% (target: 80%; target achieved)

Liberia Restoration of Health Services

Summary & Results

Geographic Implementation Areas

Counties
- 3/15 (20%)—Grand Bassa, Lofa, and Nimba

Districts
- 18/88 (20%)

Facilities
- 77/158 (49%)

Population

Country
- 4.73 million

MCSP-supported areas
- 1.23 million

Technical Areas

Program Dates

August 1, 2015–August 31, 2018

Total Funding through Life of Project

$15,257,000 (Ebola funds—Pillar II)

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	1,072
NMR (per 1,000 live births)[1]	26
U5MR (per 1,000 live births)[1]	94
ANC 4+[2]	79%
SBA[2]	76%
CPR[2]	31%
IPTp2+[2]	55%
Antimalarial treatments given to children under 5 which were ACT-based[2]	81%
Penta3[2]	68%
Fully immunized coverage[2]	45%

Sources: [1] Liberia DHS 2013; [2] Liberia Malaria Indicator Survey.

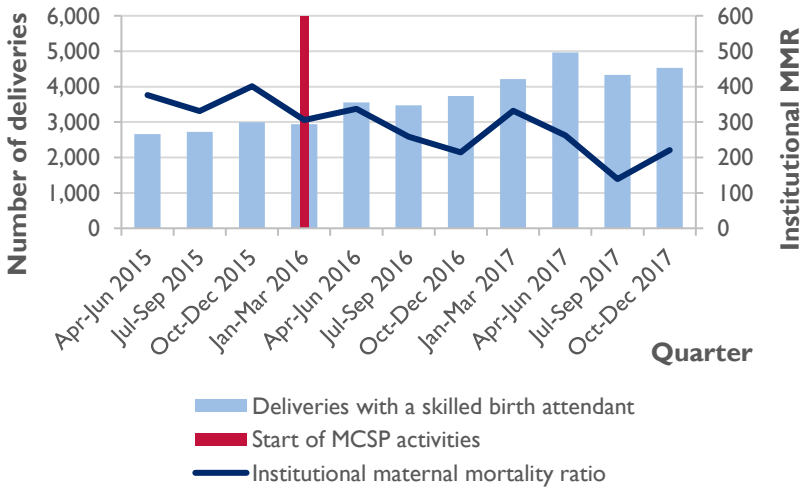
Strategic Objectives through the Life of Project

- Strengthen IPC practices at 77 health facilities through training, intensive supportive supervision, triage, improvement of waste management, and planning and management of essential IPC commodities and supplies.
- Generate demand and restore delivery of quality primary health care services through the implementation of RMNCAH as part of the Essential Package of Health Services in 77 facilities.

Highlights through the Life of Project

- Supported health facilities, leading to improved scores of clinical standards by at least 50% from the baseline score.
- Completed infrastructure work at 48 facilities, including renovation and addition of various waste, water, and triage features based on the needs determined at a baseline assessment.
- Helped to restore health services and improve IPC in MCSP-supported facilities, resulting in the number of health facility deliveries nearly doubling from 2,439 to 4,526 and the immunization coverage for children 0–12 months more than doubling from 2,439 to 6,325 from April 2015 to June 2017.
- Supported significant improvements in IPC practices: the median score on Safe Quality Services at endline increased to 82% compared to 76% post-Ebola, indicating more robust and resilient facilities prepared to control and prevent emerging infections.

Figure 1. Skilled deliveries and maternal mortality in MCSP-supported facilities



Liberia—Restoration of Health Services

Background

In light of the Ebola crisis, USAID headquarters and the Mission in Liberia asked MCSP to support their commitment to restoring service delivery at primary health care facilities and their nationwide rollout of IPC training and protocols through MCSP's Restoration of Health Services program in three counties in Liberia. Through MCSP, the USAID Mission in Liberia and the Government of Liberia aimed to renew confidence in the country's health system by improving the quality and accessibility of RMNCAH services. MCSP's Restoration of Health Services program was an over 3-year project with a geographic focus on 77 health facilities in Grand Bassa, Lofa, and Nimba counties.

MCSP's overarching goal in Liberia was to restore confidence in the health care system by upgrading IPC practices that are critical for fighting Ebola and other infectious diseases, and ensuring restoration of MCH services in target facilities. At the end of the project, there were great improvements seen at MCSP-supported facilities in the key technical areas: availability of health workers, equipment, and supplies; basic infrastructure (e.g., wells, incinerators, triage, isolation units, and latrines); service provision for essential RMNCAH interventions; and adherence to clinical standards to ensure quality of care. MCSP restored access to and utilization of health services, and rebuilt confidence in the health systems at the facility and county levels, thereby contributing to improvements in RMNCAH outcomes in Liberia following the catastrophic impact Ebola had on utilization of and confidence in the health system. The restoration of the system is evident from the combination of programmatic improvements in health service delivery in MCSP-supported facilities and the positive performance on key outcome indicators over the life of the project.

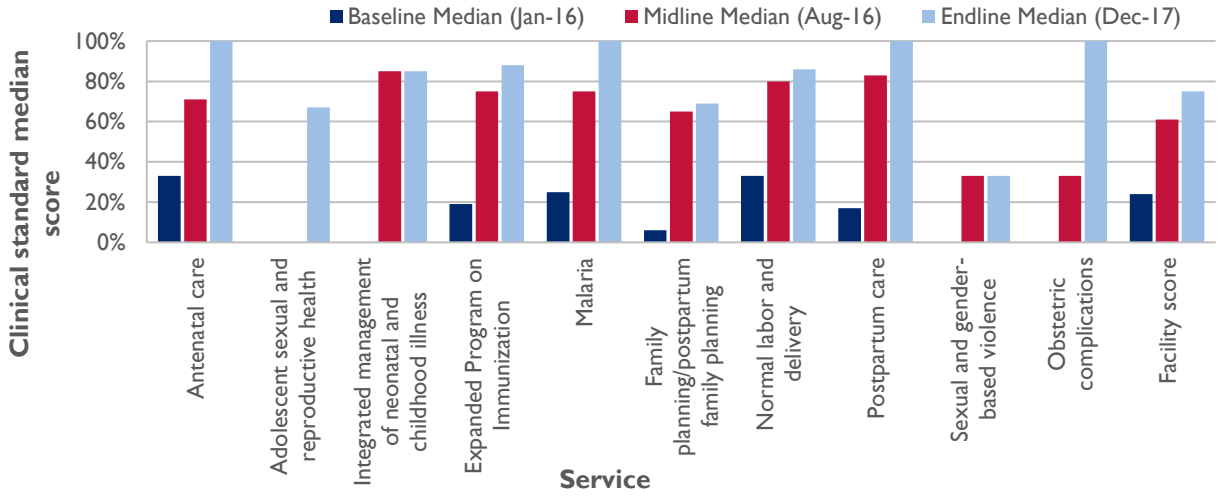
Key Accomplishments

To restore and improve the delivery of primary health care services, MCSP interventions included integrated, skills-based, in-service trainings for health facility staff in RMNCAH, with provision of job aids and tools, followed by QI and systems-strengthening measures, such as improved supportive supervision and mentoring, payment of salaries for health facility staff, procurement and distribution of MCH-specific equipment, infrastructure upgrades to restore service delivery and improve quality of care, support of the use of data for decision-making, and coordination with the MOH at all levels of the health system.

Developed Human Capacity

MCSP's human capacity development approach included a combination of specific and integrated skills-based in-service trainings, followed by integrated QI processes, such as strengthened supportive supervision and workplace, individual, and team-based mentoring. Local managers from district and county health teams implemented and led the trainings. MCSP, in close collaboration with MOH counterparts, built upon and strengthened the existing in-service training and national supervisory system to close the gap between desired performance and practice in a sustainable way. MCSP provided in-service trainings in different technical areas in the supported counties and health facilities for the provision of quality MNCH services. A total 1,581 health care workers were trained by the project on the different technical areas, thereby improving the skill levels of staff and the quality of services they provided. Through the trainings and ongoing supportive supervision/mentoring visits, the health workforce's competence for providing quality services improved further. This is evidenced by improved scores in MOH clinical standards. At the start of the project, only 58% of assessed facilities were open and providing essential RMNCAH services. As of December 2017, all 77 MCSP-supported facilities were providing these services and had adequate staffing, supplies, and equipment. MCSP found significant improvements in key RMNCAH service delivery areas with increased utilization of services, as demonstrated in routine HMIS indicators, and improved quality of clinical practice, as demonstrated by the clinical standards assessment (see Figure 2).

Figure 2. Clinical standards scores in MCSP-supported facilities



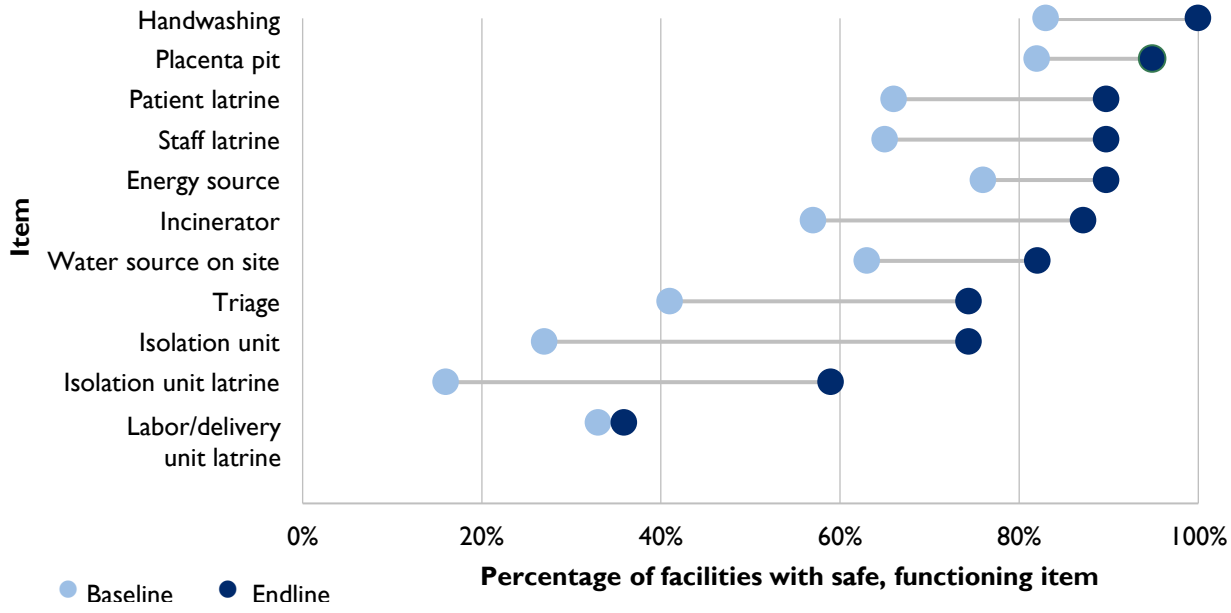
Improved IPC Adherence and Practice

Adherence to IPC is paramount to the provision of safe, high-quality health services. MCSP implemented IPC interventions in its supported facilities in collaboration with the MOH (Family Health Division, Quality Management Unit, national IPC Task Force, County Health Services Division, National Health Promotion Division, infrastructure unit, and environmental health division), county and district health teams, and facility IPC focal people and committees. MCSP's interventions included providing IPC/Safe Quality Services trainings; providing supportive supervision and mentoring; establishing and strengthening IPC committees in health facilities; providing IPC supplies; upgrading waste, water, and triage infrastructure; adapting and distributing job aids; and providing technical and logistical support at the national level, including updating guidelines, protocols, and standards. At the close of the program, MCSP-supported health facilities showed great improvements in adherence to IPC practices and Safe Quality Services standards. At baseline, the facilities' median score on the IPC standards was 76%. Approximately half of the facilities (52%) met the national target of 80% of IPC standards. At endline, the median score on the Safe Quality Services for facilities assessed increased to 82%, with 60 out of 77 (78%) facilities meeting the national target. The high Safe Quality Services scores are evidence of sustained and improved IPC adherence, which ensures that IPC practices have been, to a great degree, institutionalized by all staff at facilities.

Upgraded Waste, Water, and Triage Features

MCSP took on infrastructure improvements at health care facilities across the three supported counties to improve access to onsite waste, water, and triage facilities. MCSP, in coordination with USAID, the MOH, and county health teams in Grand Bassa, Lofa, and Nimba, identified critical gaps and prioritized 48 rural facilities for infrastructure improvements. A total of 139 waste, water, and triage features were constructed by the project in the three supported counties: 18 triages, 25 incinerators, 19 hand-dug wells, 16 placental pits, 28 ash pits, and 33 sharps pits. Additional improvements in WASH infrastructure between baseline and endline can be seen in Figure 3. MCSP worked closely with the MOH and the county health teams to ensure that local stakeholders had an opportunity to collaborate in the renovation process. MCSP staff engineers worked alongside representatives of the county health teams, providing opportunities for mutual learning and capacity-building between the two organizations and ensuring county health teams' familiarity with each new feature built under MCSP. This knowledge puts the county health teams in a good position to conduct future maintenance of these facilities and to coordinate similar work in the future. To ensure continued and sustained use of these features, MCSP, in collaboration with the MOH, organized a 1-day orientation for health facility staff, including cleaners, on the use of these features. Additionally, facilities were provided with start-up kits for hand pump wells, shovels, tools, and standard operating procedure manuals on use and maintenance of these features. MCSP also shared a list of county-based WASH entrepreneurs trained by the Global Communities project with the three supported county health teams to address any future maintenance and repair of the features of hand pump wells.

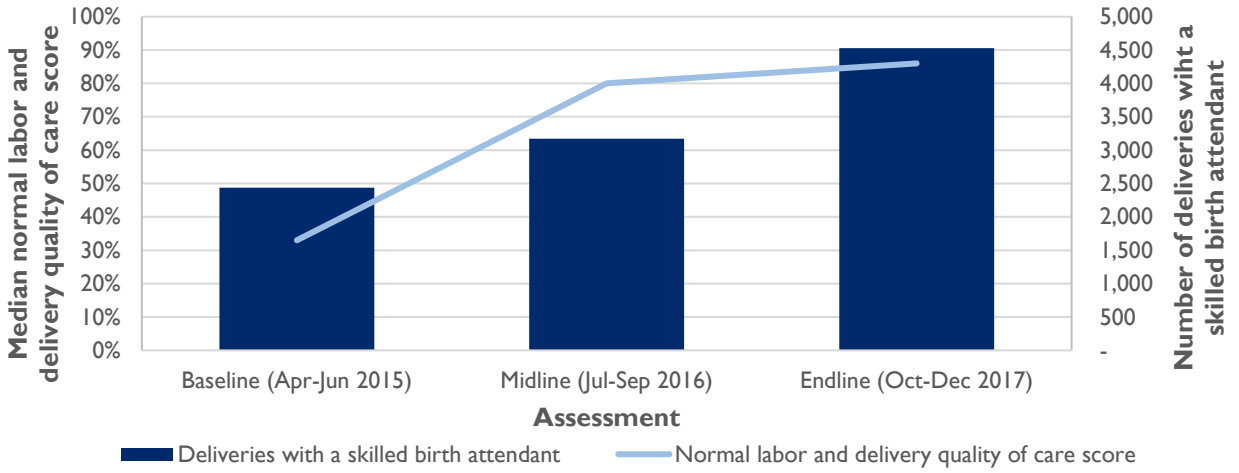
Figure 3. Improvements in the percentage of facilities with safe, functioning infrastructure and facilities between baseline and endline



Improved Reproductive, Maternal, and Newborn Health Care Services

To improve maternal health and increase facility deliveries, MCSP conducted a number of targeted activities, including increased community outreach and engagement to encourage women to deliver at facilities, improved connection and referrals to trained traditional midwives through meetings held at the health facilities, increased availability of skilled personnel, and improved quality of care, all of which have restored the communities' confidence in the services available at their primary health care facilities. MCSP also conducted comprehensive obstetric and newborn care training conducted at tertiary-level facilities with a focus on improving provider competencies to address the primary causes of maternal mortality. MCSP provided technical support to the MOH Family Health Division for the development of MPDSR implementation guidelines, tools, and training materials, and cascaded its implementation in the supported counties through training and orientation of county/district health team and health facility staff, as well as the coordination and management of the initiative. Because of MCSP's joint efforts with the MOH to improve the quality of ANC, labor, delivery, and postpartum care, the number of women delivering with skilled personnel in MCSP-supported health facilities nearly doubled between baseline and endline, with 2,439 delivering in April–June 2015 (baseline), compared to 4,526 in October–December 2017 (endline; see Figure 4). Since the start of MCSP activities at the facility level in November 2015, the institutional MMR declined in MCSP-supported facilities, starting at a peak of 401 deaths per 100,000 deliveries in the quarter before MCSP initiated activities to 221 deaths per 100,000 deliveries during the October to December 2017 period (Figure 1).

Figure 4. As quality of normal labor and delivery care improvement in sampled facilities, the number of facility-based deliveries also increased



To improve the delivery of quality child health services, MCSP supported a large-scale IMNCI training. To sustain the gains from and reduce the dependence on large-scale training efforts, MCSP worked with the MOH to develop a guide to institutionalize IMNCI at the health facility level. The guide helps with delegating IMNCI tasks to the most appropriate service delivery area of the health facility and ensures that the service providers working in these areas have access to appropriate job aids, training resources, and mentoring and supervision tailored to the specific delegated IMNCI task. MCSP worked with the MOH to ensure that updated IMNCI job aids, training resources, and checklists for internal supportive supervision were included in this innovative guide. MCSP's success in delivering quality child health services was evidenced by the substantial increase in frontline health care provider adherence to MOH IMNCI clinical standards from a median of 0% at baseline to 85% at endline.

To strengthen RI services in MCSP-supported counties, MCSP, in collaboration with the MOH/EPI and county health teams, mentored the county and health facility staff and improved their capacity to map their facility catchment areas and develop microplans. MCSP also supported integrated outreach services in hard-to-reach areas, ensured the maintenance of the cold chain and management of the vaccine supply, and analyzed data for decision-making. MCSP procured and distributed 12 motorbikes to selected facilities in hard-to-reach communities, which was critical to linking vaccinators with the facility catchment areas they serve. MCSP also supported outreach by transporting vaccines and vaccine-related materials to facilities and providing staff incentives and fuel. As a result of this support, the third dose of pentavalent (Penta3) coverage in the 77 facilities receiving integrated support from MCSP improved from an overall average of 67% in 2015 to over 93% in 2017. By identifying gaps in immunization services and approaching them holistically through a number of targeted interventions, MCSP strengthened RI in Lofa, Grand Bassa, and Nimba counties.

Coordinated and Collaborated with the MOH, County and District Health Teams, and Partners

MCSP worked alongside the MOH, county and district health teams, and partners in all of its activity implementation. MCSP continuously provided technical support to the MOH and county health teams in the formulation of guidelines, strategies, protocols, and tools. MCSP provided technical and financial support to organize one MNH conference in each supported county that brought all stakeholders together to make collective efforts to halt maternal and newborn deaths and mortalities. Each conference concluded with resolutions that emphasized the commitment of all stakeholders for improved MNH outcomes that included discouraging home deliveries. MCSP supported and enhanced the capacity of the county health teams to implement integrated quarterly performance review meetings that created a platform to share achievements, challenges, and lessons learned across technical areas and counties, and to jointly plan for the next quarter. At the national and county levels, MCSP drove the agenda of different RMNCAH TWGs, leading to the completion of key policy documents and guidelines, such as the MPDSR guidelines and training materials, BEmONC package for training, sexual and GBV training materials, and the chlorhexidine (CHX) scale-up plan. Additionally, MCSP provided technical assistance for the completion of MPDSR tools and rollout of

joint integrated supportive supervision to the counties. MCSP also played a pivotal role in the revitalization of the Newborn and Child Health Subcommittee of the Reproductive Health Technical Committee at the central level.

Recommendations for the Future

MCSP helped restore access to and utilization of health services, and rebuilt confidence in the health system at the facility and county levels, thereby contributing to improvements in RMNCAH outcomes in Liberia following the catastrophic impact of Ebola. The restoration of the health system is evidenced by a combination of programmatic improvements in health service delivery in MCSP-supported facilities and the positive performance outcome indicators over the life of the project. To sustain the gains of the program, MCSP has the following recommendations:

- **Train and orient staff on use and maintenance of WASH features.** When a program includes an infrastructure component, particularly the installation of waste, water, and triage features (e.g., incinerators and waste pits) at health facilities, it is crucial to provide training and orientation to health facility staff on the proper use and maintenance of these features to ensure sustainability.
- **Establish and improve WASH infrastructure at all MCH units.** MCSP made improvements in waste, water, and triage features in the 28 health facilities; however, some facilities still lack adequate waste, water, and triage features. The MOH and all stakeholders should prioritize and mobilize resources to ensure that all health facilities have triage, latrines, waste pits, and reliable water sources. The project, due to limited funding, was not able to renovate MCH units at facilities. Future infrastructure upgrades should consider prioritizing MCH unit improvements for the provision of quality labor, delivery, and postnatal services.
- **Prioritize measures to prevent stock-outs.** RMNCAH service provision was greatly impacted by stock-outs of essential medicines and commodities. MCSP recommends several steps be taken to improve the functionality of the supply chain:
    - Fewer rounds of distribution (three rounds instead of four) should be conducted, with a larger volume of products per distribution round, due not only to the internal challenges outlined but also to some external challenges, such as bad roads during the height of the rainy season when certain parts of the country become very hard or impossible to reach by vehicle.
    - The Central Medicine Store should supply the full quantity of drugs approved following quantification for the county/facility for a particular period (quarter) to ensure that the facilities have enough drugs to last until the next distribution.
    - Projects should advocate for the management of the last mile distribution in future projects requiring supply chain intervention, as it demands high-level coordination to achieve regular availability of drugs at the facilities.
- **Create an enabling work environment to motivate and enhance the capacity of health care workers.** To sustain the gains made on human capacity development in Liberia, the MOH and partners must continue to prioritize activities and mobilize resources to motivate staff in health facilities to provide high-quality services. Specifically, effective and efficient methods of enhancing health worker competency, such as mentoring, coaching, and supportive supervision, should be prioritized. The MOH should also mobilize resources to create an enabling workplace environment in terms of salary, equipment, supplies, and other health facility inputs. Health workers will be motivated if they feel competent in their job and work in a well-equipped health facility.
- **Continue to improve immunization service provision through technical support, enhanced collaboration, etc.** In Liberia, the MOH EPI still requires technical support to strengthen immunization systems in low-performing counties. Collaboration and coordination at national, county, and district levels, and inclusion of the private sector into immunization activities are cardinal to improved quality services. MCSP recommends that the MOH and partners work to build capacity of county and district teams in scaling up the RED/REC approach; strengthen cold chain and supply chain system; link with the community, demand generation, and utilization of services; and improve data quality and use.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of deliveries with an SBA in program-supported health facilities 8,960 (no target)	32,464 (no target defined)
Percentage of MCSP-supported facilities that received at least one integrated supportive supervision visit in last quarter	95% (target: 100%; target exceeded)
Percentage of supported facilities with IPC/Safe Quality Services focal point identified and trained	99% (target: 100%; target exceeded)
Percentage of MCSP-supported facilities open and providing basic primary health care, including RMNCH, communicable disease (malaria, TB, and HIV/AIDS), and emergency services	100% (target: 100%; target achieved)
Number of people screened at MCSP-supported health facilities	1,309,910 (no target defined)

Madagascar Summary & Results

Geographic Implementation Areas

Regions

- 16/22 (73%)—Alaotra-Mangoro, Amoron'i Mania, Analamanga, Analanjirfo, Atsimo-Andrefana, Atsinanana, Boeny, Diana, Haute Matsiatra, Ihorombe, Melaky, Menabe, Sava, Sofia, Vakinankaratra, and Vatovavy-Fitovinany

Districts

- 80/123 (65%)

Facilities

- 822/1,867 (44%)

Population

Country

- 25.5 million

MCSP-supported areas

- 17.4 million

Technical Areas

Program Dates

July 30, 2014–May 31, 2019

Total Funding through Life of Project

$11,505,200

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	796,800
MMR (per 100,000 live births)[2]	498
NMR (per 1,000 live births)[2]	24
U5MR (per 1,000 live births)[2]	72
TFR (births per woman)[2]	4.8
ANC +4[2]	49.3%
SBA[2]	43.9%
IPTp +2[2]	6.4%

Sources: [1] INSTAT (Institut national de la Statistique, 2015); [2] Madagascar DHS 2008-2009

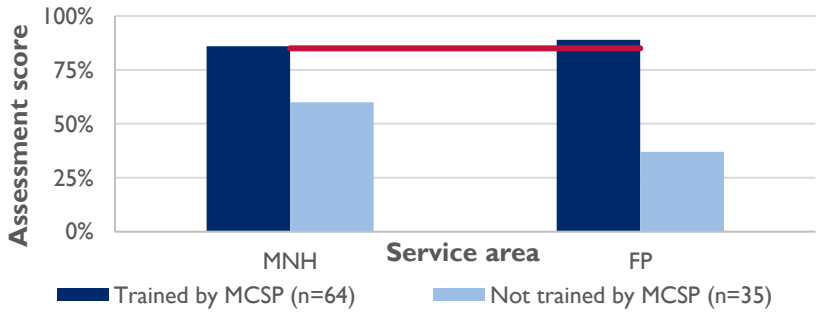
Strategic Objectives through the Life of Project

- Provide national-level support and technical leadership in MNH, immunization, and FP to the Ministry of Public Health.
- Increase access to and improve quality of MNH and immunization services in USG priority regions.
- Increase access to long-acting PPFP methods in USG priority regions.
- Improve IPTp in ANC, and improve malaria case management of children and adults at the primary care level.
- Strengthen the capacity of pre-service training institutions to educate midwives according to International Confederation of Midwives standards and competencies.
- Initiate the process to increase the number of doctors who are not surgeons who are able to provide essential surgical services.
- Improve provider capacity to respond to the pneumonic plague outbreak.

Highlights through the Life of Project

- Improved coverage and quality of RMNCAH interventions, contributing to the reduction of institutional MMR from 242 to 20 and a reduction in the fresh stillbirth rate from 16.3 to 8.4 across 513 primary health facilities.
- Institutionalized a competency-based capacity-building approach that reached 1,450 providers using a revised national RMNCAH curriculum with onsite practice, supportive supervision, and mobile mentoring.
- Conducted baseline and endline analyses in 2014 and 2018, respectively, revealing higher levels of MNH and FP knowledge and competencies among MCSP-trained providers and improved facility readiness.
- Helped Madagascar to achieve polio eradication certification in 2018, increased number of immunized children from 60,558 to 72,785, and decreased dropout from 12% in 2015 to 7% in 2018.

Figure 1. Improved MNH and FP knowledge for providers trained by MCSP (providers assessed ≥ 6 months after training)



Madagascar

Background

Madagascar's MMR and neonatal mortality rate are among the highest in the world, with 478 deaths per 100,000 live births and 26 per 1,000 live births, respectively, as of 2013.[52] Despite some progress, neonatal mortality contributes to one-third of under-5 child mortality. Many factors contribute to poor maternal and perinatal outcomes, including weak health systems and low coverage and quality of MCH services, including PPFP. The 2008–2009 DHS demonstrated that 51% of all non-first pregnancies occurred within a less-than-optimal interpregnancy interval. A baseline health facility assessment conducted by MCSP in 2014 in 15 regions of Madagascar demonstrated widespread gaps in infrastructure; availability of essential drugs; quality of maternal and newborn care; and health worker training, supervision, and use of data. Fifty-six percent of facilities lacked basic supplies and drugs for essential care, and 19% of midwives had not received any recent technical updates in evidence-based MNH best practices in the last 2 years. Only 2% of primary health centers (*centres de santé de base*, the lowest-level health facilities in Madagascar) and 52% of hospitals surveyed were able to provide BEmONC services. Despite introduction of a national PPFP action plan in 2015, PPFP services were not integrated into MNH services in practice at the start of MCSP's program in Madagascar. In addition, there were no Ministry of Public Health-led national QI RMNCAH strategies or monitoring mechanisms in the country.

MCSP aimed to contribute to reducing maternal and neonatal mortality in Madagascar by promoting a favorable national RMNCAH and immunization policy environment and by strengthening national Ministry of Public Health technical leadership. In total, MCSP strengthened the capacity of over 1,450 providers and improved the readiness of 822 facilities across 16 regions to provide high-quality services, which included the institutionalization of data use for decision-making and QI initiatives at the subnational level of the Ministry of Public Health down to each targeted facility.

Key Accomplishments

Strengthened Ministry of Public Health Technical Capacity to Engender a Favorable National RMNCAH Policy Environment

To foster a favorable environment for the implementation of evidence-based MNH best practices and guide the practice of providers at all levels, MCSP supported updates to several key policies and documents to incorporate global recommendations.

- The development of the 2015–2019 Campaign on Accelerated Reduction of Maternal Mortality in Africa Roadmap, which had previously not been updated since 2006 and provides the overall technical framework for RMNCAH interventions in Madagascar
- Updates to MiP guidelines to align with the WHO recommendations and strengthen the fight against a leading cause of morbidity and mortality
- Updates to the Reproductive Health Norms and Protocols—which guide the practice of all cadres of providers at every level of the health system—to integrate misoprostol, CHX, IPTp, PPFP, and adolescent sexual and reproductive health recommendations to support the provision of high-impact, evidence-based interventions
- Technical support to the development, and eventual passing, of an FP/reproductive health law to improve access to FP services, with a focus on youth, which enabled the Ministry of Public Health to develop a National FP Costed Implementation Plan, as well the 2018–2020 Adolescent Sexual and Reproductive Health Strategic Plan and its corresponding budgeted operational plan
- A national EPI strategy and the comprehensive Multiyear Strategic Plan on Immunization, guidelines for national polio and measles campaigns, and support in acquiring the documentation required for Madagascar to obtain its Certification of Polio Eradication

[52] United Nations. 2013. *The Millennium Development Goals Report 2013*. New York City: United Nations.

MCSP also supported the Ministry of Public Health to develop capacity-building documents (including a national MNH and FP training curriculum for providers) and implement various training and supervision approaches. These documents formed the framework within which the Ministry of Public Health was able to implement evidence-based best practices to reduce maternal and neonatal morbidity and mortality in Madagascar.

Improved RMNCAH Outcomes through the Institutionalization of QI Initiatives, Including Improved Data Use for Decision-Making

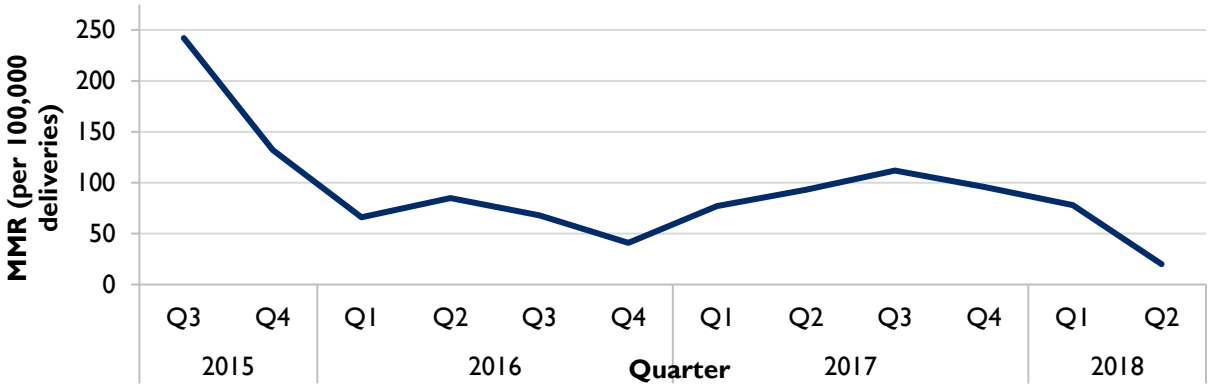
MCSP worked closely with national, regional, and district Ministry of Public Health counterparts and expert clinicians (nurses, midwives, and doctors) to strengthen health worker skills, facility preparedness, organization of MNH services, and use of data for decision-making, progressively scaling up to support 822 facilities (primary health centers and hospitals) in 16 regions. In collaboration with district Ministry of Public Health managers, the program provided additional support to health workers in primary health centers to use a standard MNH and PPFP indicator dashboard, and to report results on a monthly basis for aggregation, beginning in 180 primary health centers in four regions in 2014 and scaling up to 513 primary health centers in 16 regions by the end of the program. Tracking with the dashboard involved the use of laminated wall posters by primary health center staff to visualize and interpret their data to guide actions to improve performance on dashboard indicators, and improve the aggregation of results submitted monthly by primary health center staff via SMS on an electronic dashboard platform, which was accessible to district and regional managers.

These QI approaches targeting district and facility Ministry of Public Health staff resulted in improved quality of RMNCAH care to achieve the following measured results across 513 primary health centers between October 2015 to June 2018 and August 2015 to October 2018:

- Women screened for PE/E via routine blood pressure measurement during ANC visits increased from 41% in October 2015 to 96% in June 2018 (n = 1,002,989 total ANC visits in which a woman's blood pressure was measured).
- Women receiving an immediate postpartum uterotonic to reduce PPH increased from 85% in October 2015 to 98% in June 2018 (n = 188,264 total women receiving an immediate postpartum uterotonic).
- Newborns not breathing or crying at birth successfully resuscitated increased from 71% in October 2015 to 90% in June 2018 (n = 13,663 total newborns with asphyxia who were successfully resuscitated).
- The MMR decreased from 242 maternal deaths per 100,000 total deliveries (live and stillborn) to 20 maternal deaths per 100,000 total deliveries from August 2015 to June 2018 (n = 151 total maternal deaths; 183,483 total deliveries, see Figure 2).
- The institutional fresh stillbirth rate decreased from 16.4 fresh stillbirths per 1,000 total births to 8.4 fresh stillbirths per 1,000 total births from August 2015 to June 2018 (n = 183,483 total newborns; 2,035 total fresh stillbirths).

For more information, see the technical brief on Improving Quality of Maternal and Newborn care and Postpartum Family Planning Services.

Figure 2. MMR in primary health centers (n = 183,483 total women delivered and 151 total maternal deaths in 513 primary health centers)



Improved Provider Skills and Knowledge Acquisition and Retention through Human Capacity Development Approaches

As part of its support to the Ministry of Public Health to implement the national Campaign on Accelerated Reduction of Maternal Mortality in Africa Roadmap, MCSP strengthened the capacity of clinical providers at every level of the system to deliver high-quality RMNCAH services. MCSP supported the development of a national MNH curriculum, providing in-service capacity-building, donating MNH and FP equipment and materials, supporting improvements to the PSE environment, and building in-country capacity to sustain interventions.

These activities led to the development of a standardized and comprehensive national MNH curriculum, which included FP, immunization, and MiP for use by all cadres of clinical providers across all levels of the health system. MCSP and the Ministry of Public Health also developed a cascade training system, which included a pool of national trainers who trained 250 regional trainers, who then provided in-service training to clinical providers in 822 facilities across 16 of the country's 22 regions (65% of all districts), reaching 1,454 providers, or approximately 41% of Madagascar's providers in the project's targeted regions. This training approach was supported by efforts to build the capacity of the regional and district health management teams to lead and sustain supervision and mentoring activities. By September 2018, the Ministry of Public Health management teams in eight regions had independently trained over 200 providers, thereby highlighting the successful appropriation of human capacity development skills and their commitment to continuing those activities after the life of the project.

MCSP's support also contributed to the development of an LDHF capacity-building approach that integrated short, targeted, simulation-based learning activities, which were reinforced with structured, ongoing mentoring and practice sessions at the job site. A 2014 baseline study of 51 facilities and an endline health facility and provider knowledge assessment of 62 facilities in 2018 showed that the average knowledge score among 99 providers trained by MCSP met or surpassed the target of 85% and were on average 26- and 52-percentage points higher for MNH and FP, respectively, compared to providers not trained by MCSP (see Figure 1).

Finally, MCSP provided targeted PSE support to the country's six public midwifery institutions, including technical updates for 79 teachers, 51 training preceptors, and 17 monitors on the national MNH curriculum, evidence-based MNH standards, and effective teaching skills. MCSP also helped establish four skills laboratories to enable students to master essential skills on anatomic models before their clinical placements. A comparison of two MCSP assessments of students' skills in two midwifery schools in 2017 and 2018 demonstrated improvements in student competencies across several technical domains, including focused ANC (25-point gain), initial evaluation and partograph use (78-point gain), management of normal childbirth (37-point gain), newborn resuscitation (50-point gain), and management of PPH (43-point gain). (See the technical brief on MCSP's human capacity development approach for more information.)

Improved Retention of Skills and Knowledge through Piloted Supportive Supervision Model

From 2016 to 2018, MCSP collaborated with the Ministry of Public Health to pilot a supportive supervision intervention that added to the Ministry of Public Health's traditional supervision model. The goal was to adapt the model to improve the frequency, availability, and effectiveness of supervision, which was especially important for providers in remote facilities. The standard supportive supervision package included post-training supervision via site visits, to which MCSP added mobile mentoring (regular phone calls between supervisors and providers, informative SMS messages and quizzes, and use of the MNH quality dashboard), quarterly service QI planning, quarterly data quality assessments, and structured clinical examinations/evaluations every 6–12 months.

To evaluate the supportive supervision model, MCSP interviewed providers and supervisors who participated in the supportive supervision activity about the feasibility and acceptability of the approach and its effectiveness in helping providers maintain post-training skills. Respondents rated onsite supervision by supervisors highest of all types of supervision mentioned, and 58% of supervisors surveyed "strongly agreed" that supportive supervision helped them maintain supervisees' skills. Overall, providers and supervisors gave positive feedback about onsite visits, dashboard reviews, data quality assessment, and action planning, while also noting a general preference for onsite supervision over mMentoring. The qualitative portion of the project's endline study revealed that respondents felt that MCSP's supportive supervision significantly improved their capacity to deliver quality services. Providers reported that they feel more confident in their clinical abilities and communication style with clients. In addition, providers in lower-level facilities reported feeling more competent to provide safe birth services, instead of referring women to higher-level facilities. Some respondents noted a decrease in referrals from lower-level facilities due to increased capacity and confidence among those providers.

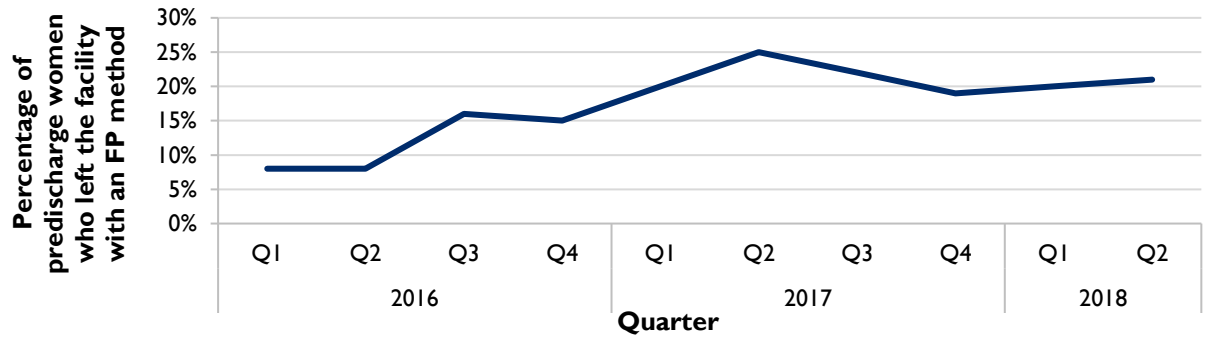
Improved Access to and Quality of FP Services, as Evidenced by the Uptake of Long-Acting PPFP Methods, and a Proof of Concept Targeting Adolescent and First-Time Parents

In addition to providing national-level FP technical support to the Ministry of Public Health through the development and revision of strategic documents, MCSP built the capacity of 1,030 providers across 576 facilities to provide PPFP services. All providers trained in MNH were also trained in PPFP through the integrated training package, enabling those providers working in delivery services to counsel and immediately provide FP services instead of referring postpartum women to the FP department. The integration of MNH and FP services contributed to improved quality of services, and, as a result, the percentage of women who voluntarily adopted a modern PPFP method tripled over the course of MCSP's interventions (see Figure 3).

Madagascar has a large youth population, with 32% of the total population ages 10–24, and childbearing begins early: 38.9% of women have already become mothers or are pregnant by age 19.[53] The Ministry of Public Health has identified adolescents and youth as a target population in need of improved access to MNH, ANC, and FP services. MCSP's *Tanora Mitsinjo Taranaka*, "Young People Looking after Their Legacy," initiative was a proof of concept implemented in two districts in Menabe region and developed from formative research on the factors that influence first-time young parents' access to and use of health care. Under this activity, 75 CHWs and 20 community agents were trained to engage first-time young parents through meetings, home visits, and casual encounters, and distribute invitation cards to health facilities. Thirty-two health care providers were trained to provide adolescent-friendly health care in 11 health centers. The invitation cards were well received in communities and widely used: 72% of 1,430 distributed cards resulted in visits to the health facilities, and as a result, monthly community-based distribution of FP to young clients increased from an average of 35 to 76 clients per CHW.

[53] Institut National de la Statistique (INSTAT), Programme National de lutte contre le Paludisme (PNLP), Institut Pasteur de Madagascar (IPM) et ICF International. 2016. *Enquête sur les Indicateurs du Paludisme 2016*. Calverton, Maryland: INSTAT, PNLP, IPM and ICF International.

Figure 3. Improved uptake of PPFP before discharge (n = 183,483 total women delivered in 513 primary health centers; does not include the lactation amenorrhea method)



Increased RI Performance in 10 Districts, Resulting in an Increased Population of Vaccinated Children and a Decreased Dropout Rate

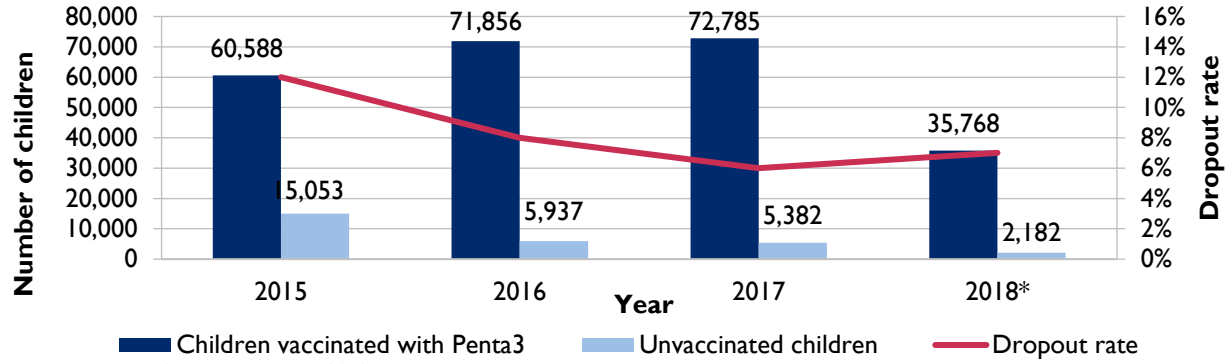
Although Madagascar made progress toward controlling measles, eradicating polio, and eliminating tetanus, national immunization coverage (for Penta3) has been below 80% for the last decade.[54] The emergence of 11 cases of vaccine-derived poliovirus between 2014 and 2015 further signified urgent gaps in the RI system. Starting in 2016, MCSP provided targeted support to RI system strengthening and vaccine-preventable disease control and surveillance (notably for polio and measles) with the Ministry of Public Health/EPI at the national level and in lower-performing districts. Technical support was provided with national-level support for the development of strategic documents, such as a national immunization strategy and comprehensive multiyear plan to guide future years. This support also contributed to the development and dissemination of two immunization job aids used by health workers and community agents to implement the RED approach for immunization system strengthening at district and facility levels. In 10 priority districts with high numbers of undervaccinated infants, MCSP built the capacity of immunization focal points at the regional and district levels, reaching 44 district management team members, 226 providers at health facilities, and hundreds of community agents/partners to foster community engagement with immunization services. MCSP's efforts contributed to the following key achievements:

- The number of children vaccinated with Penta3 increased in the 10 districts supported by MCSP (see Figure 4). Additionally, MCSP aided the EPI (in collaboration with Gavi/John Snow Inc.) with data quality, assisting with national increases in vaccination coverage in 2016 and 2017.
- The average dropout rate (i.e., number of children given the first dose of the pentavalent vaccine but not receiving all three doses) decreased in the 10 priority districts. In nine of the 10 districts, the dropout rate measured in 2018 was below 10%, indicating improved utilization of immunization services.

MCSP also supported the polio outbreak response in Madagascar, participating in oral polio vaccine campaign activities for children 0–59 months in priority regions and districts. This included analyzing and providing feedback and recommendations on the campaign and RI data (as well as short-term support at the end of 2018 for the measles outbreak response), conducting direct training and supervision to strengthen community-based polio surveillance, and participating with the EPI and partners on outbreak risk assessments. Madagascar made steady progress and received its polio eradication certification from the Regional Certification Commission, a major milestone for the country and region, in June 2018.

[54] WHO. 2018. WHO vaccine-preventable diseases: monitoring system. 2018 global summary. WHO UNICEF estimates time series for Madagascar (MDG). WHO website. http://apps.who.int/immunization_monitoring/globalsummary/estimates?c=MDG.

Figure 4. RI performance in 10 MCSP-supported districts, 2015–2017 (and six districts for 2018)*



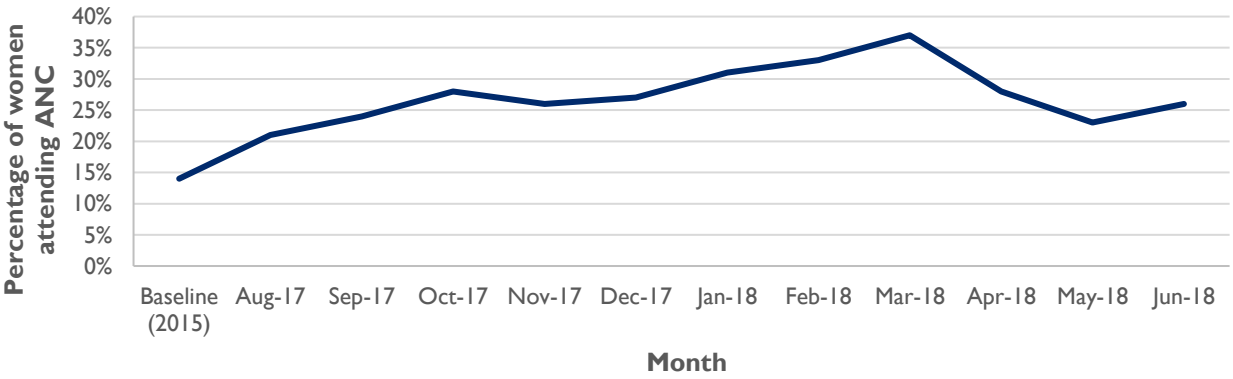
*Technical support from January–June 2018 was only in six districts.

Improved IPTp at the Primary Care Level

In Madagascar, malaria is the fourth leading cause of morbidity in health centers and the fourth leading cause of hospital mortality, per the country's HMIS in 2016. According to the 2016 Malaria Indicator Survey, only 10.3% of pregnant women take a minimum of three doses of IPTp-SP as recommended by WHO. To increase the uptake of IPTp and improve case management, MCSP strengthened the capacity of 1,321 providers on evidence-based malaria prevention and treatment care, and supported 10 district health management teams to independently conduct malaria technical updates for new providers and supportive supervision. MCSP also introduced a tool to monitor availability of malaria commodities at 176 health facilities; the warning system contributed to a reduction in reported stock-outs of SP within 2 months of implementation (from 64% at its height to 52%). Based on primary health center dashboard data, the percentage of women who received at least three doses of IPTp-SP in 160 project-supported facilities increased from a baseline of 14% in 2015 to 28% by June 2018 (see Figure 5).

At the national level, MCSP supported the Ministry of Public Health in conducting two studies: the first to understand determinants in care seeking among caregivers of children and pregnant women with febrile illness and provider adherence to national malaria prevention and treatment guidelines, and the second to assess health facilities' operational capacity and readiness for malaria elimination in 11 regions. The results of both studies will inform Madagascar's national strategy for malaria elimination by revealing the barriers to elimination readiness and recommendations to address these issues as they relate to provider knowledge and capacity. They will also provide insight into the health system's external/environmental factors, as well as the role and needs of CHWs, caregivers, and community members in malaria surveillance and control. The results of both studies will be disseminated at the close of the project. (See the technical brief for more details.)

Figure 5. Increased uptake of the third dose of IPTp during ANC in 160 primary health centers



Improved provider capacity to respond to the pneumonic plague epidemic and strengthened the national health system ability to respond to future outbreaks

The 2017 pneumonic plague outbreak in Madagascar presented a major public health emergency, as the outbreaks occurred in regions that were not traditionally plague endemic, revealing gaps in provider knowledge on IPC and personal protective equipment. MCSP was asked to support the MOH in disseminating a new diagnostic and treatment protocol in the five priority regions, and to provide technical support to TWGs on plague response and case management. From the early stages of the epidemic, MCSP prioritized collaboration with the MOH via the TWG to develop a standardized training approach and curriculum for all cadres of health providers, and to engender the MOH's ownership and capacity to implement effective trainings in the future. MCSP then developed a pool of 17 national trainers and 275 regional trainers from 80 districts to support the cascade of provider trainings at the sub-regional level, which capitalized on MCSP's experience working in the 16 USAID priority regions and its use of training strategies focused on high quality capacity building within a short period of time.

In addition to regional and national trainings, MCSP developed job aids for providers, targeting frontline health workers at public health facilities and the district and regional health offices, and also supported the implementation of IPC measures in 12 major hospitals in the priority regions. In the final year of the project, MCSP printed and disseminated 2,000 copies of a technical document detailing the new treatment protocol, and built the capacity of 20 national trainers and 273 providers through refresher trainings on this protocol and IPC. The pre-test and post-test evaluations confirmed a significant improvement in providers' competencies, with an average increase of 14 percentage points. MCSP's support to the MOH has contributed to their increased capacity to manage plague cases, and to the health system's national capacity to respond to future public health emergencies (See the plague success story for more details).

Recommendations for the Future

- **Implement comprehensive human capacity development approaches to ensure high-quality service provision.** MCSP's LDHF capacity-building approach is an evidence-based, effective model that enables clinical providers to be trained without compromising care for patients. The hands-on, on-the-job, and frequent practice enables providers to improve and maintain multiple complex skills in ways that were not possible in traditional classroom trainings. The use of a structured supportive supervision approach and mentoring reinforce skill and knowledge retention. MCSP recommends that the Ministry of Public Health scale up training and structured supportive supervision and mentoring, together with the use of checklists and job aids, for self-learning to ensure comprehensive, sustainable capacity-building for clinical providers.
- **Accompany capacity-building with improvements to health facility processes, management, and supply chains.** Human capacity development efforts must be combined with efforts to improve the overall quality of service provision in health centers (e.g., by improving patient confidentiality and patient management) and ensure the availability of necessary medical equipment and supplies. MCSP recommends that the Ministry of Public Health adopt piloted strategies for improving commodity tracking and management so that clinical providers have the tools and materials necessary to achieve the expected level of performance.
- **Ensure leadership and commitment of regional, district, and facility managers and health workers from the earliest program stages to improve and sustain quality of care.** MCSP approaches were implemented with the close support of regional, district, and facility managers in the day-to-day context of Madagascar's health system activities. MCSP recommends that the Ministry of Public Health invest in and lead the ongoing support of continuous improvement approaches by Ministry of Public Health actors and partners across the health system to sustain and scale up measured gains.
- **Prioritize data use for decision-making to maintain high-quality service delivery.** MCSP recommends that the Ministry of Public Health invest in and support the ongoing monitoring of RMNCAH quality of care indicators (e.g., through primary health center and hospital dashboards), support the linking of primary health center-level monitoring (e.g., immunization registers) with DHIS2 to inform national strategy and regional and district management processes, and conduct data input

quality checks to guide continuous improvements in RMNCAH services and health outcomes for women and children.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of USG-supported service delivery points meeting minimum standards to provide essential maternal and newborn care	822 (target: 822; target achieved)
Percentage of women giving birth who received uterotonic immediately after birth through USG-supported programs	99% (target: 99%; target achieved)
Percentage of pregnant women receiving IPTp3	26% (target: 25%; target exceeded)
Number of MCSP-supported health facilities actively implementing a QI approach	17 (target: 17; target achieved)
Percentage of newborns receiving essential newborn care (ENC) through USG-supported programs	99% (target: 99%; target achieved)
Percentage of target districts that have a systematic approach to track, display, and use priority indicators	100% (target: 100%; target achieved)

Malawi Summary & Results

Geographic Implementation Areas

Regions
- Baby-Friendly Hospital Initiative: 3/3 (100%)
- Other program activities: 1/3 (33%)—Central

Prefectures
- 2/28 (7% of country total)—Dowa and Ntchisi

Facilities
- 43/780 (5.5%)

Population

Country
- 19.1 million

MCSP-supported areas
- 1.18 million

Technical Areas:

Program Dates

June 1, 2014–May 31, 2018

Total Funding through Life of Project

$3,482,000

Demographic and Health Indicators

Indicator	# or %
Children ages 0–11 months who received all basic vaccinations from the HMIS	76%
Children ages 12–23 months who received Penta3 (by card)	93%
CPR	59%
U5MR (per 1,000 live births)	63
IMR (per 1,000 live births)	42
Early initiation of breastfeeding (within 1 hour of birth)	76%

Source: Malawi DHS 2016

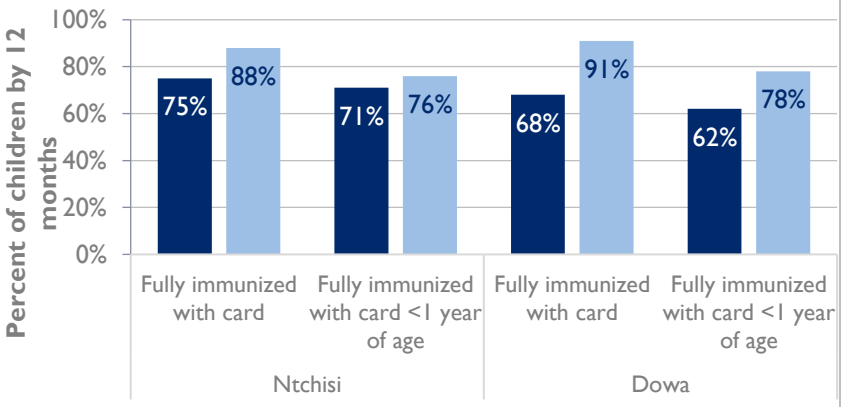
Strategic Objectives through the Life of Project

- Support the MOH to introduce three new vaccines: measles second dose, bivalent oral polio vaccine, and measles-rubella.
- Strengthen national capacity and systems for RI and FP.
- Strengthen district capacity and systems for RI and FP (Dowa/Ntchisi, all 43 health facilities, and surrounding catchment areas).
- Integrate FP and immunization services (Dowa/Ntchisi, all 43 health facilities, and associated outreach sites).
- Revitalize the Baby-Friendly Hospital Initiative (BFHI) in 54 hospitals across all 28 districts of Malawi.

Key Accomplishment Highlights through the Life of Project

- Supported the MOH EPI to develop a national immunization policy that guides the country based on immunization strengthening principles.
- From 2015 to 2017, provided technical assistance to the MOH EPI to increase the percentage of fully immunized children by 12 months old from 75% to 88% in Ntchisi and 68% to 91% in Dowa, as documented by the cluster coverage survey.
- Reduced barriers to use of FP and immunization services on the same day, increased access to voluntary FP services at community level, and increased community support for both services through engagement with area development committees.
- Revitalized and scaled up BFHI across all 28 districts and 54 hospitals.

Figure 1. Increase in fully immunized children from 2015–2017



Source: Cluster coverage survey conducted as a baseline in February 2015 and endline in November 2017.

Malawi

Background

MCSP's program in Malawi was launched in 2014 as part of USAID's initiative and the Government of Malawi's commitment to improve the health of Malawian women and children and to prevent child and maternal deaths. MCSP continued to build on its predecessor, MCHIP's, success by providing technical assistance to the MOH and the EPI for national-level capacity-building, new vaccine introduction, and operationalizing the REC strategy in two low-performing districts, Dowa and Ntchisi. In 2015, at the USAID Mission in Malawi's request, MCSP expanded its scope to include the integration of FP and immunization services and the revitalization of an earlier UNICEF-supported BFHI in hospitals across the country. In the final year of implementation, MCSP focused on building the MOH's technical capacity to deliver high-quality services, improving data quality, and working with district health management teams in Dowa and Ntchisi to operationalize the REC approach to help facilities and districts plan activities, review progress, and monitor and report their service data. MCSP also prioritized iterative learning that helped the MOH and partners to continually adjust program strategies and activities for greater impact, and provide insight into future investments and programming.

Key Accomplishments

Strengthened RI

MCSP's capacity-building efforts focused on training, policy and curriculum development, and supervision and mentoring. MCSP improved health workers' skills at all levels of the health system, empowering them to lead, manage, and deliver quality immunization services where they are based. Consequently, process indicators that measure the strength of the immunization system were improved in the two districts between 2015 and 2017: 95% of planned outreach sessions were conducted, as opposed to 55% at baseline; 100% of health facilities received supportive supervision, had updated monitoring charts, and microplans, compared to 30%, 45%, and 0%, respectively, at baseline. MCSP also supported the MOH EPI to develop a new national immunization policy that guides the country based on immunization strengthening principles.

At the district level, in Dowa and Ntchisi, MCSP implemented all five components of REC—planning and management of resources, engaging with communities, supportive supervision, using data for action, and reaching all eligible populations—aimed at reaching all children with vaccination and reducing inequities in immunization coverage. To complement the REC strategy, community leaders used the integrated My Village My Home tool to register newborns and track infant immunization status. MCSP also contributed to the global evidence base on birth tracking for RI by sharing its experience with other countries interested in or already engaging communities in a similar way. As a result of MCSP's REC support in the two districts, between 2015 and 2017, the percentage of fully immunized children by 1 year old increased from 75% to 88% in Ntchisi and from 68% to 91% in Dowa (Figure 1), and the dropout rate from first to third dose of pentavalent vaccine stayed at approximately 4%, achieving the WHO target of under 10%. MCSP also discovered that while vaccination coverage in Dowa and Ntchisi districts was high, many children received invalid doses, calling for immediate action to educate the service providers on administration of valid doses when the child had reached the minimum age for the vaccine, with the proper spacing according to the national schedule, and before 1 year old. MCSP helped the districts improve on timely vaccination and decrease the number of invalid doses administered.

In collaboration with Save the Children, MCSP also piloted immunization cStock, an SMS-based stock management system developed by John Snow Inc. and Dimagi under the Improving Supply Chain for Community Case Management project that was funded by the Bill & Melinda Gates Foundation. The purpose was to test cStock's use in reducing the occurrence of vaccine stock-outs at the health facility level. After MCSP's pilot of cStock, from 2015 to 2017, the percentage of facilities with no vaccine stock-outs increased to 97% in Dowa and Ntchisi from 30% at baseline. To gain support for rollout in other districts, the MOH uses Dowa and Ntchisi as prime examples of how stock management can be improved with cStock.

Integrated FP and Immunization Services

In Dowa and Ntchisi, MCSP leveraged field support and secured an investment of core funding to target previously missed opportunities of offering PPFP to meet demand for limiting and spacing of pregnancies. MCSP accomplished this by equipping over 300 health surveillance assistants with FP knowledge and skills, including the ability to provide FP counseling, pills and injectable contraceptives, and referrals to health facilities for other FP methods. MCSP also oriented health facility staff on FP and immunization service integration, targeting staff based at health facilities and those conducting outreach services. To support service integration and serve as resources for the future, MCSP introduced communication materials and referral tracking tools that helped guide the referral of clients from one service to another. At the community level, MCSP engaged leaders and area development committees from the districts to solicit their support in addressing key barriers to FP and immunization services (including concerns and misconceptions about FP and partner opposition) and to promote the use of FP and immunization services. Together, health surveillance assistants and community leaders effectively advocated for integrated services and greater male involvement in FP and infant health. MCSP also coordinated stakeholder engagement among other development partners working in the districts to streamline support and prevent overlap of activities.

A mixed-methods process evaluation study revealed increasing trends in total voluntary FP use that began before the intervention and statistically significant increases in total FP users between similar pre- and post-intervention periods in 2016 and 2017. Results indicated shifts in use of FP services from health facilities to outreach sites, where use increased significantly shortly after the start of the intervention. No substantial changes were noted in the FP method mix or the uptake of the pentavalent vaccine. Mothers and fathers of infants noted the benefits of integration, including time savings, convenience, access, and improved knowledge/understanding of other services. Health workers observed that the service integration had improved their provision of health services in terms of more effective referral processes and ability to provide more holistic care to clients. The main challenges for service integration mentioned by service providers related to increased workload and documentation challenges. Integrated service provision and use were affected by availability of human resources and commodities, data collection procedures and availability, community linkages, sociocultural barriers, organization of services and days available, and supervision and commitment of health surveillance assistants. Results from this study complement results from a study on FP and immunization service integration expansion in Liberia in helping to understand how operationalization of FP-immunization integration can be optimized for improved service delivery and health outcomes.

Revitalized the BFHI

MCSP supported the MOH in the revitalization and scale-up of BFHI in Malawi. Following initial revitalization efforts and training of over 1,900 staff from 54 health facilities across all 28 districts of the country, MCSP and the MOH provided facility-based mentorship and coaching to health providers. This aimed to further improve their capacity in breastfeeding knowledge and counseling skills, and to increase their readiness for Baby-Friendly designation, which requires adherence to the Ten Steps to Successful Breastfeeding and passing an external assessment.

To integrate newborn care into BFHI, MCSP once again complemented field support funds with core funds to train clinical maternity ward staff in eight hospitals previously trained in BFHI under MCSP on care and feeding for the small and sick newborn, using the *Essential Care for Small Babies Provider Guide*. Training provided education and hands-on demonstrations on skin-to-skin care, feeding breast milk using a nasogastric tube, hand-expressing breast milk, cup feeding, and caring for the sick and/or small newborn. This effort built the capacity of 118 staff, including nurses, clinicians, and nurse-midwives, to extend the global effort of protecting, promoting, and supporting breastfeeding. Over life of the program, over 1,900 staff from 54 health facilities in all 28 districts of Malawi received training in BFHI, five hospitals completed successful external assessments, and three hospitals received BFHI designation. Between 2015 and 2017, this resulted in more than 80,000 mothers receiving counseling on exclusive breastfeeding before discharge after childbirth.

Through updating Malawi's BFHI training package and building the capacity of the MOH's BFHI master trainers, MCSP helped to ensure that the country could sustain and continue to grow BFHI to improve

breastfeeding practices. The MOH pledged to sustain BFHI and communicated its plans to integrate the initiative in national policies and protocols.

Recommendations for the Future

- **Prioritize sustained strategies that will prevent future gaps in immunization coverage, including those that ensure accountability.** Malawi's MOH EPI, reproductive health, and nutrition programs made significant progress with MCSP support. Future investments should focus on sustaining high immunization coverage rates and prevent gaps like those experienced in 2013, when pentavalent vaccine coverage fell in some districts. Focus must remain on maintaining community engagement; conducting regular review meetings; providing integrated supportive supervision at all levels; conducting post-training follow-up activities, including peer-to-peer visits between high- and low-performing districts; providing mentorship; conducting monitoring and feedback activities; and conducting data quality self-assessments.
- **Provide sustained resources to support staffing at facilities and outreach sites.** A review of roles and responsibilities between nurses and health surveillance assistants could also prevent duplication and maximize human resources.
- **Continue providing ongoing support from the national, district, community, and hospital levels for BFHI to ensure its success in Malawi.** This will require sustained advocacy efforts from partners, policymakers, and other stakeholders to support BFHI. Learnings and recommendations from MCSP including BFHI implementation were shared with WHO, the MOH, and USAID's Organized Network of Services for Everyone's Health, a project anticipated to begin supporting BFHI implementation.

Selected Performance Indicators for LOP	
Global or Country Performance Monitoring Plan Indicators	**Achievement**
Number of children < 12 months who received three-dose diphtheria-tetanus-pertussis/three-dose pentavalent vaccine through USG-supported programs in Ntchisi and Dowa districts	35,049 (target: 47,586; 74% achieved)[1]
Number of FP clients, by status (new and existing) and methods	95,118 (target: 89,349; 94% achieved)[2]
Number of health facilities with up-to-date microplans in Dowa and Ntchisi	43 (target: 43; target achieved)
First- to third-dose diphtheria-tetanus-pertussis dropout rate	4% (target: <10% achieved; target achieved)
Number of targeted villages registering newborns and tracking the immunization status monthly	2,178 (target: 2,345; 93% achieved)
Number (and percentage) of hospitals with self-assessment plans for BFHI, as a measure of their commitment	100% (target: 100%; target achieved)
Percentage of hospitals implementing the Ten Steps of Breastfeeding	100% (target: 80%; target exceeded)
Percentage of women who initiate breastfeeding within 1 hour	88% (target: 80%; target achieved)
Number of health facilities trained to strengthen the integration of feeding of sick and small newborns	8 (target: 8; target achieved)

[1] Source of administrative data is from the district vaccination data management tool. Due to denominators generated from old census data and poor data quality, data are inaccurate. However, the endline cluster coverage survey, conducted by MCSP in 2017, with a representative sample of 618 children, showed that three-dose diphtheria-tetanus-pertussis coverage of children by 12 months old in Dowa and Ntchisi districts was above 90%.

[2] Data collected in PY2 and PY3.

Mali Summary & Results

Geographic Implementation Areas

Regions
- 3/11(27%)—Bamako, Kayes, Sikasso

Districts
- 13 districts and 6 communes of Bamako

Facilities
- 571 CHW sites

Population

Country
- 18.4 million

MCSP-supported areas
- 7.53 million

Technical Areas

Program Dates

May 1, 2014–June 30, 2015

Total Funding through Life of Project

$5,978,302

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)	368
NMR (per 1,000 live births)	34
IMR (per 1,000 live births)	56
U5MR (per 1,000 live births)	95
CPR (modern)	10%
TFR	6.1
Children under 5 who sleep under a bed net	69%

Source: Mali DHS 2012

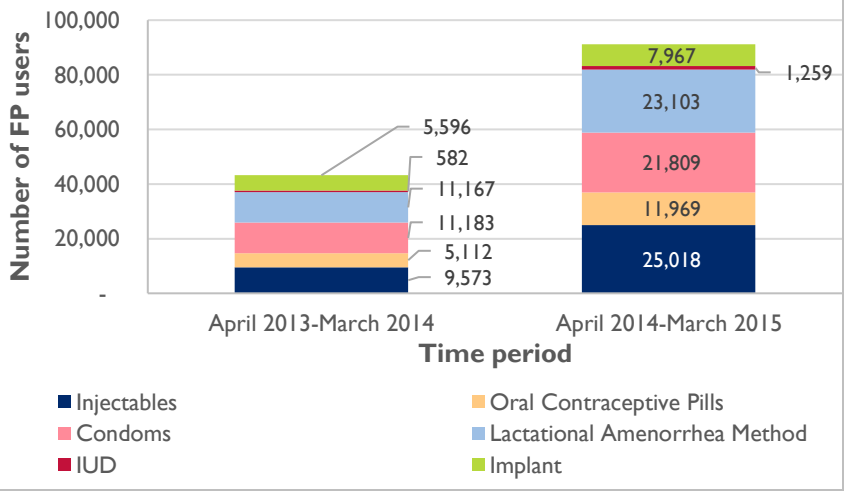
Strategic Objectives through the Life of Project

- Contribute to improved national health strategies, policies, and programs that increase the population's access to an affordable integrated package of high-impact MNCH/FP, malaria, nutrition, and WASH interventions.
- Improve access to and the quality and efficiency of MNCH/FP, malaria, nutrition, and WASH services at the community level, including the Essential Community Package and social marketing products.
- Improve access to high-quality, integrated MNCH/FP services in public health facilities, private clinics, and ProFam sites in project areas.

Highlights through the Life of Project

- Increased coordination, supervision, capacity-building, and financial support of CHWs and district officers to improve implementation of Mali's Essential Community Package.
- Aided the National Health Division's introduction of CHX by sharing strategies and lessons learned from other countries and guiding the creation of an action plan with the National Pharmaceutical Agency.
- Contributed to an increase in provision of facility-based FP from 43,213 in April 2013–March 2014 to 91,125 in April 2014–March 2015.
- Coordinated with the government to implement a seasonal malaria chemoprevention campaign, which reached 54% of the eligible children in Kita district with all three doses of treatment during the four recommended monthly rounds.

Figure 1: Facility-based FP between the last year of MCHIP and MCSP



Mali

Background

Mali has reduced under-5 mortality by more than 100 deaths per 1,000 live births since 1990. Gains in under-5 and infant mortality reduction are indicative of significant shifts in the coverage and use of health services in Mali, including increases in ANC attendance, facility-based births, vaccination coverage, and the proportion of children under-5 taken to a health facility for diarrhea and fever. However, given the extent of maternal and under-5 mortality, access to and use of high-quality health services must increase for Mali to continue to improve MNCH outcomes. MCSP was initiated in Mali to scale up achievements and address the major challenges identified in the MCHIP endline evaluation by supporting high-impact interventions, with a focus on ensuring women, newborns, and children have equitable access to high-quality health care services. MCSP worked with the Government of Mali, civil society, the private sector, health care providers, and communities to increase the population's access to affordable, high-impact MNCH, FP, malaria, nutrition, and WASH interventions in public health facilities, private clinics, ProFam[55] sites, and at the community level.

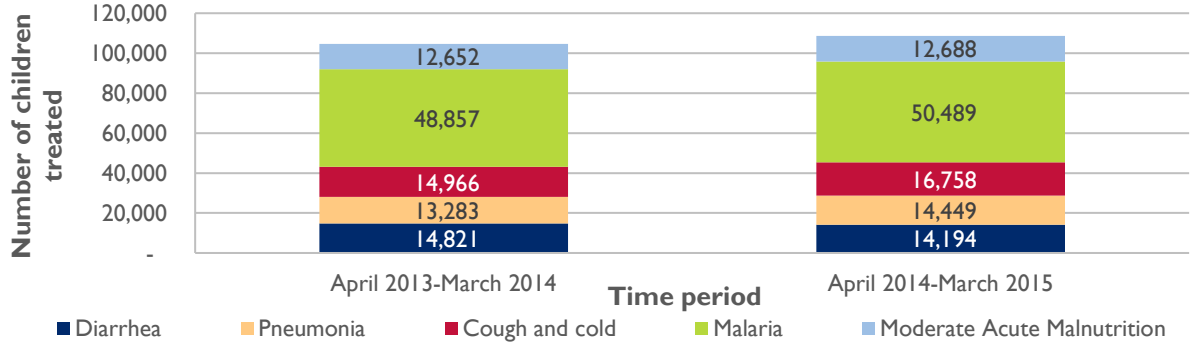
Key Accomplishments

Contributed to Improvements in the Essential Community Package

MCHIP's endline analysis showed that community members were dissatisfied with the country's Essential Community Package because it only included integrated management of illness among children, not newborns or adults, and it suffered from several implementation challenges. In response, MCSP worked to finalize the strategic plan for the package's implementation through support of national meetings to convene stakeholders and experts, as well as development of a harmonized community health database.

The MCHIP analysis also revealed insufficient leadership by and involvement of stakeholders at the regional, district, and community levels, and found that CHWs faced insufficient supervision by the health system, a lack of supplies, irregular payment of incentives, inadequate housing, marginalization, and sexual harassment. In response, MCSP helped with the coordination, supervision, capacity-building, and financial support of CHWs and placed district officers in all 13 supported districts to offer an additional layer of oversight and support at the community level. In total, 571 CHWs received at least one supervision visit within a 1-year period, 90% of whom received at least five supervision visits from a community health center technical director, MCSP district officer, and/or teams of Ministry of Public Health supervisors. Capacity-building for IMCI was also conducted during supervisory visits to 237 of the 305 community health centers. Through its support for the Essential Community Package, MCSP contributed to improvements to access, treatment, and referral for essential child health services. Notably, CHWs maintained and then increased the number of children they treated from 104,579 during the last year of MCHIP (April 2013 to March 2014) to 108,578 during MCSP (April 2014 to March 2015); comparison of these totals and diagnosis/treatment are reflected in Figure 2.

Figure 2. Comparison of number of children treated by CHWs between the last year of MCHIP and MCSP



[55] ProFam is a social franchise approach used with private health clinics in Mali that was created and is led by Population Services International in Mali.

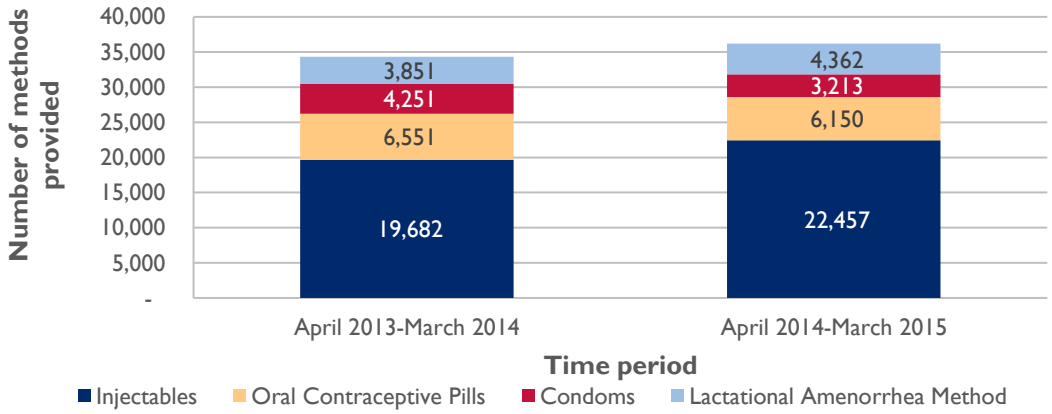
Provided Support for Additional National Health Strategies, Policies, and Programs

MCSP supported the creation of a national scorecard to track progress in MNCH and FP. It also supported the validation of Mali's national strategic plan for reproductive health and FP, and its approval by the Ouagadougou Partnership, which coordinates national FP activities in Francophone West Africa. The program also assisted with the alignment of national policies to WHO's guidelines on MiP and malaria in children under 5. Additionally, MCSP aided the National Health Division's introduction of CHX for umbilical cord care by sharing global strategies and lessons learned from introduction in other countries; supporting development, implementation, and dissemination of an assessment of cord care strategies at facility and community levels; and guiding the creation of an action plan for scale-up with the National Pharmaceutical Agency to be operationalized under the new bilateral program.

Improved FP Awareness and Provision

MCSP's support to the Essential Community Package focused on community awareness of healthy timing and spacing of pregnancy and community-based distribution of modern FP methods, including injectables and implants. Between 2011 and 2014, the percentage of women who thought it was important to space consecutive births by at least 24 months rose from 50% to 66%. In MCSP-supported areas, these gains led to a 5% increase in the number of FP methods provided by CHWs, from 34,335 during the last year of MCHIP (April 2013 to March 2014) to 36,182 during MCSP (April 2014 to March 2015), as seen in Figure 3.

Figure 3. FP provision by CHWs between the last year of MCHIP and MCSP



As a part of its social marketing activities in Mali, the project aired TV spots to raise awareness about the benefits of FP. MCSP also organized promotional days for integrated FP and vaccination to strengthen the delivery of postpartum services in community health centers in Bamako, Sikasso, and Kayes. During these events, 70,171 women voluntarily received FP services, and of those women, 30,451 chose long-acting methods: 18,383 selected implants, and 12,068 chose IUDs.

MCSP also incorporated FP counseling and provision into postabortion care services based on the results of a needs assessment conducted by MCHIP. To do this, MCSP trained providers on postabortion care and LARCs in supported facilities and in national and regional hospitals in Bamako, Kayes, and Sikasso using a combination of classroom lessons, competency building using anatomic models, and practical instruction in facilities. In facilities where post-training follow-up was conducted, almost all 148 postabortion care clients had received FP counseling, and 88 had chosen a FP method, of which 41 opted to use LARC. Due to these and other service-strengthening activities, provision of facility-based FP more than doubled between the period of April 2013–March 2014 and April 2014–March 2015, as seen in Figure 1.

Implemented Seasonal Malaria Chemoprevention Campaign

MCSP and the Government of Mali implemented a seasonal malaria chemoprevention campaign at national and district levels (Kita district) to protect children from malaria through the existing health system. Seasonal malaria chemoprevention is a WHO-recommended approach that involves the distribution of amodiaquine plus SP for 3 days per month during the 4 months with the highest malaria transmission, along with

continued use of insecticide-treated bed nets. Promotional messages were relayed through popular radio programs and other local media channels; town criers; administrative, political, and religious leaders; women's groups; and local community health associations. MCSP also supported the retraining of the 48 health care providers who manage malaria cases at health facilities and community health centers in Kita district on the Ministry of Public Health-developed training manual. An additional 665 CHWs, community health center technical directors, and volunteers were trained on the drug distribution strategy.

As a part of this activity, the project also supported the local Malaria Research and Training Center to conduct a household survey to determine whether this campaign could achieve sufficient efficacy to reduce the incidence of malaria and anemia among children 3–59 months. The survey found 65–80% of the 103,296 children 3–59 months in Kita had received at least one dose of amodiaquine plus SP during the individual monthly rounds of treatment. In total, 54% of the eligible children in Kita received all three doses of treatment during the four recommended monthly rounds. This demonstrated that chemoprevention distribution and adherence could attain a high enough level of efficacy using the existing health system and reduce incidence of malaria and anemia among these children.

Recommendations for the Future

The following is a summary of key recommendations that MCSP shared with USAID and disseminated during the national MCSP closeout event. In addition, MCSP participated in numerous work planning meetings with the two new bilateral projects and at the USAID partners' meeting to integrate these recommendations into the year 1 work plan of both new projects. MCSP partners have worked closely with the new bilateral to successfully facilitate the transition of social marketing brands and commodities.

- **Improve service provision at the community health level.** To do so, it will be important to strengthen community outreach through supervision of the Essential Community Package, integration of project activities, and provision of monthly supervision to CHWs. Future programs should also ensure functionality of Essential Community Package coordination committees in health districts, organize health district monitoring meetings, and integrate Essential Community Package data into health district's quarterly activity reports to effectively analyze and use data to aid decision-making.
- **Support the functionality of the Essential Community Package at the facility level.** These activities should include visits to each health district with all Essential Community Package implementation actors and communities. All CHWs should also be trained/retrained on Essential Community Package implementation to include the integrated package.
- **Observe the supervisory visit schedule.** Identify alternatives in the absence of focal points for the supervision of Essential Community Package and integrated program activities, and ensure the delivery of funds on time.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of (national) policies drafted with MCSP support	2: the national strategic plan for Essential Community Package, and the national plan for the introduction of CHX (target: 2; target achieved)
Number of technical directors of community health centers, CHWs, and volunteers trained on the Essential Community Package and seasonal malaria chemoprevention in MCSP-supported districts	1,042 (target: 818; target exceeded)
Percentage of sick children with pneumonia receiving appropriate treatment by CHWs in MCSP-supported districts	93% (734/773, target: 90%; target exceeded)
Number of new FP acceptors through CHWs in MCSP-supported districts	13,282 (target: 15,500; 86% achieved)
Number of new FP acceptors in MCSP-supported facilities	28,088 (target: 32,000; 88% achieved)

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of newborns in MCSP-supported districts who received a PNC visit by a CHW within 48 hours of birth	14,755 (target: 15,812; 93% achieved)
Percentage of supportive supervision visits with reports that include key issues that need to be addressed and a follow-up mechanism/timeline for addressing these	77% (target: 100%; 77% achieved)
Number of health workers trained in MNCH/FP and malaria services at MCSP-supported facilities	233 (target: 237; 98% achieved)

Mozambique Bridge Summary & Results

Geographic Implementation Areas

Provinces
- 11/11 (100%)

Districts
- 99/151 (66%)

Facilities
- CECAP: 141/1,612 (9%)
- Model Maternity Initiative: 125/1,612 (8%)

Population

Country
- 28.9 million

MCSP-supported areas
- 10.5 million

Technical Areas

Program Dates

April 30, 2015–September 30, 2015

Total Funding through Life of Project

$3,432,000

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	408
NMR (per 1,000 live births)[1]	30
U5MR (per 1,000 live births)[1]	97
TFR[2]	5.3
CPR (modern)[2]	25%
ANC4[2]	54.6%
SBA[2]	73%
IPTp2[2] IPTp3	34.2% 22.4%
DPT3[2]	81.6%
Care-seeking for fever in children U5[2]	57%
Stunting (height for age <5)[1]	43%

Sources: [1] Mozambique DHS 2011; [2] IMASIDA 2015

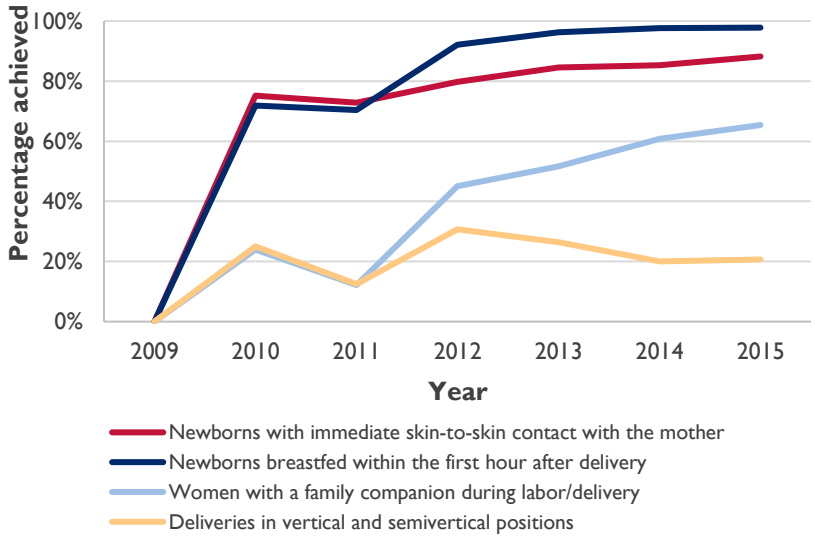
Strategic Objectives through the Life of Project

- Increase coverage of high-impact RMNCAH interventions and respectful care at the community and health facility levels to contribute to ending preventable child and maternal deaths.
- Strengthen health systems to deliver quality RMNCAH services, with an emphasis on data and human resources management, and linkages between community and facility services.
- Improve the environment for the delivery of high-impact RMNCAH interventions and respectful care through technical leadership and coordination.
- Strengthen child health in facilities implementing the Model Maternity Initiative through in-service training and IMCI management.

Highlights through the Life of Project

- Supported five health facilities to pass an MOH-led external evaluation, confirming their status as national Model Maternity facilities.
- Provided financial support and mobilized community efforts to conduct 96 mobile brigades with participation of 6,070 community members, resulting in the vaccination of 3,380 children.
- Screened 47,780 women for cervical cancer using visual inspection with acetic acid, of which 5.3% were diagnosed with a precancerous cervical lesion and 82% received treatment with cryotherapy on the same day.

Figure 1. Trends in respectful maternal and newborn care indicators*



*2015 data cover January–September of that year.

Mozambique—Bridge

Background

In Mozambique, MCSP continued crucial activities in support of the MOH's Model Maternity Initiative and National CECAP under a 5-month bridge program. These activities began under the MCHIP Associate Award, which was implemented from April 2011 to June 2015, and included support for postpartum and interval FP in line with national priorities.

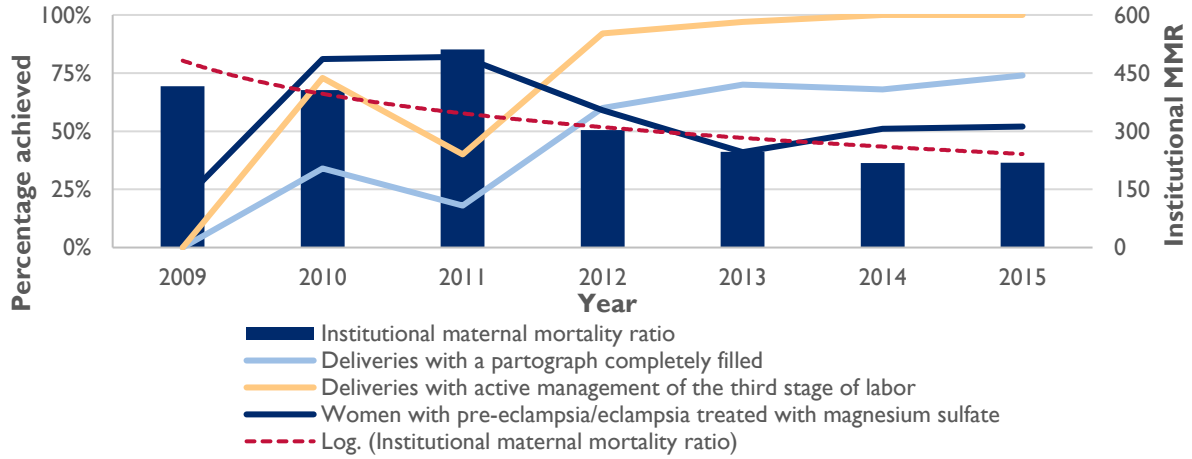
Key Accomplishments

Scaled Up Quality, High-Impact, and Respectful MNH Interventions in 125 Health Facilities

Following MCHIP, MCSP supported the ongoing scale-up of quality, high-impact, and respectful MNH interventions in 125 maternities. Five additional health facilities received and passed an MOH-led external evaluation to confirm their status as national Model Maternity facilities in recognition of their sustained performance of 80% or more in all areas of the Model Maternity Initiative performance standards, bringing the number of health facilities achieving this status to 11. Respectful MNH care practices were also expanded. Figure 1 highlights trends in selected respectful MNH indicators during the implementation of MCHIP and MCSP. During MCSP specifically, over 89% of newborns were breastfed within the first hour of delivery and had immediate skin-to-skin contact with the mother by September 2015. In addition, over 65% of women were accompanied by a companion for labor and delivery, compared to 12% in 2011.

MCSP also expanded, supported, and reinforced three high-impact interventions: completed partographs, treatment of severe PE/E with magnesium sulfate, and active management of the third stage of labor. As Figure 2 below illustrates, the institutional MMR at Model Maternity Initiative facilities declined over the course of 5 years as implementation of the three key high-impact interventions increased.[56]

Figure 2. Trends in institutional maternal mortality and selected high-impact interventions*



*2015 data cover January–September of that year.

Expanded Coverage of Fistula Repair Services

With limited access to health services in Mozambique, the prevalence of obstetric fistula is estimated to be relatively high. However, there are limited treatment services for women with fistula in the country, particularly in the provinces outside of Maputo City. MCSP supported the MOH in conducting two fistula trainings in Tete and Inhambane provinces for 33 health professionals. During these trainings, trainees helped

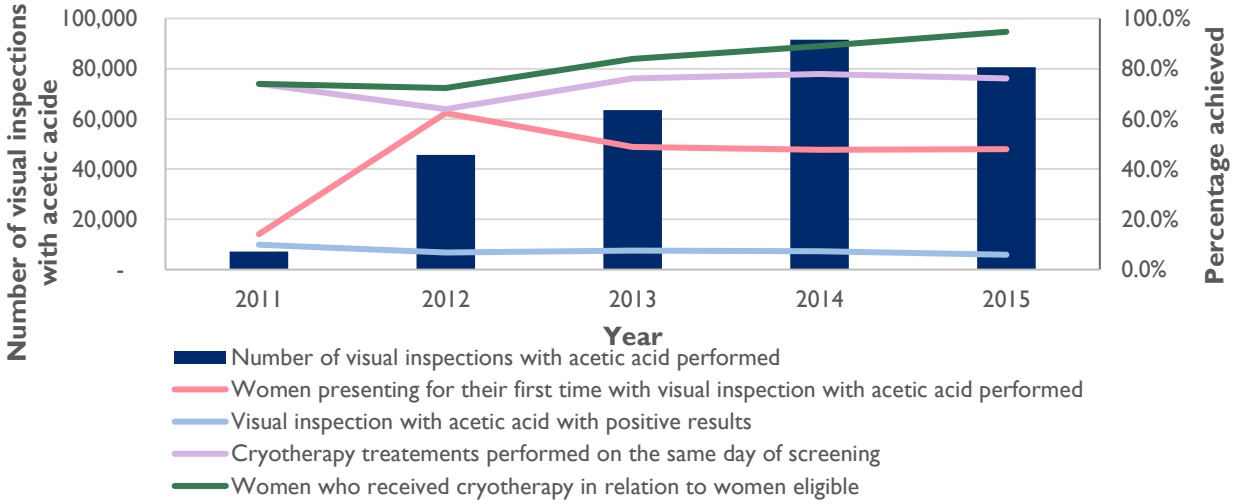
[56] The HMIS does not currently disaggregate severe from moderate cases of pre-eclampsia, so the denominator for the indicator percentage of pre-eclamptic and eclamptic women is inflated and includes moderate cases that do not require treatment. This disaggregation is included in the newly revised RMNCH registers, so the quality of information reported on this indicator is expected to improve in 2016.

to mobilize transport for 26 women suffering from fistula to health facilities so they could receive services to repair this condition.

Supported Integration of Cervical and Breast Cancer Prevention into Reproductive Health/FP Services

In alignment with MOH policy, MCSP supported service expansion for the prevention of cervical and breast cancer using the single visit approach and increased the overall coverage of referral services (colposcopy and the loop electrosurgical excision procedure) for follow-up of patients with severe lesions detected by visual inspection with acetic acid. MCSP supported the training of 111 health professionals in the visual inspection with acetic acid screening approach and cryotherapy treatment, and 13 health professionals in colposcopy and the loop electrosurgical excision procedure, increasing women's access to these vital services. By the end of September 2015, the visual inspection with acetic acid screening rate was 48%, more than triple the baseline in 2011 (14%), and 95% of eligible women received cryotherapy on the same day or during the days following screening. Figure 3 presents overall trends of CECAP indicators from MCHIP to MCSP.

Figure 3. Trends in CECAP indicators through the transition of MCHIP to MCSP in 2015*



*2015 data cover January–September of that year.

Mobilized Community Groups to Become Active Participants in the Health of Their Communities

MCSP mobilized groups to lead or engage in efforts to improve the health of their communities. The program provided financial support and mobilized community efforts to conduct 96 mobile brigades, which included vaccination for 3,380 children and educational sessions with 6,070 community members regarding FP, the importance of pre- and postpartum consultations, the new rotavirus vaccine, exclusive breastfeeding, nutrition, institutional births, and diarrhea. MCSP also provided refresher training to 297 co-management and humanization committee members, which included facility and community representatives who work together to identify and jointly address priority issues affecting quality of health services. As a result of the capacity-building support, co-management and humanization committees were able to clearly define their tasks and objectives, elaborate on plans, and report results.

Recommendations for the Future

During its 5 months of implementation, MCSP was able to finalize activities initiated under MCHIP, including consolidating implementation of the Model Maternity Initiative and National CECAP program in all provinces of Mozambique, and demonstrate improvements in reproductive and MNH health quality indicators. By the end of the program, MCSP transitioned capacity-building, QI, and supervision activities to the MOH and provincial health directorates where the follow-on MCSP program would no longer be operating. Beginning on October 1, 2015, the 5-month bridge program transitioned to a 3.5-year follow-on

program under MCSP, which focused on providing continued support to the central-level MOH and to Nampula and Sofala provinces for facility- and community-based RMNCAH services. Recommendations for the new program included:

- **Continue support of national initiatives.** MCSP successfully supported the MOH's MNH and CECAP initiatives. It also recommended that future programs provide ongoing support to assist with the transition of national programs by providing technical assistance to the MOH and other implementing partners to conduct national and regional trainings in the Model Maternity Initiative and CECAP programs.
- **Strengthen community health efforts and community-facility linkages.** MCSP found that community groups were vital to engaging fellow community members in health-related activities. It recommended that future efforts in RMNCAH focus on the community level and on strengthening linkages between communities and health facilities.
- **Integrate service delivery.** The bridge program was able to integrate CECAP and breast cancer prevention into reproductive health/FP services. To reach more women, men, and children with important health services, MCSP recommended that an integrated service delivery approach be used in other health areas as well.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of women receiving active management of the third stage of labor through USG-supported programs	100% (target: 95%; target exceeded)
Percentage of deliveries with partograph completely filled	77.1% (target: 75%; target exceeded)
Percentage of babies who graduated from KMC at MCSP-supported facilities	87.6% (target: 80%; target exceeded)
Percentage of babies not breathing/crying at birth who were successfully resuscitated in MCSP-supported areas	74.8% (target not defined)
Percentage of eligible cervical cancer screened women with visual inspection with acetic acid-positive results receiving immediate cryotherapy	82.2% (target: 80%; target exceeded)
National policies drafted with USG (MCSP) support	1[1] (target: 2; 50% achieved)
Number of MCSP-supported health facilities actively implementing a QI approach	127 (target not defined)
Percentage of MCSP target districts with regular feedback mechanisms supported by the program to share information on progress toward RMNCH health targets with community members and/or CSOs	100% (target: 30%; target exceeded)

[1] National Strategy for Quality and Humanization 2015–2019.

Mozambique Malaria Summary & Results

Geographic Implementation Areas

Provinces
- 1/11 (9%)—Zambezia

Districts
- 14/22 (64% in Zambezia)

Facilities
- 58/246 (24%)

Population

Country
- 28.9 million

MCSP-supported areas
- 3.45 million

Technical Areas

Program Dates

March 1, 2016–September 30, 2018

Total Funding through Life of Project

$2,950,000

Demographic and Health Indicators

Indicator	# or %
Live births/year[1]	813,907
MMR (per 100,000 live births)[2]	408
NMR (per 1,000 live births)[2]	30
U5MR (per 1,000 live births)[2]	97
Malaria prevalence among children 6–59 months[3]	40.2%
ANC4[3]	54.6%
Births with SBA[3]	73%
IPTp2[3]	34.2%
IPTp3[3]	22.4%

Sources: [1] UN 2017 World Population Prospects; [2] Ministério da Saúde, ICF International, Moçambique Inquérito Demográfico e de Saúde 2011; [3] 2015 Survey of Indicators of Immunization, Malaria, and HIV/AIDS in Mozambique

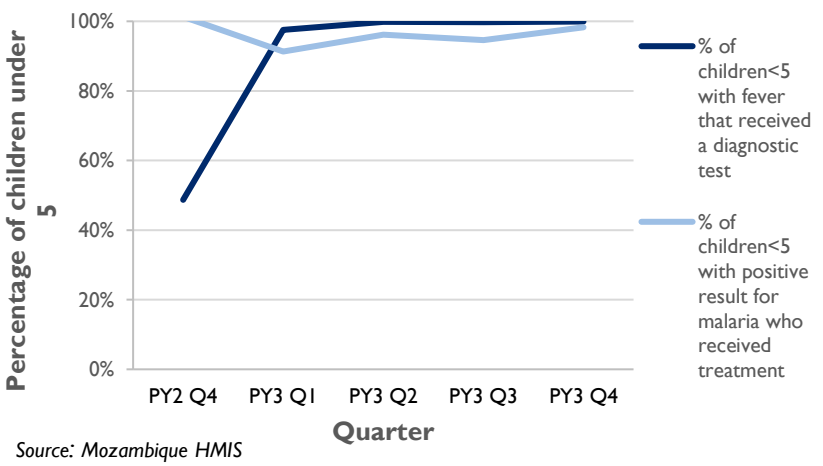
Strategic Objectives through the Life of Project

- Strengthen provincial and district health systems to improve overall performance of malaria prevention and treatment efforts.
- Increase access to quality fever case management (correct diagnosis and treatment) to be in alignment with national malaria treatment guidelines.
- Expand access and quality of MiP activities in targeted districts.

Highlights through the Life of Project

- Provided technical and financial support to develop the National Malaria Strategic Plan 2017–2022, national malaria treatment guidelines, and national case management training package.
- Developed and implemented comprehensive malaria standards. By the end of PY3, all 58 program-supported facilities had initiated the QI process. Forty-seven health facilities conducted at least a second internal measurement, of which 41 (87%) had improved their performance on malaria standards, and 27 (57%) had improved their performance against the standards by at least 50% compared to baseline.
- By the end of PY3, over 99% of children under 5 with fever had received a diagnostic test in MCSP-supported areas, and 98% of children under 5 with a positive malaria diagnosis had received artemisinin-based combination therapy.
- Increased the percentage of pregnant women with a positive result for malaria who received treatment over PY3 (when data for this indicator started being reported through the national HIS), from 72% in quarter 1 to 95% in quarter 4.

Figure 1. Coverage rates for diagnosis and treatment of malaria in Zambezia Province



Source: Mozambique HMIS

Mozambique—Malaria

Background

MCSP's 2.5-year malaria program in Mozambique aimed to reduce malaria morbidity and mortality in Zambezia Province, which, at 68%, has the highest prevalence of malaria in children under 5 in Mozambique. To achieve this goal, MCSP supported the MOH and the NMCP to build supportive national and subnational systems for malaria prevention and control efforts, including the development of national strategies, guidelines, and training materials, as well as improved systems for measurement and use of malaria data for decision-making. MCSP improved the quality of malaria case management and MiP services by developing and applying malaria performance standards and building the clinical capacity of health workers through training and mentoring in case management, microscopic diagnosis of malaria, and MiP. To improve the quality of iCCM services, MCSP enhanced the supervision of elementary polyvalent agents (*agentes polivalentes elementares*), who are community members trained to provide basic health care (including malaria prevention, diagnosis, and treatment) in the remote areas in which they live. (For more information about MCSP's malaria activities under this program and in Nampula and Sofala, see the malaria program brief.)

Key Accomplishments

Strengthened Quality and Use of Malaria Data

MCSP helped the Provincial Health Directorate organize quarterly data review meetings with representatives from program-supported districts and health facilities to present malaria indicators and discuss the findings and trends. To build capacity for improved measurement of malaria programs, MCSP trained 389 health workers to correctly complete data collection forms. MCSP also integrated verification, analysis, and reconciliation of data in registers and monthly summary reports into quarterly onsite support visits at 58 health facilities. At the district level, MCSP helped statistical officers to review malaria reports and reconcile errors and missing data. This technical assistance was particularly important during the first 2 years of the malaria program in Mozambique, as the entire health system transitioned from an earlier HIS platform (*Módulo Básico)* to the District Health Information Software 2. By the second year of the malaria program, 58 (100%) of MCSP-assisted health facilities were analyzing malaria indicators on at least a quarterly basis and identifying recommendations for improvements.

Updated Malaria Strategy, Training Package, and Guidelines

To improve strategic planning for malaria, MCSP hired a consultant who worked with the NMCP and in consultation with malaria partners to develop the National Malaria Strategic Plan, 2017–2022. The plan aims to reduce the burden of malaria in high-transmission areas and sustain gains in low-transmission areas to accelerate toward malaria elimination. It has six objectives that address program management, prevention, case management, social and behavior change communication, elimination, surveillance, and M&E. The minister of health approved the plan in November 2017. In PY3, MCSP worked with the NMCP to develop an updated case management training package that includes facilitator and participant manuals, and also provided technical support to update the national malaria treatment guidelines. MCSP printed over 2,000 copies of both manuals for Zambezia Province, and an additional 15,000 copies of treatment guidelines and 200 training manuals for the NMCP to distribute to health providers throughout the rest of the country.

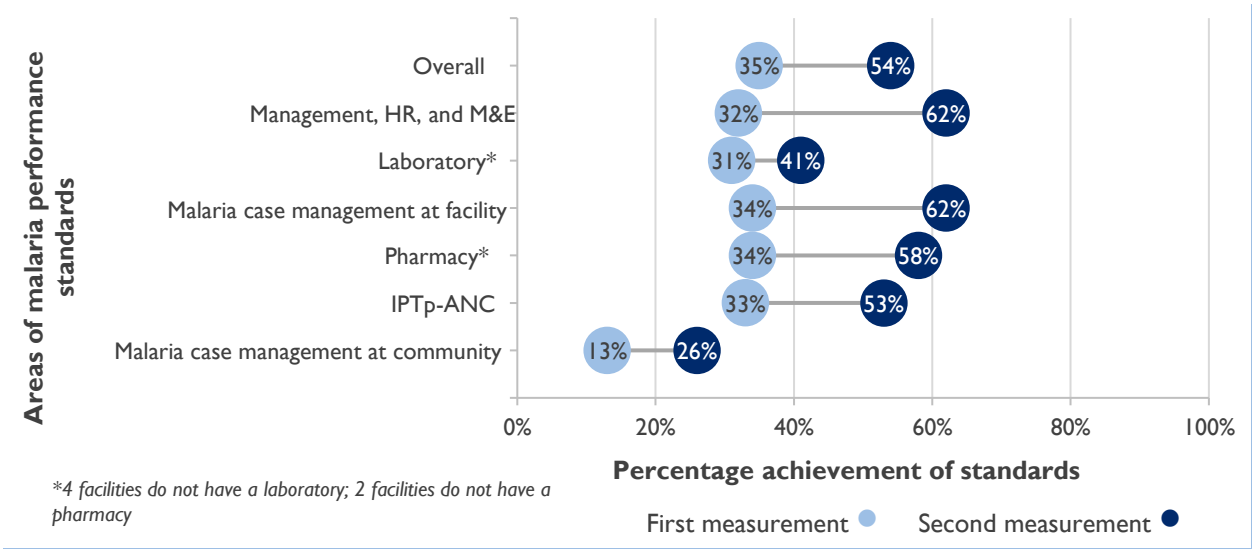
Improved Coordination of Provincial Malaria Partners

Under the direction of the Provincial Health Directorate, MCSP helped plan and hold regular partner meetings in an effort to improve coordination, reduce duplication of malaria activities, and increase the impact of collective malaria efforts in the province. As a result of these meetings, the Provincial Health Directorate improved coordination with PMI partners, implementing partners shared monthly work plans with each other and the Provincial Health Directorate, and the Provincial Health Directorate and partners regularly discussed and reviewed malaria data. These meetings, which have continued after the end of the program, empowered the Provincial Health Directorate to make more strategic decisions about malaria efforts.

Implemented a QI Approach for Malaria

MCSP provided technical support to the MOH to develop comprehensive malaria standards, which assess six areas of performance: pharmacy, management of human resources and commodities, laboratory, malaria case management, IPTp, and community malaria case management. To carry out the QI approach, the project trained 20 trainers and 113 managers and health workers, and provided onsite mentoring to conduct quarterly measurements against standards and help facilities develop action plans to address identified gaps. By the end of PY3, all 58 program-supported facilities had conducted a baseline measurement. Forty-seven health facilities conducted at least a second internal measurement, of which 41 (87%) had improved their performance on malaria standards, and 27 (57%) had improved their performance against the standards by at least 50% compared to baseline (see Figure 2).

Figure 2. Improvements in malaria standards in 47 health facilities in Zambezia



Increased Provincial Capacity to Deliver Quality Fever Case Management and MiP Services

MCSP developed 20 district-level malaria focal points as trainers in malaria case management, and supported them to train and mentor 679 health workers in fever case management, 87 in IMCI, 95 in microscopic diagnosis of malaria, and 467 in MiP. In PY4, the program also supported the Provincial Health Directorate to roll out a province-wide cascade training of 33 provincial trainers and 1,660 health workers from 22 districts in case management and MiP. By the end of PY3, when MCSP completed its direct support to the 58 health facilities, over 99% of children under 5 with fever had received a diagnostic test in MCSP-supported areas, 98% of children under 5 with a positive malaria diagnosis had received artemisinin-based combination therapy, and 95% of pregnant women with a positive result for malaria had received treatment.

Strengthened Community Malaria Case Management

MCSP worked with district health directorates to strengthen the capacity of elementary polyvalent agents at the community level to diagnose and treat malaria, and to improve the linkages between the community and facility-based health teams. The program involved 201 elementary polyvalent agents and 83 elementary polyvalent agent supervisors in 58 joint supervision visits in 13 of 14 implementation districts. The supervision visits ensured that patient data were reported from the community to the facility (for subsequent reporting up to the district level) and that the elementary polyvalent agent and their supervisor reviewed the quality of data and used the information to target services. The visits also confirmed whether elementary polyvalent agents had a sufficient stock of malaria commodities in their kits; helped the elementary polyvalent agents establish and maintain linkages to other community structures, such as community health committees; and built the capacity of the elementary polyvalent agents and their supervisors to correctly diagnose and treat malaria based on national guidelines. These supervision visits have continued since the end of the program, demonstrating the sustainability of this activity developed through MCSP's support.

Recommendations for the Future

- **Pair health facilities to measure performance and examine motivating factors for improving quality of malaria services.** During the first 2 years of implementation, the districts and MCSP worked together to pair health facilities to conduct internal measurements on performance standards. This practice was found to increase the objectivity of the process and resulted in healthy competition among facilities. MCSP recommends its incorporation in future QI efforts. Although MCSP did not directly support facilities to conduct quality measurements after PY3 (based on USAID's recommendation to direct all remaining funding to case management training), 45 facilities continued to conduct measurements in quarter 1 of PY4. MCSP recommends that the provincial health directorates continue to track the use of QI approaches at the facility level and to examine which factors (i.e., leadership, resources, support from the provincial health directorates) motivate staff to continue these measurements.
- **Coordinate facility and community-level MiP efforts.** Availability of essential commodities (e.g., rapid testing kits, SP, and long-lasting insecticidal nets) and data collection and reporting tools likely impacts performance against MiP standards and indicators. Successful implementation of WHO's MiP guidelines will require coordinated efforts to strengthen MiP service delivery alongside community-level interventions to promote early ANC. MCSP recommends that future malaria investments consider including coordinated facility- and community-level components to address the demand and supply side of MiP service delivery, and that supply chain efforts focus on the "last mile" to improve product availability at the health facility and community levels.
- **Continue to support data review meetings.** Quarterly meetings of district data managers proved to be an effective means of convening decision-makers from different levels of the health system to analyze malaria results and use data to drive programmatic decisions. As the MOH rolls out the new child health registers and improves malaria data, it will be important to continue support for data review meetings and analyze trends on key malaria indicators over time.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number and percentage of pregnant women who received IPTp2 for malaria under direct observation in MCSP-supported areas	52,171 (55%, target: 71%; 77% achieved)
Percentage of women with a positive result for malaria who received treatment for malaria during pregnancy	92% (target: 80%; target exceeded)
Number and percentage of children under 5 with fever that received a diagnostic test in MCSP-supported areas	428,301 (92%)[1]
Number and percentage of children under 5 with positive diagnosis for malaria who received artemisinin-based combination therapy	250,219 (96%)[1]
Number of people trained in fever case management through USG (MCSP)-supported programs	2,372 (target: 1,775; target exceeded)
Percentage of elementary polyvalent agent supervisors in MCSP-supported districts who received at least one supportive supervision visits during the reporting period	92% (target: 100%; 92% achieved)

[1] Targets were originally set as a 20% increase from baseline. However, no baseline was available for this indicator before the implementation of new child health registers (December 2018). Other data sources, like the weekly epidemiological bulletin, provided only total malaria cases confirmed, not those tested and/or treated. Because accurate numbers for testing and treatment were not available until the child registers were rolled out, the program was unable to calculate the targets.

Mozambique Maternal and Child Survival Summary & Results

Geographic Implementation Areas

Provinces
- 2/11 provinces (18%)—Nampula and Sofala

Districts
- 34/154 districts (22% of country total, 23/23 in Nampula, 11/13 in Sofala)

Facilities
- 111/1,651 facilities (7% of country total)

Communities
- 1,114 communities

Population

Country
- 28.9 million

MCSP-supported areas
- 2.7 million

Technical Areas

Program Dates

October 1, 2015–March 31, 2019

Total Funding through Life of Project

$51,312,707

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	408
NMR (per 1,000 live births)[1]	30
U5MR (per 1,000 live births)[1]	97
TFR[2]	5.3
CPR (modern)[2]	25%
ANC4[2]	54.6%
SBA[2]	73%
IPTp2[2] IPTp3	34.2% 22.4%
DPT3[2]	81.6%
Care-seeking for fever in children U5[2]	57%
Stunting (height for age <5)[1]	43%

Sources: [1] Mozambique DHS 2011; [2] IMASIDA 2015

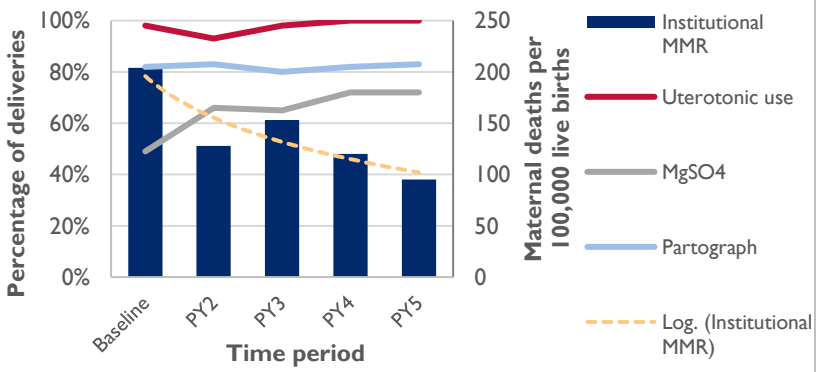
Strategic Objectives through the Life of Project

- Strengthen leadership and management capacity of the MOH to deliver high-quality RMNCAH programs.
- Increase access to and demand for quality reproductive health and FP interventions.
- Improve access to and demand for quality gender-transformative MNH interventions, including integration of FP, malaria, nutrition, and WASH.
- Increase access to and demand for quality child health interventions, including integration of FP, immunization, malaria, nutrition, and WASH.

Highlights through the Life of Project

- Improved coverage and quality of RMNCAH interventions, contributing to the reduction of the institutional MMR at 86 health facilities from 204 at baseline in 2014 to 120 in 2018, and saved an estimated 7,396 under-5 children's lives in project-supported areas.
- Introduced a new approach for improving RMNCAH referrals and counterreferrals in Nampula Province, which the MOH has committed to replicating in the other 10 provinces in Mozambique.
- Assisted communities to replicate WASH infrastructure with local materials, improving access to basic sanitation services for nearly 525,000 people.
- Increased the percentage of children who recovered from acute malnutrition from 59% to 72% by supporting the MOH for training and mentoring of health workers and community nutrition activists.

Figure 1. Quality of maternal health care and institutional MMR trends in 86 health facilities*



*PY5 includes only Nampula facilities (56).

Mozambique—Maternal and Child Survival

Background

Mozambique's MMR of 408 per 100,000 live births and newborn mortality rate of 30 per 1,000 live births rank among the highest in Southern Africa. High mortality rates are associated with early childbearing and short birth intervals—significant challenges, given Mozambique's low use of FP. While there have been substantial reductions in under-5 mortality in the past two decades, approximately two-thirds of all infant and child deaths occur after the neonatal period, when they are largely preventable. Malaria is responsible for 42% of deaths in children under 5, and studies indicate that 43% of children in Mozambique are chronically malnourished or stunted, leading to lifelong consequences, including delayed mental and psychomotor development, reduced productivity, and increased mortality rates.

MCSP in Mozambique aimed to reduce the country's high maternal, neonatal, and under-5 mortality through a family-centered systems approach focused on Nampula and Sofala provinces while providing critical support at the national level to ensure a supportive environment for the delivery of high-quality RMNCAH programs. MCSP supported HSS efforts at the national level, including institutionalization of QI systems, implementation of evidence-based models for human capacity development, and strengthening of the national HIS. MCSP worked at the subnational level to strengthen RMNCAH, nutrition, and malaria service delivery and the household-to-hospital continuum in 34 districts, 111 health facilities (including 25 intensive nutrition-only facilities), and 1,114 communities.

Key Accomplishments

Built Planning and Management Capacity of the MOH

MCSP developed strategic planning tools and assisted the provincial and district health directorates of Nampula and Sofala to incorporate prioritized RMNCAH activities and realistic targets into their annual economic and social plans. MCSP also assisted the provincial health directorates to successfully plan and implement fixed-amount awards, through which they trained 105 midlevel MCH nurses and completed the first 2 years of PSE training programs for 30 surgical technicians in Nampula and 30 obstetric nurses in Sofala. Since their graduation in June 2018, the Nampula provincial health directorate placed 70 MCH nurses in the province's health facilities. Nampula and Sofala also budgeted state funds to complete the final 2 years of the surgical technician and obstetric nursing PSE programs, demonstrating the MOH's planning capacity and commitment to addressing the human resources for RMNCAH shortage. Through these activities, MCSP has contributed to building lasting leadership and management capacity at the MOH that will benefit RMNCAH programs for years to come.

Improved Metrics, Data Quality, and Use for RMNCAH, Nutrition, and Malaria

MCSP provided technical support to the Nampula and Sofala provincial health directorates to transition the previous HIS to a new database using DHIS2. MCSP also assisted the MOH to develop and pilot new well- and sick-child health registers that integrated routine child health and nutrition indicators into the national HMIS, thus making child health data available to managers for program planning, monitoring, and evaluating of their efforts. MCSP worked with district statistical focal points and health workers at 86 facilities to reinforce correct completion of RMNCAH registers, identify data quality issues, and review monthly summary reports for accuracy before entering data into the national HMIS. Finally, MCSP assisted facilities and districts to use wall charts and dashboards, and conduct regular data review meetings to analyze and use health data for informed and timely decision-making.

Strengthened Community Health Committees and Cadres to Promote Community Health

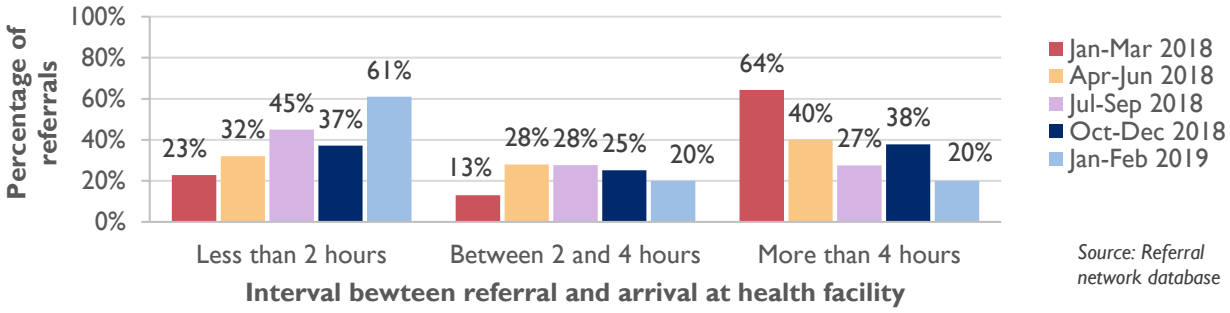
MCSP supported the reorganization and training of 758 community health committees (comprising members of community health cadres) using the Community Action Cycle to strengthen skills to explore, plan, act together, and monitor achievements using data for decision-making. Working with health facilities'

community engagement counterparts, MCSP strengthened supervision and mentorship of community health committees and improved linkages between community structures and facilities. The mentoring visits built the capacity of community health cadres, such as elementary polyvalent agents (*agentes polivalentes elementares*) and traditional birth attendants, to treat common infectious diseases in children under 5, and to counsel and provide safe birth interventions, such as CHX for newborns and misoprostol for prevention of PPH. MCSP also supported the 758 community health committees to use a simple, paper-based table to analyze data for selected indicators each month and identify goals for community-driven health priorities and outcomes. The program also strengthened community health committees' reporting of community data to facilities, resulting in better coordination of health campaigns and outreach.

Improved the Functionality of Referral and Counterreferral Networks

MCSP created eight networks in Nampula to increase referral and counterreferral rates for a key set of MNCH services, including obstetric and newborn complications. MCSP supported coordination meetings with district, facility, and community representatives to define strategies to improve the effectiveness of the networks. The project trained providers from 214 facilities in referral reporting tools, including a database developed in DHIS2. MCSP also mapped community emergency transportation options in 580 communities and mentored community health committees to develop 266 village community banks that raised funds to maintain and fuel motorcycle ambulances. From January 2018 to February 2019, 8,117 patients were referred from a peripheral facility to a referral facility, of which 74% completed the referral. Of these, 66% received a counterreferral. Timeliness of referrals improved over this period, with the percentage of patients taking more than 4 hours to complete referral decreasing from 64% to 20% (see Figure 2). Based on this experience, the MOH announced plans to replicate the approach in Mozambique's other provinces.

Figure 2. Interval between time of referral and time of arrival at health facility



Source: Referral network database

Addressed Gender Inequities through Policy Change and Gender-Sensitive Health Services

In the second National Gender Strategy for the Health Sector, 2018–2023, MCSP supported the MOH to create a time-bound action plan to ensure women and men receive high-quality health services at all levels of care. MCSP trained 1,358 providers in 86 facilities to offer high-quality couples counseling to support male participation in ANC, birth preparedness and complications readiness, PPFP, and prevention of GBV. The percentage of men who participated in at least one ANC visit increased from 55% at baseline in 2014 to 70% at the program's end. MCSP also built the capacity of 8,073 community health cadres on couples counseling for birth preparedness and complications readiness. As a result, 49,154 couples developed birth plans, chose a facility in which to deliver, saved money, arranged transport, and selected a supportive birth companion in advance of the birth.

Stimulated Demand Creation and Health Promotion

MCSP built the capacity of 11,370 members of community health cadres to encourage people to adopt healthy lifestyles and practices, and use facility-based and mobile health (outreach) RMNCAH, nutrition, and malaria services. Through interventions including cooking demonstrations, community radio shows, theater, community dialogs, health fairs, and household visits, the community health cadres reached 6,129,331 individuals with health promotion and education messages, which drove a greater demand for services. For

example, the percentage of pregnant women who attended four or more ANC visits at 86 program-supported facilities increased from 39% at baseline in 2014 to 53% at endline.

Improved the Quality of MNH Care

MCSP assisted 86 facilities to scale up high-impact interventions for MNH (e.g., treatment of PE/E with magnesium sulfate, correct completion and use of partograph for labor monitoring, and administration of a uterotonic in the third stage of labor to reduce risk of postpartum blood loss) through on-the-job training and mentoring of midlevel nurses and general practitioners. MCSP helped to create facility-based QI teams that conducted quarterly self-assessments against performance standards and developed action plans to improve service quality. More than 396,000 women gave birth with an SBA at supported facilities during the life of the program. During this period, 92% of facilities improved their adherence to quality standards by at least 50% compared with baseline. This improvement correlated with a decrease in institutional MMR (from 204 per 100,000 institutional deliveries at baseline in 2014 to 120 in 2018) and improved performance on high-impact maternal health interventions (see Figure 1). Facilities also demonstrated consistently high levels of coverage for newborn health indicators. Cumulatively, 94% of newborns were placed skin to skin immediately after birth, 94% of newborns were put to the breast within 1 hour after birth, and 82% of newborns not breathing/crying at birth were successfully resuscitated.

Increased Uptake of PPFP Methods

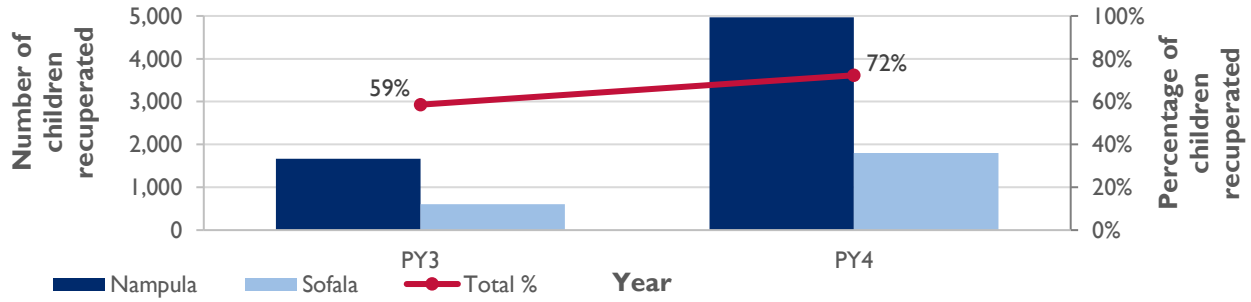
MCSP built the capacity of health care providers at 86 health facilities in Nampula and Sofala through on-the-job training and mentoring on the various contraceptive methods available for postpartum women, including lactational amenorrhea and short- and LARCs (including postpartum implants and IUDs). MCSP also reinforced high-quality FP counseling during ANC and the immediate postpartum period, including the healthy timing and spacing of births. These interventions resulted in increased voluntary uptake of PPFP before discharge after delivery at 86 MCSP-supported facilities, from 5% in PY2 to 24% in PY4. (For more information, see the program brief on CECAP and FP services in Mozambique.)

Reached over 3.4 Million Children under 5 with Evidence-Based Nutrition Interventions

Through MCSP's support to nutrition programming at health facility and community levels, 3,428,782 children received screening, referral, and treatment of acute malnutrition, vitamin A supplementation, home fortification with micronutrient powders, and social and behavior change communication activities, including nutrition education sessions and cooking demonstrations for caregivers.

To ensure adequate treatment at the community level and prevent relapse, MCSP strengthened referral and counterreferral systems that enabled community volunteers to conduct household visits and support group sessions with caregivers of children suffering from moderate or severe acute malnutrition. The strengthened continuum of care enabled community health activists to find defaulting cases and ensure their return to treatment. As shown in Figure 3, the percentage of children with acute malnutrition who recovered increased from 59% in September 2017 to 72% in September 2018.

Figure 3. Number and percentage of children 0–59 months with moderate or severe acute malnutrition who recuperated in project-supported facilities



Improved Access to Basic Sanitation Services

MCSP helped community health committees establish and maintain 1,313 WASH demonstration centers, which provided households in 758 communities with the skills needed to construct durable, inexpensive, and effective WASH products, including 112,074 latrines, 25,934 tippy taps, 84,212 landfill sites, 52,312 stands for utensil storage, and 79,037 drying racks. Using the DHS 2011 average rural family size of 4.3 individuals, these results represent improved access to basic sanitation services for nearly 525,000 people.

Strengthened IMCI at Health Facilities

MCSP updated the skills of 57 provincial trainers and 411 providers from 86 facilities to ensure strong implementation of the national IMCI strategy. To increase the sustainability of IMCI QI efforts, MCSP built the capacity of provincial and district supervisors to use a supervision tool developed with the program's support. MCSP worked with these supervisors to regularly mentor health care providers in IMCI, well-child, and at-risk child services to improve the flow of child health services, data analysis and use, and application of IMCI guidelines to classify and manage malaria, diarrheal diseases, and pneumonia (the major contributors to child mortality). MCSP's capacity-building efforts resulted in the timely diagnosis and treatment of malaria, diarrhea, and pneumonia at its supported facilities: 105%[57] of children with malaria, 98% of children with diarrhea, and 88% of children with pneumonia received treatment per national guidelines. (For further details, see the program brief on child health in Mozambique.)

Reduced Vaccination Dropout Rates through Microplanning

MCSP supported 341 mobile brigades through improved microplanning and logistical support, contributing to a cumulative 302,092 children under 12 months of age receiving Penta3 in MCSP-supported areas. The Penta3 dropout rate at 14 health facilities implementing the RED/REC strategy declined by 43% in Nampula and 52% in Sofala after the introduction of microplanning, and the number of children immunized increased markedly, particularly in Sofala, after the introduction of REC. (For more information, see the program brief on strengthening immunization services.)

Recommendations for the Future

MCSP's promising results in Mozambique would not have been possible without the leadership and commitment of the Government of the Republic of Mozambique and the MOH to advance national-, provincial-, and district-level management capacities; strengthen the capacity of the health workforce to deliver preventive services and lifesaving care; and improve access to high-quality RMNCAH care. With the launch of the National Strategy for Quality and Humanization of Health Care 2017–2023, the MOH has outlined its priorities and provided a framework to achieve improved quality of services. The new USAID-funded bilateral program—Quality Health Initiative—will work with the newly formed Quality Assurance and Management Directorate and all 23 districts and health facilities in Nampula Province, which will provide an opportunity to build on the progress and results achieved under MCSP. Using documented learning from MCSP's referral and counterreferral and male engagement approaches, it is recommended that the MOH provide leadership and allocate resources to scale up these approaches with robust measurement to monitor progress. There is also an opportunity to build on the skills of trained providers and trainers to deliver high-impact interventions. MCSP has the following recommendations for the MOH and future projects:

- **Implement comprehensive human capacity development approaches to ensure that staff are qualified.** MCSP successfully implemented evidence-based, sustainable approaches to building the capacity of health professionals. The project recommends that the MOH and other projects in Mozambique use a structured supportive supervision and mentoring process, reinforce use of checklists and job aids for self-learning (by health professionals), develop an exchange program to allow health professionals to share knowledge and experiences, and support capacity-building for on-the-job training at facility level to sustain skills of health professionals.

[57] Some providers continue to treat based on a clinical diagnosis. MCSP reinforced adherence to national standards of treating individuals with confirmed malaria infection.

- **Leverage and work within the system to sustain QI of RMNCAH services.** To build upon improvements in quality of RMNCAH services, MCSP recommends that the MOH and other projects identify and support QI advocates at facility and district levels who motivate their supervisees and coworkers to make progress on quality indicators. The MOH should publicly recognize champions, managers, and health workers for their progress and successes. To sustain capacity-building efforts, the MOH and donors should dedicate resources to support decentralization of QI efforts by mentoring provincial and district focal points in management and leadership skills for QI.
- **Make measurement and data use priorities.** Monthly review and display of key indicators at the facility and district levels and at data review meetings enabled health workers to monitor their performance and decide how to improve RMNCAH services at the local level. Provincial and district authorities should prioritize data discussions to analyze quality indicators and create healthy competition to improve services. MCSP recommends that district and facility managers ensure that data meetings continue with community cadres to recognize their contribution to creating demand for facility-based services and to share data that will improve program planning and monitoring.
- **Sustain MOH commitment and investment to the integrated care, referral, and counterreferral system in Nampula and throughout Mozambique.** Establishing the referral network system in Nampula through the formal commitment and involvement of high-level government leaders helped to ensure: the creation of trusted relationships and platforms for sharing information and mutual learning among providers; the utilization of data and learning to inform actions to address challenges; greater mobilization and more effective use of available resources to ensure the sustainability of interventions; and a collaborative, or "co-production of health," approach that promoted alliances in the province that facilitated improved understanding of the needs and objectives of each partner. MCSP recommends that the MOH continues to commit its resources and partnerships to strengthen and expand the referral network strategy in Mozambique to ensure that referrals are effective, functioning, and lifesaving.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of target communities that have a functional community health committee	100% (target: 95%; target exceeded)
Couple years of protection (modern methods)	1,131,225 (target: 578,836; target exceeded)
Percentage of women delivering in MCSP-supported facilities who accept a method of FP before discharge	24% (target not defined)
Number of pregnant women who attended four or more ANC visits at MCSP-supported health facilities	198,181 (target: 196,376; target exceeded)
Percentage of pregnant women who received 90 iron-folic acid supplements	64% (target: 46%; target exceeded)
Percentage of deliveries with partograph completely filled as per protocol	82% (target: 88%; 93% achieved)
Percentage of women receiving a uterotonic in the third stage of labor	100% (target: 98%; target exceeded)
Percentage of newborns not breathing/crying at birth who were successfully resuscitated in MCSP-supported areas	80% (target: 84%; 95% achieved)
Number of PNC visits within 2 days of birth in MCSP-supported areas	323,990 (target: 248,188; target exceeded)
Number of children under 5 reached by USG-supported nutrition programs	3,428,782 (target: 765,060; target exceeded)[1]
Percentage of children 0–59 months with moderate acute or severe acute malnutrition who were recuperated	72% (target: 69%; target exceeded)

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of children under 12 months old who received DTP3/Penta3 vaccine in MCSP-supported areas	302,092 (target: 236,147; target exceeded)
Dropout rates from DTP1 to 3	8% (target: ≤ 8%; target achieved)

[1] MCSP provided support to the provincial health directorates in PY4 to conduct provincial health campaigns and National Health Weeks. These activities brought great demand for services, and it was therefore possible to achieve much higher results than were predicted at the beginning of the project.

Namibia Summary & Results

Geographic Implementation Areas

Regions
- 8/14 (57%)—Kavango East, Kavango West, Khomas, Ohangwena, Omusati, Oshana, Oshikoto, and Zambezi

Districts
- 19/34 (56%)

Facilities
- 187/269 (70%)

Population

Country
- 2.11 million

MCSP-supported areas
- 1.63 million

Technical Areas:

Program Dates

August 1, 2014–September 30, 2018

Total Funding through Life of Project

$9,798,334

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)	385
NMR (per 1,000 live births)	39
U5MR (per 1,000 live births)	54
HIV prevalence (15–49yrs)	14.0%
TFR	3.6
CPR	50.2%
ANC 4+	63%
SBA	88%
Pneumonia (care seeking at health facility for ARI)	68%
ORT (% children <5 with diarrhea receiving ORS or recommended fluids)	77.5%

Source: Namibia DHS (2013)

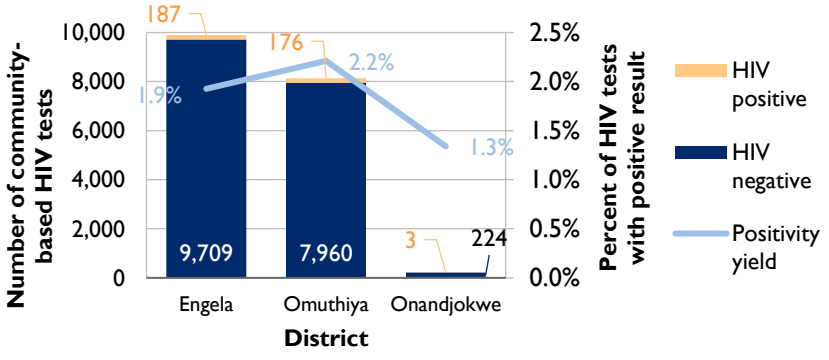
Strategic Objectives through the Life of Project

- Increase the coverage of Namibian communities with an integrated package of primary health care/HIV/TB services through the national CHW Programme.
- Increase the access to and quality of integrated HIV/sexual and reproductive health services for vulnerable populations, including adolescents and young women.
- Improve the capacity at health facility, district, and national levels to implement the national HIS.
- Improve the quality of nutrition assessment, classification, support, and WASH interventions at the community and health facility levels in priority regions through retraining and supportive follow-up to health care workers.

Key Accomplishment Highlights through the Life of Project

- Supported the Namibia Planned Parenthood Association to provide comprehensive HIV services to 188,302 Namibians (mostly adolescent girls and young women), initiate treatment with 332 HIV-positive clients, and enroll 384 clients on pre-exposure prophylaxis (PrEP).
- Strengthened CHW Programme planning, monitoring, supervision, and training to ensure efficient, effective, and sustainable HIV, TB, and primary care services in nearly 3,000 hard-to-reach communities through support to the Ministry of Health and Social Services.
- Helped the Ministry of Health and Social Services create and sustain ownership of a national Master Facility List, which contains information on 586 health facilities and serves as a core component of an interoperable Namibian HIS.

Figure 1. 138 CHWs in three districts conducted 18,259 HIV tests and identified 366 new cases (July 2016–June 2018)



Namibia

Background

MCSP was launched in Namibia in 2014 as a follow-on to MCHIP (2012–2014) and a strategic response to the generalized HIV epidemic and inequalities in access to quality primary health care and HIV services. In 2012, the Government of Namibia created a paid health extension worker cadre and a national Health Extension Program. Between 2012 and 2014, MCHIP supported the training of the first set of health extension workers. From 2014 to 2018, MCSP continued the effort to strengthen and institutionalize what is now referred to as the CHW cadre and the CHW Programme; increase access to and uptake of HIV services by adolescent girls and young women; increase USAID/Namibia's focus on women, girls, and gender equality; strengthen programmatic commitment to and emphasis on reaching and supporting young people with HIV services; and increase program efficiencies through innovation and greater integration of existing HIV and RMNCAH services. MCSP also supported the Ministry of Health and Social Services' Health Information and Research Directorate to strategically enhance and integrate the country's fragmented HIS, incorporating CHW Programme data into the District Health Information Software 2, improving data quality, and promoting and teaching more effective and strategic use of data from the HIS for decision-making at all levels.

Key Accomplishments

Strengthened and Institutionalized the CHW Programme

With MCSP's and other partners' technical support to the Ministry of Health and Social Services, the CHW Programme grew from a pilot of 26 CHWs in one region to a nationwide platform of 1,688 CHWs contributing to reductions in maternal, newborn, and child morbidity and mortality in all 14 regions, reaching nearly 3,000 hard-to-reach communities. By building health worker and management capacity; strengthening supervision and mentoring; improving the availability, quality, and use of community data; and supporting an external evaluation of the CHW Programme, MCSP contributed to the expansion, institutionalization, and sustainability of this critical community-based platform. MCSP also laid the groundwork for future iCCM of childhood illness into the CHW scope of work by establishing a functional iCCM TWG and developing key training materials for the pilot, integration, and scale-up of iCCM on the CHW Programme platform.

Introduced and Scaled Up Community-Based HTS in the CHW Programme

Leveraging the reach of CHWs through the national CHW Programme, MCSP provided catalytic technical support to the Ministry of Health and Social Services to introduce and scale up community-based HTS in five northern districts with high HIV prevalence. Between July 2016 and June 2018, 138 CHWs conducted 18,259 HIV tests, of which 67% were first-time testers and 44% were male. Of the 366 community members who tested positive, 68% were successfully linked to care, treatment, and support. By strengthening the bidirectional referral system, loss to follow-up decreased, monitoring of completion of referral improved, and linkages to care increased. The standard operating procedures developed by MCSP for community-based HTS in the CHW Programme will be used by the ministry to further scale up the approach and accelerate Namibia's progress toward reaching the Joint United Nations Programme on HIV and AIDS 90-90-90 targets.

Strengthened Adolescent- and Youth-Friendly Services at Namibian Planned Parenthood Association Clinics

To accelerate HIV prevention, testing, and treatment among Namibian adolescents and youth ages 10–24, MCSP partnered with the Namibian Planned Parenthood Association to strengthen adolescent-friendly services, provide 60,514 HIV tests, link 1,762 HIV-positive clients to ART, and initiate PrEP with 384 HIV-negative clients at high risk of contracting HIV. The Namibian Planned Parenthood Association's success in providing accessible and integrated HIV/sexual and reproductive health services, including PrEP, contributed to reduced HIV incidence in adolescents and youth.

Mitigated the Effects of Drought on PLHIV

To mitigate the effects of drought on vulnerable and hard-to-reach Namibian communities and build resilience to future shocks, MCSP supported the CHW Programme to bolster the training of 665 CHWs and 171 facility-based health workers in six drought-affected regions on nutrition assessment, counseling and support interventions, and WASH practices, including latrine and tippy tap construction. As a result, CHWs reached 264,369 community members with health promotion and education on sanitation and safe drinking water, and assessed 309,625 community members for malnutrition, of which 3,171 were found to be malnourished and referred to health facilities where they received therapeutic food.

Enhanced the Management and Interoperability of the National HIS

MCSP worked with the Health Information and Research Directorate and the HIS TWG to take steps in reorganizing and harmonizing the country's various HISs. These steps included developing and executing an interoperability framework, developing standardized guidelines for the national CHW Programme M&E system, and integrating that system into the national framework. MCSP also provided technical support to the Health Information and Research Directorate to develop, test, and refine a core piece of the national HIS architecture: the Master Facility List. Developing a single reference architecture like the Master Facility List has streamlined data entry, prevented mistakes and duplication errors, and facilitated accurate reporting and data use for health care decision-making by appropriate government personnel and leadership.

Activities over the life of the project have contributed to significant progress in US President's Emergency Plan for AIDS Relief priority regions to achieve high rates of targeted HTS, including continued use of index partner tracing, specific HIV prevention to high-risk individuals through PrEP, and active linkages to and retention in care through both the CHW Programme and Namibian Planned Parenthood Association. By strengthening the CHW Programme overall, MCSP and the Ministry of Health and Social Services demonstrated that the platform can successfully deliver integrated primary health care, HIV, and social services to vulnerable, hard-to-reach populations. By building the capacity of Namibian Planned Parenthood Association providers to offer high-quality, adolescent-friendly HTS and to introduce ART and PrEP services, the Namibian Planned Parenthood Association improved linkages to care and expanded access to effective prevention options for an age group (10–24 years old) that is sexually active, has a higher-than-average HIV prevalence rate, and is hard to reach. Additionally, by improving the availability, quality, and interoperability of data, health care providers and decision-makers can use data for appropriate planning, care, and decision-making at the community, health facility, district, and regional levels. In all activities, MCSP strengthened the capacity of regional and district health teams to implement community- and facility-based interventions that will contribute to further reductions in maternal, newborn, and child morbidity and mortality in Namibia.

Recommendations for the Future

Before the end of the project and to ensure the sustainability of successful approaches, MCSP held comprehensive handover meetings with partners, Ministry of Health and Social Services, and Namibian Planned Parenthood Association staff at facility, district, regional, and national levels. During these meetings, MCSP shared tools, guides, and lessons learned, and reflected on the legacy of the US President's Emergency Plan for AIDS Relief's contributions to Namibia's 90-90-90 goals. The following recommendations were shared with USAID, the Ministry of Health and Social Services, and the Namibian Planned Parenthood Association:

- **Following MCSP's transition of technical support to the CHW Programme, it will be important for the Ministry of Health and Social Services and other partners to follow through with recommendations made in the 2018 *Evaluation of the Namibian CHWs Programme*.** Many of the recommendations focused on strengthening political commitment and stewardship, management capacity, and coordination mechanisms, which will further the sustainability of the platform and uphold investments made in it to date.

- **Improve access to MNCH services using tools and other products developed by MCSP.** A key recommendation from the 2018 *Evaluation of the Namibian CHWs Programme* was to improve access to MNCH services in response to increased demand created by the CHW Programme, citing HTS and iCCM (including pneumonia and malaria) as critical and effective interventions. In light of this and the success of the community-based HTS pilot, the Ministry of Health and Social Services may wish to revisit the proposal to pilot iCCM in the CHW Programme using the detailed implementation plans, training packages, and advocacy tools developed with MCSP's support in PY1 and PY2.
- **Engage and mobilize communities to increase demand for HTS.** To capitalize on lessons learned and documented in the *Community-Based HTS Engela District Pilot Report*, MCSP recommends that the Ministry of Health and Social Services increase the visibility of and demand for community-based HTS in the CHW Programme through community engagement and mobilization strategies. MCSP also suggests that to achieve more targeted testing and identification of positive cases, the Ministry of Health and Social Services work to increase facility staff awareness and involvement in the index client tracing approach, which worked well in the CHW Programme.
- **Support the Government of Namibia to develop a clear forecasting plan for the commodities, supplies, and test kits needed for HTS before adopting new HTS protocols or algorithms to prevent future national stock-outs.** In addition, MCSP recommends that partners continue to follow up with regional- and district-level stakeholders to reinforce appropriate forecasting practices for HIV test kits at the facility level and to ensure that forecasting includes the needs of the community-based HTS program.
- **Strengthen supportive supervision and mentorship.** Having seen the positive impact of integrated, joint supportive supervision and use of a standardized checklist on CHW performance and motivation, MCSP recommends that the Ministry of Health and Social Services further strengthen supportive supervision through regular, direct observation, mentoring, and official supervision structures with dedicated personnel providing supervision. This could include further piloting of a model of peer coaching and mentorship using the job description for a senior CHW that the Ministry of Health and Social Services developed with MCSP's support.
- **Make HIV and sexual and reproductive health services more accessible for vulnerable populations.** MCSP conducted comprehensive handover meetings and exchanges with Project Hope as part of a transition of technical support to the Namibian Planned Parenthood Association and its new Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe (DREAMS) clinic sites. Improving access to high-quality integrated HIV/sexual and reproductive health services for vulnerable populations, including adolescent girls and young women, will continue under the new 5-year DREAMS program led by Project Hope.
- **Provide additional support to the Namibian Planned Parenthood Foundation.** As was the intention of the relationship, with MCSP's technical, managerial, and organizational capacity-building support, the Namibian Planned Parenthood Association's capacity to directly receive support from the donor community in the future has increased substantially. This will be critical to the Namibian Planned Parenthood Association's ability to sustain the quality of service provision catalyzed through MCSP's technical and financial support.
- **Complete and operationalize the national eHealth strategy.** MCSP strengthened HIS governance mechanisms in Namibia by supporting the establishment of the HIS TWG under the leadership of the Health Information and Research Directorate and leading the drafting of the national eHealth strategy. The project's intentional alignment with and integration into existing ministry systems, as well its extensive documentation and dissemination of resource materials, enabled government ownership, institutionalization, and sustainability. A critical next step for the Ministry of Health and Social Services will be to utilize the HIS TWG to ensure that the national eHealth strategy is completed and fully operationalized.

Selected Performance Indicators for LOP	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of individuals from priority populations who completed a standardized HIV prevention intervention during the reporting period	244,314 (target: 169,218; target exceeded)
Number of individuals who received HTS for HIV and received their test results	78,773 (target: 62,375; target exceeded)
Number of individuals who received HTS for HIV and received positive test results	2,661 (target: 1,776; target exceeded)
Number of adults and children newly enrolled on ART	332 (target: 1,000; 33% achieved)[1]
Number of individuals who have been newly enrolled on oral antiretroviral PrEP to prevent HIV infection	384 (target: 200; target exceeded)
Number of individuals who were nutritionally assessed via anthropometric measurement	309,625 (target: 42,039; target exceeded)
Proportion of clinically undernourished individuals who received therapeutic or supplementary food	1,954 (target: 4,204; 46% achieved)[2]
Number of people who received health promotion (education) on drinking safe water	109,740 (target: 14,484; target exceeded)
Number of people who received health promotion (education) on basic sanitation services	154,629 (target: 14,484; target exceeded)
Number of people trained through USG-supported programs	1,126 (no target)

[1] Frequent and lengthy stock-outs of HIV test kits due to changes in the testing algorithm presented challenges for HTS activities nationwide and affected MCSP's ability to reach this target. Limited stocks of test kits caused some facilities to prioritize facility-based testing, which affected community-based test rates as well as the enrollment of new clients on treatment.

[2] Many health facilities in all six regions reported stock-outs of therapeutic or supplementary food during the implementation period, which contributed to the low number of individuals receiving therapeutic or supplementary food, even though the number of individuals assessed for their nutritional status was much higher than expected.

Nepal Summary & Results

Geographic Implementation Areas

Provinces
- 1/7 (14%)—Province 3

Districts
- 1/77 (1%)—Kavre

Medicine shops
- 63/24,855 (0.3% of country total)

Population

Country
- 2.99 million

MCSP-supported areas
- 395,124

Technical Areas

Program Dates

January 1, 2017–June 25, 2019

Total Funding through Life of Project

$500,000 plus $127,687 core funding

Demographic and Health Indicators

Indicator	# or %
TFR	2.3
MMR (per 100,000 live births)	239
NMR (per 1,000 live births)	21
U5MR (per 1,000 live births)	39
Percentage delivered in health facility	57.4%
Percentage delivered in private health facility	10.2%
Percentage of births with a postnatal (PNC)check during the first 2 days after birth	56.8%
First PNC visit for newborn sought at private sector	9.8%

Source: Nepal DHS 2016

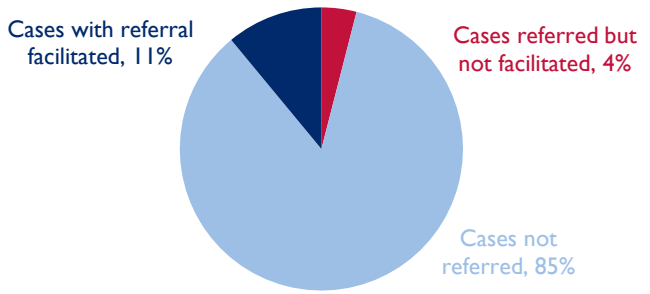
Strategic Objectives through the Life of Project

- Support the Government of Nepal to reduce newborn deaths from PSBI by documenting and disseminating key information on care practices in private-sector drug shops and clinics, and improving the quality of care for PSBI cases presenting to private medicine shops/clinics.
- Describe the national enabling environment for service implementation and quality of inpatient care for newborns and young infants, describe facility readiness to provide inpatient care for newborns and young infants, and describe issues related to WHO-defined indicators for quality of care for newborns and young infants.
- Audit the existing training modules available in Nepal that target improved care for women and newborns around the continuum of care, describe variations in the training content, and generate recommendations on strengthening integrated and standalone MNH training programs in Nepal.

Highlights through the Life of Project

- Conducted a nationally representative survey providing, for the first time, a definitive picture of the current provision of outpatient PSBI care for newborns in the private sector.
- Completed a pilot to improve quality of care for PSBI among private-sector providers that was implemented with providers from 57 outlets in Kavre district.
- Supported the Ministry of Health and Population to conduct a situation analysis to understand the landscape of inpatient care currently provided for sick newborns and young infants in Nepal.

Figure 1. Cases of sick young infants (0–2 months) identified as PSBI (n = 95)*



* "Facilitated" in this context refers to a referral in which the provider called ahead to the hospital, ensured that the doctor was available, counseled care seekers on danger signs and transportation, etc.

Nepal

Background

In Nepal, newborn mortality accounts for half of all deaths among children under 5, with serious infection being one of the leading causes of death. However, little is known about the quality and appropriateness of the care Nepal's newborns and young infants (ages 0–2 months) receive from the private medicine shops and clinics that most families turn to. At the direction of USAID and the Child Health Division (which later became the Family Welfare Division after the 2018 transition to federalism) at the Ministry of Health and Population, MCSP developed a program to generate evidence on care for sick young infants ages 0–2 months in the private sector, particularly the management of PSBI. In addition, a consortium of national-level partners from across the nonprofit, government, and private sectors were involved in the early stages of planning for this pilot, allowing for critical buy-in during the scale-up phase. Results will enable the Ministry of Health and Population and the private sector to provide lifesaving treatment for sick young infants at the points of care where patient demand is well established.

Key Accomplishments

Conducted a National Survey of Medicine Shops and Clinics

Table 1. Composite index of key findings

Key Indicators	Shops (N = 400)	Clinics (N = 82)
Use IMNCI guideline	15%	46%
Assess at least four severe signs	66%	71%
Appropriate assessment	*10%*	*32%*
Correct indication of severe illness for referral	76%	89%
Facilitate during referral	73%	81%
Appropriate pre-referral injectable	4%	5%
Appropriate referral	*0%*	*4%*
Follow-up of nonreferred cases on at least Days 3 and 5	53%	46%
Follow-up of infants who do not return as expected	42%	33%
Appropriate follow-up	*5%*	*15%*
	Shops (N = 81)	**Clinics (N = 38)**
Correct indication for injectable antibiotic	56%	100%
Use of appropriate injectable	66%	45%
Appropriate treatment regimen	11%	16%
Appropriate treatment	*0%*	*5%*

In 2017, MCSP conducted a nationally representative survey sampling 400 medicine shops and 82 clinics across 25 districts of Nepal to understand the current practices of such providers in assessing, treating, referring, and following up with sick young infants; compare these practices with evidence-based recommendations; and identify factors that influence provider practice and that could be improved (see Table 1). Findings reflected that nearly half of medicine shops were unregistered with the Department of Drug Administration, a notable percentage of private providers surveyed had not been trained in the latest protocols for caring for sick young infants, and appropriate referral and follow-up were lacking. The national survey helped fill the vacuum of information on PSBI management in the private sector, providing a comprehensive overview of provider demographics, skills, practices, and expectations for those delivering critical treatment to sick infants. This information is important for agencies and partners looking to engage

the private sector to improve newborn health, particularly the quality of care for sick young infants, and ultimately meet the country's ENAP and Sustainable Development Goal targets. Findings were disseminated in a national workshop and then used to inform a district-level pilot.

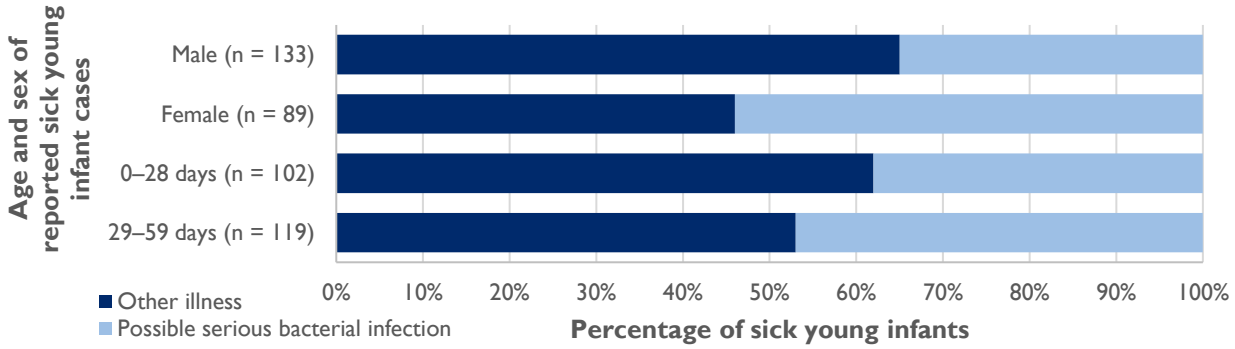
Piloted an Approach to Improve Quality of Care for PSBI Management by Private-Sector Providers

MCSP used findings from the national survey to design and pilot an intervention in a proof-of-concept approach intended to improve the quality of care for PSBI management provided at private shops and clinics. The approach included training, provision of necessary equipment, and a strengthened referral system that links a private provider with a practicing doctor at the referral hospital and allows for mobile consultations. During 9 months of implementation from June 2018 through February 2019, 30 providers reported 222 sick young infants; of these, 43% were identified with PSBI. Importantly and unfortunately, none of the medicine shops or clinics adhered to the complete protocol for treatment of the PSBI cases. However, several promising learnings, described in detail in the forthcoming pilot report, emerged from the study related to how to better motivate, train, and support private providers to manage PSBI per national protocol. Perhaps the most important conclusion from the pilot is that all participating private providers reported a positive intention in continuing to manage PSBI per the protocol. These findings have been shared with ministry and USAID officials for further discussions on implications for future programs.

Conducted a Situation Analysis of Inpatient Care of Newborns and Young Infants

MCSP supported the Ministry of Health and Population to conduct a situation analysis to understand the landscape of inpatient care currently provided for sick newborns and young infants (ages 0–59 days) in the country. This included assessing components of national and provincial policies and implementation strategies, as well as service readiness and systems in 17 facilities across the country to support quality services and clinical practices. The assessment found that nearly all of the facilities reported monitoring indicators of service quality, and the majority noted including quality assurance/QI activities to improve care. However, no facilities had been accredited externally; furthermore, few were BFHI-designated sites. With the situation analysis, MCSP built upon the findings to support the Family Welfare Division to develop recommendations for actions, supported the dissemination of findings to in-country stakeholders, and worked with the Family Welfare Division and partners to develop recommendations and action plans for inclusion in future Ministry of Health and Population work plans.

Figure 2. Sick young infant cases (n = 222) disaggregated by demographic and diagnosis



Completed an Analysis of Integrated MNH Training

MCSP completed a mixed-methods study in Ethiopia and Nepal to assess integrated versus standalone MNH training and the effect of integration on the quality of training, health worker knowledge, and skill gains. In Nepal, the study's aim was to generate evidence to inform MNH training programs and assist the Ministry of Health and Population to use the evidence to strengthen the national training policies. Key findings of the study included gaps in the nonalignment of clinical messages and information, inadequate content and time for newborn health during theoretical and practical sessions, and differences in educational methodologies.

Strengths of the Nepal system included post-training follow-up, a national training database, pre- and post-test documentation, and the availability of certified training centers. The results of the study informed the ongoing debate regarding the value of integrated versus standalone MNH training with an evidence-based perspective. This is especially relevant to the possibility of redesigning existing training modalities as the Ministry of Health and Population finalizes the guidance it will provide to provincial and municipal levels on training program models. In Nepal, study findings were presented at a workshop led by three main divisions of the then-Department of Health Services; although there was strong commitment at the time to utilize these results in the future design of MNH training materials, recent changes in Ministry of Health and Population division structure and leadership have led to delays in implementing these commitments. MCSP is also developing a manuscript to summarize and disseminate the findings from both countries more broadly.

Recommendations for the Future

The findings from the PSBI survey and pilot will serve as important evidence to continue to advocate with and inform stakeholders, both nationally and globally, of the importance of working with the private sector and how best to do so. Many implications and recommendations have been identified for consideration by Nepal's Ministry of Health and Population and partners that are also applicable to other countries and sectors. The primary recommendation is to undertake a multipartner effort, leveraging corporate support, to increase the safety and quality of care for sick young infants by private providers. MCSP also recommends the following:

- **Carry out exploratory work to design and test sustainable and scalable strategies to enable and empower private providers to deliver quality care.**
- **Promote access to and use of relevant clinical protocols.** Protocols and training programs could also be developed or revised to better reflect provider realities.
- **Establish functional mechanisms to facilitate timely and reliable referral/coordination of care for more critically ill cases for care at the hospital level.**
- **Design an approach that would facilitate registration of the medicine shops providing basic care to the community.** This would allow for better monitoring of practices and inclusion of providers/outlets in formal awareness or QI initiatives.
- **Invest in the future research agenda.** Additional findings could further inform current debates regarding the role of private-sector providers in health care and service delivery.

Findings from the newborn and young infant assessment led to the following recommendations:

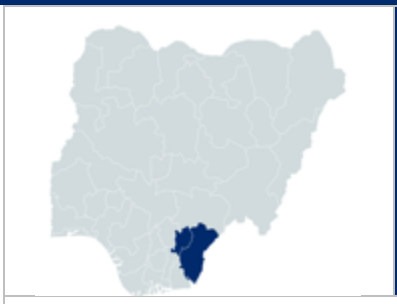
- **Support the Family Welfare Division to work with partners to review the findings and develop actionable recommendations that can be included in the division's annual work plan.** The division should particularly review existing strategies for special newborn care unit expansions in the country, in light of study findings, to further strengthen efforts to improve services for small and sick newborns.
- **Share findings with relevant provincial-level stakeholders to develop action plans for improvement of newborn and young infant services.**

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of eligible private-sector medicine shops that successfully complete the PSBI management improvement training[1]	100% (target: 100%; target achieved)
Percentage of trained private-sector medicine shops that sign formal commitment letter	100% (target: 100%; target achieved)
Percentage of participating private-sector outlets demonstrating adherence to the terms of commitment[2]	0% (target: ≥ 50%; target not achieved)

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Percentage of private-sector outlets that follow up at least once to the nonreferred cases[2]	50% (target: ≥ 85%; target not achieved)
Percentage of PSBI cases referred by participating private-sector outlets that complete referral[2]	35.7% (target: > 85%; target not achieved)
Percentage of PSBI cases referred by participating private-sector outlets in which the referral is facilitated[2]	71.4% (target: > 90%; target not achieved)
Percentage of participating private-sector outlets that intend to continue in the PSBI management improvement initiative (renew their formal commitment)	100% (target: > 90%; target achieved)

[1] In previous project documents, medicine shops may also be referred to as outlets or private-sector outlets.
[2] When setting targets for the pilot, there was limited knowledge in the sector about how to encourage private-sector providers to adhere to standard protocols. Therefore, many targets were overestimated.

Nigeria HelloMama Summary & Results



Geographic Implementation Areas

States
- 2/36 (5.5%)—Ebonyi and Cross River States

Local Government Areas
- 30/774 (4% of country total)

Facilities
- 142/216 (66%)

Population

Country
- 185 million

MCSP-supported areas
- 4.77 million

Technical Areas

Program Dates

October 1, 2015–December 31, 2018

Total Funding through Life of Project

$5,320,000

Demographic and Health Indicators

Indicator	# or %
Population growth rate[1]	2.6%
Mobile phone penetration[2]	84%
MMR (per 100,000 live births)[3]	576
IMR (per 1,000 live births)[3]	69
TFR[3]	5.5%
CPR[3]	15%
SBA[3]	38%

Sources: [1] World Bank 2016, [2] Nigeria Mobile Report, June 2018, [3] 2018 Nigeria DHS

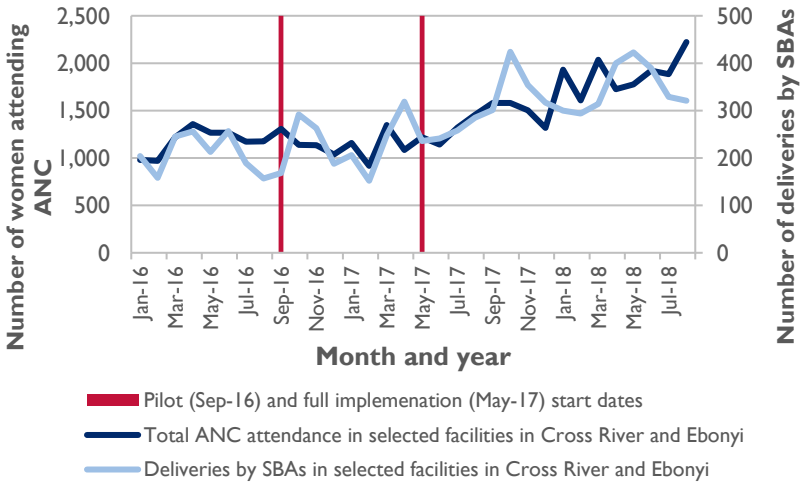
Strategic Objectives through the Life of Project

- Establish an operational, nationally scalable platform at adequate coverage that makes age- and stage-based mobile messages available to the target population and linked to existing HISs.
- Complement supply-side MNCH interventions by improving knowledge and adoption of healthy and safe MNCH practices.

Highlights through the Life of Project

- Spearheaded the process to establish a nationally recognized toll-free number dedicated to receiving MNH messages, which was approved by the Nigerian Communications Commission on behalf of the Federal MOH. Subscribed 61,672 pregnant women and 26,752 spouses/family members of these pregnant women with health information on pregnancy care through the HelloMama messages delivered via voice calls and SMS.
- Leveraged $110,000 from the Cross River State government's Saving One Million Lives initiative to sustain and scale up HelloMama messages. As a result, health messages will be sent to an additional 10,000 pregnant women and their influencers with further commitment from the government for inclusion of a digital health line in the 2019 budget.
- Increased uptake of essential services, including ANC attendance, deliveries by SBAs (Figure 1), and number of children fully immunized in selected HelloMama-supported sites.

Figure 1. Increasing trend in total antenatal care (ANC) attendance and deliveries by SBAs in selected facilities in Cross River and Ebonyi states



Nigeria—HelloMama

Background

The Mobile Alliance for Maternal Action, a global consortium founded by Johnson & Johnson, USAID, and the United Nations Foundation, delivers vital health information to pregnant women, new mothers, and their influencers by leveraging SMS messages and voice calls on mobile phones. It sends a global set of age- and stage-based messages that can be adapted to local context via a mobile messaging platform called HelloMama. MCSP, in collaboration with the Federal MOH and state MOH officials, developed a locally led and planned-for-scale mobile messaging platform aligned with national health priorities, policies, and systems for pregnant women, newborns, children under 1 year, and their families that complements the efforts of frontline health workers. (Please see the full report and brief on HelloMama for additional details.)

Key Accomplishments

Made Knowledge to Health Services Available through SMS Messages

Over 2 years, HelloMama expanded from 47 pilot sites to 142 implementation sites, reaching more than 88,424 subscribers (pregnant women, mothers, and gatekeepers). By the end of the project, 15,803 clients received prebirth messages, 37,385 graduated from pregnancy messages, 13,420 graduated from the platform, and 26 opted out.[58] HelloMama also attained status as a recognizable brand tailored to local needs, context, and languages. HelloMama is known in the two supported states of Nigeria as "the phone doctor." Many mothers are now asking how they too can receive messages from the phone doctor, demonstrating HelloMama's ability to quickly expand and gain brand visibility in MCSP's catchment areas. HelloMama introduced a callback feature in the last year that allows registered users to trigger a callback with their last scheduled message in the event that they miss their call or the call is interrupted. This has resulted in mothers and gatekeepers receiving more HelloMama messages vital to improving the health outcomes for pregnant women, newborns, and families in Nigeria. The program also developed a HelloMama Bot, an application that uses data from the HelloMama platform to deliver age- and stage-based messaging to end users without depending on traditional telecommunications channels.

Ensured Sustainability through Government Adoption of eHealth Programming

For the first time, a nationally recognized toll-free number (1444) dedicated to receiving MNH messages was approved by the Nigerian Communications Commission on behalf of the Federal MOH. This toll-free number was integrated on the platform of four of Nigeria's major mobile networks operators, increasing the opportunities for HelloMama health messages to reach a larger segment of the population. By creating a national number, maternal and newborn care message dissemination could be scaled up to 162 million mobile subscribers[59] across the nation.

HelloMama also achieved government adoption, influencing national and subnational budgets for digital health. Cross River State committed $110,000 to sustain the HelloMama SMS and voice message services. These commitments and adoption by the Federal MOH demonstrate the improved capacity of the Federal and state MOHs to manage and ensure the sustainability of HelloMama technology and program implementation.

Increased Uptake of Essential Maternal Health Services

By the end of the project, HelloMama sent more than 5.9 million messages via SMS and outbound dialer. These messages facilitated positive behavior change and increased uptake of essential services. This can be seen in increasing trends in ANC attendance (Figure 1), pregnant women with four or more ANC visits, deliveries performed by SBAs (Figure 1), and number of children fully immunized in selected HelloMama-supported sites. HelloMama improved health-seeking behaviors over the life of the project and contributed to

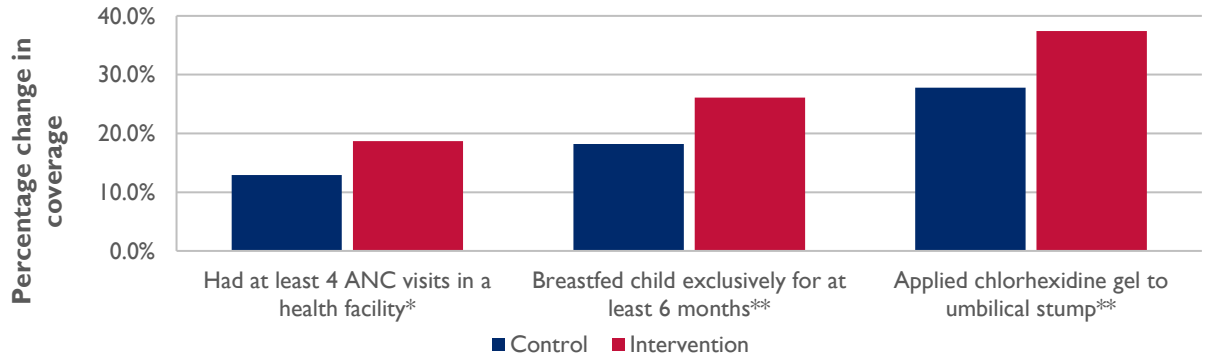
[58] There were several reasons people opted out of the program. These were mainly due to miscarriages, infant mortality, or undisclosed personal preferences.
[59] Kolawole O. 2019. Nigeria Mobile Report 2019. Jumia website. https://www.jumia.com.ng/mobile-report/.

improved efficiency of service delivery. As a result of the HelloMama messages, pregnant women are more knowledgeable about the services available and know what to expect during pregnancy due to the health information received. Furthermore, clients remind health workers about the supplements they should receive based on the information provided in the HelloMama messages (e.g., IPTp with SP and iron supplementation).

Promoted Data for Decision-Making at State Level

HelloMama empowered the national and state governments to understand their role in leading routine integrated supportive supervision for facilities by identifying and resolving issues affecting uptake and delivery of HelloMama messages through onsite joint supportive supervision visits and trainings. HelloMama developed dashboards to foster project management for decision-making at project and state levels. The dashboards supported government ownership of digital health programming through training and mentorship to help decision-makers implement informed, impactful programs. The project built interpersonal and business relationships in addition to technical solutions to address project challenges and developed the capacity of states to ensure sustainability of services.

Figure 2. Difference in percentage in MNCH practices between baseline and endline as a result of HelloMama messages



*p-value <0.05
**p-value <0.001

Improving Health-Seeking Behaviors

Changes in health-seeking behaviors documented during the HelloMama endline assessment revealed that there was significant improvement in the practice and knowledge outcomes in women in both the control and intervention groups. HelloMama messages notably increased in the intervention group. The percentage of women who had at least four ANC visits increased from 13% to 19%, exclusive breastfeeding for at least 6 months improved from 43% to 69%, and the application of CHX gel to the newborn's stump from soared from 6% to 43% (see Figure 2). The findings also suggested that there was a high level of acceptance of the messages among clients and that the high mobile phone penetration rate has the potential to improve MNCH outcomes by delivering health education and behavior change communication messages.

Recommendations for the Future

Based on the lessons learned from implementing the program, the HelloMama Nigeria team would like to recommend the following to future donor-funded programs:

- **Conduct assessments of the information and communications technology infrastructure before implementing new digital health projects that include considerations for urban versus rural communities.** Before the initialization of a digital health project in sub-Saharan Africa, conducting a proper assessment of the information and communications technology infrastructure within the localities intended for deployment is fundamental. Plans for digital health projects should also be developed with

the awareness that the infrastructure and coverage are usually stronger in the urban centers as compared to rural areas.

- **Motivate investments and scale-up of digital health interventions.** This could be done through specific policies and legislation that provide incentives for information and communications technology for health deployment within a free market economy.
- **Embed local ownership and partnership in a comprehensive systems strengthening approach to achieve sustainable results in digital health.** Projects should always aim to strengthen existing systems by aligning their interventions with national and state eHealth strategies even when implementing over a short term or piloting a new approach.
- **Support the national and state governments with the capacity to plan, budget, and implement digital health as a cross-cutting intervention in the health sector**. Future projects should consider a grant mechanism or targeted assistance to support implementation and build the technical, financial, and management capacity of government departments to ensure activities respond directly to local priorities and help countries progress in their journey to self-reliance.
- **Integrate digital health activities into existing state-led institutions and projects (e.g., Saving One Million Lives) or routine health services to ensure sustainability.**
- **A national digital health standard indicator should be included with stakeholders in the national HMIS/DHIS2 tools.** Most digital health interventions rely on customized indicators for systems performance and results tracking.
- **Explore ways to align and integrate digital health solutions in Nigeria with mobile network operators' in-house foundations as part of their social corporate responsibilities.** This can help ensure meaningful engagement with communities that focus on their needs.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of subscribers newly registered in the HelloMama service	88,424 (target: 85,310; target exceeded)
Number of HelloMama subscribers that are currently registered to receive HelloMama messages	48,430 (34,738 pregnant women/mothers and 13,692 gatekeepers; target not defined)
Number of health facilities registering subscribes in the HelloMama service	128 (target: 142; 90% achieved)[1]
Number of health workers trained to register subscribers to receive HelloMama services	315 (target: 284; target exceeded)

[1] Fourteen facilities did not register clients due to network issues within the community and transfer of trained health care workers.

Nigeria HIV Testing Services Summary & Results

Geographic Implementation Areas

Regions
- 7/37 (19%)—Akwa Ibom, Benue, Cross River, Federal Capitol Territory, Lagos, Nasarawa, Rivers

Local Government Areas
- 32/774 (4% of country total)

Facilities and community-based sites
- Approximately 850

Population

Country
- 185 million

MCSP-supported areas
- 27.2 million

Technical Areas

Program Dates

October 1, 2016–January 31, 2019

Total Funding through Life of Project

$650,000

Demographic and Health Indicators

Indicator	# or %
Number of PLHIV	3.1 million
Proportion of PLHIV who know their HIV status (all ages)	38%
Proportion of PLHIV on treatment (all ages)	33%
New HIV infections (2017)	210,000
HIV incidence per 1,000 population	1.15
AIDS-related deaths (all ages)	150,000

Source: Joint United Nations Programme on HIV and AIDS Data 2018

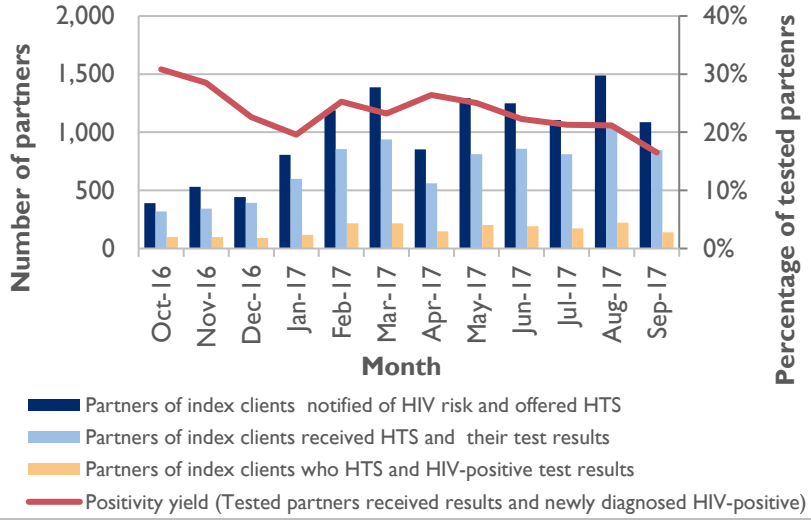
Strategic Objectives through the Life of Project

- Provide technical assistance to USG-funded HTS implementing partners to improve yield in scale-up local government areas (LGAs) in Nigeria through partner notification services (PNS) and HIV self-testing approaches.
- Develop and disseminate a learning resource package to support facility-based implementation and standardization of PNS in Nigeria.
- Provide support for inclusion of PNS and HIV self-testing in national policies and guidelines.
- Evaluate expansion of PNS and HIV self-testing in scale-up LGAs to determine the impact on HIV testing yield, successes and challenges with PNS, and HIV self-testing implementation. Provide inputs for evaluation of a screening tool to test children of index clients and other at-risk children in facility- and community-based settings.

Highlights through the Life of Project

- Finalized national guidelines for the HTS and Scale-Up Plan.
- Completed National Operational Guidelines for HIV Self-Testing.
- Executed the PNS Learning Resource Package.
- Evaluated scale-up of PNS in 32 LGAs, which showed HIV PNS are a high-yield HTS approach that are effective at identifying new PLHIV and linking them with HIV care and treatment.

Figure 1. Partner notification services cascade: partners notified, tested, and received HIV-positive results (newly diagnosed)



Nigeria—HIV Testing Services

Background

The Nigerian Federal MOH asked MCSP to support its commitment to expanding PNS in Nigeria by supporting training, technical assistance, and evaluation of PNS activities conducted by seven implementing partners. MCSP's HIV Testing Services (HTS) technical assistance project built on the early work of implementing partners and USG agencies in Nigeria, adapting training and technical assistance meetings to address identified gaps. Under MCSP, data collection and reporting tools, job aids, and nationally approved training materials and training videos were developed. Additionally, MCSP's HTS technical assistance project included support to the Federal MOH's National HIV and Sexually Transmitted Infection (STI) Control Programme for policy development to support implementation of novel HTS approaches, including PNS, HIV self-testing, and recency testing. Having supportive policies in place ensures implementation of these novel approaches according to nationally accepted standards with the support of the Federal MOH.

Key Accomplishments

Finalized National Guidelines for HTS and Scale-Up Plan

MCSP finalized the National HTS Guidelines and National HTS and Scale-Up Plan. These guidelines provide essential updates on new HTS approaches, including PNS, HIV self-testing, and recency testing. They provide standards for HTS providers to ensure implementation of high-quality HTS. A national dissemination meeting supported by MCSP was held in September 2018. Intense dissemination efforts such as these allowed for the results to have a larger reach.

Completed National Operational Guidelines for HIV Self-Testing

MCSP worked with the Federal MOH and key stakeholders in Nigeria to develop and finalize national operational guidelines for HIV self-testing. The guidelines expand on the policy statements included in the National HTS Guidelines and provide detailed standards for HIV self-testing implementation in Nigeria. Having implementation standards outlined helps to ensure that HIV self-testing will be introduced in all relevant sectors and that the appropriate support structures will be put in place for HIV self-testing users. MCSP supported the Federal MOH with printing 1,500 copies of the National Operational Guidelines for HIV Self-Testing. The guidelines were disseminated at a national meeting after the end of MCSP, in April 2019.

Executed PNS Learning Resource Package

MCSP developed a learning resource package for PNS that was first piloted in February 2017. Feedback from this pilot was incorporated into a revised learning resource package and shared with implementing partners for step-down trainings implemented between February and December 2017. Based on feedback from implementing partners between January and August 2018, MCSP updated the learning resource package and conducted a training for Federal MOH trainers using the revised package in November 2018. This learning resource package can be adapted by implementing partners for their program context, but the standardization of the training package resulted in increased knowledge and skills in PNS delivery, improved data quality, and ownership of the approach by the Federal MOH/National HIV and STI Control Programme.

Evaluated Scale-Up of PNS in 32 LGAs

To determine if PNS activities were being conducted with fidelity and achieving the expected outcomes, MCSP conducted an evaluation of PNS activities for the seven implementing partners operating in 32 scale-up LGAs in Nigeria. The evaluation demonstrated an increase in overall HIV testing yield during the PNS implementation period, from 1.6% during baseline to 2.0% during the PNS implementation period. Additional details can be found in the evaluation report and a summary in the evaluation brief. These results demonstrated the feasibility of and strong need for PNS.

Recommendations for the Future

MCSP's HTS project in Nigeria demonstrated that PNS is feasible, acceptable, and can lead to increased HTS yield when conducted at scale and with adequate policy support and capacity-building for training, technical assistance, and data collection and monitoring. Recommendations for future scale-up include:

- **Ensure fidelity of PNS delivery in existing PNS sites.** This should be done through ongoing mentorship, refresher trainings, and data collection and monitoring.
- **Train additional providers and sites in high-prevalence geographic areas.** This will allow for further scale-up PNS activities in Nigeria.
- **Further explore issues related to PNS within key populations.** It will also be critical to ensure that legal and implementation-related barriers are addressed.
- **Support HIV self-testing kit evaluations.** This has the potential to expand the HIV self-testing market in Nigeria and ensure high-quality products are available to expand HIV self-testing.
- **Revise the HTS strategy to respond to the results of the Nigeria AIDS Indicator and Impact Survey when results are released (March 2019).**

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of meetings/technical assistance visits held with USG-funded HTS implementing partners	8 (target: 4; target exceeded)
Number of USG-funded PNS/HTS sites visited	8 (target: 4; target exceeded)
Number of learning resource packages developed for PNS	1 (target: 1; target achieved)
Number of people trained through USG-supported programs	29 (target: 16; target exceeded)
Number of training videos completed	3 (target: 3; target achieved)
Number of (national) policies drafted with USG (MCSP) support	2 (target: 1; target exceeded)
Number of studies completed	1 (target: 1; target achieved)
Number of technical reports/papers, policy/research/program briefs, and fact sheets produced and disseminated	2 (target: 1; target exceeded)

Nigeria Maternal, Newborn, and Child Health Summary & Results

Geographic Implementation Areas

States
- 2/36 (5.5%)—Ebonyi and Kogi

Local Government Areas
- 34/774 (4% of country total, Kogi: 21/21, Ebonyi: 13/13)

Facilities
- 321

Population

Country
- 185 million

MCSP-supported areas
- 5.45 million

Technical Areas

Program Dates

October 1, 2014–March 31, 2019

Total Funding through Life of Project

$31,285,524

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)	576
NMR (per 1,000 live births)	37
U5MR (per 1,000 live births)	128
TFR	5.5
SBA	38%
CPR (all methods)	15%

Source: Nigeria DHS 2013 (2018 results are not available at the time of writing)

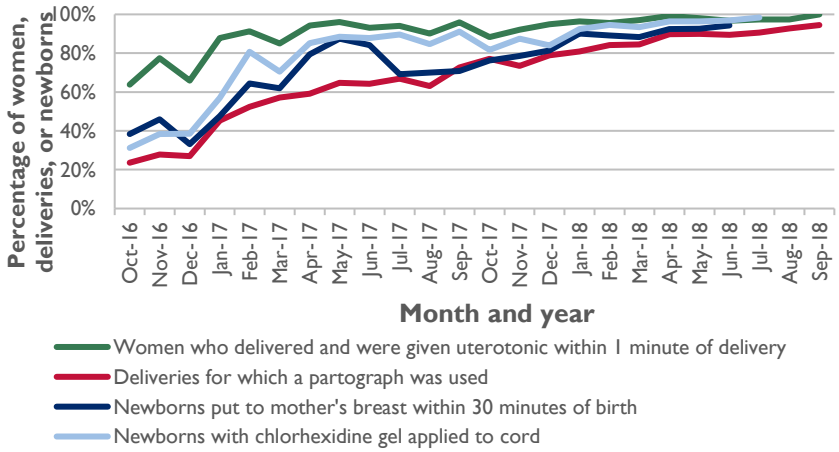
Strategic Objectives through the Life of Project

- Improve the quality of facility-based MNCH services and community-based child health services.
- Improve information systems to monitor and evaluate health outcomes.
- Increase the use of lifesaving innovations.

Highlights through the Life of Project

- Empowered over 3,800 health care workers across 321 facilities and 860 medicine vendors across 682 outlets with lifesaving skills to deliver quality MNCH services. Introduction of LDHF training approach enabled more health workers to be trained than had been possible previously.
- Deregulation of amoxicillin dispersible tables, their inclusion on the essential medicines list, and their availability as an over-the-counter medicine enabled trained PPMVs to use the tablets for treatment of sick children at the community level.
- Improved provision of high-impact intrapartum and postnatal interventions for women and newborns, contributing to a decline in the total obstetric case fatality rate in supported facilities from 3.4% in 2015 to 2.7% in 2018, and improved provision of ENC from about 26% to 92% across both states.
- Supported Ebonyi and Kogi states to introduce the use of RMNCAH data dashboards and scorecards, which were taken up by health managers at the facility, district, and state levels for decision-making. RMNCAH data reporting rates by both states increased from an average of 58.5% in 2016 to 67.6% in 2018

Figure 1. Improved provision of high-quality care for mothers and newborns in supported facilities in Kogi and Ebonyi states (n = 91)



Source: MCSP QI dashboard

Nigeria—Maternal, Newborn, and Child Health

Background

The Government of Nigeria and USAID asked MCSP to intervene in 2014 to address the country's high rates of maternal, newborn, and child mortality. MCSP worked with and supported key stakeholders, including Federal MOH counterparts, to plan and implement a wide range of interventions and strategies for improving the quality and utilization of MNCH interventions in Ebonyi and Kogi states. The interventions led to improved capacity of health workers to deliver lifesaving services, increased uptake of innovations, increased availability and use of health data for decision-making, and review or development of policies and strategies for sustaining or scaling up the interventions, among other accomplishments.

Key Accomplishments

Increased Capacity of Frontline Health Care Workers to Deliver Lifesaving Services

MCSP empowered over 3,800 health workers (including doctors, nurses, midwives, and community health extension workers) across 321 facilities and 862 patent and proprietary medicine vendors (PPMVs) with the right knowledge and skills to deliver quality MNCH services in Ebonyi and Kogi states. The health care workers applied their new skills to conduct 71,665 deliveries; resuscitate 1,938 of 2,029 (96%) newborns who did not breathe at birth; and treat 59,756 children for childhood pneumonia, diarrhea, and uncomplicated malaria during the course of MCSP's implementation. Trained providers assisted in increasing voluntary PPFP uptake in the two project states to more than 41% of women who delivered in MCSP-supported facilities serving 19,823 women, including adolescents and young mothers.

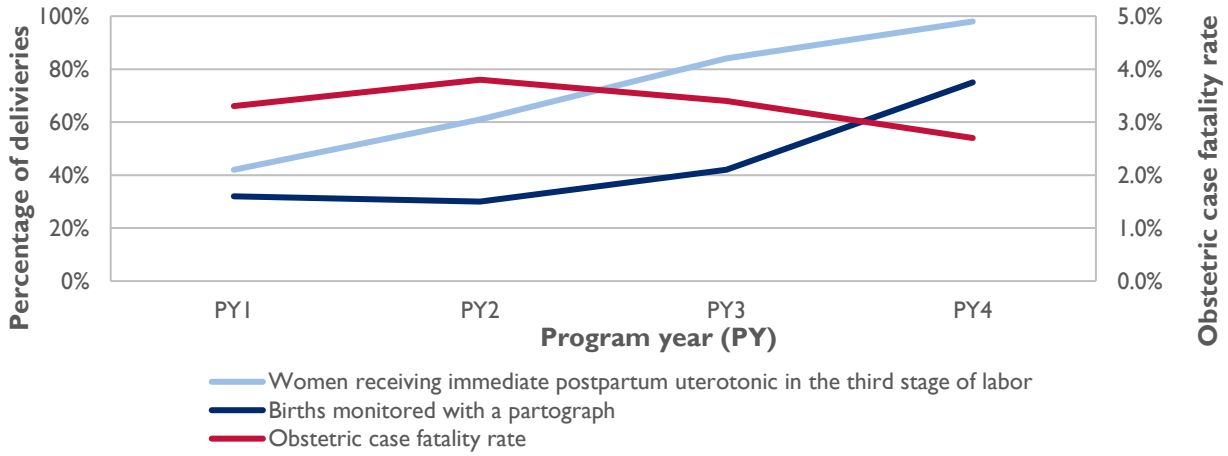
Improved Readiness and Quality of Care in Supported Health Facilities

At the national level, MCSP supported the Federal MOH to create a national QI TWG that initiated the development of a first-ever national quality strategy for RMNCH. In 2015, the project—in collaboration with the Federal MOH—helped to introduce the just-published WHO Framework for Quality of Maternal and Newborn Healthcare to Nigerian stakeholders, leveraging the project's close engagement in the development of this framework at the global level. The Federal MOH made the decision to base the national RMNCH quality strategy on the WHO Quality of Care MNH framework and subsequently applied, successfully, to join the global WHO MNCH Quality of Care Network launched in 2016.

MCSP additionally supported the development of state QI operational plans in Ebonyi and Kogi, including the prioritization of common measurable improvement aims related to provision of high-impact intrapartum and PNC intervention bundles for women and newborns. In collaboration with the state MOHs and other counterparts, the project supported 91 facilities to establish QI teams and support changes in routine care processes to achieve defined improvement aims, monitoring a common set of indicators using a standardized dashboard. Many intrapartum and PNC processes improved for women and newborns as demonstrated through indicators on the monitoring of labor with a partograph, provision of an immediate postpartum uterotonic to prevent PPH, initiation of breastfeeding within 30 minutes of birth, and application of CHX gel to the newborn umbilical cord (see Figure 1). An assessment of the quality of ANC, intrapartum, and PNC at midline and endline corroborated the improvements in care processes, health outcomes, and person-centered care measured using routine information sources. For example, data collected through observation of care showed increase in use of the partograph to monitor labor from 31% at baseline in 2016 to 91% at the endline survey conducted in 2018. The application of CHX for cord care of the newborn also increased from 2% to 94% over the same period.

In addition to measured improvements in care processes, supported facilities measured improvements in selected health outcomes. For instance, the percentage of women with an obstetric complication who died due to the complication (obstetric case fatality rate) in 120 (phase 1) supported facilities decreased from 3.4% in 2015 to 2.7% in June 2018 (see Figure 2). (For more information, see the briefs "Ensuring Better Care for Nigerian Pregnant Women and New Mothers and their Babies and Strengthening Newborn Care in Kogi and Ebonyi States Nigeria.")

Figure 2. Increased use of uterotonic and partograph with corresponding decline in total obstetric case fatality rate in MCSP-supported facilities (n = 321 facilities)



Source: MCSP's DHIS2 module

In addition to supporting improved processes of clinical care and improved health outcomes, the project worked closely with country counterparts, including the National Association of Nigerian Nurses and Midwives, to improve and address barriers to person-centered maternity care for women and newborns. A range of interventions were supported to improve person-centered care, including Health Workers for Change workshops, incorporation of client-centered respectful care into all clinical training/supervision, assessment of women's and providers' experience of care, and participatory design of locally defined interventions to improve experience of care.

As well as strengthening provider skills and quality of care processes, MCSP also supported facilities to improve their readiness to provide high-quality care by increasing the availability of maternity patient record booklets in 240 facilities, establishing newborn corners in 240 facilities, establishing oral rehydration therapy corners in 119 facilities, increasing the availability of customized laminated wall charts/posters in 256 facilities to monitor trends in quality of care measures, and improving WASH infrastructure in 30 facilities through incorporation of WASH and infection prevention activities into existing program strategies alongside Federal MOH partners. Out of the 30 facilities, 14 general facility spaces, 17 delivery wards, 10 PNC wards, and eight special newborn care wards achieved a clean clinic certification status in Kogi and Ebonyi states.

Increased Use of Lifesaving Innovations, Including Use and Uptake of CHX Gel

MCSP promoted the use of lifesaving innovations in Nigeria, such as the use and scale-up of CHX gel for umbilical cord care. The national scale-up strategy for CHX in Nigeria was developed and launched with support from MCSP and USAID's Center for Innovation and Impact. MCSP also supported government of Kogi and Ebonyi states to set up and strengthen existing coordinating structures for the state-level scale-up of CHX. By the end of the implementation of MCSP's interventions, uptake of CHX gel for umbilical cord care increased from 12% of newborns in supported facilities in 2015 to 99% of newborns in 2018 in Kogi and from 3% to 83% over the same period in Ebonyi. Furthermore, MCSP, in collaboration with the Federal MOH, supported and advocated for the adoption of the strategy in all 36 states plus the Federal Capital Territory. Support was provided for states to develop their own action plans to operationalize implementation of the strategy through public- and private-sector channels.

Introduced LDHF Training Approach

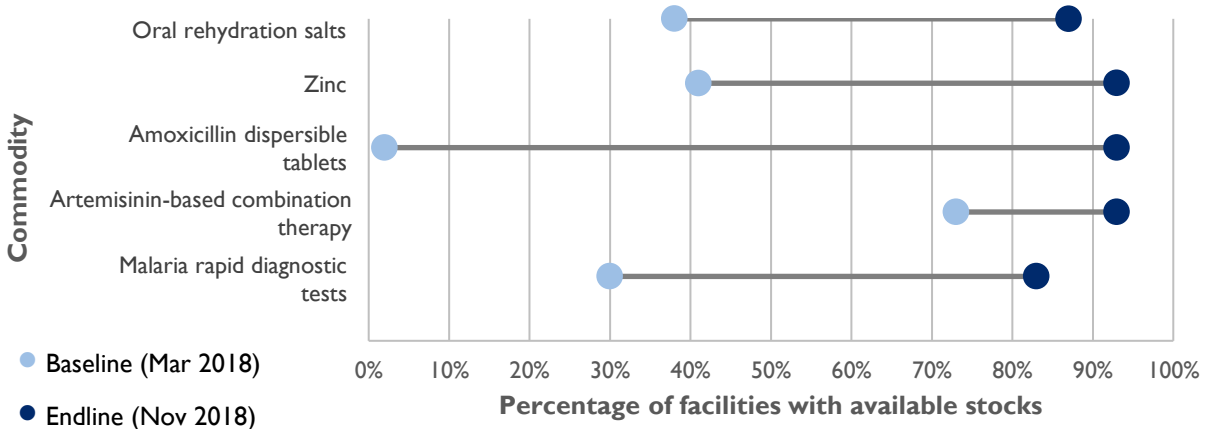
MCSP introduced an LDHF training approach, which helped both states to train and retrain more health workers than typically possible with the traditional offsite, multiday approach to training. Through the LDHF approach, information is delivered, and skills updates are done based on local needs through short, structured, onsite, interactive learning activities that involve the entire team and are spaced over time to optimize learning. In contrast with the traditional training arm, the LDHF/mobile mentoring arm had better

post-training assessment scores for assisting normal birth, active management of the third stage of labor, manual removal of placenta, bimanual compression of the uterus, abdominal aortic compression, and pre-eclampsia/eclampsia management in the 12-month post-training assessment, a twofold increase. The LDHF arm was also associated with an incremental cost-effectiveness savings of $487.10 per provider trained compared to the traditional method. Shifting to an onsite approach is a practical solution for a system with significant turnover, especially if it can be integrated into formal orientation and induction processes. The Federal MOH should consider making policy changes based on the study findings to reach a national scale. More information can be found in MCSP's brief *Onsite LDHF Training Versus Traditional Offsite Group-Based Training for MNH Care Workers in Ebonyi and Kogi States Nigeria*.

Improved Treatment of Sick Children in the Community

MCSP collaborated with the Kogi and Ebonyi state MOHs, the Pharmacists Council of Nigeria, the Nigeria Association of Patent and Proprietary Medicine Dealers, and state-based associations of PPMVs to design the Enhancing Quality iCCM through PPMVs and Partnerships approach as a sustainable way of engaging and supporting PPMVs to provide high-quality iCCM services. Between April and September 2018, 862 trained PPMVs effectively assessed, classified, and treated 2,635 childhood pneumonia cases, 10,201 confirmed malaria cases, and 3,006 diarrhea cases. Midline and endline audits of 176 PPMV outlets showed dramatic and sustained increases in the availability of iCCM medicines and other commodities (Figure 3), and in the percentage of sick children appropriately assessed for all danger signs, treated and counseled, or referred for higher-level care (See the Child Health summary for further information).

Figure 3. Stocks available on the day of the inventory audit at 172 PPMV outlets in Ebonyi and Kogi states at baseline and endline

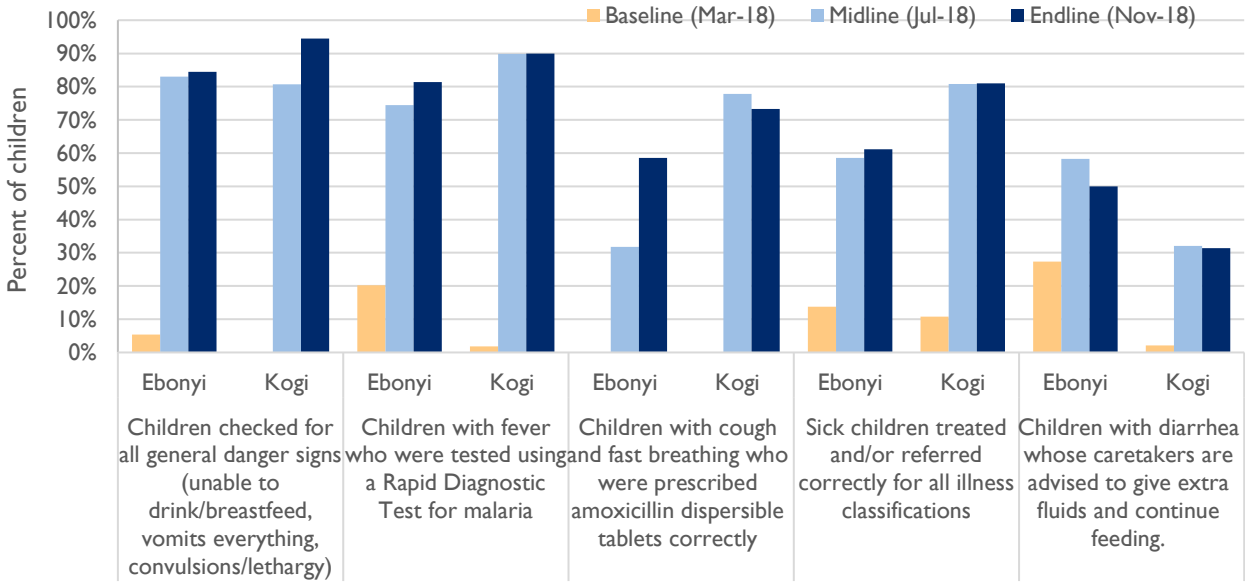


The effective public-private partnership model among state MOHs, State Primary Health Care Development Agencies, the Pharmacists Council of Nigeria, the Nigeria Association of Patent and Proprietary Medicine Dealers, logistics management coordinating units, LGA focal people, and ward development committees ensured joint planning, supervision, and monitoring of PPMV iCCM services at the community level that can be sustained beyond the life of the project. The partnership's approach also assured that PPMVs stock the first line pharmaceuticals for sick children by bringing PPMVs, the Nigeria Association of Patent and Proprietary Medicine Dealers, and local pharmaceutical manufacturers and wholesalers together. Together, they found ways to make quality medicines for malaria, pneumonia, and diarrhea more accessible, not through donor or government purchase, but by using market forces. This strategy—to aggregate the PPMVs' demand for quality products and the willingness of the manufacturers and wholesalers to supply these products at low cost—appears to be working and could be applied to other health priorities. By developing and integrating the community HMIS and logistics management information system addenda into the iCCM curriculum, MCSP made it possible for the first time to capture private-sector data from PPMVs, with the potential for the data to be incorporated through public-sector HMIS data flows into the national DHIS2 database in the future.

Deregulation of amoxicillin dispersible tablets, their inclusion on the approved Essential Medicines List, and their availability as an over-the-counter medicine (all changes supported by MCSP) enabled trained PPMVs to stock and dispense amoxicillin dispersible tablets, among other medicines, for treatment of sick children at the community level. Furthermore, MCSP's technical support informed the design of Ebonyi's first sustainable drug financing strategy for essential medicines. The drug revolving fund is currently operational in 171 primary health centers, including the 58 MCSP-supported facilities in the state.

By July 2018, the capacity of the 862 trained and supported PPMVs at 682 outlets to provide high quality iCCM services had greatly improved. These improvements were sustained when measured again in November 2018. The impact on PPMV knowledge and practice was evaluated through direct observation with clinical re-examination at baseline (March 2018), midline (July 2018), and endline (November 2018). The findings from the assessments show that the proportion of sick children assessed for danger signs, tested for malaria, and treated and/or referred correctly based on their illness classifications increased significantly, as did counselling practices (see Figure 4).

Figure 4: Quality of assessment, treatment, and counseling for sick children under five years of age at 176 PPMVs before and during implementation (MCSP Nigeria program data from 88 PPMVs in Kogi and 88 PPMVs in Ebonyi states)



MCSP also supported the Federal MOH and the Kogi and Ebonyi state MOHs to drive the use of simplified antibiotics for management of sick newborns with PSBI at primary health centers where referral is not possible. In collaboration with the Federal MOH, MCSP harmonized the ENC course and IMCI tools with PSBI, built the capacity of health workers, and advocated to the Kogi and Ebonyi state governments to ensure PSBI commodities (amoxicillin dispersible tablets and gentamicin injection) are easily available and reasonably affordable for the prevention and management of newborn sepsis.

Improved Emergency Referral Systems and Access to Essential Health Care

The project worked with state MOH counterparts and professional associations to standardize referral protocols by system level for common, life-threatening emergencies based on updated guidance in the 2017 second edition of the WHO *Managing Complications in Pregnancy and Childbirth* manual (supported by the project at global level in collaboration with WHO). Also at the community level, a referral support system—the emergency transport scheme—was introduced and established with the support of MCSP in six LGAs in Ebonyi and Kogi states, leading to the timely transportation of 539 women and 315 sick children to nearby facilities for care. Similarly, MCSP collaborated with ministries of women affairs and social development to support the introduction of a women's savings and loans clubs in Ebonyi and Kogi states, supported the

establishment of over 70 clubs in selected LGAs, which raised over NGN 5 million (USD 14,000) that enabled 2,120 women to have access to alternative health financing to seek high-quality health care. Almost all members of the clubs also utilized loans from the clubs to improve their livelihood and enhance their financial independence.

Improved Quality of Services for Adolescents and Young Mothers

MCSP worked with a range of stakeholders and partners, including the Kogi and Ebonyi state MOHs and the Gender, Adolescent, School Health, and Elderly Care Division in the Federal MOH, to improve the quality of health services available to and accessible by adolescents or young mothers/parents in selected areas in Ebonyi and Kogi states. Age and life stage assessment and counseling tools were developed to tailor counseling to meet the specific needs of these women. The tools were used to strengthen communication and counseling to increase knowledge and skills related to delaying early childbearing; accessing high-quality care during pregnancy, birth, and the postpartum period; and increasing access to voluntary PPFP, PNC, and child health services for thousands of adolescents. MCSP conducted formative research exploring the factors influencing use (and nonuse) of health services by young parents in six states. Based on the findings from the formative research, the *Our First Baby* guide was developed to facilitate group discussion on parenting, healthy timing and spacing of pregnancy, and GBV for first-time mothers, who also benefited from the establishment of savings and loans clubs in three designated sites. (For more information, see MCSP's brief.)

Increased Reporting and Data Use by Project States

MCSP contributed to improved data reporting rates by supported facilities in the two states (from 53.5% and 63.4% of facilities in 2016 to 64.5% and 70.7% of facilities in 2018 in Ebonyi and Kogi, respectively). Key program interventions included recordkeeping training and monthly data collation, validation, and review meetings. MCSP supported Kogi and Ebonyi states to institutionalize the use of RMNCAH scorecards as a flexible management tool for the state MOH to monitor health service delivery and outcomes, strengthen accountability, and drive action for improving service provision. Staff in the HMIS units in the two states are now equipped with the skills to update the scorecards on a quarterly basis; continuously monitor the timeliness, completion, and quality of data reported; and analyze results for decision-making in collaboration with manager and health care worker counterparts.

MCSP's review of the existing national recordkeeping and reporting system forms and processes revealed a need to strengthen the system to track essential recommended global RMNCAH indicators that were missing. The review identified gaps in the health facility labor and delivery register, such as the inability to track the use of oxytocin immediately after birth and application of CHX gel to the umbilical cord as part of ENC. Based on the review, MCSP was able to inform and advocate with the Federal MOH for the inclusion of key maternal and newborn data elements in the national HMIS. (See Improving Health Outcomes by Enhancing the Content and Use of RMNCH Data in Nigeria's National Health Management Information System for more information.)

Integrated Gender into RMNCAH Service Delivery

MCSP supported Ebonyi and Kogi state MOHs to address gender-related barriers to delivering high-quality RMNCAH care in the two states. The support led to, among other achievements, a significant increase in the number of women who were accompanied, when desired, by their male partners to health facilities, from 1,479 women in June 2017 to 5,627 women in September 2018. MCSP also promoted the Health Workers for Change approach in the two states, benefiting over 1,000 health providers and strengthening their ability to deliver gender-sensitive, respectful care, especially during childbirth. A pool of 30 health workers was created to sustain and scale up this approach in Ebonyi and Kogi states with state funding. Furthermore, there are now about 251 health workers with improved capability to provide first-line support and basic clinical care to GBV survivors in the states. A referral directory was developed and disseminated to health facilities to help link survivors to other available services (shelter, police, mental health, etc.).

Strengthened MPDSR Systems

As in many countries, Nigeria's MPDSR policy has outpaced the implementation of processes at the state level. In collaboration with local professional associations,[60] the project helped to create or revitalize MPDSR committees and strengthen processes at the state, LGA, and facility level, including timely notification and audit of maternal and perinatal deaths, and development of robust action plans based on key underlying contributors. Ebonyi and Kogi state MOH leadership, with support from the professional associations, are now managing the MPDSR committees and processes in both states. While continued support is needed to strengthen MPDSR processes, including consistent follow-up and monitoring of identified action plans, important gains were made over the life of the project in translating national MPDSR policy into state-level implementation. See the report on MCSP's *Assessment of MPDSR Implementation in Ebonyi and Kogi States, Nigeria* for more information.

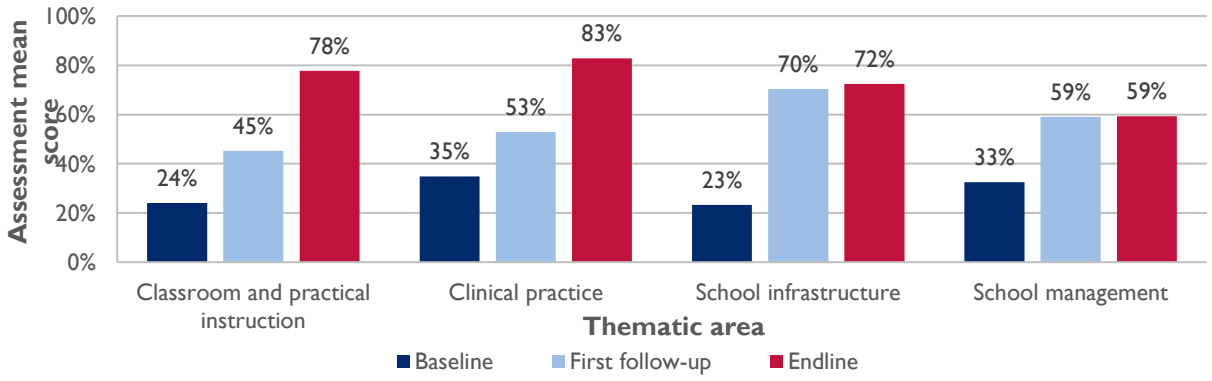
Improved the Health Policy Environment

To ensure MCSP's gains are sustained and scaled up as widely as possible, a number of policy documents, strategic development plans, training manuals, job aids, and learning briefs were developed as a framework for the future. MCSP also supported the development of national policy and strategy documents, such as the updated national antenatal guidelines, the national scale-up strategy for CHX, the revised Nigeria ENAP, the 2016 National Child Health Policy, the national gender and health policy, and ENC course training materials. MCSP worked with the Federal MOH to create a national MNCH quality TWG to develop the first-ever national MNCH quality of care strategy and a national plan for Nigeria's participation in the multicountry WHO MNCH Quality of Care Network (WHO MNCH Quality of Care Network). The national- and state-funded interventions are already being implemented in line with MCSP-proven approaches.

Strengthened PSE

MCSP's support to 14 pre-service institutions (nine in Ebonyi and five in Kogi) included equipping their skills laboratories with anatomic models and essential equipment, and supporting the establishment of education development committees to manage the skills laboratories. MCSP's support contributed to increased capacity of the institutions' tutors and preceptors to provide high-quality PSE for frontline MNH providers, including midwives, nurses, and community health extension workers. A baseline (November 2016) and endline (August 2018) assessment of the mean performance of the 14 supported pre-service schools against standards in four thematic areas demonstrated improvements across the board: classroom and practical instruction increased from 24% to 78% of standards met, clinical practice improved from 35% to 83% of standards, school infrastructure increased from 23% to 72% of standards, and school management increased from 33% to 59% of standards (see Figure 4).

Figure 5. Comparison of baseline with post-intervention results of schools' performance across four thematic areas in Ebonyi and Kogi



[60] From the beginning of the program in Nigeria, MCSP worked with local professional associations to provide targeted technical support to the states, including the Society of Gynaecology and Obstetrics of Nigeria, Paediatric Association of Nigeria/Nigerian Society of Neonatal Medicine, and the National Association of Nigeria Nurses and Midwives.

Recommendations for the Future

MCSP is honored to have been given the opportunity to work closely with the Federal MOH, state MOHs, LGAs, professional associations, health facilities, and PPMV counterparts in Ebonyi and Kogi states to strengthen access to high-quality care for women, newborns, and children. MCSP is optimistic that the project's strong collaboration with national- and state-level managers and health workers will help to sustain and extend improved quality of human-centered care for women, newborns, and children, per the primary mandate of MCSP in Nigeria. It is reassuring that there are already ongoing state-funded interventions initiated during MCSP (e.g., onsite LDHF training of health workers). However, without a doubt, federal and state government political will and strong leadership will be critical to sustain and expand the program gains, and to attain the goal of ending preventable deaths of women and children in Nigeria.

- **Utilize local leadership and governance, effective partnerships, and a comprehensive systems strengthening necessary to achieve and sustain improved RMNCAH care and health outcomes.** Aligning systems approaches with local governance structures, state-led projects and assets (e.g., Saving One Million Lives), and established health system processes (e.g., integrated supportive supervision) is vital for achieving and sustaining gains.
- **Ensure a "fit-for-purpose" health workforce by expanding and sustaining competency-based, continuous capacity-building that is focused on clinical, QI, management, and measurement skills, and tailored to the responsibilities of specific actors.** Onsite clinical and QI capacity-building should be encouraged as a more efficient approach than traditional classroom training based on MCSP's learning.
- **Guarantee and sustain adequate infrastructure and commodities at the state level for the provision of high-quality care in all facilities and communities in addition to building clinical, data, and QI skills.** National-, state-, LGA-, and facility-led QI processes, with close engagement of community stakeholders, are vital to support continuous improvement of RMNCAH services linked to broader HSS efforts. Nigeria's membership as one of 10 first-phase countries in the multicountry WHO MNCH Quality of Care Network is an important opportunity to continue to mobilize high-level political commitment, resources, and partnerships to support continuous improvement of effective, safe, efficient, and person-centered RMNCAH services for women, newborns, and children in Nigeria.
- **Continue to use and update the RMNCAH scorecards in recognition that they are not just one-time advocacy tools, monitor data reporting, analyze results for decision-making in state-level HMIS units, and share results with stakeholders through the commissioners of health during regular review meetings.** HMIS departments in the State MOHs should also continue providing supportive supervision and mentoring in these areas.
- **Bridge the gap in access to high-quality childhood services, especially in rural, underserved communities, by tailoring training, supervision, and mentoring PPMVs, and providing easy access to low-cost, high-quality medicines.** PPMVs are an important and accessible source community-based services for sick children and are often the closest and most affordable sources of care, sought by caregivers of sick children. Health authorities at all levels should support and expand the approach to improve PPMVs' ability to provide appropriate assessment and treatment for uncomplicated childhood illnesses with quality medicines. Scale up of this intervention should be accompanied by a monitoring and evaluation system that ensures that quality of care is maintained.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people trained in MNCH through USG-supported programs	2,028 (target: 1,244; target exceeded)
Number of people trained on FP/reproductive health with USG-supported funds	697 (target: 680; target exceeded)

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people trained through USG-supported programs on IMNCI and iCCM	2,031 (target: 3,030; 67% achieved)
Number of MCSP-supported health facilities that have a systematic approach to track and display priority RMNCH indicators	91 (target: 154; 59% achieved)
Number of facilities with maternal and perinatal death reviews conducted	96 (target: 120; 80% achieved)
Percentage of births monitored with a partograph	77% (target: 55%; target exceeded)
Couple years of protection in USG-supported programs	164,334 (target: 121,200; target exceeded)
Number of postpartum counseling visits for FP/reproductive health	100,224 (target: 36,500; target exceeded)
Number of pregnant women that attended antenatal clinic for at least four times	60,953 (target: 83,800; 73% achieved)
Number of deliveries by SBAs	59,319 (target: 71,000; 84% achieved)
Percentage of babies for whom CHX was applied to the umbilical cord at birth	93% (target: 80%; target exceeded)
Percentage of newborns receiving essential care through USG-supported programs	96% (target: 90%; target exceeded)
Number of children under 5 referred to a high-level facility by PPMVs for treatment of severe diarrhea, pneumonia, malaria, or danger signs in USG-/MCSP-supported programs[1]	255 (target: 1,505; 17% achieved)
Number/percentage of PPMVs that received quarterly supportive supervision	87% (target: 80%; target exceeded)

[1] Due to requested changes to the child health program's PPMV activities, implementation was delayed, limiting the number of referrals provided, and commodities were not available, limiting the number of people to be treated. Also, targets may have been overestimated, as no similar work had been done in the past, so no baseline data were available.

Nigeria Polio Summary & Results

Geographic Implementation Areas

States

- 3/36 (8%)—Bauchi, Kano, and Sokoto

Population

Country

- 185 million

MCSP-supported areas

- 17.8 million

Technical Areas

Program Dates

July 1, 2014–September 30, 2016

Total Funding through Life of Project

$485,124

Demographic and Health Indicators

Indicator	# or %
Children given the polio vaccine at birth[1]	47%
Children ages 12–23 months who have received third dose of polio vaccine[1]	54%
Children ages 12–23 months who received all of the recommended vaccinations before their first birthday[1]	21%
Cases of wild poliovirus in 2014[2]	6

Sources: [1] Nigeria DHS 2013 [2] CDC Morbidity and Mortality Weekly Report, Progress Toward Polio Eradication—Worldwide, 2014-2015

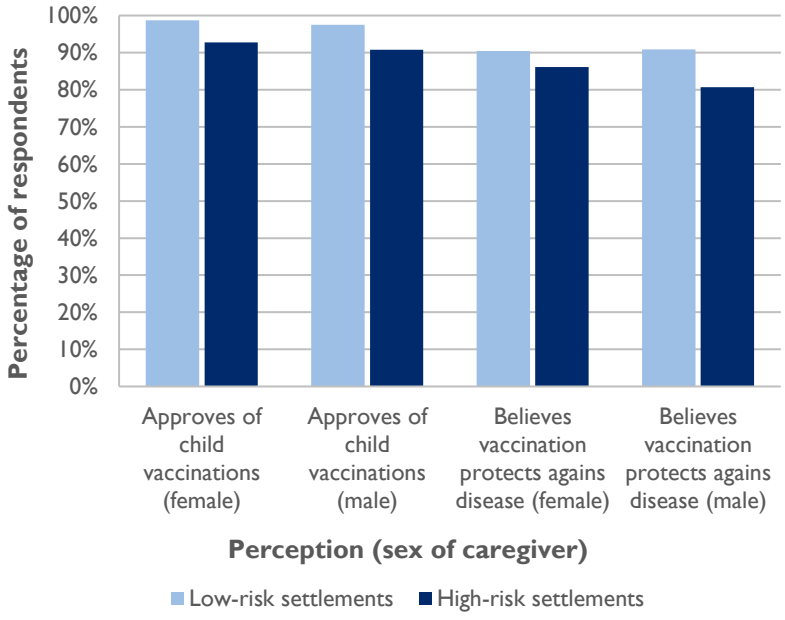
Strategic Objectives through the Life of Project

- Develop a research report, including primary data and a linked appendix, on the scope of research, methodology used, main findings, and the link between the findings and strategic implications for future polio action in Nigeria.
- Present the report to key polio partners in Nigeria for discussion and consideration as an empirical input for program strategy, with specific reference to social mobilization and communication (and training for vaccinators and advocacy at the local, state, and national levels).
- Develop a manuscript based on the research for publication in a peer-reviewed journal.

Highlights through the Life of Project

- Completed and disseminated a report of household factors that affect the demand for polio vaccination and the continued high rates of children who are missed from this vaccination in the states of Bauchi, Kano, and Sokoto in northern Nigeria.
- Published a manuscript in *Vaccine* in November 2017 to share the study and its findings with the global scientific community.

Figure 1. Perceptions of vaccination among females and male caregivers in low- and high-risk settlements*



*All differences are significant at the p<.05 level

Nigeria—Polio

Background

By 2015, the Nigerian polio eradication program had made extraordinary advances: transmission of wild poliovirus is at its lowest level in the history of the program, and service quality had improved dramatically, with lot quality assurance sampling coverage in high-risk areas above 80% and rising steadily in 2013–14. However, within the picture of aggregate improvement, there were small but significant areas of suboptimal oral polio vaccine coverage. To maximize chances of interrupting transmission and sustaining population immunity, a study was designed to investigate demand-side issues leading to poor coverage. The study selected high- and low-performing areas and conducted a comparative analysis to look for systematic differences in household (or settlement) characteristics that may explain localized deficits in oral polio vaccine acceptance.

MCSP's polio program in Nigeria accounted for phase II of the research study, conducted jointly with The Communication Initiative Network and Public Health Services & Solutions, a Nigerian NGO. The specific goal of the research was to understand household factors that affect the demand for polio vaccination and the continued high rates of children who are missed from this vaccination in the states of Bauchi, Kano, and Sokoto in northern Nigeria. The study was designed during phase I, which was largely completed under MCHIP, and vetted by the Federal MOH and polio and immunization partners in Nigeria. Phase I also included data collection and preparation of the initial data set by Public Health Services & Solutions.

Key Accomplishments

Collected, Cleaned, and Analyzed Data

As the second phase of the household factors that affect the continued high rates of children who are missed from polio vaccination in northern Nigeria, MCSP completed follow-up data collection from phase I, data cleaning, and analysis. Over 3,300 male and female respondents were surveyed from over 1,600 households and asked about family life, perceptions of external actors, their health care experiences, and knowledge of/attitudes toward RI and polio eradication efforts. The analysis of the data was done using a methodology based on qualitative comparative analysis and disaggregated by state, gender, and residence.

Findings showed that 16–17% of households reported having children who were missed by the oral polio vaccine, and 14–17% considered missing the vaccine in the future. Though risk of oral polio vaccine refusal was not predicted by worse past experiences with the health system, it did correlate with less knowledge of vaccines and absence of a positive perception of immunization in general. Propensity to refuse the oral polio vaccine was clustered, such that 20% of the sample communities accounted for almost 75% of the refusal risk and over 50% of all missed children. In contrast to the common profile of rural, illiterate communities being most susceptible to anti-vaccine myths, urban communities showed the highest levels of refusal risk. This also correlated with high expectations of the government, low confidence in one's ability to influence government performance, low perception of health care falling within the legitimate mandate of the government, and low levels of participation in community activities. Higher household wealth, education, and female literacy correlated with lower refusal risk, except in urban Sokoto, where the concentration of risk was in the context of better material conditions and access to resources. Degree of religious observation did not appear to correlate with oral polio vaccine refusal.

Finalized and Disseminated Report

MCSP engaged stakeholders in Nigeria to generate recommendations for polio vaccine demand creation (see below) and prepare the documentation. The final report was disseminated in late 2015 to decision-makers and implementers in the Nigerian government and other polio programs, as well as through The Communication Initiative Network's newsletter and website. A manuscript was also published by *Vaccine* in November 2017.

Recommendations for the Future

The polio study revealed several key implications at the state, household, and settlement levels, which are included in the formal report.

- **Implement a community-level approach targeted at especially high-risk settlements to overcome some of the risk clustering.** Such approaches should also focus on providing information on the benefits of vaccination in general, mitigating the impact of negative perceptions, and strengthening engagement between male and female caregivers. Vaccine administration planners should also pay particular attention to urban populations and further investigate emerging sets of risk in these areas.
- **Maintain or restore operational focus at the state level in the northwest, alongside the focus on Kano and Yobe-Borno transmission zones.** Furthermore, state programs are encouraged to strengthen their capacity (including developing qualitative and quantitative data gathering methods) to analyze program performance at the settlement level to identify persistent, localized gaps in the performance of supplementary immunization activities.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
This program did not have a Performance Monitoring Plan.	

Nigeria Routine Immunization

Summary & Results

Geographic Implementation Areas

States
- 2/36 (6%)—Bauchi, Sokoto

LGAs
- 43/43 (100%)—20 in Bauchi, 23 in Sokoto

Wards
- 567/567 (100% in both states)

Facilities
- 1,583/1,853 (85%, Bauchi:1,029, Sokoto: 554)

Population

Country
- 185 million

MCSP-supported areas
- 8.85 million

Technical Areas

Program Dates

September 1, 2014–December 31, 2018

Total Funding through Life of Project

$12,999,000

Demographic and Health Indicators

Indicator	# or %
Live births/year[1] (millions)	7.133
Infant mortality rate[2,3] (per 1,000 live births)	69 (2013) 67 (2018)
U5MR[2,3] (per 1,000 live births)	128 (2013) 132 (2018)
DTP3 rate 2013[2]	
National	38.2%
Bauchi State	12.5%
Sokoto State	2.6%
DTP3 rate 2018[3]	
National	50.1%
Bauchi State	32.1%
Sokoto State	7.2%
DTP3 rate 2018[4]	
National	57.2%
Bauchi State	41.5%
Sokoto State	22.4%

Sources: [1] UNICEF State of the World's Children 2015; [2] Nigeria DHS 2013; [3] Nigeria DHS 2018; [4] National Nutrition and Health Survey 2018. DTP3 rates are at time of surveys. Discrepancies in 2018 coverage rates by survey are believed to be due to relatively small state sample sizes and the resulting confidence intervals.

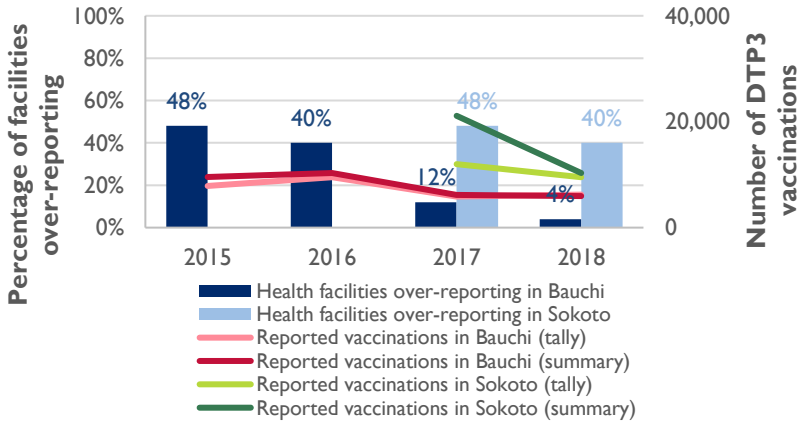
Strategic Objectives through the Life of Project

- Support state-led and -owned efforts to achieve over 80% RI coverage in every ward of Bauchi and Sokoto states by the end of December 2018.
- Support state-led and -owned efforts to expand the availability and quality of RI services by providing technical assistance in the areas of capacity-building and training, supportive supervision, monitoring and use of data, supply/cold chain, and community engagement.
- Promote the transition of all responsibility for sustaining and building on these gains to Bauchi and Sokoto states by January 2019, and improve their capacity to promote, deliver, and monitor RI services at state, LGA, health facility, and community levels.

Highlights through the Life of Project

- Expanded RI service delivery in Bauchi and Sokoto from 1,445 facilities to 1,580 and reached 1,614,200 children with RI (diphtheria-tetanus-pertussis, third dose, DPT3) between 2014 and 2018.
- Supported training of 63,000 health workers in all 43 LGAs of Bauchi and Sokoto states on 13 RI-related topics.
- Sokoto and Bauchi state governments contributed approximately $1.1 million and $4.3 million, respectively, under RI MOUs to match private foundation funding (2014–2018).

Figure 1. Data quality assessments in Bauchi and Sokoto show improved consistency between data tools and fewer health facilities over-reporting DTP, third dose vaccinations



Source: Service statistics (HMIS) and data quality assessment reports

Nigeria—Routine Immunization

Background

In 2017 and again in 2018, over 4 million Nigerian children under 1 year old missed one or more vaccinations, making Nigeria the country with the largest number of unvaccinated children in the world, according to UNICEF and the CDC. Recent population-based surveys show RI coverage increasing, albeit slowly and with large variations by region and state. Findings from the most recent survey, the 2018 Demographic and Health Survey, indicate that national coverage of DTP3 (the RI proxy indicator) increased to 50% of children 12–23 months old at the time of the survey, up from 38% in 2013, with the most pronounced progress being seen in the North East and North West regions. Despite this progress, immunization coverage is still very low in many of the northern states, and the pace of improvement is much slower than required for Nigeria to reach its national immunization goals.

States have taken different approaches to improving their immunization performance. Beginning in 2014, the Bauchi State government partnered with the Bill & Melinda Gates Foundation, Dangote Foundation, and USAID under a unique, multipartner MOU for RI system strengthening. The purposes of the 2014 Bauchi RI MOU and the 2015 Sokoto RI MOU were to mobilize and increase sustainable financing for state immunization programs, and increase vaccination coverage by expanding the supply of services, increasing demand, and institutionalizing government and partner coordination and accountability mechanisms at the state level. USAID's contribution to the Bauchi and Sokoto RI MOUs came in the form of MCSP's technical assistance, which began in late 2014 and continued through December 2018.

In addition to the six multipartner state MOUs that were in place by 2018, the Government of Nigeria established a National Emergency RI Coordination Centre in mid-2017 and quickly moved to set up comparable state-based groups in priority states. MCSP worked under the RI MOU model[61] and as a member of the Bauchi and Sokoto State Emergency RI Coordination Centres, supporting efforts in 43 LGAs, 1,583 health facilities, and countless communities to strengthen RI in the context of primary health care.

Key Accomplishments

Developed New Model for Financing and Delivering RI Programs

With MCSP's and other partners' support, the Bauchi and Sokoto state governments increased high-level political commitment to and capacity for RI program management and coordination. Reflecting the accountability and motivation the states felt to achieve sustainable results, the State Primary Health Care Development Agencies, with MCSP's support, developed state accountability frameworks for RI, which were reinforced by recommendations from routine internal and external MOU financial audit reports. Finance working groups tracked and enforced accountability recommendations, enabling each state to track disbursement, use, and retirement of accounts at all levels. Bauchi and Sokoto state governments matched their increasing financial investments with timely disbursements and consistent availability of funds for RI at all operational levels through dedicated health facility bank accounts. Each state developed a harmonized and budgeted RI work plan, which helped to strengthen planning and align its partners with state priorities. Routine activities, such as monthly review meetings, supportive supervision, and RI outreach sessions, were conducted as planned but also using revised and improved approaches. MCSP's close coordination with the many partners working in each state under its RI MOU work plan minimized duplication of efforts and maximized government and partner investments. Both states now have functioning RI state task forces chaired by their deputy governors that serve as the highest decision-making body in each state for RI. These task forces promote effective responses to needs by sharing information, setting priorities, assigning responsibilities, and encouraging joint accountability for results. The task forces (and their underlying TWGs) will continue functioning beyond the life of MCSP. In addition, the Bauchi State Task Force is being scaled up to cover broader primary health care activities, as well as RI.

[61] *Implementing an MOU with Basket Funding to Improve RI Systems: A Start-Up Guide Compendium* provides guidance on designing, implementing, and evaluating an RI MOU.

MCSP worked with RI MOU partners during implementation to document processes, context, achievements, challenges, and lessons learned in the development and implementation of the RI MOUs. Findings were shared with MOU partners in each state and are being disseminated through the document, *Implementing an MOU with Basket Funding to Improve RI Systems: A Start-Up Guide Compendium*, its accompanying MOU tools, and individual MOU case study reports for Bauchi, Sokoto, and the other foundation-supported MOU states. A manuscript summarizing the MOU experience and lessons learned is also under development for publication.

Developed and Implemented National Policy

MCSP's national-level RI technical support included sharing experiences and lessons learned from RI MOU implementation in Bauchi and Sokoto states, contributing to quarterly reviews of Nigeria's EPI, supporting the states as they adapted and adopted national policies and guidelines, and providing technical assistance to the Federal MOH and National Primary Health Care Development Agency in development of national policies and plans, such as the 2016-2020 Comprehensive Multiyear Plan. In addition, MCSP supported revisions to the National Immunization Policy in 2018 to reflect introduction of the National Emergency for RI Coordination Centre and the National Primary Health Care Development Agency's optimized integrated RI sessions approach. MCSP also supported finalization of national RI supportive supervision and mentoring standard operating procedures, an RI job aid for health care providers, national EPI training guidelines for the National Primary Health Care Development Agency, the *Basic Guide for RI Service Providers*, and the national Measles Elimination Plan 2018–2028. Finally, MCSP contributed to annual Gavi joint appraisals and to Nigeria's National Strategic Plan to Strengthen RI and Primary Health Care 2018–2028, which was approved by Gavi in 2018.

Expanded and Strengthened RI Services

A central focus of MCSP's technical support to both states was expansion of access to RI services. At the start of the MOUs, very few health facilities were conducting regular fixed and outreach RI sessions. MCSP supported the states to identify 43 new secondary health facilities (23 in Bauchi and 20 in Sokoto) and three new tertiary health facilities where RI was not offered, and then worked with these facilities to begin offering RI to their clients. Consistent monitoring and follow-up of RI sessions (including through quarterly microplan review, monthly LGA-level review meetings, and supportive supervision and mentorship visits) contributed to an increased number of fixed and outreach RI sessions being planned and higher percentages of those sessions being conducted. In Bauchi, the annual number of planned RI sessions conducted increased significantly from 43,600 sessions in 2014 to 74,734 sessions in 2018, and the percentage of planned sessions that were conducted also increased from 79% to 95% over the same period. In Sokoto, MCSP's support led to even more dramatic results: a fivefold increase in the annual number of fixed and outreach RI sessions (10,941 sessions in 2014 to 50,286 sessions in 2018).

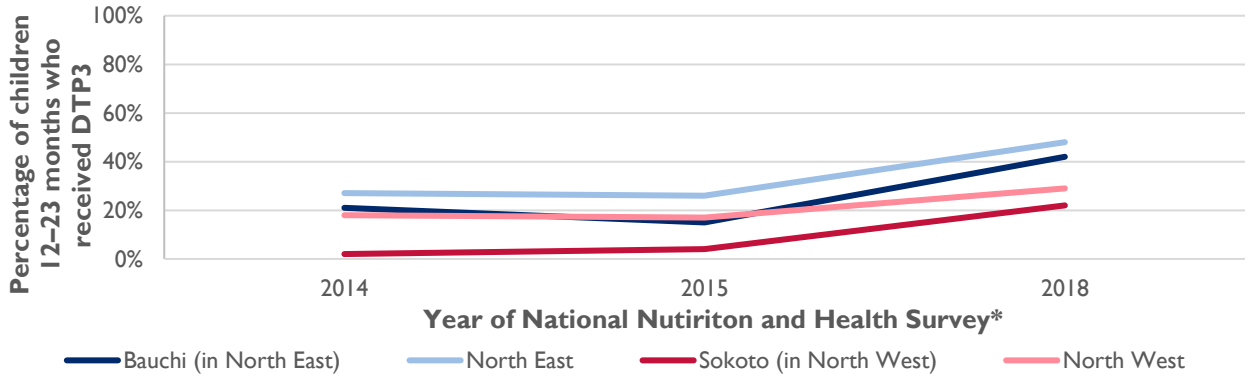
MCSP's assistance to each LGA (e.g., prioritizing data quality and use, and supervision strengthening) was a major contributor to the expansion of state RI services. Regular disbursement of RI MOU funds to health facilities was also important to ensure that they consistently had funds for outreach. MCSP's LGA-based consultants helped state counterparts track use and successfully retire accounts at the operational level.

MCSP's support also increased demand and catalyzed a higher number of clients returning and completing their immunizations. This is reflected in the dropout rates, which fell to around 10% by the end of the project, compared to a baseline of 19% in Bauchi and 21% in Sokoto (and a national average of 14%, per WHO and UNICEF's 2017 estimate). During the life of the project, 1,614,200 children (962,791 in Bauchi and 651,409 in Sokoto) received DTP3. According to population-level data from the National Nutrition and Health Surveys[62] of 2014, 2015, and 2018 (Figure 2), DTP3 coverage increased about 20 percentage points in Bauchi and Sokoto between 2014 and 2018, and the gaps between state and corresponding regional coverage narrowed considerably, especially in Sokoto. Demographic and Health Survey 2018 findings indicate less

[62] National Nutrition and Health Survey is a household survey conducted using Standardized Monitoring and Assessment of Relief and Transition (SMART) methodology. The Government of Nigeria's intent is to conduct an NNHS annually. To date, these surveys have been conducted in n 2014, 2015 and 2018, with support from USAID, UKAID and Unicef.

dramatic improvements in both states (32% in Bauchi and 7% in Sokoto), but the confidence intervals at the state level are large.

Figure 2. Increase in diphtheria-tetanus-pertussis, third dose (DTP3) coverage among children 12–23 months in Bauchi and Sokoto from 2014 to 2018

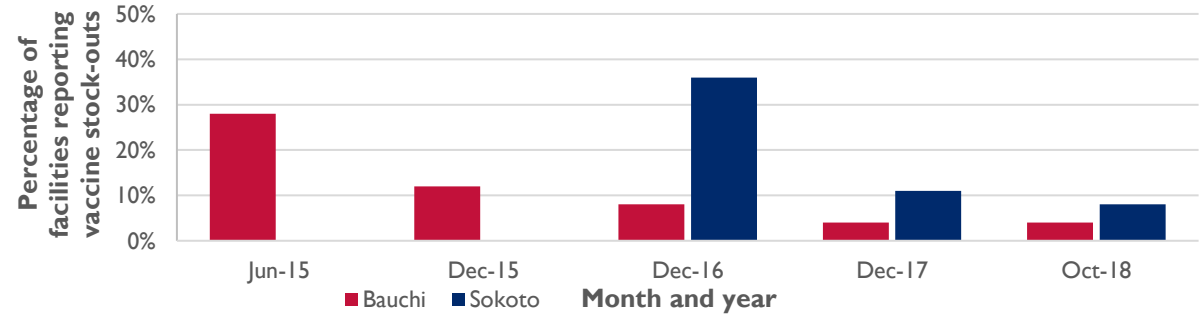


* National Nutrition and Health Surveys use the Standardized Monitoring and Assessment of Relief and Transition methodology

Supported Vaccine Supply Chain and Logistics

MCSP supported both State Primary Health Care Development Agencies to coordinate activities critical to vaccine security, cold chain strengthening, and RI logistics. Through development, implementation, and use of a Planned Preventive Maintenance Guide at LGA level and in apex health facilities, and by building the capacity of 567 service providers in supply chain and logistics skills, the consistency of vaccine stock data improved in zonal cold stores and across all LGAs. Stock-outs were reduced through LGA-level vaccine stock dashboards and public-private partnerships that "pushed" vaccine delivery to LGAs and health facilities. The reduction in vaccine stock-outs in Bauchi was dramatic: from 28% in June 2015 at the introduction of vaccine direct delivery to only 4% in October 2018. In Sokoto, stock-outs fell from 36% to 8% between December 2016 and October 2018 (Figure 3). At the end of 2018, 95% of the 289 facilities with cold chain capacity in Bauchi and 91% of the 221 facilities in Sokoto had experienced no vaccine stock-outs for 30 days. These achievements represented an improvement of 69 percentage points in Bauchi and 57 percentage points in Sokoto from the 2014 baseline, a substantial increase in vaccine availability at service delivery points.[63]

Figure 3. Reduction in vaccine stock-outs in 1,029 health facilities in Bauchi (June 2015 to October 2018) and 542 health facilities in Sokoto (December 2016 to October 2018)



Source: state and LGA records

[63] The Federal MOH purchased vaccines and supplies. Solina designed, managed, and tested vaccine distribution to health facilities by a third-party vendor. MCSP supported and monitored the rollout of the new distribution system, ensured redistribution between apex and other health facilities, strengthened state systems to identify and report malfunctioning cold equipment, developed and helped implement plans for training in preventive cold chain maintenance, and tracked the performance of the third-party vendor.

Improved RI Data Quality

In Sokoto and Bauchi states, RI data quality has historically been poor, with large discrepancies between administrative and population-based survey data.[64]. In support of the two states' strategies to improve data quality and consistency, MCSP provided technical support to the State Primary Health Care Development Agencies to review RI indicators, identify and address data management and quality gaps, and monitor improvements over time. Using various approaches—directly observed data entry, supportive supervision, needs-driven mentoring, and data quality assessments and spot checks—the states and partners have begun to address data discrepancies, falsification, and over-reporting issues. In collaboration with other RI MOU partners, MCSP supported the coaching and mentoring of 238 service providers in Sokoto and 285 in Bauchi from 523 health facilities (33% of all health facilities providing RI) to improve the quality and timeliness of their reporting. As a result, the timeliness of RI reporting improved 10 percentage points to 93% in Sokoto and 18 percentage points to 86% in Bauchi, and data quality assessment cycles from 2015 to 2018 showed fewer health facilities over-reporting DTP3 immunization. There was also improved consistency in data recorded on the tally sheets that are used during immunization sessions, health facility immunization registers, and monthly health facility and LGA reports (Figure 1). While these are encouraging trends, data quality issues continue to undermine RI planning, monitoring, and problem-solving in both states, and deserve even greater attention by the State Emergency RI Coordination Centres and MOU partners in the future.

Linked Communities and Health Facilities

With an expanded approach to community partnership, MCSP engaged all actors (traditional and religious leaders, village and ward development committees, and beneficiaries themselves) in efforts to increase immunization coverage and address low levels of awareness of RI and the population's distrust of the health system. MCSP played a role in analyzing context-specific community issues, addressing gaps identified through community assessments, and working with social mobilization working groups in both states to develop and align with state Community Engagement Strategies for RI and other primary health care services. Incorporating best practices used in other countries, MCSP addressed factors that lead to missed opportunities for immunization and large numbers of unimmunized children, such as weak tracking mechanisms for newborns and challenges with identifying and following up with children who are left out or drop out of the RI system. For example, MCSP effectively leveraged the influence of 2,858 trained traditional barbers (trusted community members) in the tracking and referral to RI services of 66,611 newborns in Bauchi and 4,157 newborns in Sokoto, tapping an important unused resource and increasing male engagement in demand generation. As a result of this innovative activity, 90% of newborns in Bauchi and 96% of newborns in Sokoto referred by traditional barbers successfully accessed RI services. To learn more about this initiative, read MCSP's blog post "In Northern Nigeria, barbers trim newborn mortality – one haircut at a time."

Building off of lessons learned increasing immunization coverage in India, Timor Leste, and Malawi, MCSP also adapted and tested the My Village My Home visualization tool in three wards of three LGAs in each state as a complementary approach to existing name-based records. In Bauchi and Sokoto the tool was called Healthy Children, Community's Pride. By the end of the project, 7,542 children had been tracked in the project register, and 85% of them were up-to-date with their vaccines. In addition, 4,550 children were registered and tracked at fixed and outreach sessions through a program called WeMUNIZE, which used informational telephone calls and SMS messages to influence, remind, and persuade caregivers to take children for immunization. In light of these successes made possible through MCSP's technical and organizational capacity-building and support, this tool went on to receive a USAID Digital Development Award. Finally, MCSP used a geographic information system to produce digital catchment area maps for 283 health facilities (199 in Bauchi and 84 in Sokoto). Developing digital maps enabled the government to identify service provision gaps and opportunities to increase the number of children immunized during outreach sessions. This process was documented in the manuscript "From Paper Maps to Digital Maps: Enhancing RI Microplanning in Northern Nigeria," which will be published in a forthcoming BMJ Global Health supplement.

[64] Example: In 2017, Sokoto State reported 86% DTP3 coverage based on monthly administrative reports; however, the recent Demographic and Health Survey 2018 survey estimated only 7.2% coverage.

Built Capacity to Ensure Quality RI Services

Skilled and knowledgeable health care providers are required to ensure delivery of high-quality RI services at health facilities and outreach sessions. At various levels and in close collaboration with Solina and other RI partners, MCSP used a combination of user-centered approaches—onsite training and support, needs-based mentoring and cross-learning, monthly data review meetings, and supportive supervision—to build and reinforce improvements in health worker capacity. MCSP played a key role in integrating adult learning techniques into the national *Basic Guide for RI for Service Providers* training approach that is used with all public- and private-sector health service providers. To institutionalize best practice training approaches, MCSP also supported the State Primary Health Care Development Agencies in both states to set up training units for coordination of RI and other primary health care-related trainings.

Over the life of the project, MCSP supported training of over 53,000 health workers in Bauchi and nearly 10,000 health workers in Sokoto on RI topics. Appreciating that capacity is strengthened and sustained over time, MCSP also helped develop a mentoring component for follow-up that is cited as a model in the new national standard operating procedures for supportive supervision. A pool of 109 "super mentors" (63 in Bauchi and 46 in Sokoto) was established and will continue to provide onsite, needs-based mentoring to build capacity among other mentors. This mentoring approach was enhanced by introduction of a CommCare-based digital application that tracked mentees' progress and monitored the mentorship process.

Recommendations for the Future

The RI MOU model demonstrates how a coordinated, state-led approach between the private and public sectors can mobilize domestic resources, improve accountability, provide clear governance structures, and leverage the comparative strengths of partners and community stakeholders to improve RI performance. MOU basket funding, coupled with high-quality, targeted, and demand-driven technical assistance provided by MCSP and other partners, strengthened RI systems and expanded service delivery in Bauchi and Sokoto states. Much work still remains to accelerate RI coverage improvement in MOU states, but the initial results are promising.

- **Prioritize demand generation.** Going forward, demand generation must be given greater priority, for without dramatically increasing the population's utilization of RI services, coverage will remain low.
- **Build the capacity of state- and LGA-level stakeholders, communities, policymakers, and managers.** MCSP provided multicomponent, multilevel technical assistance to the State Primary Health Care Development Agencies and LGAs with skills and knowledge transfers that will only be sustained through continued capacity-building and onsite mentoring. Engaging communities, building the capacity of policymakers and managers, addressing disparities in RI coverage, and improving the quality and use of RI data will also continue to be extremely important in both states.
- **Increase the efficiency of immunization services.** Although the supply of services has been greatly expanded, LGAs and health facilities must now look for more efficient combinations of fixed and outreach immunization sessions, as well as ways to increase demand, if they are to improve their results.
- **Build consensus among partners and take a unified approach to implementation.** MCSP found that these were great strengths of the MOU partnership model.
- **Encourage MOU partners to innovate, systematically ask and answer questions, and share findings about what works at community, health facility, and LGA levels.** This can help find ways to sustainably increase demand for RI and primary health care services, improve data quality and use, more fully integrate RI and primary health care services, and address other persistent problems. An iterative approach to asking and answering these and other important questions during implementation would both strengthen the MOU and State Emergency RI Coordination Centre partnerships, and improve their results.
- **Consider and explore use of the MOU model for new public health areas.** The public-private MOU model could help Nigeria mobilize and align its domestic and external resources, and generate the political will and accountability it needs to prevent child and maternal deaths. However, the advantages and limitations of this model will be important for USAID to consider in future programming. The MOUs with Bauchi and Kano states, where progress on RI was greatest, are being broadened to include primary health

care strengthening and may have potential in other areas of public health. By studying what has and has not worked, USAID and the other MOU partners have the opportunity to refine and improve the model.

Selected Performance Indicators	Bauchi	Sokoto
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target[1])**	
Number of national policies drafted with USG (MCSP) support	13 (target not defined)	
Percentage of children under 12 months who received DTP3 from USG-supported programs	84% (target: 85%; 99% achieved)	76% (target: 80%; 94% achieved)
DTP1 to DTP3 dropout rate	11% (target: <10%; target not achieved)	9% (target: <10%; target achieved)
Number of people trained in child health (immunization) and nutrition through USG-supported health area programs	52,466 (target exceeded)[2]	11,830 (target exceeded)[2]
Percentage of health facilities receiving RI basket funds on a monthly basis	94% (target: 95%; 99% achieved)	97% (target: 95%; target exceeded)
Percentage of RI fixed sessions conducted as planned	96% (44,761/46,713, target: 90%; target exceeded)	98% (26,059/26,698, target: 90%; target exceeded)
Percentage of RI outreach sessions conducted as planned	93% (29,973/32,396, target: 90%; target exceeded)	98% (24,227/24,785, target: 90%; target exceeded)
Percentage of health facilities offering RI services	94% (target: 95%; 99% achieved)	71% (target: 90%; 79% achieved)[3]
Percentage of health facilities receiving at least one supportive supervision visit for RI in a quarter	94% (target: 90%; target exceeded)	97% (target: 90%; target exceeded)
Percentage of health facilities with no stock-out of vaccines for 30 days	95% (target: 80%; target exceeded)	91% (target: 80%; target exceeded)
Percentage of satellite cold store health facilities with functional cold chain equipment	89% (target: 90%; 99% achieved)	84% (target: 80%; target exceeded)

[1] For the indicators reporting percentages, the targets and achievements are shown for PY4 (October 2017 to September 2018). For the indicators reporting numbers, targets and achievements are cumulative through the life of the project (September 2014–December 2018).

[2] Life-of-project target for this indicator are Bauchi, ~3,000, and Sokoto, ~1,500. Significant overachievement in training indicators is in part due to figures that include data from MNCH weeks and from polio and measles vaccination campaigns in both Bauchi and Sokoto, which both states did not incorporate into their original annual targets. The functionality of the TWGs in each state, as well as dedicated funding made possible by each state's RI MOU basket fund to ensure well-coordinated planning and execution of trainings, also contributed to strong performance.

[3] The 90% MOU target for Sokoto was not achieved because the state decided mid-PY4 to prioritize increasing the frequency of RI services and improving the quality of RI sessions at existing health facilities instead of expanding to new facilities. Furthermore, the state's plan for expansion is dependent on health worker recruitment, which has been challenged by the poor economy and low fund allocations by the states. Plans are underway to recruit more health workers in 2019.

Pakistan Summary & Results

Geographic Implementation Areas

Provinces
- 3/4 (75%)—Sindh, Balochistan, and Punjab

Districts
- 6/133 (4.5%)—Badin, Sheikhupura, Quetta, Pishin, Naushki, and Qilla Saifullah

Facilities
- 164 facilities

Population

Country
- 220 million

MCSP-supported areas
- 8.8 million

Technical Areas

Program Dates

July 15, 2016–September 30, 2019

Total Funding through Life of Project

$ 5,450,000

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	178
IMR (per 1,000 live births)[2]	62
NMR (per 1,000 live births)[2]	42
U5MR (per 1,000 live births)[2]	74
SBA[2]	69%
TFR (births per woman)[2]	3.6
CPR[2]	25%
Unmet need for FP[2]	17%

Sources: [1] UNICEF 2015, [2] Pakistan DHS 2017–18

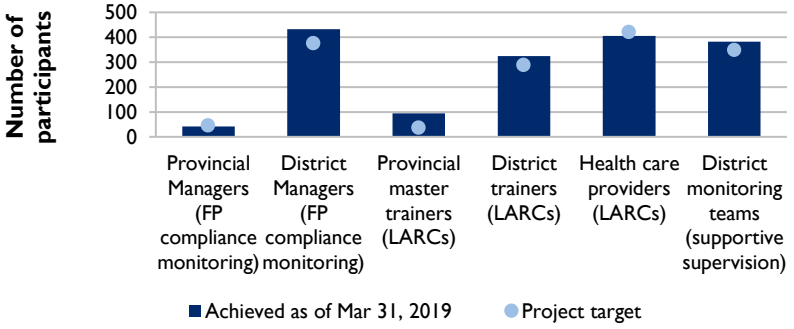
Strategic Objectives through the Life of Project

- Strengthen and institutionalize an integrated model for training on LARC.
- Increase access to high-quality LARC services by training service providers.
- Strengthen supportive supervision and monitoring at provincial and district levels to ensure voluntarism and informed choice.
- Accelerate an advocacy agenda for the task shifting of the first dose of injectable contraceptives to CHWs.

Highlights through the Life of Project

- Operationalized the government's commitment to client voluntarism and informed choice by orienting service providers, health facility managers, and government officials to the FP compliance toolkit and FP compliance monitoring model, now being implemented by the Health and Population Welfare departments of Balochistan and Sindh.
- Strengthened financial and operational sustainability of 26 FP training units, including the seven established with MCSP support in Sindh, Punjab, and Balochistan, through development of operational guidelines.
- Developed and institutionalized an Android-based application to link supportive supervision data with training software for the Punjab Population Welfare Department and integrated online training software for the People's Primary Healthcare Initiative for the Health and Population Welfare departments in Sind and Balochistan to automate, process, and archive training data, thus replacing a paper-based system.
- Increased the government's human resources for health by developing a cohort of master trainers on FP/LARC, establishing supportive supervision across the three intervention provinces, and orienting Balochistan service providers on counseling skills, with a focus on GBV and infectious diseases, to provide continuum of care to clients.
- Generated evidence supporting the feasibility of lady health workers screening and administrating the first dose of injectable contraceptives through a randomized controlled trial with FHI360 and Aga Khan University.

Figure 1. Trainings conducted by participant type and training topic



Pakistan

Background

In Pakistan, MCSP carried forward the momentum and lessons learned from MCHIP's work to facilitate provision of high-quality comprehensive MNCH services. As a result of these efforts, FP was included as one of seven basic MNCH services provided at primary-level health facilities. MCHIP also developed an FP compliance plan to ensure voluntarism and informed choice in FP service delivery across all health and population facilities. The plan included preparing trainers and providers, and developing or adapting tools and materials to monitor compliance.

MCSP invested to increase access to high-quality FP services through institutionalization of an integrated training model for LARCs and establishing systems to ensure voluntarism and informed choice. MCSP partnered with the departments of Health and Population Welfare to ensure a supportive policy environment for the delivery of high-quality FP programs, and supported the district governments of Badin, Sheikhupura, Quetta, Pishin, Naushki, and Qilla Saifullah to build the capacity of health care providers in 164 facilities on LARC, voluntarism and informed choice, infectious diseases, and gender-sensitive service delivery.

Key Accomplishments

Updated FP Standards

MCSP supported the Health and Population Welfare departments of all four provinces and two regions (Gilgit-Baltistan and Azad Jammu Kashmir) to update and standardize their clinical standards by incorporating the medical eligibility criteria released by WHO in 2015. Undertaking a consultative process, MCSP invited and incorporated comments by government officials and medical professionals/experts before finalization. The project handed over the updated standards to each government at an official ceremony, where each provincial government endorsed the updated *FP Standards Manual*. These standards are now being used by each department in their training and monitoring activities and in quality compliance indicators. The standards have been used by the government to develop supportive supervision mechanisms and infection prevention protocols for FP training units, and by health facilities for improving quality of care.

Developed First-Ever Subcutaneous Depot Medroxyprogesterone Acetate Training Manual

In close partnership with the Government of Sindh, MCSP supported the development of the first-ever LRP and related jobs aids for clinical monitoring, client follow-up, and recordkeeping in Pakistan on Sayana Press (subcutaneous depot medroxyprogesterone acetate) for service providers. MCSP facilitated use of standardized tools in support of the government's capacity-building initiatives, including training a cohort of master trainers. At the request of the Government of Punjab, MCSP developed similar resources for Punjab's Population Welfare Department and Department of Health providers, and supported both departments to pilot the provision of the self-injectable Sayana Press at selected health facilities. The Population Welfare Department and Department of Health providers supervised clients at the facility for self-administration of the first and second dose of Sayana Press, and followed up with them for self-administering the third and fourth dose in their homes in four districts (Pakpattan, Lahore, Attock, and Dera Ghazi Khan). Based on this successful experience, the government stated its intention to expand this initiative to other districts.

Introduced Gender-Sensitive Services

MCSP supported the provincial and district governments of Balochistan to strengthen integration of gender-sensitive services into care and treatment, including addressing the challenges that clients face in accessing services and aspects of service delivery. MCSP raised awareness among providers on gender, gender roles, gender-based inequities, and their impact on reproductive health. MCSP also reviewed curricula for family welfare attendants, family welfare counselors, male mobilizers, and women medical officers, and revised the content to integrate information, awareness, and key messages on FP, GBV, and infectious diseases. MCSP referred to WHO's revised FP standards and adapted relevant guidelines on engaging with women who have GBV complaints accordingly in consultation with local and provincial stakeholders. MCSP empowered 25 community midwives' tutors/faculty by enhancing their understanding, knowledge, and teaching skills on FP, with integrated components on gender and infectious diseases, and provided four community midwifery schools with essential training models and infection prevention equipment to strengthen their demonstration

rooms and sites. This investment will serve as a catalyst for the standardization of voluntary FP services into pre-service teaching across the four schools.

MCSP also helped pilot integration of gender and infectious disease issues during FP and ANC counseling by trained providers in Balochistan in four health facilities. MCSP investments and gains will be leveraged by other health programs supported by USAID in districts on the Afghanistan/Pakistan border and in districts of Khyber Pakhtukhwa province.

Consolidated FP Compliance

MCSP consolidated MCHIP's FP compliance efforts to ensure voluntarism and informed choice in FP service delivery across all health and population facilities by integrating compliance indicators in Population Welfare and Health departments' monitoring mechanisms, and by developing a comprehensive learning resource package and FP compliance toolkit for providers and facility managers. This was the first time that the principles of voluntarism and informed choice were included in LARC training packages for providers, trainers, and master trainers in Pakistan. MCSP monitored all district facilities together with members of the FP advisory group and found that all of the visited facilities were compliant with FP principles. MCSP shared these findings and next steps to address identified needs during quarterly meetings. This process of joint monitoring and sharing findings helped establish a practice that can be sustained by the government.

In addition to training providers on FP compliance and LARC, MCSP developed a cohort of provincial focal points from the Health and Population Welfare departments in all three provinces and enhanced their knowledge of FP compliance. These focal points assumed the responsibility of monitoring their health facilities during and after the completion of MCSP interventions and led step-down trainings for approximately 350 district-based compliance monitors. The district-based monitors, in turn, ensured that facilities were adherent to FP principles during service provision and transferred knowledge to service providers. As a result of MCSP's efforts:

- The director general of Sindh's Health and Population Welfare departments issued official notifications reiterating zero tolerance for noncompliance with FP principles of voluntarism, informed choice, and the prohibition of service targets, quotas, coercion, and incentives. These notices have been displayed at all health facilities as reminders and as a sign of transparency and accountability.
- The Health and Population Welfare departments of Sindh and Balochistan formulated a provincial Advisory Body on FP Compliance Monitoring, comprising provincial focal people from M&E departments trained on FP compliance monitoring by MCSP.

Increased Understanding of Clients' Perspectives on FP Services

MCSP carried out a study on the understanding and perception of clients' rights among service providers, health facility managers, and clients in the four Afghanistan/Pakistan bordering districts of Balochistan (Quetta, Pishin, Naushki, and Qilla Saifullah). MCSP developed and shared a comprehensive report and study findings, with recommendations to inform FP programs strengthening the focus on clients' rights and experience of care during social and behavior change initiatives, and on FP counseling and services.

Advocated for Sustainability and Institutionalization of FP Initiatives

MCSP's advocated with the government and stakeholders to sustain and institutionalize gains, resulting in:

- **Inclusion of PPFP/LARCs in the FP method mix offered by the Health and Population Welfare departments of all three provinces:** Each province's secondary and tertiary care hospitals established ANC "counseling counters" that included information on PPFP options available to women.
- **Adoption of digital solutions based on Population Welfare Department, People's Primary Healthcare Initiative, and Department of Health needs in Balochistan:** The digital health initiative will facilitate enhanced efficiencies and optimized use of resources—financial, human, and time—for developing and deploying skilled cadres of service providers at health facilities across the province.
- **Revitalization and enhancement of the role of male mobilizers in the National Action Plan for FP in response to the country's Supreme Court chief justice suo motu notice on population**

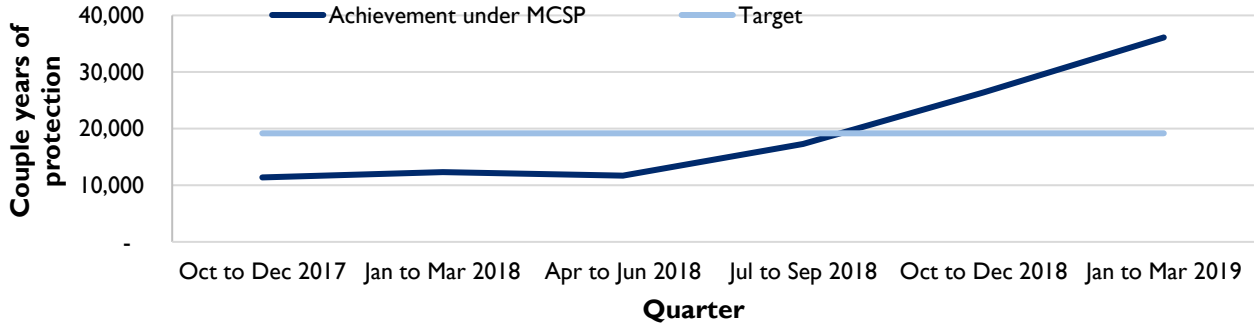
growth: MCSP assisted male mobilizers to enhance outreach efforts with the community by engaging directly with men, thereby increasing male involvement in reproductive health decisions and choices.

- **Establishment of implementation plans task force in Punjab and Balochistan**: MCSP secured integration of PPFP into MNCH by adding it in the country implementation plans of both provinces.

Engaged with the Media to Increase Awareness of FP

MCSP contributed to the effective execution of the Balochistan Provincial FP Action Plan by engaging with private media houses to enhance awareness on FP, voluntarism, and informed choice as the right of every man and woman. MCSP mentored journalists from Balochistan, imparting information on FP, gender, and preventive measures against infectious diseases. This cohort broke the silence on taboo subjects through culturally sensitive messages disseminated via the media, raising awareness of the importance and availability of FP services and on each individual's right to freely make decisions about their reproductive health.

Figure 2. Couple years of protection achieved in MCSP-supported areas



Recommendations for the Future

MCSP's efforts in Pakistan substantially increased couple years of protection (Figure 2) by increasing access to high-quality FP care that emphasizes voluntarism and informed choice, is delivered in a gender-sensitive manner, and is backed by a supportive policy environment. Based on the program's achievements and lessons learned, MCSP recommends the following for the Ministry of Health and Family Welfare and future projects:

- **Adopt the study findings and recommendations of the randomized control trial on provision of first dose of subcutaneous depot medroxyprogesterone acetate by lady health workers.** This will provide a roadmap for institutionalizing provision of the service by this cadre of health workers. The governments of Khyber Pakhtunkhwa and Balochistan should adopt and/or adapt best practices from Sindh and Punjab's roll out of Sayana Press in order to enhance the method mix available to couples.
- **Institutionalize LARC trainings across all health workers and complement it with supportive supervision to instill confidence in providing client-focused services.** The government should optimize the use of skilled human resources, especially the cohort of MCSP-trained master trainers, to rollout competency-based training on FP clinical skills and teaching skills.
- **Ensure no client is turned away on account of unavailability of her method of choice.** This can be done by addressing all the identified gaps in supply chain mechanism for efficient provision of FP commodities to the facilities, especially in Balochistan.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of people trained in FP and MNCH through USG support	1,891 (target: 2,159; 88% achieved)
Couple years of protection in USG-supported programs	17,179 (target: 19,176; 90% achieved)
Number of USG-assisted service delivery sites providing FP counseling and/or services	167 (target: 164; target exceeded)

Rwanda Summary & Results

Geographic Implementation Areas

Provinces
- 5/5 (100%)—Kigali, Northern, Eastern, Southern, and Western

Districts
- 16/30 (53%)

Facilities
- 254/538 (47%)

Population

Country
- 11.5 million

MCSP-supported areas
- 6.56 million

Technical Areas

Program Dates

April 2015–March 2019

Total Funding through Life of Project

$34,685,478

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)[1]	210
NMR (per 100,000 live births)[1]	32
TFR (births per woman)[1]	4.2
CPR (modern methods)[1]	48%
ANC+4 [1]	44%
SBA[1]	91%

Sources: [1] Rwanda DHS 2014–15

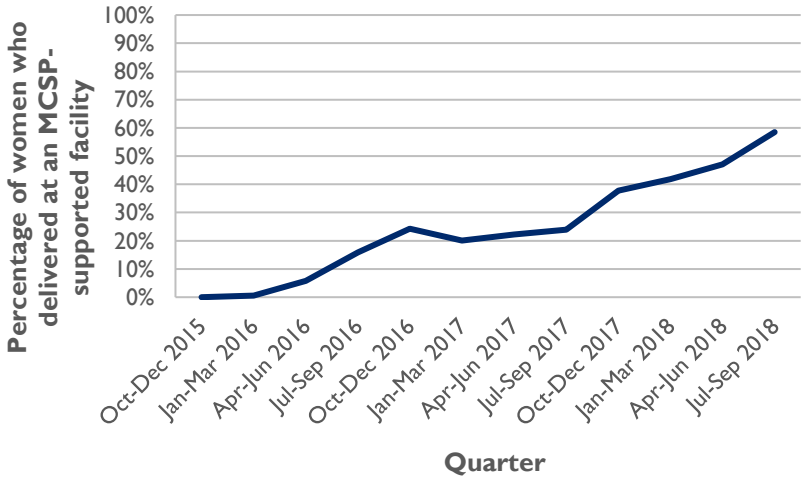
Strategic Objectives through the Life of Project

- Improve the quality, equity, gender sensitivity, and sustainability of RMNCAH and malaria services along the continuum of care.
- Support the scale-up of high-impact interventions to improve RMNCAH and malaria outcomes in the public and private sectors.
- Increase community mobilization for participation in and utilization of high-quality RMNCAH and malaria services.
- Build capacity to use data for decision-making and action at all levels of the health system.
- Increase capacity to manage and control malaria in Rwanda.

Highlights through the Life of Project

- Contributed to a marked increase in voluntary PPFP uptake before discharge, from less than 1% at the start of the implementation period to 59% by July to September 2018.
- Provided 181 women with successful fistula repair procedures as a result of MCSP's mobilization efforts to identify, screen, and link clients to surgical care.
- Facilitated a multistakeholder process in collaboration with the MOH to develop the MNCH Strategic Plan and FP/Adolescent Sexual and Reproductive Health Strategic Plan (2018–2024), which outlined a roadmap for achieving ambitious health targets.

Figure 1. Increased percentage of women who delivered at an MCSP-supported facility who adopted PPFP before discharge (n = 302,880)



Rwanda

Background

As of 2015, Rwanda had made impressive strides in reducing maternal and child mortality, but newborn mortality remained high, and the contraceptive prevalence rate had stagnated since the 2010 Demographic and Health Survey. To address these persistent issues, the MOH/Rwanda Biomedical Center working with the USAID Mission in Rwanda identified key priorities for MCSP. Working with the USAID team in Washington, MCSP assessed the existing RMNCAH landscape, including previous service delivery and capacity-strengthening approaches. MCSP assessed the leading causes of death and identified which high-impact interventions would be most effective and feasible in the Rwanda context. MCSP then assessed capacity gaps for providers to deliver the high-impact intervention required to make a difference in key indicators and leveraged the Government of Rwanda's emphasis on innovation to refine and scale approaches, including using LDHF training combined with clinical mentorship to ensure post-training skills retention and PPFP to increase the number of women voluntarily accessing FP methods.

Key Accomplishments

Strengthened Capacity of Professional Associations for Improved RMNCAH Service Provision on the Path to Self-Reliance

The three Rwandan professional association partners—the Rwanda Paediatric Association, the Rwanda Association of Midwives, and the Rwanda Society of Obstetricians and Gynecologists each received new grant funding and are considered essential partners in Rwanda for donors working in RMNCAH as a result of MCSP's investments in organizational development and capacity. Rwanda professional associations were an essential partner in the design and implementation of the LDHF mentorship program, a key sustainability strategy to ensure these approaches would continue after the program ended and are now empowered to play a leading role improving health outcomes for women and children in Rwanda.

Built Provider Competencies through Human Capacity Development and QI

Over a 4-year period, MCSP reached 22,906 health care providers and CHWs through its capacity-building activities, primarily through LDHF training and mentorship. The average test score of health providers improved by 40% (from 49% to 89%) in Helping Babies Breathe (HBB)/ENC, by 26% (from 62% to 88%) in BEmONC, and by 39% (from 38% to 77%) in IMCI over the 3-week LDHF training period.

Through MCSP's IMCI training and mentoring, which increased detection, treatment, and documentation of pneumonia and diarrhea cases, the number of pneumonia and diarrhea cases receiving treatment by MCSP-trained health care providers increased from 59,142 to 73,937 and 55,336 to 73,841, respectively, in supported districts. MCSP also helped districts maintain between 80% and 94% coverage of uterotonics and increased the proportion of low-birthweight babies admitted to KMC from 55% to 84% (see Figures 2 and 3).

Figure 2. MCSP supported 172 health facilities to maintain a high percentage of women who had recently delivered and received a uterotonic immediately after birth (n = 312,764 facility deliveries)

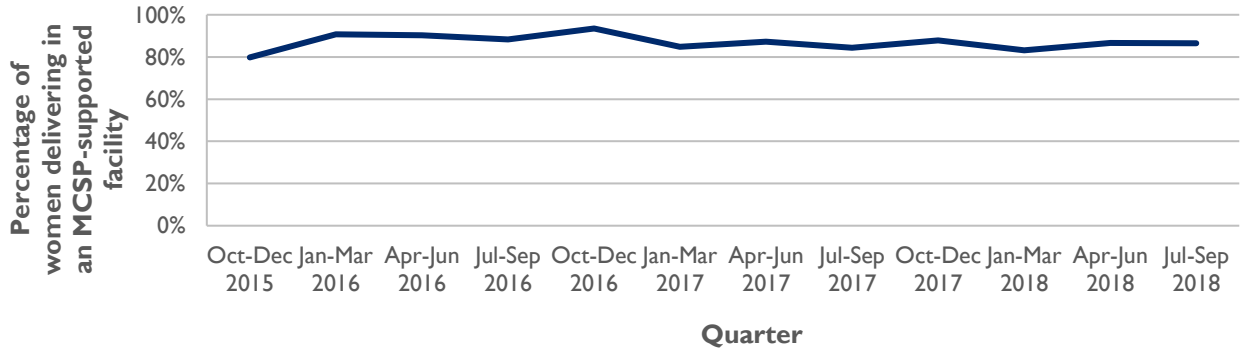
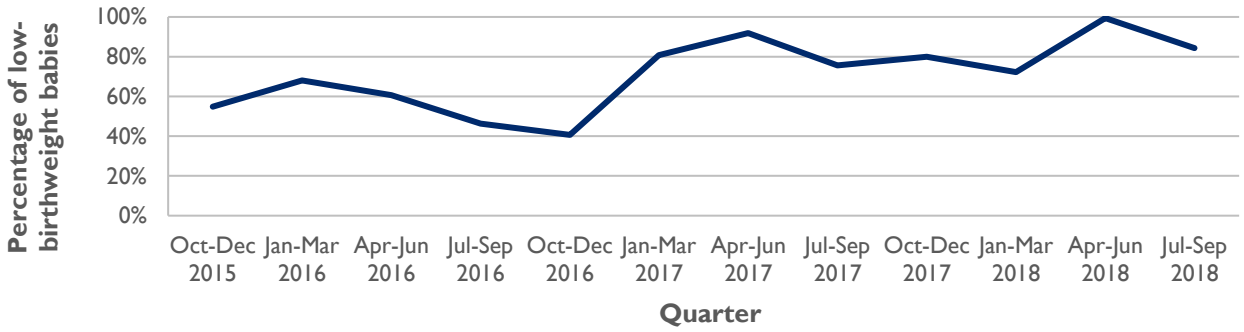


Figure 3. With MCSP support, 172 health facilities increased the percentage of low-birthweight babies who were admitted to KMC services (n = 8,532 babies)



MCSP also helped take to scale PPFP to help achieve MOH/Rwanda Biomedical Center goals, which was identified as a promising strategy to increase the contraceptive prevalence rate in Rwanda given the country's high facility delivery birth rate.

Responding to another MOH/Rwanda Biomedical Center priority, MCSP dedicated significant effort to strengthening Rwanda's existing GBV program and increased the number of GBV victims receiving GBV care services by 109% in MCSP-supported districts by mainstreaming GBV sensitivity among health providers and developing quality assurance standards to improve detection and counseling.

Supported Obstetric Fistula Screening and Repair

To support the continuum of high-quality obstetric fistula care, MCSP supported the screening and repair of women suffering from fistula. Through a community mobilization strategy, MCSP worked with health facilities and CHWs to identify women living in the community, often in isolation, for fistula screening. MCSP then organized days where women were screened for fistula repair eligibility. To support sustainability and integration of obstetric fistula screening in hospitals' routine services, MCSP oriented 21 medical doctor general practitioners from MCSP-supported hospitals on obstetric fistula screening. MCSP, in collaboration with Jhpiego/Miles for Mothers and CARE, also supported the social rehabilitation and reintegration of 65 women who had an obstetric fistula repaired in Nyaruguru, Huye, Gatsibo, and Ngoma districts.

Provided Systematic Support for Scale-Up

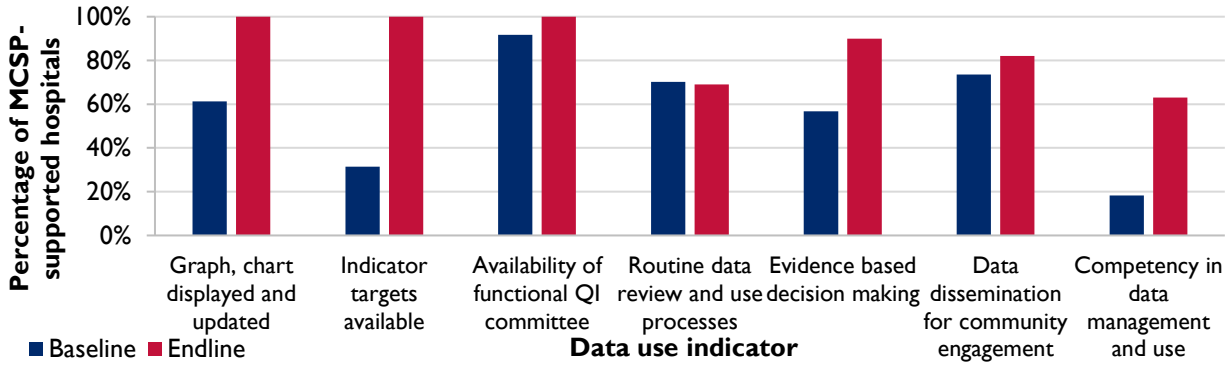
In Rwanda, MCSP assisted government-led efforts to scale up two high-impact interventions prioritized by the MOH: PPFP and ENC/HBB. To inform the planning process, MCSP provided technical assistance for:

- **Development of national plans and supportive policies:** MCSP conducted situational analyses, co-facilitated MOH-led national scale-up planning workshops, and supported subsequent development of national plans for scale-up for each intervention.
- **Information and advocacy for financial resources to sustain and expand gains:** MCSP conducted costing exercises for PPFP and ENC/HBB that showed the resources needed to scale up and maintain the intervention across all districts. The MOH used this information to successfully advocate with donors and partners for additional resources, and to plan their internal resource allocation.
- **Provision of sufficient and timely data for action:** MCSP demonstrated progress in project-supported districts through the addition of indicators to facility registers, as well as inclusion of PPFP indicators and revised and newborn resuscitation in the national HMIS for monitoring of scale-up.
- **Support for health leaders and managers to continuously learn and adapt:** MCSP participated in MOH-led national scale-up management teams for each intervention and supported the MOH to convene semiannual learning workshops and national stakeholder workshops. Participants used dashboards to assess progress, shared new approaches and lessons, and created action plans to accelerate coverage with high quality.

Promoted Data for Decision-Making and QI

Throughout the program, MCSP supported the MOH/Rwanda Biomedical Center at the national, district, facility, and community levels to improve data quality and use in decision-making through use of DHIS2 dashboards to monitor RMNCAH indicators. MCSP also successfully advocated for the inclusion of new RMNCAH indicators—including predischarge PPFP—and updated indicators for newborn resuscitation to address a barrier to generating accurate data. MCSP promoted a culture of data use not just for reporting to higher levels of the health system but also to inform facilities' and providers' decision-making and priorities. MCSP supported 160 health facilities and 12 hospitals to develop dashboards linked to the DHIS2, which were then used to create QI action plans to identify and address performance gaps. As a result of these QI action plans, facilities were able to improve on some MNCH indicators, including number of ANC visits. Through this work, MCSP supported Rwanda's QI initiative around hospital accreditation and collaborated regularly with the USAID-funded Rwanda HSS Project. Figure 4 shows how data use for decision-making significantly improved in the 12 MCSP-supported hospitals between the start and end of the project.

Figure 4. Findings regarding data and data use at baseline and endline at all MCSP-supported hospitals (n = 12)



MCSP also strengthened the capacity of death audit committees at the hospital level to strengthen maternal, perinatal, and child death audits and death surveillance and response systems using updated MOH tools. The project supported committees to conduct reviews of deaths and to share lessons through quarterly review workshops. More information on this area can be found in the *Assessment of MPDSR Implementation in Rwanda*.

Validated National Strategies

MCSP had an important technical leadership role at all levels, including national, district, facility, and community, working closely with the MOH, Rwanda Biomedical Center, and other implementing partners. MCSP supported development of two national 5-year strategies based on Demographic Health Survey secondary analysis data and global evidence aligned with Rwanda's strategic vision: the FP/Adolescent Sexual and Reproductive Health Strategic Plan 2018–2024 and the MNCH Strategic Plan 2018–2024, with validation of the fully costed plans done by the national MCH TWG in 2019. The two national strategies provide a roadmap of effective approaches, strategies, and priorities to accelerate reductions in mortality, placing a particular emphasis on reaching and meeting the health needs of adolescents. The two strategic plans were approved by the minister of health, and many of MCSP's introduced approaches and strategies were included.

Strengthened Malaria Control

MCSP trained 75 lab technicians in malaria microscopy diagnosis, and 52 health care providers and 8,067 CHWs on the CHW integrated training package, leading to improved diagnostic capacity and enhanced malaria prevention in the community. MCSP also conducted several malaria studies, including the intermittent screening and treatment of MiP study, which evaluated if testing and treating pregnant women attending ANC is effective, feasible, and adds an additional burden for facility-based health workers who provide ANC services. Findings from this study showed that—when compared with testing of only symptomatic women for malaria (usual care)— intermittent screening and treatment of MiP did not protect against malaria at

delivery. However, rapid diagnostic test positivity among asymptomatic women in this study declined sharply from 6% at first ANC visit to 1% by the fourth visit, suggesting that testing asymptomatic women only at the first ANC visit is one potential strategy to consider to detect malaria early during the pregnancy. The study results suggest that in areas with high malaria transmission, intermittent screening and treatment may not be an effective strategy for controlling MiP in Rwanda, informing MOH policies and future investments.

Recommendations

With the launch of Rwanda's fourth Health Sector Strategic Plan and approval of the two national strategies for MNCH and FP/adolescent sexual and reproductive health, the Government of Rwanda outlined its priorities and a roadmap for achieving its ambitious national health goals and targets. The new USAID-funded bilateral program, Ingobyi, is now working in 20 districts, including some of the MCSP districts, with an opportunity to build on progress and results achieved. Using documented learning from scale-up and the capacity-building/skills retention approach, MCSP would like to recommend the following to the MOH:

- **Ensure resources are allocated to scale up approaches implemented under MCSP countrywide.** This should be done under the leadership of the MOH with robust measurement to monitor progress and ensure that the process is done in a way responds to new challenges. Lesson from MCSP's galvanization of support for these interventions, developing national policies/guidelines, and working within MOH-led national scale-up management teams should also be used to inform future efforts.
- **Find efficiencies in the LDHF mentorship approach in order to cost-effectively build provider capacity as interventions are brought to scale.** There is an opportunity to make use of the LDHF approach through integration and coordination with professional associations (the Rwanda Paediatric Association, the Rwanda Association of Midwives, the Rwanda Society of Obstetricians and Gynecologists, etc.) and district-based mentors. With trained providers and mentors in place to ensure provider readiness to deliver high-impact interventions, Rwanda can accelerate progress to meet its ambitious health goals.
- **Explore alternatives to intermittent screening and treatment to control MiP in areas of high malaria transmission.** Findings from the intermittent screening and treatment study demonstrated that this intervention did not provide protection against malaria at delivery. However, its findings did suggest that testing women at the first ANC visit is a potential strategy to detect malaria early during pregnancy. New projects in Rwanda, such as Impact Malaria, should support the government to review evidence from this study and other global evidence to inform national policy for more effective malaria prevention.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of children under 5 tested for malaria at the community level	555,040 (target: 354,316; target exceeded)
Number of women receiving surgery for fistula from USG-supported programs	181 (target: 170; target exceeded)
Number of people reached by at least one RMNCH message through MCSP-supported platforms	17,102 (target: 15,810; target exceeded)
Number of clients who newly adopted a modern FP method at MCSP-supported health facilities	305,811 (target: 279,505; target exceeded)
Number of people participating in an activity pertaining to gender norms that meets minimum criteria	9,954 (target: 12,494; 80% achieved)[1]
Number of women reached with education on exclusive breastfeeding	277,298 (target: 294,310; 94% achieved)
Number of additional USG-assisted CHWs provided FP information and/or services during the year	14,355 (target: 13,295; target exceeded)

[1] Fewer trainers than anticipated were trained.

South Africa Summary & Results

Geographic Implementation Areas

Cities
- 1—Johannesburg

Facilities
- 1—Nelson Mandela Children's Hospital

Population

Country
- 56.7 million

MCSP-supported areas
- 13.2 million

Technical Areas:

Program Dates

June 1, 2015–September 30, 2019

Total Funding through Life of Project

$2,250,000

Demographic and Health Indicators

Indicator	# or %
Number of specialty pediatric hospitals in sub-Saharan Africa	4
NMR (per 1,000 live births, South Africa)[1]	10.7
U5MR (per 1,000 live births, South Africa)[1]	37.1

Source: Knoema

Strategic Objectives through the Life of Project

- Strengthen clinical leadership skills of newly appointed tertiary pediatric care nurses and other clinical care staff at Nelson Mandela Children's Hospital.
- Support nursing management to strengthen practice management and governance, including systems, processes, and protocols at Nelson Mandela Children's Hospital.
- Coordinate the establishment of a network in the Southern African Development Community among USAID-supported implementing partners, national referral hospitals, and nursing associations.

Highlights through the Life of Project

- Worked with the Nelson Mandela Children's Hospital Trust to plan for the development of a robust, highly skilled pediatric specialty nursing program, with assistance from Johns Hopkins Medicine International through the Johns Hopkins Children's Center and Johns Hopkins All Children's Hospital.
- Provided technical support to the nursing program throughout the planning and opening of Nelson Mandela Children's Hospital, including assisting with nursing policies, standard operating procedures, development of interdisciplinary teams, and unit readiness.
- Supported the official hospital launch in December 2016; the first outpatients were received in June 2017.
- Assisted the opening of each service unit through onsite training or skills-building exchanges for nurses, plus remote follow-up.
- Provided technical assistance to the nurse managers to address quality, operational, and management needs as the hospital scaled up its services.
- Contributed to the growth of the hospital's nursing complement to 91 professional nurses, 15 enrolled nurses, and 14 nursing assistants, who provided care to 1,999 outpatient clients and 1,354 inpatient clients (as of March 2019).

Figure 2. Nelson Mandela Children's Hospital

South Africa

Background

In 2014, construction began on Johannesburg's Nelson Mandela Children's Hospital, a legacy project of the former president, who advocated strongly for better, more accessible health care for children in South Africa and throughout the Southern Africa region. In 2015, MCSP started working with the Nelson Mandela Children's Hospital Trust to plan for the development of a pediatric specialty nursing workforce at the hospital, in partnership with Johns Hopkins Medicine International. The hospital occupies a unique position as one of only two dedicated children's hospitals in South Africa and one of only four in sub-Saharan Africa. It has a mission to help the sickest children in the region receive high-quality, state-of-the-art health care while advancing a teaching and learning program designed to build a wider nursing workforce for pediatric specialties.

Since the opening of the hospital in 2017, MCSP has led a series of exchanges and educational programming, enabling nurses from Nelson Mandela Children's Hospital to access world-class, hands-on training from the Johns Hopkins hospitals, enabling them to improve their skills, grow their leadership abilities, deepen their knowledge in processes of care, and build stronger interdisciplinary teams. South African pediatric nurse managers took part in observership visits to Johns Hopkins All Children's Hospital in St. Petersburg, Florida, and the Johns Hopkins Children's Center in Baltimore, Maryland, where they worked directly with their nursing counterparts. Nurses and clinical staff participated in trainings led by Johns Hopkins nurses and specialists at Nelson Mandela Children's Hospital to assist the hospital to launch new services as it scaled up operations. These efforts contributed to a stronger pediatric health care workforce at Nelson Mandela Children's Hospital and better health outcomes for children with critical needs.

Key Accomplishments

Supported the Development of Nursing Teams

When MCSP began supporting Nelson Mandela Children's Hospital, the hospital had not yet finished construction. By partnering at the start of the hospital's planning, MCSP was able to conduct assessment visits and establish support networks through routine video/teleconferencing while the hospital's nursing leadership team was formed and before patients were first admitted in June 2017. Technical assistance was provided to develop job descriptions, define key competencies, and develop standard operating procedures, building on experience and examples from the Johns Hopkins hospitals. The hospital took a step-wise approach to opening service units, starting with outpatient radiology services in June 2017, before expanding to the renal ward, day ward, and neonatal and pediatric intensive care, followed by cardiac and surgical services. MCSP assisted with the opening of each ward by sharing unit-specific plans, policies, and tools, and identifying competency areas requiring support. This work has provided the hospital with a solid foundation in policy and quality management, and a framework for establishing potential new wards in the future.

Built Skills through Exchanges and Hands-On Training for Hospital Staff

South Africa, like many countries in the region, does not provide extensive training for nurses in pediatric subspecialties. Many of the nurses hired at Nelson Mandela Children's Hospital came from adult specialties, and none had worked at a standalone pediatric hospital that aspired to the standards for quality and patient satisfaction that Nelson Mandela Children's Hospital does. MCSP and Johns Hopkins Medicine International provided hands-on support through onsite trainings and exchanges to build skills in critical areas. For example, MCSP provided extensive support to the nephrology team, recognizing that dialysis services for children are sufficiently lacking in South Africa and that many of the nurses had never provided care to pediatric clients before. A unit readiness assessment was conducted with the renal nursing team, and a hands-on training was provided by pediatric dialysis nurses from Johns Hopkins All Children's Hospital. This was followed by an exchange visit to Johns Hopkins All Children's Hospital so the South African nursing team could learn more about the setup, systems, and organization of a pediatric dialysis unit. To promote an interdisciplinary team, MCSP included the nephrologist in the exchange. Similarly, in July 2018, MCSP responded to a request for skills building around extracorporeal membrane oxygenation, a service on which staff had not previously been trained but was becoming more critical as the cardiac and surgical units

expanded. MCSP and Johns Hopkins Medicine International organized a hands-on training by extracorporeal membrane oxygenation specialists from the Johns Hopkins Hospital, which was so popular that it drew doctors from surrounding hospitals in addition to Nelson Mandela Children's Hospital's pediatric and neonatal intensive care unit nurses. MCSP also facilitated exchanges for nurse managers in cardiac, surgical, and occupational health units to the Johns Hopkins hospitals to spend in-depth time with their counterparts, observing the setup and systems of their units, with a focus on building the role of nurses within an interdisciplinary care team.

Developed a Strong Platform for Nursing Leadership

Figure 3. Extracorporeal membrane oxygenation training for pediatric and neonatal intensive care unit nurses

In addition to building the clinical skills of the nursing teams, MCSP and Johns Hopkins Medicine International assisted Nelson Mandela Children's Hospital to develop its leadership and management systems, with a focus on incorporating ongoing learning and sharing lessons from the Johns Hopkins pediatric hospitals. To support Nelson Mandela Children's Hospital's central focuses on quality and safety, MCSP supported the participation of the nursing leadership team in the Johns Hopkins Armstrong Institute for Patient Safety and Quality's quality and safety certificate course. During leadership visits, the CEO and nursing director of Nelson Mandela Children's Hospital met with senior leaders within the Johns Hopkins medical systems to share experiences and practices to help Nelson Mandela Children's Hospital toward its goal to become a teaching and learning institution. MCSP facilitated a series of webinars with Nelson Mandela Children's Hospital nurses to continue discussions around topics such as managing transition and change, the science of patient safety, pediatric early warning signs, RISE (resiliency), and Second Victims initiatives, and more broadly how Johns Hopkins systems incorporate learning and evidence-based practice in their systems of care. This learning has cultivated a culture of leadership, which has left Nelson Mandela Children's Hospital staff empowered to share their skills with others in the region.

Positioned Nelson Mandela Children's Hospital to Grow as a Leader in Specialty Pediatric Care

Given MCSP supported Nelson Mandela Children's Hospital during its early days as a hospital, much of the project was focused on meeting the immediate needs of the nursing team as it worked toward opening service units. However, Nelson Mandela Children's Hospital has forward-thinking goals for the type of hospital it wants to be and the space it wants to occupy in the health system in South Africa and the region. MCSP worked with nursing leadership to help them explore and develop their goals for ongoing teaching and learning platforms, research plans, and quality and patient satisfaction systems. MCSP assisted Nelson Mandela Children's Hospital to incorporate online tools for sentinel event monitoring and patient satisfaction surveys, for example. It collaborated with the hospital to host its first pediatric nursing conference in May 2019, bringing together clinical experts, nurse leaders, and educators to share information and build networks around development of nursing pediatric specialties.

Recommendations for the Future

MCSP was able to support Nelson Mandela Children's Hospital throughout its planning, opening, and scale-up phases, allowing for a seamless transition during its start-up phase and leaving a legacy of high-quality care upon which to build. As of the end of March 2019, Nelson Mandela Children's Hospital had served 425 cardiac patients, 546 radiology patients, 176 neonatal intensive care unit patients, and 171 pediatric intensive care unit patients, and conducted 12 extracorporeal membrane oxygenation procedures. The hospital had received referrals

from public hospitals in four provinces, including Gauteng, and a variety of private hospitals. The hospital has come a long way since it opened but is not yet operating at full capacity and has not opened all of its planned services; oncology, for example, is not yet open as the hospital continues to discuss plans for the purchase of drugs. Due to the evolution of plans during implementation, the transition in management from the Nelson Mandela Children's Hospital Trust to the hospital executive team, and the delays in opening the hospital, MCSP did not achieve two of the goals from its initial design, specifically around developing the continuing education system for nurses at the hospital and supporting the development of a regional referral network for critical pediatric cases from other Southern African Development Community countries.

- **Develop a system for nursing clinical facilitators.** MCSP continued to work with Nelson Mandela Children's Hospital up to the end of the project to develop plans for building personnel capacity and developing a system for the nursing clinical facilitators (who are responsible for continued professional development), who unfortunately were not yet hired by the end of the project. Given the lack of pre-service training for pediatric nursing specialties (and the general need for additional qualified nurses), this is a critical focus area for the future.
- **Build the hospital's capacity for professional development and establish it as a teaching hospital for nursing specialties.** In discussion with Nelson Mandela Children's Hospital, MCSP recommends that this pre-service training include a two-track approach that focuses both on building the system at the hospital for learning and professional development and on developing networks with academic institutions (Witwatersrand University and University of Cape Town, for example) to include Nelson Mandela Children's Hospital as a teaching hospital for nursing specialty courses.
- **Define clinical facilitators' roles and equip them to promote ongoing learning.** For the in-service learning portion, MCSP recommends that Nelson Mandela Children's Hospital adopt and learn from the best practices developed in other specialty hospitals to ensure that clinical facilitators have well-defined roles and are mandated and equipped to assist teams at the hospital to incorporate ongoing learning.
- **Continue to incorporate structured simulation in clinical practice.** One recommendation based on the trainings that have been conducted to date and learning exchanges at the Johns Hopkins hospitals is to continue to incorporate structured simulation in clinical practice, including both competency-based learning for individual staff members and team practice. Nelson Mandela Children's Hospital has a skills lab that, although not designed with nursing teams in mind, provides a platform from which to grow a simulation program.
- **Improve use of data for decision-making, learning, and research.** Nelson Mandela Children's Hospital also displayed a strong interest in building its use of data for decision-making, learning, and research, and in developing its capacity to take part in research opportunities. Given its unique position as a specialty pediatric hospital, Nelson Mandela Children's Hospital will have a great opportunity to contribute to building further knowledge of clinical practices for children in resource-poor settings.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement***
Number of Nelson Mandela Children's Hospital nurses participating in nurse mentorship exchange visits	12
Number of remote mentoring and skills-building sessions held (e.g., webinars, tele-learning)	6

*Targets were not included in this work plan.

Tanzania Summary & Results

Geographic Implementation Areas

Regions
- 9/28 (32% of country total)—Iringa, Kagera, Mara, Njombe, Shinyanga, Simiyu, Tabora, and Tanga, plus Zanzibar

Districts
- 52/169 (30.7% of country total)

Facilities
- 1,639

Population

Country
- 55.5 million

MCSP-supported areas
- 12.4 million

Technical Areas:

Program Dates

June 1, 2014–June 30, 2019

Total Funding through Life of Project

$36,973,267 (including $1,000,000 GHSA Ebola funds—Pillar IV)

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)	556
NMR (per 1,000 live births)	25
U5MR (per 1,000 live births)	67
TFR	5.2
CPR (modern)[1]	32%
Children ages 12-23 months who received all basic vaccinations	75%
ANC 4+	51%
SBA	64%
IPTp2 IPTp3	35% 7.7%

Source: Tanzania DHS 2015/16

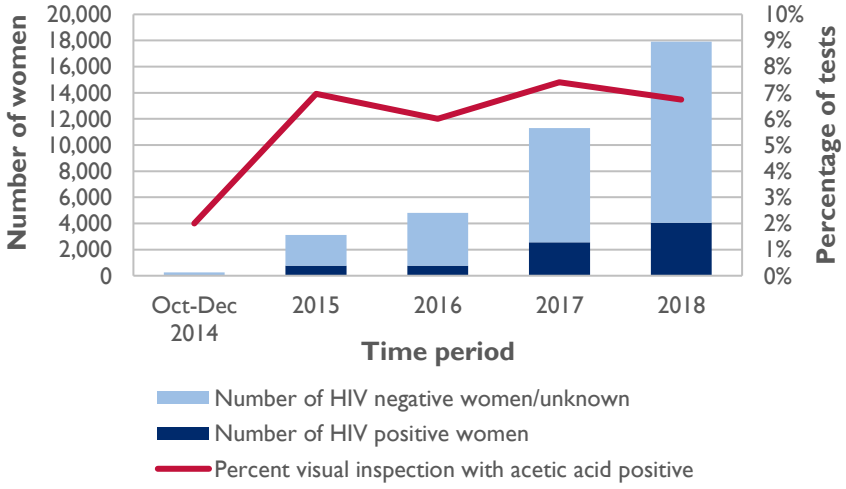
Strategic Objectives through the Life of Project

- Improve the environment for RMNCAH services through technical leadership and coordination to roll out high-impact, integrated RMNCAH interventions at scale.
- Strengthen key health systems to deliver quality RMNCAH services.
- Strengthen involvement of civil society and supporting institutions, and improve uptake of innovations.

Highlights through the Life of Project

- Strengthened prevention of MiP by increasing IPTp2 coverage from 32% to 62% in MCSP-supported regions.
- Increased the percentage of women delivering in MCSP-supported health facilities from 63% to 95% and uterotonic use in the third stage of labor from 4% to 96%.
- Reached over 42,948 women with cervical cancer screening services in Iringa and Njombe regions over the life of the program.
- Supported nursing midwifery institutions, which scored an average of 80% on QI standards compared to 68% from schools without MCSP support.
- Deployed the Health Information Mediator to enable the flow of data between multiple systems and organizations, and improve data use for decision-making.
- Successfully facilitated budget allocations to self-sustain immunization activities in 19 MCSP-supported councils/sites.

Figure 1. Women newly screened using visual inspection with acetic acid in MCSP-supported facilities



Tanzania

Background

MCSP's goal in Tanzania was to increase the accessibility, coverage, and utilization of high-quality RMNCAH services by contributing to the scale-up and rollout of high-impact interventions across the continuum of care to reduce maternal and newborn morbidity and mortality. At the request of USAID Washington and the Mission in Tanzania, the project also helped strengthen the health system to improve security against global health threats. MCSP worked closely with the Ministry of Health, Community Development, Gender, Elderly, and Children (MOHCDGEC) and its Reproductive and Child Health Section, regional health management teams, and council health management teams to reduce maternal, newborn, and child deaths by expanding and improving the quality of BEmONC and comprehensive EmONC, with a focus on the day of birth; strengthening MiP services; increasing the contraceptive prevalence rate, particularly voluntary use of LARCs and PPFP; integrating maternal, newborn, and FP services into HIV interventions, including cervical cancer screening and treatment; strengthening PSE, with a focus on midwifery training; increasing the engagement of communities and CSOs in health; increasing immunization coverage in areas with large numbers of unimmunized children, introducing new vaccines, and testing the electronic vaccine information system; strengthening the national HIS, particularly the standardization and interoperability of existing systems and use of data for decision-making at all levels; and addressing cross-cutting health systems issues, such as equity, gender, respectful care, supply chain management/commodity security, district microplanning, digital health solutions, and accountability for results at the national, regional, district, facility, and community levels.

MCSP transitioned leadership in some technical areas in PY3 while continuing support in others (see Figure 2). Specifically, MCSP continued to provide technical assistance to improve PSE; deliver high-quality, sustainable CECAP services; strengthen immunization systems in high-priority regions; and further develop the national HIS architecture to streamline and link existing information systems and improve the quality and use of data for decision-making at all levels. MCSP transitioned its implementation support for MNH, FP, MiP, community, and other HSS field-level activities to the MOHCDGEC and the USAID-funded bilateral Boresha Afya project in Lake and Western zones.

Figure 2. MCSP project timeline in Tanzania

Key Accomplishments

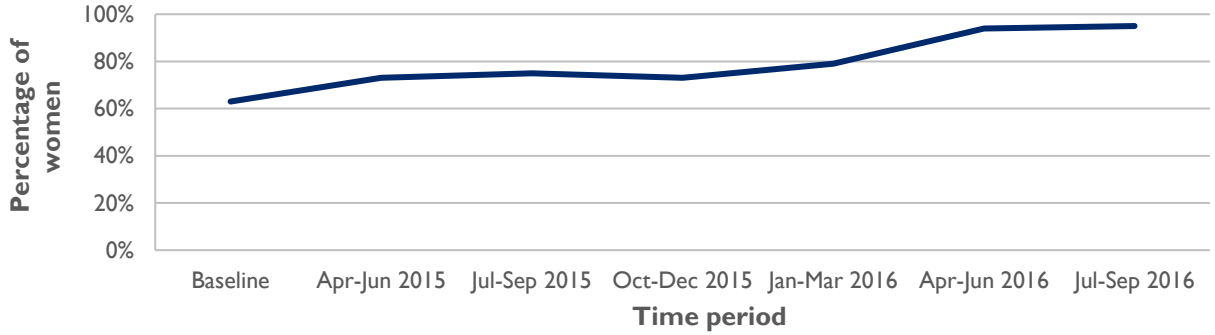
Improved MNH

MCSP worked with the Government of Tanzania to increase access to high-quality RMNCAH services by introducing and scaling up high-impact interventions along the continuum of care. These interventions included ANC, labor and delivery care (including routine, integrated MNH services on the day of birth), ENC, and respectful maternity care mainstreaming to reduce preventable maternal and newborn morbidity and mortality. MCSP supported the introduction and scale-up of BEmONC in 226 facilities and comprehensive EmONC in seven facilities in Mara and Kagera regions and strengthened comprehensive EmONC services in an additional 37 facilities. These efforts resulted in an increase in institutional deliveries at MCSP-supported sites from 63% to 95% (see Figure 3). The percentage of women receiving a uterotonic immediately after birth in MCSP-supported sites also increased from 4% (baseline) to 96%. Baseline data were very low due to missing data and underreporting. MCSP worked to strengthen reporting of these

indicators through onsite coaching and mentoring, data review meetings, and routine data quality assessments.

MCSP established a QI team at each of 226 facilities, in which the team oversaw adherence to performance standards. By the end of MCSP, 33 sites were verified, and 25 were recognized for high performance. The program also helped establish MPDSR committees at the regional, district, and facility levels. These committees facilitated identification, review, notification, and response to recommendations on improving quality of care. MCSP additionally contributed to the development of national MPDSR guidelines and disseminated those guidelines and tools to all comprehensive EmONC sites in Mara, Kagera, and Zanzibar.

Figure 3. Percentage of women who delivered in a facility



Prevented MiP

In Tanzania, MiP services within ANC services are aligned with those recommended in WHO's three-pronged approach: use of long-lasting insecticidal nets, IPTp, and prompt diagnosis and treatment. MCSP worked to increase early uptake of integrated ANC services to reduce maternal and neonatal morbidity and mortality due to malaria, though stock-outs of SP, diagnostic tests, and artemisinin-based combination therapy were an ongoing challenge. MCSP endeavored to help decrease the frequency of stock-outs of SP by organizing orientations, advocacy meetings, and council discussions about funding sources such as the National Insurance Health Fund, user fees, and basket funds to procure malaria commodities. Trends in IPTp2 uptake in Mara and Kagera regions improved over the life of the project in Tanzania. In Kagera, IPTp2 uptake increased from 36% in 2014 to 69% in September 2016. An increase from 27% to 54% was observed in Mara Region. IPTp4 uptake in Kagera increased from 0% to 29% and in Mara increased from 0% to 20%.

Increased Access to FP and PPFP

MCSP focused on increasing contraceptive prevalence among Tanzanian women by making high-quality PPFP/FP services more accessible and equitable through the integration of FP into other RMNCAH services. MCSP supported the MOHCDGEC to scale up the availability of PPFP counseling services from 23 to 221 health facilities within 6 months and increase the availability of postpartum LARCs in 46 additional facilities, from 23 to 69 facilities (34 in Mara, 30 in Kagera, and five in Zanzibar). At the national level, MCSP supported the standardization of the national learning resource package for comprehensive PPFP counseling and service delivery, including postpartum insertion of implants and IUDs, and updated the national Integrated Community MNCH Learning Resource Package to include PPFP, which is now used by the MOHCDGEC and all implementing partners. (For more information, see MCSP's formative report on FP and immunization service integration and its manuscript on MIYCN and FP service integration.)

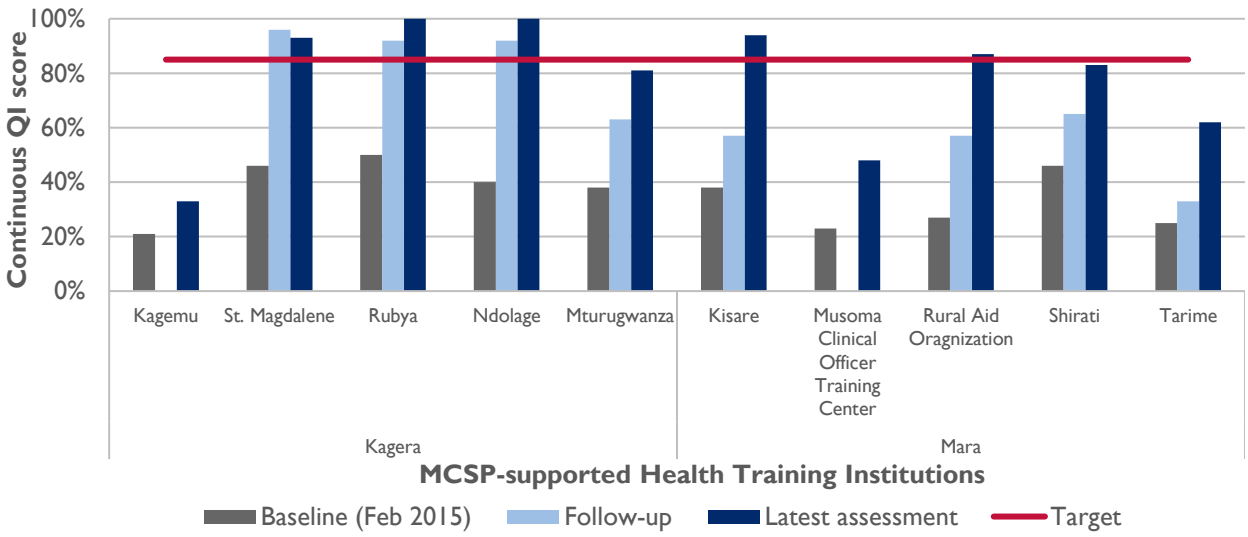
Strengthened PSE

MCSP provided technical assistance to the MOHCDGEC to strengthen PSE systems and improve governance and midwifery training. MCSP's work in PSE takes place nationally and within the regions of Mara and Kagera in Lake Zone. MCSP's work in PSE focused on improving direct and indirect factors that

influence graduate competence. MCSP applied this framework in Tanzania, integrating it with HSS approaches to ensure midwives were competent and prepared for deployment.

To assess the impact of MCSP's contributions on midwifery competency and education system strengthening efforts, MCSP facilitated a nursing and midwifery competency assessment in Mara and Kagera regions to measure implementation outcomes of seven MCSP-supported nursing and midwifery schools. Results showed a significant improvement in midwifery competencies from baseline; graduating students from MCSP-supported schools showed an average improvement of 80%, whereas students from non-MCSP-supported schools demonstrated an average improvement of 68%. The difference in newborn resuscitation was most marked, at 80% average performance for MCSP-supported schools versus 56% for non-MCSP-supported schools. The introduction and implementation of continuous QI approaches facilitated self-reflection among institutions for further improved performance; these efforts resulted in high-quality education standards among graduates, particularly nurse-midwives (see Figure 4 for continuous QI over time). This initiative serves as a key sustainability strategy to ensure high-quality education standards, minimize duplication of efforts across governing bodies, and build the capacity of the National Council for Technical Education and the Tanzania Nursing and Midwifery Council to continue educational quality efforts following MCSP.

Figure 4. Improvement against continuous QI standards within MCSP-supported health training institutions



Prevented Cervical Cancer

In collaboration with the MOHCDGEC, MCSP worked to strengthen CECAP implementation by building local capacity among national-, regional-, and facility-level staff to execute a comprehensive, sustainable, high-quality, and results-based program. At the national level, MCSP developed and distributed a national CECAP training package that included technical updates on IPC and supported the orientation of 25 national CECAP trainers. MCSP also improved the capacity of skilled providers to offer quality CECAP services in Iringa and Njombe regions. At the four facilities where the intervention was introduced, 42,948 clients were reached with screening services using visual inspection with acetic acid, and more than 97% of identified precancerous lesions were treated on the same day. As part of its sustainability strategy, MCSP focused on strengthening regional-level capacity in program management, quality control, data quality, and data use for decision-making to enhance regional ability to support district- and facility-level CECAP activities, and to strengthen regional-level outreach activities and referral systems to provide CECAP services to hard-to-reach populations. MCSP actively provided ongoing clinical mentorship to 65 providers and supported 13 districts to actively plan for CECAP activities in district-level budgets to sustain CECAP activities following MCSP.

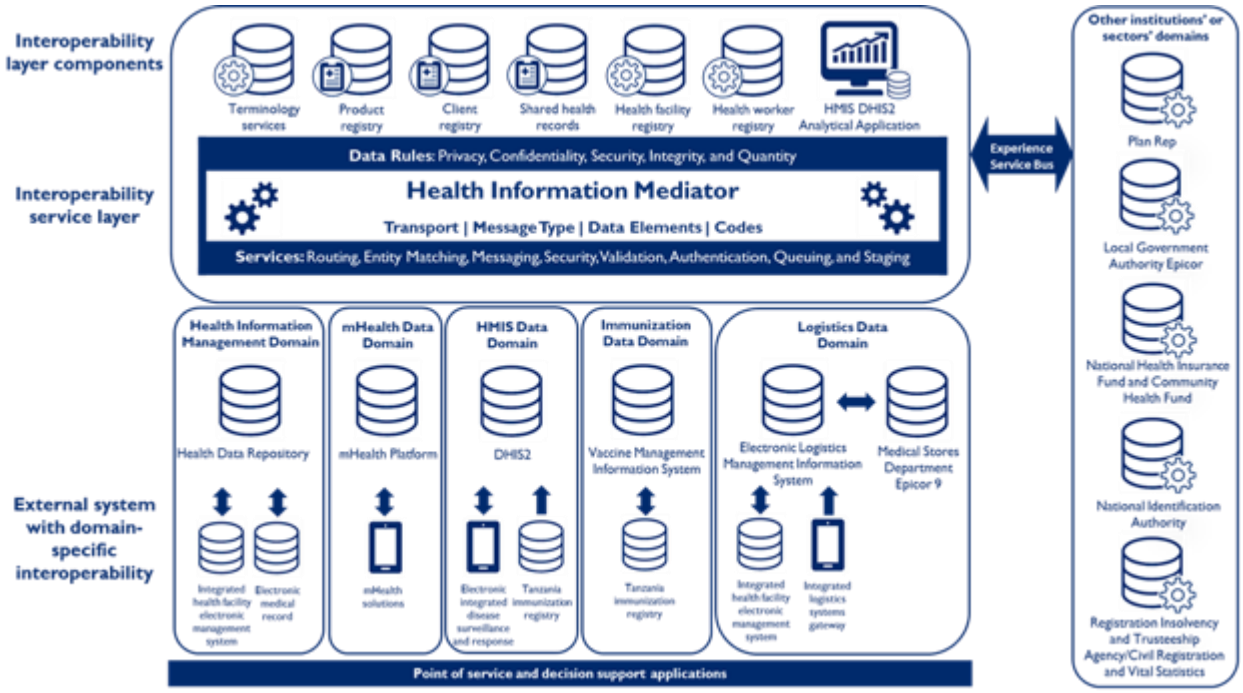
Developed HISs

With technical assistance from MCSP, the MOHCDGEC led significant progress toward deploying a national HIS. A major achievement was going live with the Health Information Mediator, the interoperability layer, and starting to exchange data among 13 data systems, including the electronic logistics management information system, Vaccine Information Management System, health data repository, and health facility registry (Figure 5). The health data repository, currently supported by the Health Information Mediator, is exchanging patient data, such as reason for admission, services received, cause of death, bed occupancy rate, and revenue, with seven of the largest hospitals in the country, intended to improve decision-making for management.

Strong government leadership and the establishment of a multipartner TWG were critical for the success and sustainability of the national health system. The Tanzania Health Information Exchange TWG, a diverse set of stakeholders, including public and private institution representatives, USAID, MCSP, and other development and implementing partners, were involved at every step of planning, designing, and implementing the mediator, leading the government to take ownership and increase its capability to maintain the system independently.

With support from MCSP, the Government of Tanzania created one of the most advanced health information exchanges in sub-Saharan Africa, automating and exchanging tens of thousands of health records every month. The Tanzania Health Information Mediator allows managers to understand their data to better inform decision-making at all levels of the health system.

Figure 5. Tanzania health information exchange conceptual model



Increased Immunization Coverage

From 2014–2018, MCSP worked hand in hand with the MOHCDGEC Immunization and Vaccine Development Program and President's Office for Regional Administration and Local Government to strengthen the delivery of Tanzania's RI services and introduce new lifesaving vaccines. Partnering at the national level and within its four focused regions of Kagera, Tabora, Shinyanga, and Simiyu, MCSP supported the Immunization and Vaccine Development Program to increase the technical and management skills of its workforce and strengthen immunization service delivery aimed at reducing the number of unvaccinated and undervaccinated children, especially those living in hard-to-reach areas. MCSP supported 19 councils at the

district level between 2013 and 2018, through which over 35,000 children's lives were saved by protecting communities from vaccine-preventable diseases. With fewer unvaccinated children, communities are more protected against over 13 vaccine-preventable diseases and outbreaks.

As a result of the program, the MOHCDGEC Immunization and Vaccine Development Program is equipped to influence global and regional strategies, guidelines, plans, and tools aimed at enabling the national immunization system to reach every child with high-quality RI services. The immunization data management subworking group also became functional and self-sustaining at the national level. Immunization program staff are better prepared to manage and deliver high-quality immunization services and to sustain high levels of equitable and timely immunization coverage levels. New vaccines, including measles second dose, measles-rubella, inactivated polio vaccine, and human papillomavirus, were successfully introduced and integrated into the national RI system. Pre-service curricula and other training reference materials were updated and used nationally by environmental health schools and zonal health resource centers.

Immunization data quality and use improved in the four supported regions after adoption of the national, streamlined Vaccine Information Management System and recommendations for strengthening the Comprehensive Council Health Plan planning process, including use of the electronic microplanning tool. Figures 6 and 7 compare use of the microplanning tool in Muleba council to the control council, Ngara. While immunization budget allocations in Muleba increased with use of the microplanning tool, the number of children vaccinated increased as well.

Figure 6. Immunization budget allocations in Comprehensive Council Health Plans in Muleba versus Ngara councils

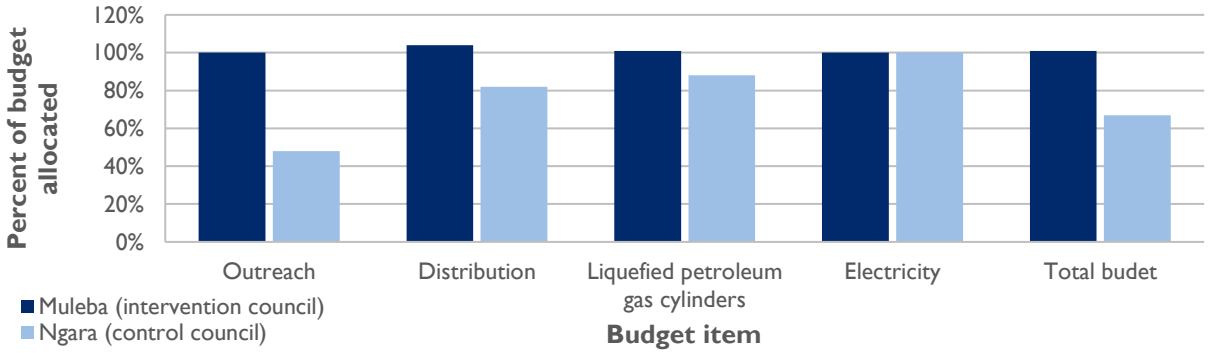
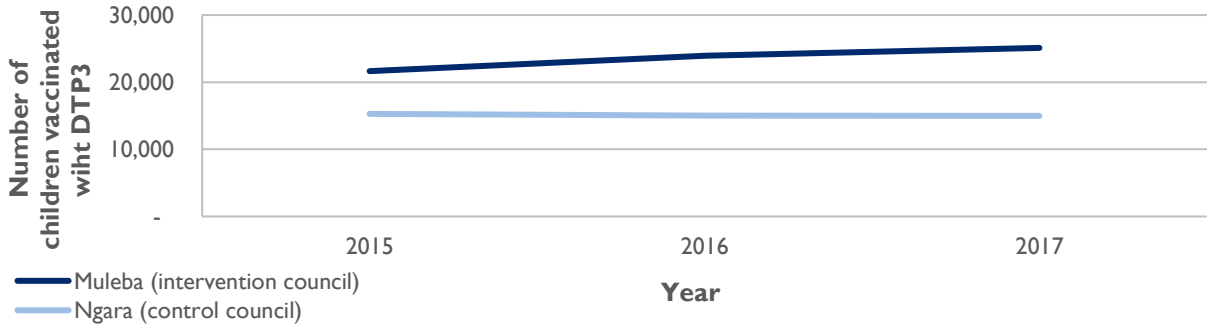


Figure 7. Number of children vaccinated with diphtheria-tetanus-pertussis vaccine (DTP3) in Muleba versus Ngara councils



Improved Disease Surveillance

Vaccine-preventable diseases in Tanzania have been monitored by two systems and managed by two MOHCDGEC offices: the Epidemiology Department and the Immunization and Vaccine Development Program. At the request of USAID Washington and the Mission, over the course of 1 year, MCSP utilized GHSA funding to help improve disease surveillance by guiding the MOHCDGEC to develop a transition plan to harmonize the parallel systems, establishing ownership of a national surveillance TWG with engaged

stakeholders from both the Immunization and Vaccine Development Program and the Epidemiology Department, and rolling out the electronic IDSR system in five regions of Tanga, Simiyu, Shinyanga, Njombe, and Tabora. This brought the total number of regions trained in the country to 25 of 26 (96%). The electronic IDSR system is an unstructured, supplementary service database system designed to assist reporting from the facility level to the national level and link with DHIS2. Health facilities in the trained regions started to report data using the system and immediately observed improvements in timeliness, completeness, and accuracy.

Recommendations for the Future

These promising results would not have been achieved without the leadership and commitment of the Government of Tanzania, specifically the MOHCDGEC and MOH of Zanzibar; the President's Office for Regional Administration and Local Government; and regional, district, and zonal health management teams to strengthen the capacity of the health workforce in Tanzania and increase access to and coverage of quality RMNCAH services. Recommendations to the government and partners to sustain these efforts include:

- **Implement strategies to address the critical shortage of human resources for health in order for the country to meet its long-term RMNCAH goals.** During PSE, providing tutors, instructors, and preceptors with updated knowledge and skills can help create a more supportive learning environment and ensure that graduates are ready to provide high-quality health care services in their own settings.
- **Develop innovative strategies to increase local resource allocation to ensure financial stability at the regional, district, and facility levels, and scale up microplanning tools to assist budgeting for ongoing QI processes at all facilities.** Using documented lessons from MCSP's scale-up, capacity-building, and QI approaches, it is recommended that MOHCDGEC ensure resources are allocated to scale up these approaches countrywide with robust measurement to monitor progress.
- **Continue efforts to improve immunization program data and disease surveillance systems such as the national Vaccine Information Management System and electronic IDSR.** Scale-up of such interventions must be paired with complementary capacity-building, supervision, monitoring, and review activities in order for health workers to be equipped to manage and maintain these systems.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of MCSP immunization-focused councils in Tabora, Kagera, Shinyanga, and Simiyu with Penta3) coverage > 80%	19 (target: 19; target achieved)
Number of councils with Penta1 to Penta3 dropout rate ≤ 10% in MCSP-focused councils in Kagera, Tabora, Shinyanga, and Simiyu region	12 (target: 19; 63% achieved)
Percentage of children aged <12 months who received DTP3/Penta3	90% (target: 100%; 90% achieved)
Percentage of districts/councils using RED/REC approach for immunization microplanning in Kagera, Tabora, Shinyanga, and Simiyu	100% (target: 100%; target achieved)
Number of health training institutes with PSE material strengthened to improve immunization services with MCSP support	13 (target: 10; target exceeded)[1]
Number of health workers graduated from pre-service training institutions	2,861 (target not defined)
Percentage of pregnant women who received IPTp2	62% (target: 60%; target exceeded)
Percentage of women who delivered at a health facility	95% (target: 80%; target exceeded)
Percentage of women who received a uterotonic immediately after birth	96% (target: 100%; target 96% achieved)
Percentage of babies delivered at a facility breastfed within 1 hour of birth	92% (target: 100%; target 92% achieved)
Percentage of newborns who received PNC within 2 days of delivery	90% (target not defined)
Number of CSOs receiving USG (MCSP) assistance engaged in health advocacy to promote RMNCH	4 (target: 4; target achieved)

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Total number of clients screened with visual inspection with acetic acid	42,948 (target: 40,000; target achieved)[1]
Number of clients VIA+ results treated with cryotherapy on same day	2,781 (97%, target: >95%; target achieved)
Number (percentage) of new clients referred for suspect cancer	142 (0.36%, target: <1%; target achieved)[3]
Number of health facilities supported to offer CECAP services	4 (target: 4; target achieved)

[1] This is a new indicator that was not implemented in PY1–3. PY4/5 target includes 10 health training institutes supported in PSE interventions, plus another 15.

[2] This target was a program goal, rather than an official Performance Monitoring Plan target.

Uganda Child Health Summary & Results

Geographic Implementation Areas

Regions
- 2/10 (20%)—East Central and South Western regions

Districts
- 4/128 (3%)—Kaliro, Luuka, Sheema, Ntungamo

Facilities
- 134/151 (89%)

Population

Country
- 40.3 million

MCSP-supported areas
- 1.29 million

Technical Areas

Program Dates

January 1, 2017–March 31, 2019

Total Funding through Life of Project

$2,400,000

Demographic and Health Indicators

Indicator	# or %
TFR (births per woman)	5.4
NMR (per 1,000 live births)	27
IMR (per 1,000 live births)	43
U5MR (per 1,000 live births)	64
Children who received all basic vaccinations	55%
Children under 5 with diarrhea who received ORS and zinc	30%
Children (6–59 months) who tested positive for malaria by rapid diagnostic test	30%

Source: Uganda DHS 2016

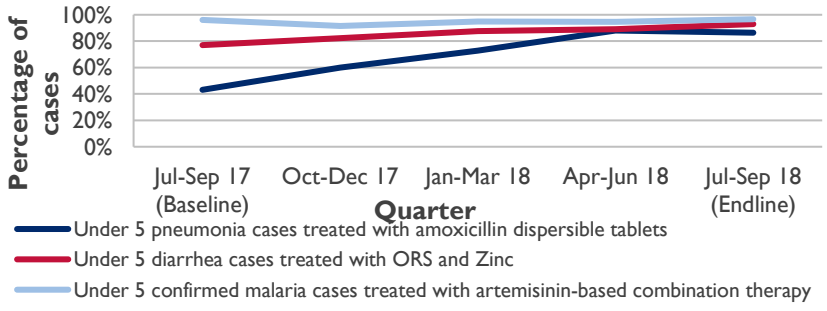
Strategic Objectives through the Life of Project

- Enhance national guidelines and frameworks to support implementation of the essential child health package.
- Strengthen technical skills, competencies, and practices of USAID's Regional Health Integration to Enhance Services (RHITES) partners and MCSP-supported demonstration districts to implement the essential child health package.
- Strengthen district management and planning practices to support the essential child health package using the adapted REC-QI approach.
- Conduct a costing analysis for the essential child health package's delivery.
- Improve availability of strategic knowledge and tools to scale up the essential child health package.

Highlights through the Life of Project

- Identified, costed, and demonstrated the feasibility of implementing at all levels, an essential package of low-cost, high-impact child health interventions to contribute to a reduction in child mortality in the South Western and East Central regions of Uganda.
- Facilitated the revitalization, update, and scale-up of the IMNCI strategy, training package, and delivery approaches as a vehicle for integrated delivery of the essential child health package.
- Worked with the national government to adapt and adopt pediatric quality of care standards to the Ugandan context, after an investment by USAID to assist WHO to develop and launch global pediatric quality of care standards.
- Supported the national government to pilot, document, and develop a National Guide on Using Catchment Area Mapping and Planning for Action for other child health and broader RMNCAH interventions.

Figure 1. Improved and sustained coverage of appropriate treatment for under-5 cases of pneumonia, diarrhea, and malaria



Uganda—Child Health

Background

MCSP partnered with the USAID Mission in Uganda and the Uganda MOH's national EPI to strengthen RI. This support was a continuation of USAID's commitment to strengthen immunization services, which was initiated in 2012 through technical assistance provided by MCSP's predecessor, MCHIP, which implemented the REC-QI approach and its performance improvement cycle in five districts of Uganda. In July 2014, this work was transitioned to MCSP to support the MOH and EPI to operationalize REC-QI at the national level and throughout 11 districts. In late 2016, USAID requested MCSP to provide tailored child health technical assistance to the MOH at national level and two of USAID's recently awarded RHITES projects to identify, demonstrate, cost, and document a package of essential low-cost, high-impact child health interventions in four prioritized districts (or demonstration districts), with the ultimate goal of contributing to a reduction in child mortality in the South West and East Central regions, in line with the objectives of the Uganda Sharpened Plan for RMNCAH. MCSP's RI and child health programs were implemented in Uganda alongside the Stronger Systems for RI project funded by the Bill & Melinda Gates Foundation and awarded to John Snow Inc. in 2014 as a sister project to MCSP, employing the same REC-QI methodology but in an additional 11 districts in different regions of the country.

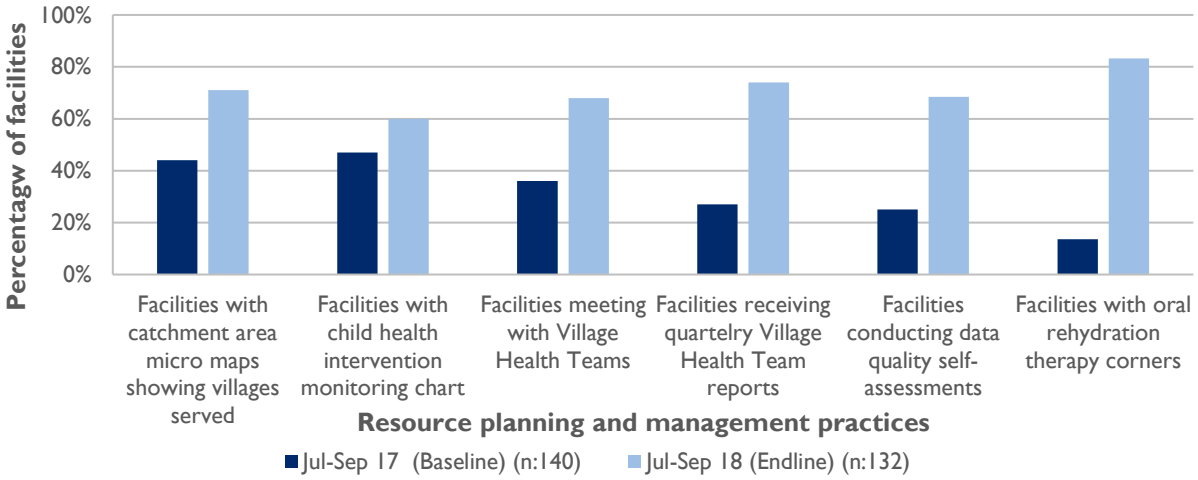
Key Accomplishments

Revitalized, Updated, and Scaled Up the Integrated Newborn and Child Health Strategy

MCSP, in collaboration with other partners, including WHO, supported the national government to revitalize, update, and scale up the IMNCI strategy, training packages, and delivery approaches. The updated strategy provided a vehicle for integrated provision of a prioritized essential child health package at all levels of care. The strategy outlined integrated management for the most common causes of child deaths (pneumonia, malaria, diarrhea, malnutrition, and measles) along with key preventive and promotive actions at the facility, community, and household levels. Over the life of the project, through support to USAID's RHITES projects in the East Central and South Western regions, 853 health workers and 2,427 CHWs were trained on these actions, increasing access to evidence-based holistic care to approximately 400,000 children and enabling about 80,000 children to receive appropriate treatment for diarrhea, pneumonia, and malaria in the four demonstration districts.

Additionally, MCSP worked in collaboration with WHO and the MOH to identify and pilot two alternative training approaches for implementation of the IMNCI strategy—the distance learning model developed by WHO and the short-interrupted course model developed by the MOH—as a part of the essential child health care package. The two approaches were designed to address challenges previously faced by the country and to sustain IMNCI implementation by reducing the duration of offsite face-to-face training and related training costs, in addition to minimizing the disruption of services and ensuring optimum numbers of health workers were trained within a short period of time. The pilot demonstrated the feasibility of implementing both the short-interrupted course model and the distance learning model in the Ugandan context, and generated learning—in terms of the cost, the "how," and effect on health worker competencies and practices—to inform which model will be used for the national rollout of IMNCI, as prioritized in the Uganda Sharpened Plan for RMNCAH. The MOH has adopted both approaches in a two-pronged strategy to roll out the short-interrupted course model in the short term for building capacity of health workers when starting from very low levels of knowledge and skills while using distance learning model for continuously updating skills of health workers who already have some basic knowledge and skills in IMNCI. Additionally, the MOH has received technical support from the WHO to use experiences and learning from MCSP and from UNICEF implementing the IMCI Computerized Adaptation and Training Tool, to develop recommendations and guidelines on how to use these approaches as part of the broader IMNCI implementation strategy.

Figure 2. Increase in uptake of resource planning and management practices for improved coverage of child health interventions at health facilities



Adapted and Adopted Pediatric Quality of Care Standards

After a significant investment at the global level by MCSP and USAID to assist WHO with the development and launch of global pediatric quality of care standards, MCSP worked with the MOH to adapt and adopt these standards to the Ugandan context. The adapted standards were integrated into the national Maternal and Newborn Standards Assessment Tool, which will be used to assess and launch MNCH QI initiatives in Uganda, starting with 16 learning districts in 2019 and leveraging resources from the World Bank's Global Financing Facility for Every Woman Every Child.

Adopted Catchment Area Mapping for RMNCAH

MCSP supported the application of the RED/REC approach to other child health interventions beyond immunization in the four demonstration districts, which was associated with increased uptake of child health interventions delivered through community- and facility-based services. It was found that the application of RED/REC practices to other child health interventions helped health managers at the district and health facility levels to appreciate and use their data, recognize and address gaps in coverage, and identify underserved communities and strategies for reaching them. As a result, 33,000 more children under 5 were reached with deworming treatment, and approximately 30,000 were reached with vitamin A supplementation across the four districts in 1 year.

Building on MCSP's experiences adapting RED/REC to other child health interventions, the MOH pursued adoption of MCSP's approach for mapping catchment populations to strengthen the broader scope of RMNCAH. MCSP provided technical assistance to the MOH to develop a National Guide on Using Catchment Area Mapping and Planning for Action for other RMNCAH interventions. Once finalized, the guide will serve to improve prioritization, planning, equitable access, and community participation for RMNCAH services, thereby facilitating implementation of the Uganda Sharpened Plan for RMNCAH. The MOH plans to roll out the National Guide on Using Catchment Area Mapping and Planning for Action in 75 out of 128 districts (59%), with support from the World Bank's Global Financing Facility for Every Woman Every Child.

Completed a Cost Analysis of the Essential Child Health Package

MCSP completed a cost analysis estimating the resources needed to roll out the essential child health package through IMNCI training, mentorship, and the REC approach, as well as the costs to deliver the package in public facilities and to scale it up to other districts. Across all sampled facilities, the annual per capita and per child under-5 cost was UGX 4,266 and UGX 19,184 (USD 1.15 and USD 5.18), respectively. Per capita and per child under-5 costs decreased from lower-level Health Center IIs to higher-level Health Center IVs, given the relatively larger catchment populations of the higher-level facilities, which spread the costs over a larger population. With the rollout and delivery of the essential child health package in the four demonstration

districts, the costing analysis produced an important piece of evidence to inform the Government of Uganda and implementing partners' planning for the expansion of training and service delivery approaches both regionally and nationally. The costs to deliver the essential child health package showed that the package was a relatively affordable set of integrated interventions with the potential to contribute to under-5 mortality reductions through improved case management.

Improved Quality of Child Health Data

MCSP supported the MOH to review and streamline national HMIS tools to improve the documentation and availability of quality data on child health service delivery. The limited availability of quality data to inform planning and improvement of child health services was identified at the start of MCSP as one of the major challenges affecting the delivery of child health services. MCSP collaborated with the MOH to conduct orientation and support targeted onsite mentorship of the RHITES partners and health service providers in the four demonstration districts to:

- Generate baseline data on child health for each of the districts.
- Develop a child health scorecard to monitor implementation of the essential child health package at facility and community levels.
- Understand and correctly use the national MOH registers for child health service delivery, including child health, outpatient, and community registers.
- Use routine data quality audits at the health facility level to improve and validate the quality of child health data generated and reported.

A total of 311 health workers and 2,527 village health teams were oriented on the use of health management information tools, and the percentage of health facilities conducting data quality self-assessments doubled from 28% to over 60%. MCSP support contributed to an overall improvement in the accuracy of child health data reported through the national HMIS when compared to registers at the facility level.

Experiences from the short period of implementation showed that the child health scorecard was a useful QI tool for health facility- and district-level health managers. It provided a mechanism to visually present and easily communicate service delivery performance to stakeholder groups, and helped stakeholders to identify and prioritize support for poorly performing child health interventions and facilities. It also helped district level managers to identify and scale up at district-level good practices, such as the allocation by health facilities of primary health care funds to support community engagement activities for child health. The child health scorecard has now been adopted by the District Health Offices in the four demonstration districts. At the national level, MCSP's implementation experiences were shared and have been used with experiences from using other performance tracking tools to revise and improve on the MOH integrated RMNCAH scorecard.

Recommendations for the Future

In light of the project's achievements and lessons learned in Uganda, MCSP would like to recommend the following:

- **Adopt a "light" essential child health package and scale up the updated IMNCI guidelines.** Based on MCSP's experiences and learning from program implementation in the four demonstration districts, it is recommended that the MOH and its implementing partners adopt the MCSP "light" essential child health package. Individual interventions in the package may be given more weight during implementation depending on the disease profile of a district or region. The updated IMNCI guidelines should be scaled up as an approach for integrated delivery of the essential child health package using the alternate cost-saving training approaches piloted by MCSP. The selection of which of the two models to scale should take into consideration other lessons learned beyond cost implications; for whichever model is selected, further refinement should be done using feedback provided during the MCSP pilot implementation. For both models, there should be engagement and empowerment of focal staff on the

district health management team and the health facility managers to provide leadership and oversight for the rollout, and to ensure that the acquired learning contributes to the transformation of health worker practices in the day-to-day management of children.

- **Expand catchment area mapping and planning, as well as other aspects of the RED/REC approach.** MCSP recommends that the MOH and its implementing partners expand the use of the RED/REC approach, especially catchment area mapping and planning, as a system strengthening approach for child health and potentially other RMNCAH interventions for which population coverage is a goal. Use of catchment area mapping and planning will improve prioritization, planning, equitable access, and community participation for RMNCAH services, thereby facilitating full implementation of the Uganda Sharpened Plan for RMNCAH.
- **Prioritize and support data documentation, ownership, use, and regular reporting.** MCSP recommends that the MOH and its implementing partners prioritize and continue to provide support for quality documentation, ownership, use, and regular reporting of child health service delivery data, which is necessary for the full realization of results from IMNCI; catchment area-based micromapping, planning, and action; and other approaches that have been used to roll out the essential child health package. Access to and availability of essential medicines and supplies needed for the implementation of the essential child health package should be prioritized and is another critical challenge that has constrained results from the rollout of the essential child health package.
- **Gather and disseminate learning from USAID's RHITES project.** In less than 2 years of implementation, MCSP successfully gathered many lessons learned that informed MOH national guidelines, in addition to implementation of the World Bank's Global Financing Facility for Every Woman Every Child. MCSP recommends that USAID's RHITES partners continue to gather and disseminate their learning from implementing the work over the next several years and with a wider geographical scope.

Selected Performance Indicators for Life of Project	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of national-level guidelines, tools, manuals, reports, and briefs developed or revised for child health with MCSP support	9 (target: 8; target exceeded)
Percentage of health facilities with job aids for case management of childhood illnesses in MCSP demonstration districts	90% (target: 100%)
Percentage of cases of children under 5 with diarrhea seeking care at health facilities who received ORS and zinc in the last quarter	92% (target: 85%; target exceeded)[1]
Percentage of cases of children under 5 with pneumonia seeking care at health facilities who received appropriate treatment with antibiotics in the last quarter	88% (target: 85%; target exceeded) [1]
Percentage of children under 5 years of age diagnosed with malaria through routine diagnostic testing and/or microscopy testing who received artemisinin-based combination therapy treatment in the last quarter	96% (target: 85%; target exceeded)[1]

[1] Achievements per the program endline for the period of July–September 2018.

Uganda Routine Immunization Summary & Results

Geographic Implementation Areas

Regions
- 3/10 (30%)—Eastern, East Central, and South Western

Districts
- 11/112 (10%)—Kanungu, Mitooma, Mbarara, Butebo, Pallisa, Bulambuli, Mayuge, Bushenyi, Ntungamo, Butaleja, and Kibuku

Facilities
- 403/403 (100%)

Population

Country
- 40.3 million

MCSP-supported areas
- 3.65 million

Technical Areas

Program Dates

July 1, 2014–March 31, 2019

Total Funding through Life of Project

$4,600,000

Demographic and Health Indicators

Indicator	# or %
IMR (per 1,000 live births)	43
U5MR (per 1,000 live births)	64
Children (12–23 months) who received three doses of DPT-HepB-Hib	79%
Children (12–23 months) who received three doses of pneumococcal vaccine	64%
Children under 5 who had symptoms of acute respiratory infection in the 2 weeks preceding the survey	9%
Children under 5 who had diarrhea in the 2 weeks preceding the survey	20%

Source: Ugandan DHS 2016

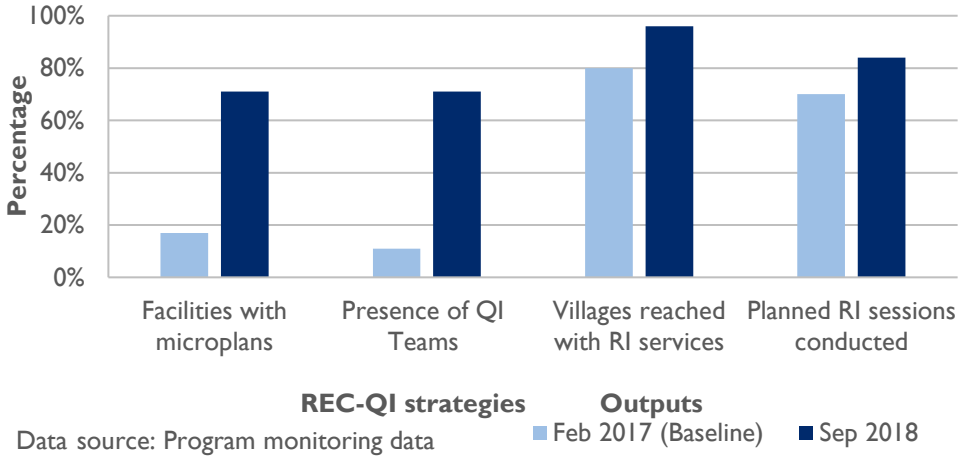
Strategic Objectives through the Life of Project

- Strengthen the institutional/technical capacity of the Uganda MOH's National EPI to plan, coordinate, manage, and implement immunization activities at national level.
- Improve district capacity to manage and coordinate the immunization program as guided by the MOH's EPI leadership.

Highlights through the Life of Project

- Supported the MOH EPI to develop the first-ever national immunization policy in Uganda.
- Institutionalized key REC Using QI (REC-QI) approach concepts and lessons into eight national level guidelines, manuals, and/or tools.
- MCSP's participatory approach to mapping and facility-based microplanning was adopted by the national government for use countrywide by all EPI stakeholders.
- Engaged nonhealth stakeholders in all MCSP-supported districts to review RI performance, problem-solve around key bottlenecks, and commit local government resources while also promoting peer learning.
- Convened national meetings at which health officials and nonhealth stakeholders from 18 districts committed to specific actions to regularly support RI; these were captured and disseminated in an MOH-issued document.
- Strengthened the quality of RI data and promoted its use for decision-making.
- Collaborated with the MCSP Uganda Child Health team to adapt REC-QI tools for subnational planning of other RMNCAH interventions.

Figure 1: Improvement in MCSP-supported REC-QI strategies and outputs in four districts (Mbarara, Bushenyi, Pallisa, Mayuge)



Data source: Program monitoring data

Uganda—Routine Immunization

Background

MCSP partnered with the Mission in Uganda and the MOH's National EPI to strengthen RI. This support was a continuation of USAID's commitment to strengthen immunization services initiated in 2012 through technical assistance provided by MCHIP, which implemented the REC-QI approach in five districts of Uganda. In July 2014, this work was transitioned to MCSP to support the EPI to introduce REC-QI throughout 11 districts and at the national level. In late 2016, USAID requested that MCSP provide tailored child health technical assistance to the MOH at the national level and two of USAID's recently awarded RHITES projects to identify, demonstrate, cost, and document a package of "essential" low-cost, high-impact child health interventions in four prioritized districts (or demonstration districts), with the ultimate goal of contributing to a reduction in child mortality in South West and East Central regions. Since 2014, these MCSP RI activities have been supplemented with support from the Bill & Melinda Gates Foundation through Stronger Systems for RI, which enabled doubling of the number of districts in which the REC-QI approach was introduced.

Key Accomplishments

Supported Development of National Immunization Policy

In 2014, MCSP supported the MOH's EPI in collaboration with other partners to develop the first-ever Uganda immunization policy and printed over 600 copies to facilitate its official dissemination in 2015. Enacting a national immunization policy was instrumental in ensuring that immunization is streamlined in the national development agenda and provides the basis for sustainable financing of the MOH's EPI.

Institutionalized REC-QI Lessons Learned

MCSP supported incorporation of REC-QI concepts and lessons learned into the following six national guidelines, manuals, and/or tools, and their dissemination:

- ***Immunization in Practice Manual*:** MCSP supported the review, updating, printing, and countrywide dissemination of a more than 12-year-old version of the *Immunization in Practice Manual*, which is a reference manual for pre- and in-service EPI training. A total of 2,000 copies were printed and distributed to all health facilities in the country.
- **National EPI standards:** MCSP supported the review and updating of the national EPI standards, which provide benchmarks for uniformity of services countrywide and work as standard operating procedures for the national RI program. The updates supported by MCSP incorporated newly introduced vaccines, technologies, and approaches to align with international standards.
- **WHO EPI prototype curriculum for pre-service training:** MCSP played a leading role in the adaptation of the WHO EPI prototype curriculum for pre-service training to streamline and standardize EPI pre-service training and examinations, and minimize the skills gaps previously found with newly qualified health workers. The new curriculum was reviewed and approved by the MOH Senior Management Committee and the Ministry of Education and Sports. At the end of the project, it was awaiting MOH presentation to the interministerial committee to officially endorse its use in health worker training institutions countrywide.
- **Enhanced RED Categorization Tool**: Supported MOH's EPI and the MOH Department of Health Information to incorporate the Enhanced RED Categorization Tool into the MOH DHIS2, which is accessible online, to allow managers at all levels to instantly access information about their health facilities/districts for decision-making purposes.
- ***National Guide on Using Catchment Area Mapping and Planning for Action*:** MCSP supported the adaptation of REC into RMNCAH by developing a *National Guide on Using Catchment Area Mapping and Planning for Action* for other interventions that incorporates lessons from the use of REC for RI. The guide supports government-led planning and local resource mobilization for self-reliance.
- **Documentation of MCSP's experiences and lessons learned:** MCSP documented experiences and lessons learned from supporting districts with the REC-QI health facility microplanning process to create

user-friendly microplanning tools and a guide on how to prepare them. These were reviewed by staff from the MOH's EPI, national EPI partners, and selected districts, and adopted by the MOH's EPI for countrywide use.

Supported Adoption of Microplanning and Catchment Area Mapping

MCSP's innovative approach to facility-based microplanning that applied QI tools to systematically identify, analyze, and prioritize problems and test solutions was adopted by the MOH's EPI for use countrywide by all EPI stakeholders. MCSP's support to staff in over 400 health facilities in 11 districts built facility capacity to carry out detailed, facility-level microplanning to improve access and quality of RI services. This helped advance equity and increase the number of children vaccinated, with an additional 644 villages reached with RI services in four districts and approximately 323,000 children receiving a third dose of pentavalent vaccine in four districts.

The MOH also expressed interest in adopting MCSP's approach for mapping catchment populations to strengthen the broader scope of RMNCAH. MCSP provided technical assistance to the MOH to develop a National Guide on Using Catchment Area Mapping and Planning for Action for other RMNCAH interventions. Once finalized by the MOH, this document will serve to improve prioritization, planning, equitable access, and community participation for RMNCAH services, thereby facilitating implementation of the Uganda RMNCAH Sharpened Plan. The MOH plans to roll out the National Guide on Using Catchment Area Mapping and Planning for Action process in 75 out of 112 districts (67%), with support from the World Bank's Global Financing Facility for Every Woman Every Child.

Promoted Mobilization of Local Resources and Peer Learning

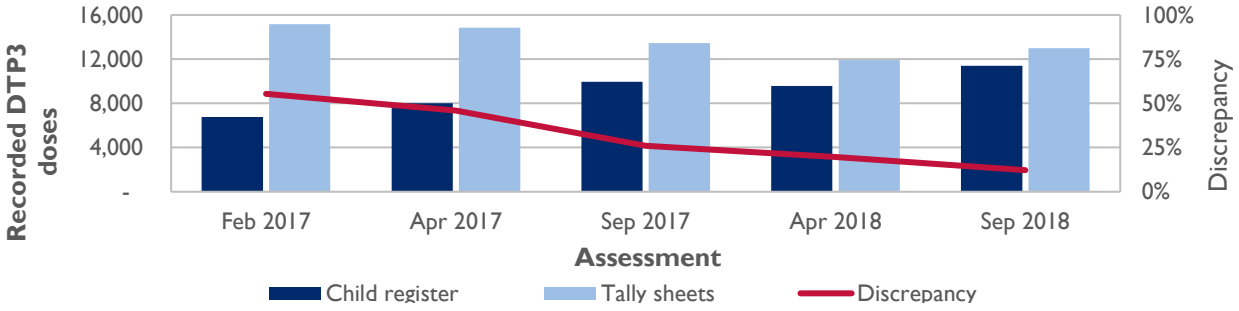
MCSP, together with Stronger Systems for RI, recognized a gap in involving district and sub-district non-health stakeholders, including civil authorities, political representatives, and community leaders, in immunization efforts and recognized their potential to greatly influence the allocation of local resources for RI. MCSP engaged such non-health stakeholders in all 11 MCSP-supported districts (and an additional 11 Stronger Systems for RI-supported districts) to review RI performance, problem-solve around key bottlenecks, and mobilize local government funds and resources to strengthen RI services. MCSP and Stronger Systems for RI's work with non-health stakeholders led to the gathering of key leaders from 18 districts to endorse a series of commitments regarding their role in supporting RI in their respective districts. These district leaders' commitments have been widely disseminated in all 22 districts supported by MCSP and Stronger Systems for RI, and draws attention to the important role of non-health stakeholders, stipulating specific actions for them to take to raise the priority of RI and mobilize local resources to address RI challenges in their districts.

Improved Quality of RI Data and Their Use for Decision-Making

MCSP supported the MOH's EPI to develop and print biannual newspaper pullout sections that shared district-specific immunization program performance data with districts, policymakers, other key MOH stakeholders, and the lay public. The newspaper pullouts included information about the new national immunization policy and guidance for districts on how to respond to measles outbreaks. These newspaper pullouts elicited swift and appropriate action from policymakers when poor performance was reported.

MCSP supported all 11 districts to introduce practices to improve data quality, including data quality self-assessments, reconciliation of data at the end of each RI session, and reorganizing name-based child registers by village and encouraging their use to track and follow up with children. MCSP built the capacity of health personnel in these districts to continuously analyze and use their data for action, including the utilization of facility-level monitoring charts on vaccine doses administered and the enhanced RED Categorization Tool to determine RI performance at all levels. Due to these efforts, discrepancies in the data reported in the different data collection tools at health facility level (e.g., the child register and tally sheets) declined across all 11 districts (see Figure 2 with data from four districts supported in PY3). The improvements in the quality and visualization of data enabled health workers and village health teams to better identify and locate children who require follow-up so that they can complete the vaccination schedule.

Figure 2. Reductions in the discrepancies between doses administered as reported in child registers and tally sheets in four districts (Mbarara, Bushenyi, Pallisa, Mayuge)



Recommendations for the Future

Based on its experience strengthening RI in Uganda, MCSP has developed the following recommendations for the MOH and future programs.

- **Scale the RI intervention nationally.** MCSP recommends the scale up beyond the 11 intervention districts of key REC-QI innovations, including health facility catchment area mapping and microplanning; non-health stakeholder engagement; and data QI using data quality self-assessment and daily data harmonization. Each of these practices has been incorporated into Uganda's national guidelines, manuals, and/or tools. Additionally, MCSP recommends broad sharing of MCSP's REC-QI innovations through the RMNCAH platforms that already exist at the MOH, such as the MNCH Cluster, to promote their adaptation to RMNCAH services beyond RI.
- **Utilize the REC-QI approach to continue to strengthen the RI system.** MCSP found that the REC-QI approach strengthened several key aspects of the RI system, including the reach and equity of RI services, the quality and use of immunization data, the capability of health personnel at multiple levels to plan and problem-solve, the building of partnerships with community members, and health workers' ability to engage effectively with non-health stakeholders to increase support for RI. MCSP recommends the following actions for future work with REC-QI interventions, some of which have already been initiated by MCSP:
  - Simplify and streamline some REC-QI tools so that they are less complex and labor-intensive.
  - Invest in leadership, teamwork, and on-the-job mentorship at the facility level.
  - Reinforce new skills and practices introduced through REC-QI.
  - Institutionalize key aspects of REC-QI.
  - Strengthen the capacity of health personnel to interact with non-health stakeholders.
  - Nurture a culture of data quality and use that encourages decision-making based on local data.
- **Advocate and act at higher levels to address the broad health systems problems such as human resource management, last-mile vaccine distribution, and financing of operational costs.** All of these issues affect RI performance but are beyond the direct control of districts and health facilities.

Selected Performance Indicators for Life of Project	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number and percentage of children who at 12 months have received three doses of DTP3/Penta vaccination from a USG-supported immunization program	282,693 PY1: 81%; PY2: 72%; PY3: 73%; PY4: 65% (target: 90%; target not achieved)[1]
Percentage of planned RI sessions that were conducted in the year[2]	84% (target: 91%; target 92% achieved)[3]
Percentage of health facilities with complete REC microplans[2]	71% (target: 44%; target exceeded)

[1] During the program implementation period, districts faced challenges with the cold chain and vaccine stock-outs, delayed release of primary health care funds, and improvements in data quality that may have impacted immunization coverage.

[2] Includes Mbarara, Bushenyi, Pallisa, and Mayuge districts.

[3] Delays in receiving primary health care funds on time affected implementation of outreach sessions.

Zambia RMNCAH and Nutrition

Summary & Results

Geographic Implementation Areas

Provinces

- 4/10 (40%)—Eastern, Luapula, Muchinga, Southern

Districts

- 42/110 (38%)

Population

Country

- 18 million

MCSP-supported areas

- 6.2 million

Technical Areas

Program Dates

January 1, 2017–March 31, 2019

Total Funding through Life of Project

$9,000,000

Demographic and Health Indicators

Indicator	# or %
MMR (per 100,000 live births)	398
U5MR (per 1,000 live births)	75
IMR (per 1,000 live births)	45
HIV prevalence (adults 15–49)	13.3%
Adult mortality rate (per 1,000 population)	24
Malaria incidence (per 1,000 population)	394

Source: National Health Strategic Plan, 2017–2021.

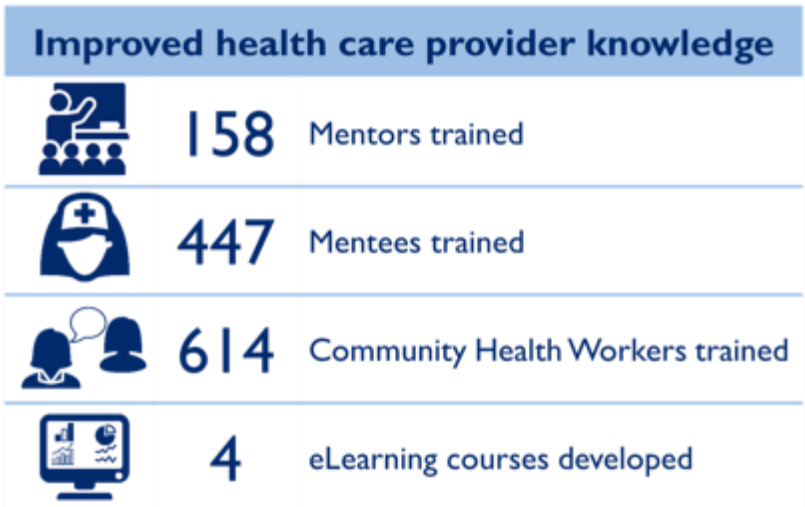
Strategic Objectives through the Life of Project

- Provide demand-driven technical assistance for sustainable scale-up of RMNCAH and nutrition interventions.
- Develop institutional collaboration to increase local capacity in RMNCAH and nutrition.
- Develop eLearning training courses for the Government of the Republic of Zambia/MOH to strengthen service delivery.

Highlights through the Life of Project

- Provided technical assistance to develop 2018 and 2019 continuum of care plans to respond to gaps in RMNCAH and nutrition in each district.
- Built district and provincial health teams' capacity to develop annual work plans with evidence-based programming that is responsive to community needs, with the potential to improve the health outcomes of 6.2 million people.
- The uptake of contraceptive services increased, and more than 200,000 new clients adopted modern contraceptive methods. Introduced the LNG-IUS in 34 facilities, resulting in uptake by more than 250 clients.
- Supported district health office teams to strengthen their community engagement approach through linkages and capacity-building, resulting in 404 district health office staff and 558 health care workers at the facility level applying sound community engagement approaches.
- Developed four eLearning courses on ANC; maternal, adolescent, infant, and young child nutrition; consolidated HIV; and integrated management of acute malnutrition outpatient therapeutic programs, launched by the MOH and available to all providers.

Figure 1. MCSP-led health care provider trainings in Zambia

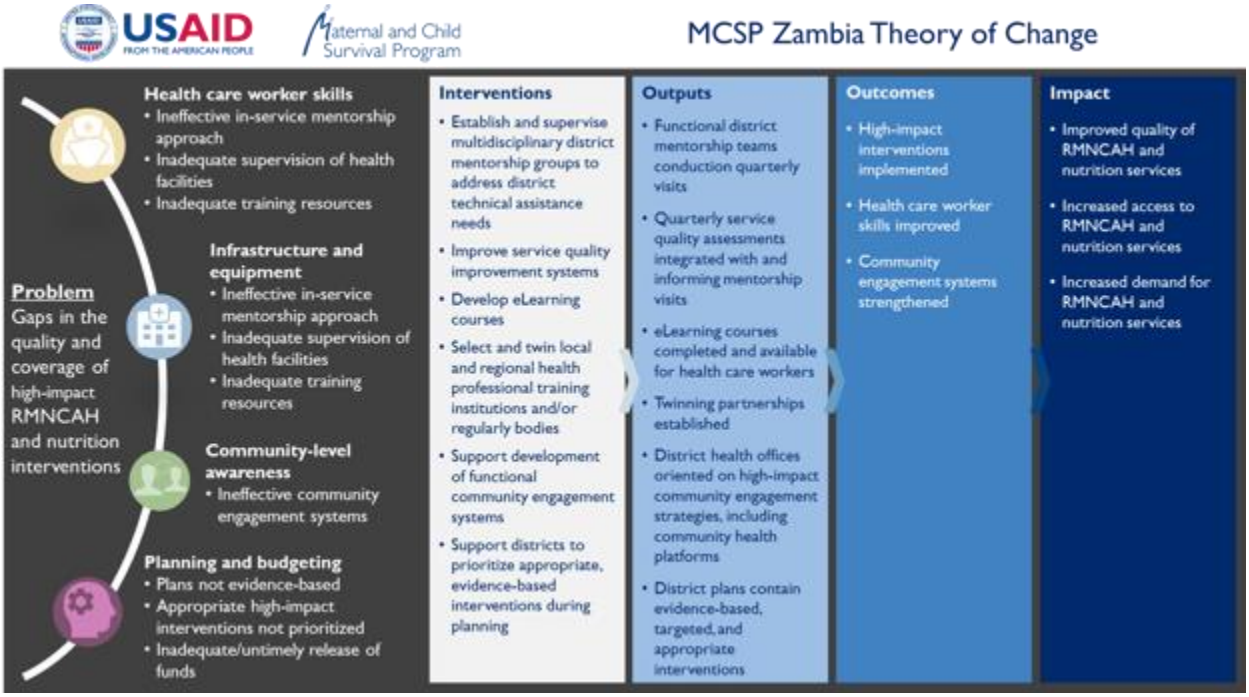


Zambia—Reproductive, Maternal, Newborn, Child, and Adolescent Health and Nutrition

Background

Although Zambia has seen improvements in MNH indicators over the past three decades—from 2001 to 2018, the MMR reduced from 729 to 252 per 100,000 live births, and from 1992 to 2018, infant mortality rate decreased from 107 to 42 per 1,000 live births— Zambia did not reach still is behind on reaching the Millennium Development Goal targets and has seen progress toward the Sustainable Development Goals stagnate in recent years. Neonatal mortality, which declined from 34 to 27 per 1,000 live births from 2007 to 2018, has stagnated at an unacceptably high rate and accounts for half of infant deaths. To further improve RMNCAH indicators, the Government of the Republic of Zambia developed a 5-year National Health Strategic Plan (2017–2021). The plan identifies the primary challenges to improvements in RMNCH outcomes, including inadequate quality assurance systems, community involvement, service delivery infrastructure, equipment, transport, communication facilities, and a low-skilled provider-to-population ratio. The plan also instituted the RMNCAH and nutrition continuum of care program, which is supported by partners including USAID and the Swedish International Development Cooperation Agency through a government-to-government grant. In 2017, USAID Zambia invited MCSP to provide technical assistance to RMNCAH and nutrition continuum of care through district health offices in four provinces (Eastern, Southern, Luapula, and Muchinga) to implement evidence-based, high-impact interventions under the RMNCAH and nutrition continuum of care program and the RMNCAH and nutrition district health office (see Figure 2 for MCSP's theory of change in Zambia).

Figure 2. Theory of change for MCSP's RMNCAH and nutrition program in Zambia



Key Accomplishments

MCSP contributed to the Government of the Republic of Zambia-led continuum of care program's goal and objectives by providing demand-driven technical assistance for sustainable scale-up of RMNCAH and nutrition interventions. MCSP also fostered institutional collaboration to increase local RMNCAH and nutrition capacity by working closely with the central MOH and USAID to develop a key partnership between the General Nursing Council of Zambia and the Nursing Council of Kenya to decentralize the General Nursing Council of Zambia's continuing professional development program. Finally, MCSP, in

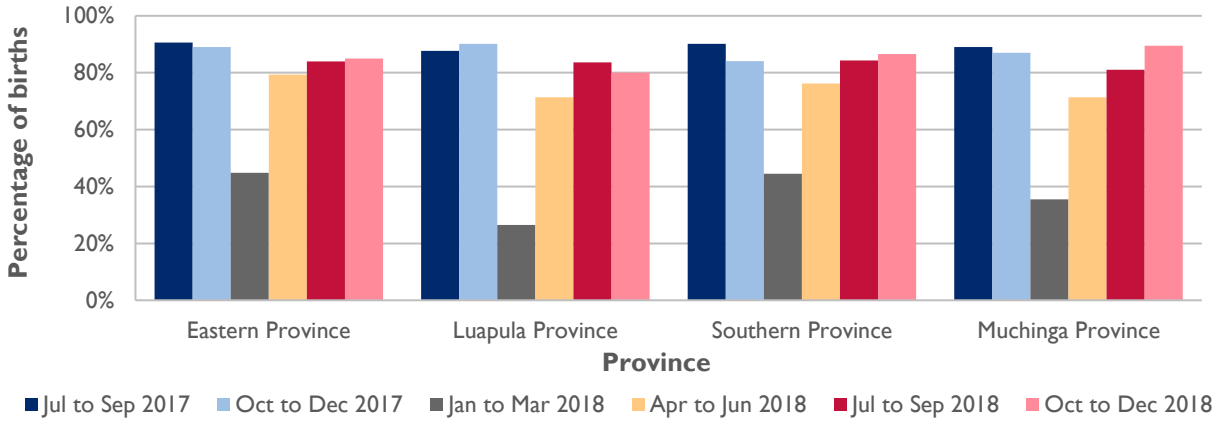
conjunction with the MOH, developed eLearning training courses to strengthen service delivery by enhancing knowledge and skills, better enabling providers to deliver high-quality RMNCAH and nutrition services.

Provided Demand-Driven Technical Assistance

MCSP provided technical assistance to the Government of the Republic of Zambia to build districts' capacity to plan and budget for RMNCAH and nutrition programs. MCSP's technical support improved evidence-based program planning in 42 districts across four provinces, with the potential to improve health outcomes for 6.2 million people. Continuum of care program districts are now better equipped to plan and budget for high-impact RMNCAH and nutrition activities that are responsive to community needs. MCSP initiated support to district health offices during implementation of 2018 district continuum of care plans. MCSP conducted monthly visits to districts and attended provincial integrated management meetings to identify gaps, make recommendations, monitor and coordinate activity implementation, and identify areas requiring technical assistance based on each district's needs. Results of the demand-driven technical assistance include:

- **Adolescent health:** MCSP supported the implementation of the Zambia MOH Adolescent Health Strategy (2017–2021), including supporting provinces and districts to establish adolescent health TWGs in 16 districts and supporting a health care worker orientation on adolescent sexual and reproductive health. MCSP assisted 10 district health offices to integrate adolescent sexual and reproductive health into capacity-building activities conducted with more than 100 health care workers to promote high-impact interventions that align with the MOH's adolescent health strategy.
- **Child health and immunization:** MCSP strengthened the technical capacity of health care workers and mentors in case management and immunization service delivery by utilizing the WHO EPI-IMCI electronic course in supported districts. District mentors and health care workers used knowledge from the course to improve their care for sick children and reach more children with timely, lifesaving vaccines. MCSP also provided technical support to districts in the four coverage provinces on RED/REC microplanning and the use of the outreach post-matrix to increase immunization coverage, resulting in, for example, an increase in the percentage of fully immunized children from 79.5% in 2017 to 87% in 2018 in Muchinga Province.
- **Community engagement:** MCSP strengthened provincial and district MOH health systems' capacity to apply high-impact community engagement and demand creation strategies for improved RMNCAH and nutrition by linking government and community health systems. MCSP built the capacity of 293 district-level health care workers and 568 facility-level health care workers to improve community engagement abilities. MCSP also built community groups' (neighborhood health committees, faith-based groups, Safe Motherhood Action Groups, and traditional leadership) capacity to explore, plan, implement and monitor RMNCAH and nutrition preventive and promotional activities, including mobilizing human and financial resources, through collaboration with established government-mandated district health promotion teams. MCSP strengthened stakeholder involvement in community health in 24 out of 26 districts through collaboration with the district health promotion teams.
- **Maternal health:** To improve attendance at the first ANC visit within the first trimester, MCSP provided technical support to integrate ANC with other services during outreach activities. In addition, community-based volunteers and health care workers were mentored in how to generate demand for ANC services. The program increased the percentage of women attending at least four ANC visits from 18% in 2017 to 26% in 2018. More specifically, one province, Eastern Province, saw an increase in the percentage of pregnant women attending at least four ANC visits, from 47% in quarter 3 of 2017 to 62% in quarter 3 of 2018.
- **Nutrition:** MCSP provided technical assistance to districts and health providers to build capacity in providing maternal, adolescent, infant, and young child nutrition assessments and counseling, including strengthening integration of nutrition into ANC. This resulted in sustained high levels of early initiation of breastfeeding within 1 hour of birth across the four priority provinces (see Figure 3). The only exception to the high levels of early initiation of breastfeeding occurred from January to March 2018, when MCSP introduced new data collection tools, leading to a reporting disruption as documents were distributed to facilities and providers were oriented on the tools.

Figure 3. Breastfeeding initiated within 1 hour of birth



Supported Districts in 2019 Continuum of Care Planning

The MOH's annual work planning process was strengthened at all levels of the health system, ensuring the Government of the Republic of Zambia's ability to plan, fund, and manage continued progress toward its national health priorities. MCSP provided technical assistance to districts to prioritize appropriate, targeted, evidence-based, high-impact RMNCAH and nutrition interventions during the 2019 continuum of care planning cycle. Through this support, MCSP enabled the districts to annually use participatory bottleneck analysis planning process to review and analyze key RMNCAH and nutrition indicator performance, determine root causes of poor coverage and quality, prioritize interventions, and recommend the most appropriate high-impact interventions to respond to the needs of each district.

Built Capacity to Use Data for Decision-Making

MCSP conducted monthly data reviews to identify gaps in the quality, completeness, and accuracy of DHIS2 data and supported 12 districts in conducting data quality assessments. MCSP trained 389 staff in 22 districts and 16 facilities on new HMIS reporting and register tools and on data use initiatives, such as use of facility dashboards, registers, and reporting tools to improve data quality. MCSP supported the introduction of RMNCH community registers to help facilities plan, execute, and monitor community engagement activities, and supported consistent use of maternal death audit forms to inform technical assistance and mentorship needs. MCSP mentored 86 district-level staff in the revised HMIS tools and disseminated and distributed these tools to 34 districts. This support improved the timeliness of DHIS2 data from 11% in the first quarter of 2018 to 74% in the last quarter of 2018 in the four provinces.

Improved Health Care Worker Knowledge

MCSP developed four eLearning courses on consolidated HIV care; ANC; maternal, adolescent, infant, and young child nutrition; and integrated management of acute malnutrition outpatient therapeutic programs. Based off of existing MOH in-service training packages and guidelines, content was reviewed and updated by subject matter experts and built around key learning objectives to establish learner core competencies. Subject matter experts, instructional designers, and eLearning designers collaborated on an iterative process of reviewing and finalizing content and eLearning package development. At the close of the program, MCSP handed the four courses over to the MOH, which will host, promote, and maintain them for use by all health care providers. The permanent secretary of technical services at the MOH launched the four eLearning courses on March 20, 2019, and released a letter encouraging all health care workers "to undertake these eLearning courses as part of their continuing professional development. … eLearning will ensure providers learn at their own pace, time, place, and convenience, and most importantly, that they are not taken away from their patients/clients as compared to conventional group-based training. … We want to promote innovative approaches to learning … especially the use of technology, which is in support of the ministry's eHealth and Smart Zambia strategies."

Facilitated Institutional Collaboration

MCSP facilitated collaboration and capacity-building efforts between the General Nursing Council of Zambia and the Nursing Council of Kenya to support the General Nursing Council of Zambia's decentralization of continuing professional development in response to the MOH's request to build local technical and leadership capacity to improve RMNCAH and nutrition outcomes beyond the life of MCSP through relationships with regional institutions. The General Nursing Council of Zambia regulates nursing and midwifery practice in the country and, after an MCSP-supported self-assessment, indicated a need to strengthen decentralization of its continuing professional development program to bring licensing and mentorship closer to nurses and midwives across the country. MCSP identified the Nursing Council of Kenya, which recently successfully decentralized its services to the subnational level in Kenya as an appropriate regional institution to support the General Nursing Council of Zambia's effort. Through these efforts, MCSP facilitated the capacity-building efforts between the two institutions and ensured that the General Nursing Council of Zambia is able to support continued efforts for decentralization of continuing professional development past MCSP.

Recommendations for the Future

MCSP worked closely with the MOH and continuum of care partners to build districts' capacity to plan for and implement high-impact RMNCAH and nutrition interventions. MCSP's provision of demand-driven technical assistance ensured self-reliance and an ability to provide quality services following the program. To sustain gains made to date, MCSP recommends:

- **Conduct orientations for district and facility personnel on any future demand-driven technical assistance programs modeled after MCSP before implementation.** This will help to ensure clarity on the technical assistance role.
- **Share work plans and budgets between technical assistance partners and the national-level MOH.** This will allow for better alignment with national plans and streamline resource allocation and distribution.
- **Share reports and ensure consistent engagement between technical assistance partners and national-level counterparts to review performance and agree on areas that require national-level support.**
- **Embed technical assistance partners at the district health office.** This will effectively improve participation in all meetings, identification of gaps and solutions, and timely support to districts and facilities. This will also increase collaboration among technical assistance partners and district and facility staff, and promote district staff ownership of activities.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement (Target)**
Number of pregnant women who received an ANC visit in the first trimester	83,641, 26% (target: 70,795, 25%; target exceeded)
Number of pregnant women who attended four or more ANC visits	151,374, 47% (target: 135,849, 42%; target exceeded)
Number of women who received a PNC visit within 6 days of birth	127,435, 41% (target: 183,254, 55%; 70% achieved)
Number of children ages 12–23 months who are fully immunized	148,374, 32% (target:166,357, 36%; 89% achieved)

Zambia Saving Mothers Giving Life

Summary & Results

Geographic Implementation Areas

Provinces
- 4/10 (40%)—Central, Eastern, Luapula, and Southern

Districts
- 12/110 (11%)

Facilities
- 262

Population (2014)

Country
- 15 million

MCSP-supported areas
- 1.04 million

Technical Areas

Program Dates

July 1, 2014–June 30, 2015

Total Funding through Life of Project

$2,998,500

Demographic and Health Indicators

Indicator	# or %[1]
MMR (per 100,000 live births)	398
ANC, +4 visits	55.5%
NMR (per 100,000 births)	24
TFR	5.3
Modern CPR	49%
Unmet need for FP	21.1%

Sources: Zambia DHS 2013–14

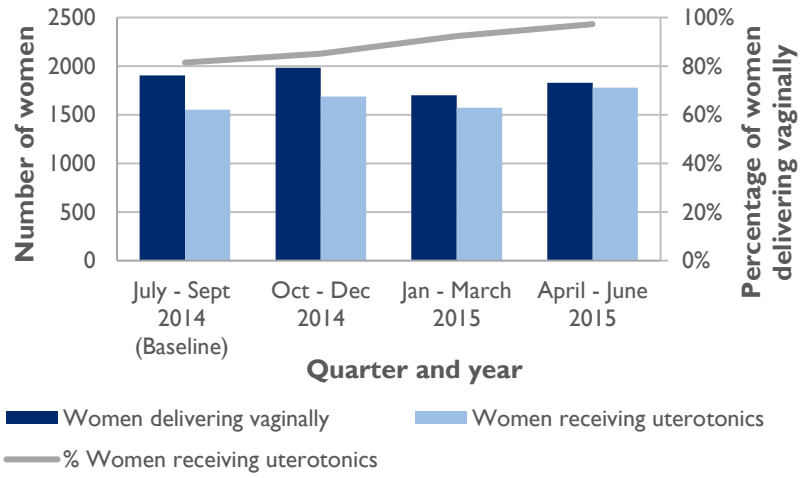
Strategic Objectives through the Life of Project

- Improve the quality of labor and delivery, postpartum services, and newborn health services in MOH/Ministry of Community Development and Social Services facilities in 12 target districts.
- Expand the availability of quality PPFP services in MOH/Ministry of Community Development and Social Services facilities in Mansa and Chembe districts.

Highlights through the Life of Project

- Reduced maternal mortality by 35% and perinatal mortality by 14% in Saving Mothers Giving Life (SMGL) facilities in four primary target districts.
- Trained 128 trainers in key essential newborn training approaches, resulting in 429 total providers trained, and supported ongoing clinical mentorship in target districts.
- Built capacity of 260 Safe Motherhood Action Group members to deliver key FP, ANC, and PNC service messages.
- Reached 727 women with LARC methods as a result of monthly onsite mentorship to seven target facilities.

Figure 1. Provision of a uterotonic immediately after birth to prevent PPH in Samfya District



Zambia—Saving Mothers Giving Life

Background

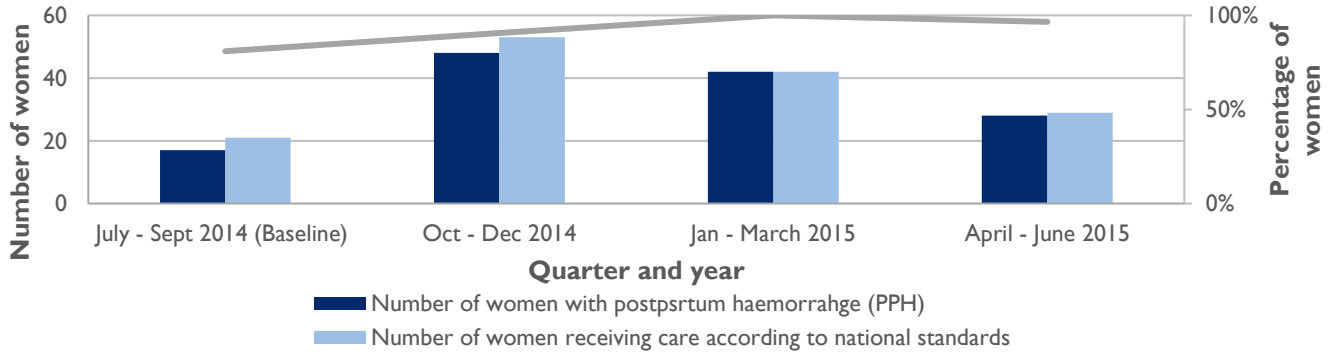
Zambia made significant progress in reducing its MMR from 729 to 398 per 100,000 live births between 2001 and 2014. However, in 2014, there was still much to be done to achieve Zambia's Millennium Development Goal target of 162 per 100,000 by 2015. In 2014, the infant mortality ratio of 45 per 1,000 was also higher than the Millennium Development Goal target of 35 per 1,000. The Zambia MOH and Ministry of Community Development and Social Services identified increasing access to skilled delivery services as a key strategy in decreasing maternal and neonatal mortality. Under MCHIP, the SMGL endeavor made concentrated demand creation and health facility improvement investments to improve maternal survival from 2011 to June 2014. In July 2014, USAID awarded 1 year of funding to MCSP to continue SMGL programs, with the expansion to one additional EmONC focus district.

Key Accomplishments

Enhanced Provider Capacity to Deliver Quality EmONC and ENC Services

MCSP trained 128 national trainers on three key ENC approaches—HBB, Essential Care for Every Baby, and KMC—to facilitate integration into all EmONC trainings in Zambia. As a result, an additional 83 providers were trained, and 429 received mentorship. Since in-service training alone is insufficient to improve service delivery, MCSP worked alongside district health offices to provide continued support for EmONC and ENC clinical mentorship programs, with 100% of target facilities receiving at least quarterly supervision and mentorship. At a cost of less than USD 3,000 a month, MCSP and the provincial and district community medical offices were able to provide onsite clinical support to every health facility in the districts. This is a significantly lower cost than the USD 70,000 needed to train 20 health care providers in a 3-week, offsite EmONC training. The increase in quality of care that the mentorship program provided was evident in the increase in women receiving uterotonic immediately after birth (Figure 1) and PPH cases being treated according to national standards (Figure 2).

Figure 2. PPH cases treated according to national standards in Mansa District



Increased the Government of the Republic of Zambia's Capacity to Support EmONC and ENC Service Delivery

MCSP supported mentorship, implementation, clinical updates, and maternal death surveillance meetings in Luapula Province, building capacity and gradual ownership of EmONC and ENC service delivery by the provincial medical office. Using its own funds, the MOH scaled up mentorship by introducing the approach in two districts in addition to the four targeted by MCSP. Mentors from the provincial and district health offices led the rollout of these services to other districts. Though implementation was not as intensive in these districts as it was in MCSP's due to government funding constraints, the approach proved to be cost-effective, scalable, and sustainable. MCSP, in collaboration with the MOH, also developed a sense of community among the providers and mentors in Luapula Province. This led to the development of peer-to-peer mentorship activities and hybrid, localized online mentorship approaches through the expanded use of WhatsApp to increase mentorship support to providers in various health facilities. These activities occurred outside the scheduled mentorship schedule of MCSP. They were an initiative of government mentors trained under MCHIP and MCSP and the health care providers within the facilities in Luapula.

Improved Availability of PPFP Services in Mansa and Chembe Districts

Under MCHIP, a TOT in LARCs resulted in improved uptake of the Jadelle implant (from zero to 552 women at eight facilities), but uptake of interval and postpartum IUDs remained low. Under MCSP, support continued for FP services, leading the project to initiate 727 women on LARC methods, including Jadelle and postpartum IUDs. MCSP provided monthly onsite mentorship to ensure that service providers' competence and confidence in insertion and removal of interval and postpartum IUDs was maintained so they could continue to be offered as part of the contraceptive method mix. As a result, couple years of protection for postpartum IUDs in MCSP FP target facilities increased from zero at baseline to 3,010.

Contributed to a Reduction in Maternal Mortality in Four Target Districts

MCSP helped substantially improve health outcomes in the four target districts through collaboration with the MOH, SMGL, and other partners; enhancement of providers' and the government's capacity to deliver EmONC and ENC; and improvements to voluntary PPFP services. This included a 34% reduction in obstetric hemorrhage and a 78% decrease in obstructed labor/uterine rupture. By the end of SMGL phase I in Zambia, a CDC-led audit demonstrated that the program had achieved a 35% reduction in maternal mortality and a 14% decrease in perinatal mortality in SMGL facilities in the four districts.

Recommendations for the Future

- **Utilize mentorship to sustain gains made through training and site strengthening.** MCSP found mentorship to be a low-cost, high-impact intervention that can cost-effectively build upon and sustain benefits of higher cost interventions, such as training and site strengthening. MCSP recommends that the MOH continue to scale up and expand its mentorship in other districts. With strong leadership from provincial and district community medical offices, mentorship has the potential to be the most cost-effective intervention to scale up and sustain quality clinical EmONC and FP services.
- **Build on effective practices to improve collaboration among and project ownership of the government, health care providers, and other local stakeholders.** By engaging a more interactive, yet cost-effective and high-impact model of mentorship, MCSP built a sense of community among health care providers and mentors. This led to strong program ownership among providers and government as the lead coordinating arm. Additionally, SMGL learned that investments in government to coordinate and lead implementation leads to cost-effective, successful, and sustainable programs. MCSP recommends that future programs maintain such strong collaboration to build capacity in government to lead and support the process of implementing activities to ensure sustainability and self-reliance.
- **Focus resources in specific geographical regions to utilize resources more efficiently and with tangible project results.** Intensive investment in limited geographic/administrative areas can produce quick and potentially sustainable results. MCSP recommends that efforts and resources are focused on limited geographical areas to yield better results, as opposed to spreading interventions thinly.

Selected Performance Indicators	
Global or Country Performance Monitoring Plan Indicators	**Achievement[1]**
Number of health care providers who completed EmONC in-service training	188
Met need for EmONC services	25.3%
Percentage of facilities where at least one long-term FP method is always available	92.9%
Percentage of facilities with active Safe Motherhood Action Groups	91%

[1] No targets were set at the start of this program.

Global Recommendations and the Way Forward

MCSP generated evidence on how RMNCAH interventions and strategies contribute to positive health impacts and what gaps remain to strengthen health systems that support resilient, self-reliant countries. The project's recommendations for the future can contribute to discussions on programming in the SDG era.

Fostering Global-Country Linkages and Knowledge Sharing

MCSP operated both to inform global RMNCAH programming, guidelines, and discourse, and to support implementation of a wide spectrum of interventions across 52 programs within 32 countries. Future programs can build on MCSP's success in fostering deliberate global-country linkages in the following ways:

- **Foster a "seat at the global table, boots on the ground" model to ensure evidence-based implementation of RMNCAH interventions and policies.** MCSP used experience from multiple countries to inform global debates and successfully used evidence to advocate for policy changes at global and country levels. For example, MCSP collaborated with WHO to develop and disseminate the 2016 *WHO Recommendations on ANC for a Positive Pregnancy Experience* and subsequently supported governments in **Burma**, **Madagascar**, **Rwanda**, and **Nigeria** to adapt the recommendations into national policies, training curricula, and QI processes and tools. In another example, to help policymakers and global partners understand the existence and use of routine metrics within national HMISs, MCSP reviewed FP, MNH, nutrition, and child health indicators in **24 countries**; results informed global discussions and decision-making to standardize global guidance on indicator use. MCSP recommends that future programs adopt similar mechanisms to both engage the global donor community and support country implementation, grounding global discussions in country evidence and perspectives, and introducing and scaling up high-impact interventions in countries with global guidance.
- **Invest in and facilitate global-country and south-to-south sharing and learning.** MCSP played an important role, convening stakeholders at the global, regional, national, and subnational levels around high-priority agendas, with a focus on promoting south-to-south learning and exchange to accelerate sharing, adaptation, and uptake of effective strategies. The project recommends that future programs adopt a similar role. For example, MCSP supported a range of events (described in under Strategic Objective 3 in this report's Overview and Executive Summary) that brought together global and country stakeholders. MCSP ensured that country experiences and actions were central to these dialogs, bringing strategically selected stakeholders to represent a variety of perspectives, synthesizing learning for translation into action plans, and ensuring follow-up on country commitments. MCSP also supported remote sharing among its countries on topics of common interest (e.g., **Nigeria** and **Nepal** on private-sector engagement to improve management of newborn and child illness, **Liberia** and **Madagascar** on quality dashboards) through mechanisms such as peer assists, webinars, and CoPs. At the national and subnational levels, MCSP convened stakeholders as part of TWGs, data review meetings, task forces, and other groups. Mechanisms like these that promote deliberate knowledge sharing at all levels help ground global efforts in country contexts and support countries to adapt interventions that drive progress toward priority goals.
- **Develop and support global- and country-level partnerships to drive common priority agendas.** As a project operating at the global level, MCSP was able to connect with other global stakeholders to identify and advance priority agendas. For example, MCSP collaborated closely with WHO to support the design of the WHO MNCH Quality of Care Network and co-developed the network's MNH monitoring framework. MCSP also led the launch and establishment of the Child Health Task Force, a network of over 460 individuals representing entities funding and implementing child health programs. At the country level, MCSP partnered with governments, other implementing partners, and private-sector groups in almost every country where the project operated. For example, in **Nigeria**, MCSP's work to support CHX scale-up involved developing partnerships with the private sector, and in **Haiti**, MCSP partnered with health facilities to establish sustainable national training centers to improve health worker skills. MCSP recommends that future programs operate through partnership mechanisms like these. Programs should establish clear roles and responsibilities for each partner and ensure that all partners feel a common ownership toward a shared understanding of objectives and goals.

Reaching and Sustaining Effective Coverage at Scale, Including for Underserved Populations

MCSP made significant progress in increasing the coverage and quality of key interventions (as outlined in Strategic Objective 1 in the Overview and Executive Summary). However, equitable coverage of interventions remains a critical gap that requires diagnosing and planning around root causes of health system bottlenecks. Future programs can build on MCSP's work to continue building and sustaining effective coverage at scale in the following ways:

- **Address RMNCAH policy content areas with the most need for action.** MCSP made significant contributions to policy development in **17 countries**. The project also conducted an analysis in USAID priority countries to characterize the content of policies most directly related to evidence-based interventions impacting the most significant causes of morbidity and mortality for women, newborns, children, and adolescents. Analysis showed that the most neglected areas were quality, gender, and civil society inclusion. While countries generally had better-developed policies for governance and planning, there were specific gaps, especially with the absence of national costed plans for child health and national quality policies. Future programs should consider a review of policy gaps based on monitoring data from implementation of programs and existing policies before developing additional policies. It is also critical for country stakeholders to identify key policy elements to drive health outcomes.
- **Use a systematic approach to deliberately and intentionally scale up high-impact approaches.** MCSP used a systematic approach, based on materials from ExpandNet and USAID's Center for Innovation and Impact, to support country scale-up efforts. MCSP supported country implementers and subnational managers to engage the local level in adaptive management processes, while national-level leaders convened these implementers and managers to share lessons to inform larger strategic planning processes for scale-up. MCSP also engaged leaders to integrate and institutionalize the system supports needed to sustain health gains. MOHs, with MCSP facilitation, used this approach to achieve large-scale, quality services for predischarge PPFP and ENC/neonatal resuscitation in **Rwanda**; CHX use in **Nigeria** and **Liberia**; CBNC in **Ethiopia**; iCCM in **DRC**; and misoprostol for PPH prevention during home birth in **Mozambique**. MCSP's experience showed that implementers must continually revisit the design of scale-up initiatives and adapt when needed, and must support the government to develop consensus among the appropriate partners on the scale-up strategy. Building in an approach of adaptive management, iterative learning, and collaboration is fundamental to diffusing approaches that support sustained scale-up.
- **Develop and implement QI approaches, anchored in a common vision for person-centered quality care.** MCSP's experience in implementing QI interventions in multiple countries demonstrated that improving quality of RMNCAH care requires strong governance, leadership, policy support, and management, as well as committed resources. For future programs, MCSP recommends strengthening country-led governance of QI efforts, including by developing a budgeted, coordinated national quality strategy complemented by strong subnational leadership and management of quality initiatives. As discussed in under Strategic Objective 1 in the Overview and Executive Summary, MCSP supported the development of national quality strategies and plans in **Nigeria**, **Rwanda**, **Ethiopia**, and **Mozambique**. Future programs must also build QI capabilities of key health system actors, and must include efforts to strengthen data literacy and analysis skills to support strong data systems for regular measurement of quality. For example, in **Nigeria** and **Madagascar**, MCSP combined trainings in data use, QI, and clinical aspects of care at the facility and subnational levels to build cohesive skills for improvement in the quality of care. Finally, to improve utilization of services and outcomes around health and experience of care, future programs must vigorously improve and measure person-centeredness (e.g., RMC for women and newborns, child-centered care), timeliness, safety, and equity of care, in addition to its clinical effectiveness.
- **Institutionalize community health as part of national health systems.** Achieving ambitious health goals necessitates strong, functional, and inclusive health systems that address community health and the needs of vulnerable populations. MCSP developed the Beyond the Building Blocks framework to achieve a better fit for community health within national health systems and global guidance. It makes explicit the often-neglected planning and investment needs for community health, including strategies for organizing and mobilizing social resources and formal, societal partnerships with civil society, researchers, and private providers to complement the public health sector. MCSP's efforts to strengthen community health in **DRC, Haiti**, **Ethiopia**, **Egypt**, **Malawi**, **Mozambique**, **Tanzania**, and other project-supported countries reflect multiple aspects of the expanded framework.

- **Ensure a deliberate focus on equity from the beginning of program implementation.** MCSP supported pro-equity strategies by constructing equity dashboards for MCSP-supported countries that analyze disparities in coverage to inform programming, developing training materials and toolkits to support equity-centered strategies, disaggregating coverage data by socioeconomic status (and other dimensions of equity) through select household surveys and assessments, and introducing or scaling up pro-equity interventions, such as RED/REC, in 11 countries, including **Haiti**, **Uganda**, **Nigeria**, **Malawi, Mozambique,** and **Madagascar**. MCSP's experience shows the importance of implementing equity- and community-based planning efforts to better reach underserved populations. Future programs must give careful attention to equity in the design, implementation, monitoring, evaluation, and adjustment of strategies to ensure that they meet the needs of the poorest and most marginalized communities. In addition, programs must more systematically integrate routine measurement of program data by dimensions of equity (e.g., socioeconomic status, education level) to determine whether approaches to address inequities in access and coverage narrow gaps between comparatively advantaged and disadvantaged groups.
- **Define and measure interventions intended to improve gender equity to determine which have the most impact.** MCSP was deliberate and intentional in addressing gender issues across several countries and recommends that future programs provide adequate investment and scale to achieve and measure impact of interventions to improve gender equity. In **Mozambique**, **India**, **Liberia**, **Nigeria**, **Rwanda**, **Pakistan**, and **Tanzania**, MCSP implemented gender interventions. MCSP recommends that future programs work to measure the impact of gender interventions; specifically, further evaluation is needed to measure the impact of GBV screening, counseling, and referral on ANC and FP services, as well as on the ongoing experience of GBV. Moreover, future programs must evaluate approaches that promote respectful care to understand how these interventions can help prevent child and maternal deaths. Finally, future programs must answer questions on how and whether engaging men in RMNCAH leads to improved uptake of such services as facility-based births and MH outcomes, and whether engaging men in services is potentially gender-exploitative because it may, for example, limit women's agency and choice.
- **Develop a systematic approach to identifying, developing, and implementing different types of innovations.** MCSP supported a wide range of innovations (described under Strategic Objective 2 in the Overview and Executive Summary) to improve the coverage and quality of RMNCAH services. Some MCSP innovations focused on testing a product or service in a new market (e.g., introducing bCPAP in **Nigeria**), while others focused on incremental changes that increase sustainability of a health system (e.g., strengthening REC-QI in **Uganda**). Based on the project's experience, MCSP recommends that future programs use a systematic approach to introduce an innovation with a clear pathway to scale-up that outlines necessary activities and metrics for each phase. This approach must define clear decision and adaptation points between phases to ensure that the innovation is continuously effective, feasible, accepted, and integrated into the health system. The project also recommends that future programs introducing innovations consider the holistic health system environment to determine whether an innovation can be feasibly resourced and implemented. Finally, innovators and implementers must recognize, based on data, research, and informal learning, when an innovation is not effective. At this point, they must adapt by revisiting the design of a solution or end efforts to advance the solution toward national scale.

Investing in Human Capacity Development to Build Self-Reliance

Through implementation of human capacity development approaches in **24 countries**, MCSP broadened the evidence base for effective country capacity development interventions, which are necessary to sustain improved RMNCAH and support countries on the Journey to Self-Reliance. Future efforts to build capacity in these contexts should:

- **Leverage opportunities to build capacity across the health worker life cycle.** MCSP's human capacity development approaches strengthened components along the health worker life cycle: competency development within PSE, continued professional development through in-service training and mentoring, and supervision through systems that support performance in the workplace. For example, in **Liberia**, MCSP built the capacity of PSE faculty while strengthening the PSE learning environment, conducted integrated RMNCAH trainings for the health workforce, and provided support for team-based mentoring and supportive supervision that has continued after MCSP's country closeout. The project also implemented significant human capacity development interventions in **Rwanda**, **Madagascar**, **Laos**, **Ghana**, **Tanzania**, **DRC**, and **Nigeria**, among other countries.

These capacity-building efforts focused on building individual health worker knowledge and skills through experience and practice, alongside improving both individual and team processes and performance. Future programs working to strengthen health systems must invest in human capacity development at the health worker and management levels. They must design and implement education, training, mentoring, and supervision based on the country context, recognizing the need for continuous learning and development that includes opportunities for practice and process improvement.

- **Explore alternative forms of capacity-building.** Traditional training approaches that focus on extended, offsite, group-based workshops have had limited effectiveness in improving and maintaining provider performance. New evidence identifies better methods to optimize sustained improvements in service delivery, including the use of interactive techniques that engage the learner and provide opportunities for workplace-based, simulated practice for teams; constructive feedback; the use of data to measure improvements; and learning opportunities planned and delivered at an appropriate dose and frequency. For example, MCSP used an LDHF approach (described under Strategic Objective 1 in the Overview and Executive Summary) in **Liberia**, **Madagascar**, **Rwanda**, **Egypt**, and other countries to promote maximal retention of clinical knowledge, skills, and attitudes. MCSP also employed mobile mentoring approaches in countries including **Liberia** and **Madagascar** to reinforce clinical skills building through regular remote engagement. MCSP recommends that future programs employ these alternative approaches when possible, as they can be more effective in transferring and reinforcing skills, and more feasibly implemented, since they are less costly and allow health workers to learn in teams on the job.
- **Develop and strengthen a holistic approach to capacity-building within health systems.** MCSP-supported human capacity development efforts targeted a range of competencies in health workers and managers beyond clinical competencies. In **Nigeria**, **Mozambique**, **Ethiopia**, **Rwanda**, and **Madagascar**, MCSP built core QI capabilities of key health system actors. MCSP also worked in most of its countries to improve use of data for decision-making by building data competencies among MOH staff in data aggregation, visualization, gap analysis, and data use on a more routine basis. In addition, MCSP built skills among country stakeholders related to strategic planning and management. For example, MCSP provided capacity-building support to professional association members in DRC to act as national trainers and helped establish a model training center at Kintambo Hospital in Kinshasa; the **Ghana** Health Services Policy, Planning, Monitoring, and Evaluation Services Division for implementing and managing activities (using a fixed amount award mechanism); the **Indonesian** Academy of Sciences for conducting future evidence summits; PSE school directors in **Liberia** for managing their academic institutions; and **Haiti**'s 10 health departments and 27 NGOs for planning, implementing, and managing activities. The fixed amount award mechanism was particularly effective in building capacity within local bodies while providing financial support linked to milestones and deliverables. The project recommends that capacity development efforts beyond clinical skills building by future programs should focus on adaptive management, effective communication, assertive negotiation, data utilization and management, engaged problem-solving, and resource mobilization and management, which are critical skills needed to achieve country self-reliance.

Strengthening Measurement and Data Use

High-priority actions to develop more robust metrics and methods to track progress, and make more high-quality data available are outlined in WHO's *The Roadmap for Health Measurement and Accountability*. MCSP recommends that the global community revisit the roadmap in 2020 to examine progress, including for RMNCAH. Efforts to achieve these actions should build on MCSP's progress by including the following:

- **Improve use of RMNCAH data for decision-making at all levels to build country self-reliance.** As discussed in Strategic Objective 3 in the Overview and Executive Summary, to support efforts to improve use of data for decision-making, countries and implementing partners must first continue to improve the content of national HMISs, as MCSP supported governments to do in **DRC**, **Egypt**, **Namibia, Rwanda, Nigeria, Madagascar**, **Tanzania,** and **Uganda**, and community HMISs, as MCSP supported governments to do so in **DRC**, **Egypt**, **Namibia**, and **Uganda**, ensuring that the right data are available to support decisions to improve RMNCAH care. Improving use of data for decision-making also requires building data competencies among MOH staff at all levels of the health system, as described in the Investing in Human Capacity Development to Build Self-Reliance section above. In addition, a change in norms and behaviors is necessary to create a true culture of data use. Stakeholders must meet regularly to discuss the data and make action plans to address

identified issues. Feedback loops must be strengthened to ensure that aggregated data available through the HMIS at the district and higher levels of the health system are shared with health facility providers and CHWs. Finally, data dashboards that can support visualization and discussion of data during stakeholder meetings are valuable tools that should be considered for expanded use at all levels. MCSP introduced the use of data dashboards to facilitate data use across a range of RMNCAH services and levels of the health system in **20 countries**.

- **Leverage progress made during the digital era to improve HIS functioning and reduce provider burden.** Increasingly, the use of digital systems and tools within HISs gives countries opportunities to harmonize RMNCAH indicators and reporting. This harmonization reduces the reporting burden on health workers and managers, facilitates data use, and enhances overall system functioning. To ensure that these digital tools are sustainable when rolled out across different levels of the health system, future programs should strengthen HISs as a whole, including strategies, architecture, and governance. For example, MCSP helped to set standards for data exchange and develop the Health Information Mediator (which translates data for exchange between different HISs) in **Tanzania**, and supported the development of an eLearning secretariat in **Ghana**. In addition, funders must provide sufficient resources for capacity-building in use of digital tools at all levels.
- **Explore alternative approaches for program evaluation and impact measurement.** Measuring impact matters, but it can be challenging for implementing organizations to measure long-term results given short program implementation periods and limited resources. There are also occasions when it makes sense to measure outputs and outcomes rather than impacts, especially when there are multiple implementers working within the same space, limiting the ability to attribute results of one particular project to impact. Future programs should consider evaluation approaches, such as a contribution analysis that uses theories of change, as MCSP used in **Burma**, **India**, and **Rwanda**, as an alternative to more traditional impact evaluation designs, which are often more resource-intensive and require longer implementation periods. Additional alternative approaches that MCSP has successfully used for measurement include case studies, most significant change, and participatory evaluation. Future programs should also consider using methods including outcome harvesting, beneficiary assessments, causal link monitoring, and developmental evaluation (well suited to informing adaptive management processes).

Strengthening Resilience for Fragile States and Building Emergency Preparedness and Response Mechanisms into Existing Programs

MCSP was well placed to support health systems in rapidly responding to several epidemics, including Ebola (in **Guinea**, **Liberia**, and **Ghana**); Zika (in **Barbados**, **Guyana**, **St. Lucia**, **Trinidad and Tobago**, **Grenada**, and **El Salvador**); dengue (in **Burkina Faso**), and plague, measles, and polio (in **Madagascar**). MCSP also supported health systems and improved resilience in fragile states and regions. These experiences demonstrated how existing programs can be leveraged to support fragile states. Design of future programs should include the following:

- **Focus on health system performance drivers to improve the resiliency of health systems.** As a global project with expertise in multiple technical areas, MCSP was uniquely positioned to respond to emergencies while maintaining focus on sustainable solutions to strengthen country resilience. For example, following the Ebola outbreak, MCSP worked with the MOHs in **Guinea**, **Liberia**, and **Ghana** to improve national policies and plans that strengthen health systems and build capacity for IPC practices to prevent future outbreaks. As part of MCSP's response to the Zika outbreak in the **ESC**, the project introduced provider job aids and approaches to improve the quality of PNC and ECD services, as well as routine care for small and preterm infants, which will support improved care beyond the Zika response. To support countries in building resilience to epidemics and emergencies, future programs must address needed policy-level changes (e.g., policies and plans must establish national guidelines for IPC and other best practices, set standards on which to base training and supportive supervision, and effectively mobilize resources); strengthen the PSE system to produce health workers who can respond to emergencies and epidemics; and support health facilities and larger health systems in laboratory capacity, routine surveillance systems, risk communications, and data reporting and use to monitor emergencies and responses. Countries and programs must also view community-level systems as integral to any effort to prevent, detect, and respond to epidemics and emergencies, and invest in these systems to ensure their preparedness.

Strengthening Governance, Accountability, and Financing

With the increased attention on the Journey to Self-Reliance and the evolving funding landscape that focuses on country-driven priorities and financing, global programs must take innovative approaches to increase country self-sustainability. Efforts to support country self-reliance through increased governance, accountability, and financing can build on MCSP's work in the following ways:

- **Expand mechanisms that ensure greater government accountability and commitment of resources.** MCSP implemented several mechanisms to strengthen governance and develop accountability and local resource commitments. As stated above, the fixed amount award mechanism that MCSP used in Ghana allowed the subawardee to identify priority activities, implement them, and receive funding based on the achievement of milestones. In **Nigeria**, MCSP supported memoranda of understanding to transition full funding and leadership for RI implementation to state governments and improve RI coverage rates through improved coordination and accountability mechanisms, with some states using learning from the experience to develop transitioning memoranda of understanding for primary health care as a whole. In addition, MCSP supported the implementation of social accountability mechanisms, such as community scorecards in **Tanzania**, **Mozambique**, and **Malawi**, and collected tools and conducted global research on effective social accountability approaches. The successful implementation of these mechanisms proved that innovative approaches that provide support for government and community ownership of health interventions can be effective and lead to increased resilience. Future programs must test and refine these approaches in additional contexts to develop effective, reliable models for building sustained self-reliance.
- **Understand financing flows, advocate, and disseminate key information to promote increased domestic resource mobilization for high-impact interventions.** MCSP worked at the global level and with countries to better understand funding issues and financing bottlenecks, and ensure sustained, country-driven resources for RMNCAH. For example, MCSP supported governments in **DRC**, **Mozambique**, and **Uganda** to align programming to their Global Financing Facility investment cases. In **Uganda**, MCSP undertook an analysis to understand the current financing bottlenecks that impede the delivery of high-quality RMNCAH services, which informed decisions on appropriate resourcing and management. In **India**, MCSP's initial catalytic investment to ensure delivery of comprehensive primary health care services for all age groups led to national and state governments investing over $40 million from domestic resources, impacting the health of over 217 million people. Future programs should consider conducting additional analyses, such as RMNCAH expenditure tracking and cost-effectiveness analyses of alternative programmatic approaches, to inform domestic resource mobilization efforts. These analyses should be coupled with advocacy to strengthen financial protection for vulnerable groups.
- **Cost high-impact interventions to inform scale-up and sustainable financing.** Too often, costing is only done by projects under nonroutine conditions or by MOHs for large, multiyear, integrated strategic plans. Costing informed almost all MCSP scale-up interventions, and MCSP assisted MOHs in the cost modeling of ENC/HBB and predischarge PPFP in **Rwanda**, CHX in **Liberia**, and strengthened child health services in **Uganda**, and supported costing work for iCCM in **DRC** and CHX in **Nigeria**. Future programs must conduct costing exercises from the MOH's perspective for new services being scaled up to show the true, granular, incremental costs of incorporating new processes and products into routine practice. Realistic costing is essential to develop an implementable and sustainable scale-up plan. This costing also informs resource allocation and assists MOHs in advocacy to donors to ensure funding for an uninterrupted scale-up process, which invariably spans the life of several project cycles.
- **Develop programs that focus greater attention to management at the subnational level.** MCSP's general framework for strengthening subnational health management supports local decision-makers to better understand their roles in identifying health system gaps and bottlenecks, and leveraging, mobilizing, and coordinating local health system resources to proactively address these challenges. MCSP's efforts in **DRC, Guatemala**, **Guinea**, **Haiti**, **India**, **Kenya**, **Mozambique**, **Zambia**, and **Tanzania** supported implementation of improved management and planning practices of subnational health managers. MCSP's efforts at the subnational level showed that subnational health managers can proactively address health systems challenges using local resources, and that strategic coordination and engagement of stakeholders and activities contribute to a shared understanding of health system needs and priorities. Going forward, future programs must implement sustained mentorship among subnational managers on the use of data for decision-making and planning, and management strengthening efforts should be integrated with national planning standards or processes to ensure their sustainability.

Emphasizing Learning for Adaptive Management

As discussed under Strategic Objective 3 in the Overview and Executive Summary, MCSP developed an action-oriented learning agenda aligned with program implementation, including multicountry learning studies. The agenda was designed to help priority countries adapt and improve by reviewing their specific contexts, addressing system bottlenecks, and accelerating progress toward preventing maternal and child deaths. Efforts to prioritize learning in future programs should include the following:

- **Create deliberate opportunities for shared learning and adaptive management.** MCSP worked closely with MOHs to influence important policies and programs through learning activities, which will continue to have influence after MCSP's close. In addition, MCSP's adaptive management approach enabled emerging qualitative and quantitative learning to be reviewed and fed back into programming to encourage timely uptake of lessons learned and improvements to implementation support. For example, as part of MCSP's support to the **Rwanda** MOH to scale up PPFP services, the project used learning from other scale-up efforts that showed the difficulty of measuring effectiveness in PPFP scale-up; the project supported the government to instead focus on predischarge PPFP, which enabled clear measures, clarified learning, and supported sustainability of interventions. MCSP recommends that future programs reach consensus on global learning themes and parameters early in the program, and fully integrate learning into their designs from the beginning. To be successful, they must help stakeholders understand how systematic learning can address priority issues, ensure that they invest in learning activities, and build their capacity for implementation research and adaptive management.

Annex 1. MCSP Geographic Coverage

MCSP supports USAID's commitment to preventing child and maternal deaths and works to help countries achieve the goals laid out in several important RMNCH global strategies. Over the life of the program, MCSP has implemented 52 country programs in 32 countries[1].

Country	Project	# of health facilities with MCSP support	# of regions with MCSP support	Pop. in MCSP-supported regions	Total # health facilities	Total #. regions	Total country pop.	% of facilities with MCSP support	% of regions with MCSP support	% of pop. with MCSP support
Burkina Faso	Burkina Faso	85	3	1,287,364	2,287	13	20,870,060	4%	23%	6%
Burma	Burma		7	28,049,905		17	51,486,253		41%	54%
DRC	DRC	114	6	3,643,029	24,798	78	255,078,000	0%	8%	1%
Egypt	Egypt	4,873	23	25,490,000	5,098	27	91,500,000	96%	85%	28%
Ethiopia	BEmONC	235	5	3,824,259		11	94,600,000		45%	4%
	CBNC	4,335	4	19,051,574		11	104,957,438		36%	18%
Ghana	ECD		4	3,925,644		10	28,000,000		40%	14%
	IPC	59	5	13,765,005		10	28,000,000		50%	49%
	PSE/CHPS		10	28,000,000		10	28,000,000		100%	100%
Guatemala	Guatemala		5	1,637,289		22	17,302,084		23%	9%
Guinea	HSS		4	7,647,200		8	12,396,000		50%	62%
	IPC	55	4	2,812,900	461	8	12,396,000	12%	50%	23%
	IPC2	55	4	2,812,900	461	8	12,396,000	12%	50%	23%
	MCH/GBV	30	1	1,710,802	249	8	12,702,692	12%	13%	13%
	RHS	221	4	7,647,200	448	8	12,396,000	49%	50%	62%
Haiti	SSQH	164	10	5,096,551	966	10	10,847,334	17%	100%	47%
	Social Marketing		10	10,317,000		10	10,317,000		100%	100%
India	FP	191	14	85,641,166	1,111	29	1,210,854,977	17%	48%	7%

[1] The five Eastern and Southern Caribbean countries which received Zika response funding (Barbados, Grenada, Guyana, Saint Lucia, and Trinidad and Tobago) did not collect population data and thus are not reflected in this table.

Country	Project	# of health facilities with MCSP support	# of regions with MCSP support	Pop. in MCSP-supported regions	Total # health facilities	Total #. regions	Total country pop.	% of facilities with MCSP support	% of regions with MCSP support	% of pop. with MCSP support
	Healthy Cities		3	321,270,000		29	1,210,854,977		10%	27%
Indonesia	Banten II									
	Evidence Summit		1	11,830,000		34	251,500,000		3%	5%
Kenya	Kenya	302	6	10,267,240	9,600	47	50,408,957	3%	13%	20%
Laos	Laos	12	2	813,200		18	6,492,228		11%	13%
Liberia	HRH	20	4	2,237,594		15	4,730,000		27%	47%
	EMS	270	6	615,710		15	4,730,000		40%	13%
	RHS	77	3	3,437,553		15	4,730,000		20%	73%
Madagascar	Madagascar	1,630	32	37,712,560	6,768	66	71,117,091	24%	48%	53%
Malawi	Malawi	43	1	1,182,110	780	4	19,196,246	6%	25%	6%
Mali	Mali	571	3				18,429,893			
Mozambique	Bridge	125	11	10,513,656	1,612	11	28,861,863	8%	100%	36%
	Malaria	58	1	344,872		11	28,861,863		9%	1%
	MCS	111	2	2,735,383	1,651	11	28,861,863	7%	18%	9%
Namibia	Namibia	187	8	1,628,712	269	14	2,113,077	70%	57%	77%
Nepal	Nepal		1	395,124		7	2,988,133		14%	13%
Nigeria	MAMA	142	2	4,767,312		36	185,000,000		6%	3%
	HTS	850	7			37	185,000,000		19%	
	Polio		3	17,750,000		36	185,000,000		8%	10%
	RMNCH	321	2	5,451,987		36	185,000,000		6%	3%
	RI	1,583	2	8,853,066	1,853	36	186,000,000	85%	6%	5%
Pakistan	AFPP	500	3	105,600,000		10	220,000,000		30%	48%
Rwanda	Rwanda	254	5	6,563,087	538	5	11,533,446	47%	100%	57%
South Africa	South Africa	1	1	13,200,000		27	56,720,000		4%	23%

Country	Project	# of health facilities with MCSP support	# of regions with MCSP support	Pop. in MCSP-supported regions	Total # health facilities	Total #. regions	Total country pop.	% of facilities with MCSP support	% of regions with MCSP support	% of pop. with MCSP support
Tanzania	Tanzania	1,888	14	12,371,400	7,854	30	55,000,000	24%	47%	22%
Uganda	Child Health	134	2	1,290,600		10	40,308,000		20%	3%
	RI	403	3	3,654,354		10	40,308,000		30%	9%
Zambia	RMNCH		4	7,200,000		10	18,000,000		40%	40%

Note: In an effort to avoid double-counting of populations and regions, these numbers are not totaled and almost certainly undercounted for the sake of clarity. These numbers were chosen by utilizing the population numbers at the single peak year of program implementation. So, if a given project saw 30,000 pregnant women in PY3 and 40,000 pregnant women in PY4, we assumed that this involved 100% overlap and only reported 40,000.

MCSP provided additional core-funded support to the following 13 countries:

Country	Support received through MCSP
Afghanistan	
Bangladesh	
Cambodia	Cambodia was involved in Asia Gestational Age Estimation Study, through the Asia Bureau.
Chad	
Dominican Republic	MCSP conducted an ultrasound capacity assessment in the Domincian Republic through its Zika response activities.
El Salvador	MCSP conducted an ultrasound capacity assessment and ECD work in El Salvador through its Zika response activities.
Gambia	
Honduras	MCSP conducted an ultrasound capacity assessment in Honduras through its Zika response activities.
Senegal	
Sierra Leone	
South Sudan	
Togo	
Zimbabwe	

Though not specified here, the project also provided support via LAC Bureau funding to countries throughout the LAC region.

Annex 2. MCSP Policy Brief

USAID FROM THE AMERICAN PEOPLE

Maternal and Child Survival Program

MCSP's Contribution to Critical Policies

Ensuring Effective Reproductive, Maternal, Newborn, Child, and Adolescent Health Policies for a Supportive Implementation Environment

May 2019

www.mcsprogram.org

Background and Rationale

USAID's flagship MCSP focuses on 32 countries,[1] with the ultimate goal of ensuring that all women, newborns, and children most in need have equitable access to quality health care services to save lives. Over the life of the program, MCSP has supported the development and adoption of over 100 policies. In an effort to move beyond simply reporting the number of policies supported, MCSP did an analysis to place this contribution within the larger RMNCAH policy environment in USAID's priority countries and analyze how MCSP addressed some of the policy gaps identified.

Policy Dashboard

MSCP's interactive policy dashboard, which provides specific findings from this study, is available here.

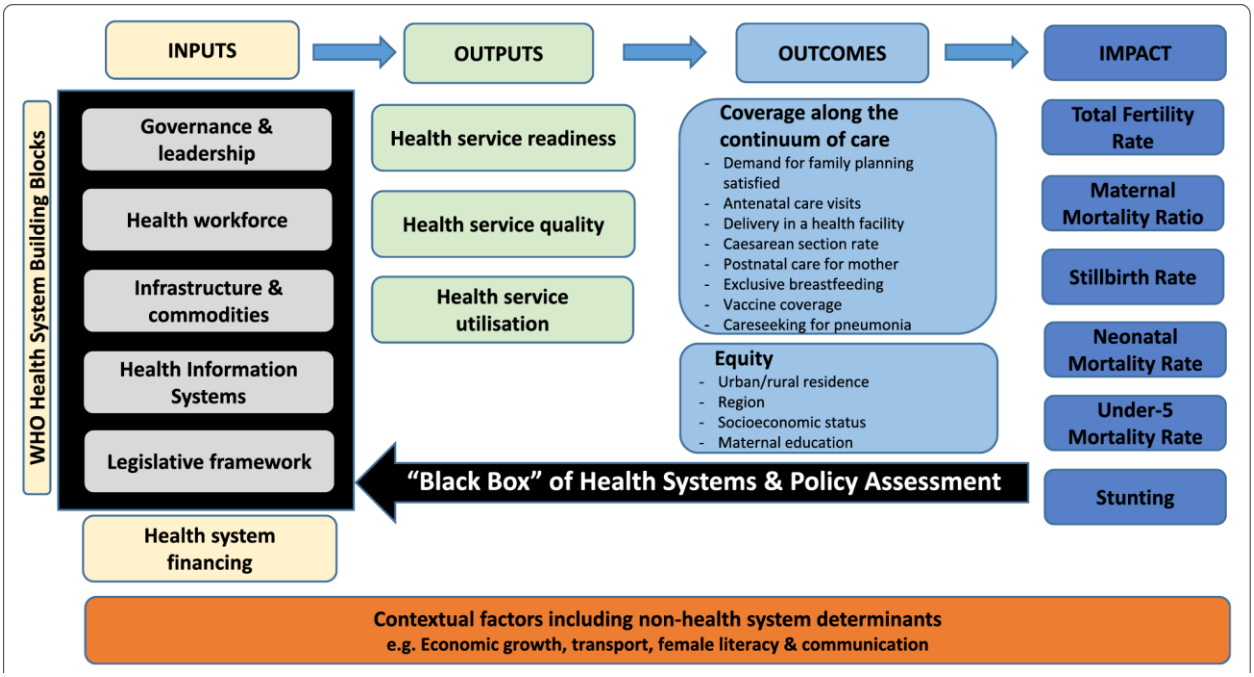
Simply having a policy aligned with the latest evidence is not sufficient to ensure its implementation with consistency and quality. On the other hand, without a policy in place, coherent and sustained action is difficult. Policies based on the latest global and country evidence provide a framework upon which to build resilient, accountable, and responsive health systems. As the pace of evidence generation on technical and implementation issues accelerates, the need for an agile and effective policy development processes becomes more urgent. This process should bring together various actors to ensure technical rigor, effective rollout, and accountability.

It has been difficult to firmly establish the link between policies and health outcomes because policy analyses have traditionally been descriptive and systematic country-level information has been lacking. Recently, there

[1] This includes 20 of USAID's 25 maternal, newborn, and child health priority countries (Burma, DRC, Ethiopia, Ghana, Haiti, India, Indonesia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Nigeria, Pakistan, Rwanda, Tanzania, Uganda, and Zambia), plus Barbados, Burkina Faso, Egypt, Grendada, Guatemala,Guyana, Guinea, Laos, Namibia, Saint Lucia, South Africa, and Trinidad and Tobago.

have been efforts to fill this information gap with systematic analyses of the content and state of development of policies related to RMNCAH. Countdown to 2015 undertook a notable effort to analyze country progress toward achieving MDGs 4 and 5 in the 75 countries where more than 95% of all maternal, newborn, and child deaths occur, including systematically describing policies and their specific content elements that relate to evidence-based RMNCAH interventions.[2] This and similar analyses have begun to offer a better understanding of the link between policies and health outcomes.

Figure 1. Countdown Working Group definition of policy and systems "black box"



Methodology

MCSP undertook an analysis in 27 countries[3] similar to the Countdown WG to characterize the content of policies most directly related to evidence-based interventions known to have impact on the most significant causes of morbidity and mortality for women, newborns, children, and adolescents. It took a similarly broad definition of "policy" for the scope of its study (see box at right). First, the MCSP policy team developed an initial list of key policy content across the RMNCAH spectrum through desk review of previous documents produced by previous systematic policy studies, such as the WHO RMNCAH policy database; the Partnership for MNCH countdown reports; and Advancing Partners & Communities. As in these previous systematic studies, the focus was on the "policy element,"[4] not the overall policy. Criteria for inclusion of a policy element were that the element should:

Scope of the Policy Review

MCSP's study analyzed national laws, policies, regulations, and strategy documents, including national service delivery guidelines and performance standards, developed or revised with MCSP support to improve access to and use of high-impact RMNCAH services.

- Be directed at increasing the quality, demand, and/or utilization of an evidence-based, high-impact intervention directed at a major cause of maternal, newborn, or child mortality.

[2] Singh NS, Huicho L, Afnan-Holmes H, et. al. 2016. Countdown to 2015 country case studies: systematic tools to address the "black box" of health systems and policy assessment. *BMC Public Health*. 16 Suppl 2:790. doi: 10.1186/s12889-016-3402-5.
[3] USAID's 25 maternal, newborn, and child health priority countries (Afghanistan, Bangladesh, Burma, DRC, Ethiopia, Ghana, Haiti, India, Indonesia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Nigeria, Pakistan, Rwanda, Senegal, South Sudan, Tanzania, Uganda, Yemen, and Zambia), plus Egypt and Guinea.
[4] A policy element refers to a key policy content within specific cross-cutting and technical areas (e.g., if an ANC policy includes the updated WHO recommendation from two doses to a minimum of IPTp3).

- Have evidence (published or expert opinion) that it has an effect on one or more known high-impact interventions.
- Have systematically collected publicly available information on its presence across most or all of the 27 countries included in this policy analysis.

After assembling its initial list of policy elements, the team consulted with key informants at MCSP, USAID Washington, and WHO to refine the list. The team developed a revised list of key policy elements and again shared this list with MCSP team leaders, while also attempting to obtain information from published sources on the presence of these policy elements across all (or at least a majority) of the 27 countries of interest for this analysis. In an iterative fashion, the team arrived at the final list of 65 key policy elements. These were based on evidence of their importance in addressing the highest causes of mortality and availability of the needed information. Some initial elements had to be eliminated because sufficient information was not available, but most policy content deemed to be important was obtainable. MCSP contributions were then matched against relevant policy elements.

Limitations

A limitation of any policy analysis is the weak evidence base linking policies with RMNCAH outcomes, but MCSP mitigated this by including only policy elements related to known evidence-based, high-impact RMNCAH interventions. Additionally, due to resource constraints, data collected for this activity were limited to secondary sources, and no primary data collection was possible. As a result, the composition of the list of policy elements was heavily influenced by the availability of publicly accessible information. If an element of interest had no country-level data available across a majority of the 27 countries of interest, then that policy element was not included in the dashboard. Thus, some additional policy elements of interest could have been included had primary data collection been possible. Also, the analysis was limited to the national level, even in highly decentralized systems, such as Nigeria and India, where subnational policies are critical. Again, this was mainly because of the constraint imposed by the limited resources available for this analysis.

Ongoing definitional issues on the boundaries of policy also presented challenges throughout the analysis. Since MCSP's primary mandate is as a technical assistance and implementation support program, the large majority of MCSP's work has focused on operationalizing and implementing RMNCAH policies adopted by countries. It was difficult to draw the boundary separating the stages of policy formulation and adoption from policy implementation that operationalized those policies—for instance, supporting the development of national training curricula consistent with a newly updated ANC policy. This is pertinent when considering MCSP's specific in-country policy contributions across the spectrum of policy work.

Key Findings

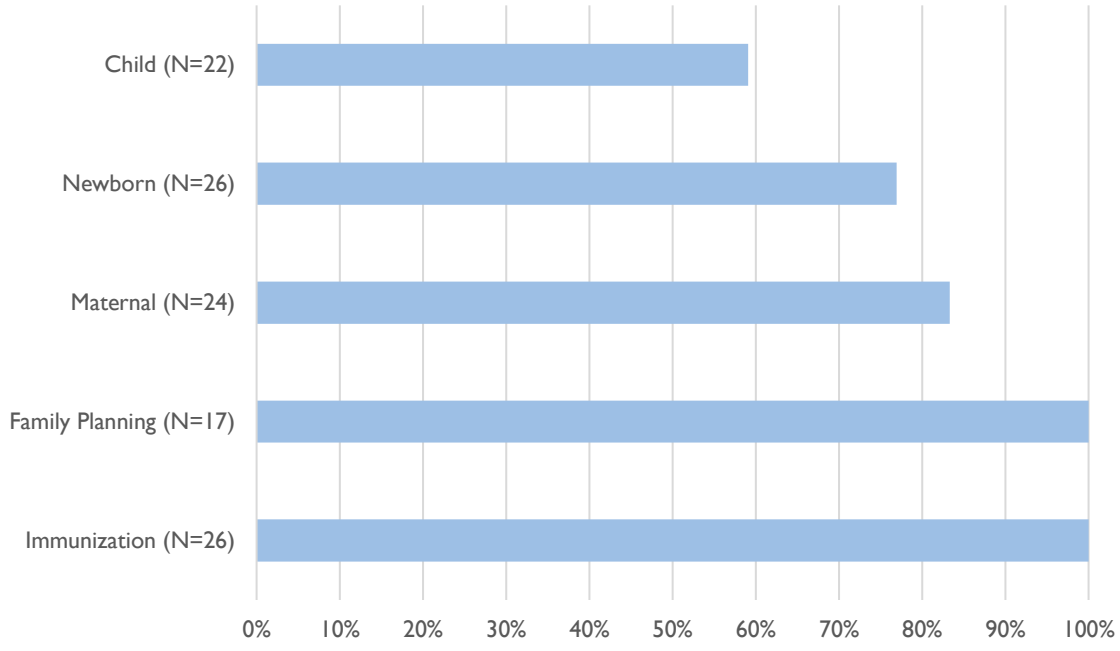
Reproductive, Maternal, Newborn, Child, and Adolescent Health Governance and Planning (Including for Quality of Care Strategic Plans)

In the 27 countries researched, availability of national-level, costed plans was found to be high across the components of RMNCAH. These plans could either be standalone or part of larger integrated plans. The prevalence of comprehensive multiyear plans for immunization was high—26 of the 27 countries where data were available had plans. In the area of MNCH, 83% of countries with available data

Examining a newborn in Madagascar. Photo: Karen Kasmauski/MCSP

(20 of 24) had costed plans to guide MH programs, 76% of countries (of 26 with available data) had national newborn health plans, and 59% of countries (of 22 with available data) had national costed plans for child health (see Figure 1).[5,6] In the realm of FP, while data could only be found for 17 of the 27 countries, 100% of them had costed FP plans in place to guide programming.

Figure 2. Countries with costed multiyear plans



With the increased momentum around QoC and the launch of the WHO MNCH QoC Network, a growing number countries are working toward a more unified national quality framework and developing relevant plans, but quality is still an emerging area of work across countries. Of the 27 countries whose policies were reviewed, seven had high-level strategies or plans in place concerning RMNCAH QoC, with an eighth country (Malawi) planning to develop a plan for QI by 2019.[7]

MCSP Contribution to Strategic Plans

Policy Element	Specific Examples
Costed RMNCAH national plans	• **DRC:** MCSP helped the MOH to develop a 5-year National Child Health Strategic Plan 2017–2021, including supporting costing of the plan. The plan provides for the continuum of care from household to health facility to hospital. It indicates priorities, packages of interventions, targets, and strategies to make significant impact over the next 5 years. • **Pakistan:** MCSP provided key technical recommendations and integrated best practices (including development of an integrated training database, use of innovative training approaches, and emphasis on client choice) to inform the government's development of the National Action Plan on FP to expand women's access to lifesaving contraceptives. • **Rwanda:** MCSP finalized two national 5-year strategies: the FP/ASRH Strategic Plan 2018–2024 and the MNCH Strategic Plan 2018–2024. These strategies support the realization of the

[5] Remaining countries in each category either do not have said policies (i.e., policy is absent) or data on policy status were unavailable at the time of the study (i.e., no data).
[6] In some countries, plans for individual technical areas (costed or uncosted) may be included within broader, integrated RMNCAH strategic plans rather than developed in a standalone format. In some cases, a high-level plan for a given technical area might exist but may not have been properly recognized in this search if it is embedded within a more comprehensive document.
[7] Remaining countries in each category either do not have relevant policy or data on policy status were unavailable at the time of the study.

Policy Element	Specific Examples
	national RMNCAH policy. MCSP facilitated a highly collaborative multistakeholder process to develop both strategies that included primary data collection with beneficiaries, desk reviews, review of data and trends, and costing. • **Nigeria:** MCSP supported the state governments of Ebonyi and Kogi to develop immediate to long-term plans for improving RMNCAH in the states, leading to the current state strategic health development plans (2017–2022) and costed child health annual plans that will reach over 5 million people. • **Tanzania:** MCSP provided technical support and brought together multiple partners to develop the One Plan II, which was used as the investment case for the Global Financing Facility. • MCSP supported multiple countries, including **Madagascar, Malawi, Mozambique, Nigeria, Tanzania, Kenya, Uganda, Zambia, and Haiti**, to develop comprehensive, multiyear immunization plans.
National QI plan/strategy	• **Global:** MCSP works closely with WHO to support the design and rollout of the WHO MNCH QoC Network, including development of standards and priority measures for improving the quality of RMNCAH care. • **Ethiopia:** MCSP provided technical support to the MOH Quality Directorate to develop the country's National Health Care Quality Strategy as well as tools to assess the quality of MNH care in facilities. • **Mozambique:** MCSP supported the development and operationalization of the National Strategy for Quality and Humanization of Care 2017–2023. Advocacy by MCSP and partners also contributed to the MOH's creation of a national Quality Assurance and Management Directorate, with the mandate to lead implementation of the national quality policy. • **Nigeria:** MCSP worked with the MOH to establish a national RMNCAH QI TWG tasked with bringing together multiple stakeholders to develop a unified national RMNCAH QI strategy.

Human Resources

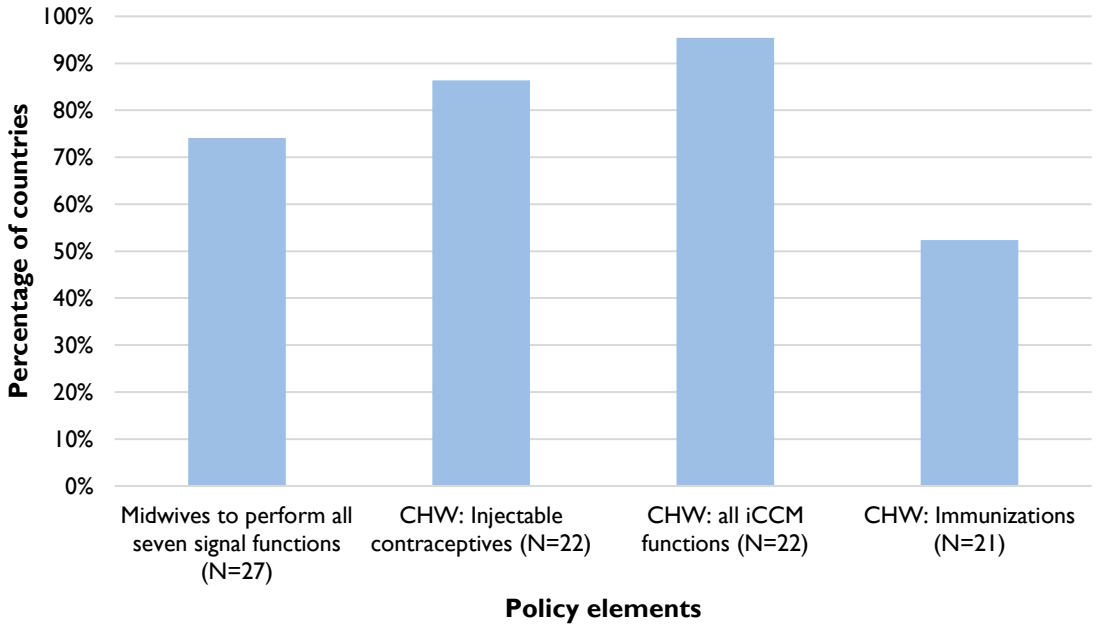
Progress in the 27 countries is mixed with regard to the number of policy elements in place that are conducive to increasing the number and capacity of human resources serving those most in need.[8] All countries with reported data (22 of 27 countries) have adopted policies that ensure the availability of human resources for RMNCAH services in underserved areas, though only six countries (of the 10 countries with data available) are reported to have comprehensive, updated national databases that track health workers by cadre and district. The inability to reliably track the type and location of health workers presents a barrier to operationalizing an important human resource policy element of placing health workers in underserved areas. The ability of frontline health care workers to perform certain clinical tasks depends first on the presence of national policies and strategies authorizing them to do so (Figure 3). In the case of labor and delivery services, for example, whether midwives are allowed to perform seven key obstetric services (signal functions) is a crucial matter of policy in determining whether some clients, especially those in underserved areas, receive the services. In the 27 countries assessed, 20 of the 27 countries (74%) have policies in place authorizing midwives to perform all seven signal functions. Shifting tasks to community-level health workers is another common strategy for increasing coverage of, access to, and utilization of health services. Many countries currently allow provision of select RMNCAH interventions and products at community level. Community-level treatment of pneumonia with antibiotics is now authorized in 23 of the 26 countries with data available (88%). CHWs are allowed to administer injectable contraceptives in 19 countries,[9] oral contraceptive pills in 22 countries, community-IMCI interventions in 21 countries, rapid diagnostic tests for malaria in 18 countries, and artemisinin-based combination therapy for uncomplicated malaria in 18 countries. In contrast, policies authorizing community-level provision of other services/products still lag behind. For example, only nine countries currently allow CHWs to administer oxytocin or misoprostol for PPH prevention, 10 countries

[8] The policy elements under human resources included five elements: policy to ensure human resources are available in underserved areas for RMNCAH programming, national database with health workers by district and main cadres updated within last 2 years, policy to use paid community-based providers for child illness care (pneumonia, diarrhea, malaria), administration and provision of select RMNCAH interventions/products by a community cadres disaggregated by methods, and midwives authorized for seven signal functions.

[9] Throughout this section, remaining countries in each category either do not have said policies (i.e., policy is absent) or data on policy status were unavailable at the time of the study (i.e., no data).

allow CHWs to provide CHX for newborn cord care, and 11 countries authorize CHWs to immunize children. (Note: WHO's Strategic Advisory Group of Experts, which is WHO's policymaking advisory group for immunization, does not have any recommendation on task shifting to CHWs.) Within this context of shifting critical tasks to CHWs, fewer than half of countries assessed (11 of 26 countries with available data) have adopted policies to pay community-based providers for services, including pneumonia, diarrhea, and malaria care, with some countries instead mandating volunteer status for CHWs

Figure 3. Task-shifting policy elements



MCSP Contribution to Human Resources Policies

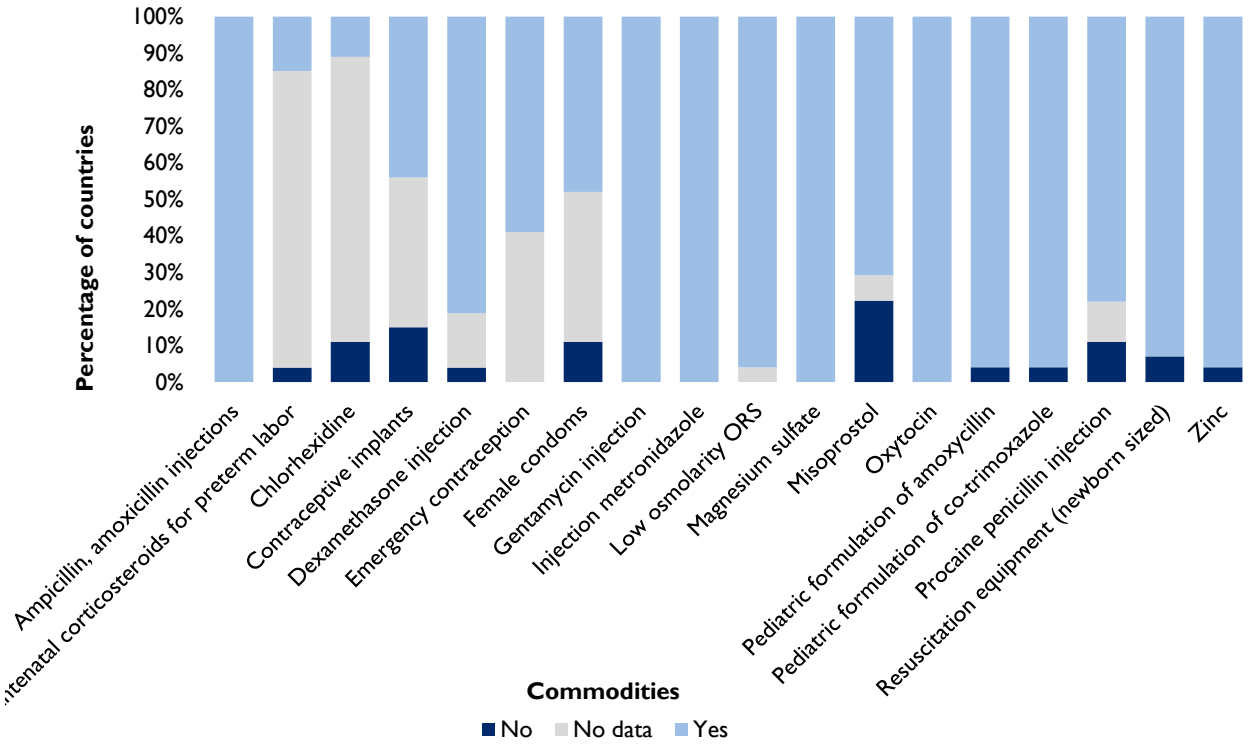
Policy Element	Specific Examples
Task shifting	• **Burma:** As part of the revision of the national IMNCI guidelines, MCSP supported inclusion of new newborn guidelines that allow basic health staff (health assistants, midwives, public health supervisors, lady health visitors, and CHWs) to insert nasogastric tubes to feed small babies. MCSP also supported the MOH with updating and piloting the existing malaria volunteer guidelines to include integrated content on TB, HIV, leprosy, filariasis, and dengue hemorrhagic fever. The integration of new services is an important step to empower community volunteers, who are the first point of contact at the community level, to identify and diagnose early cases, and make necessary referrals that can lead to reduced morbidity and mortality in remote townships. • **Nigeria:** To make treatment more available at the community level, MCSP spent significant time building consensus among stakeholders to rewrite sections of the 2014 National Implementation Guidelines for iCCM of Childhood Illness, with the objective of allowing trained PPMVs to dispense amoxicillin. MCSP helped align three major policy documents—the iCCM guidelines, the Essential Medicines List (EML) and standard treatment guidelines, and the Task Shifting and Task Sharing Policy—to include consistent guidance and mandate the use of amoxicillin dispersible tablets by PPMVs and CHWs as a first-line medicine for children under 5. This change made it possible for treatment to begin sooner in many communities, potentially saving many young lives across the country.

Essential Drugs and Commodities

Of the 27 countries, 16 countries have data available on inclusion of reproductive health-related commodities on their EML (Figure 4). Within the 16 countries, all included emergency contraception (100%), 12 (75%) included contraceptive implants, and 13 (81%) included female condoms. MH-related commodities have been widely adopted, with all 27 countries including oxytocin and MgSO4 in their EML, and 19 of 25

countries with available data (76%) including misoprostol. Inclusion of other key MH commodities (e.g., metronidazole, dexamethasone, and procaine penicillin injections) on EMLs was also high across countries assessed. Lifesaving newborn health commodities, such as injectable antibiotics and resuscitation equipment, are included in EMLs in a majority of countries. Very little data are available, however, about the uptake of antenatal corticosteroids and CHX in these countries; CHX is not on the list for 50% of the six countries where data are available. Finally, there has been nearly universal inclusion of lifesaving child health commodities (e.g., pediatric formulation of amoxicillin, low osmolarity oral rehydration salts, zinc, and pediatric formulation of co-trimoxazole) in the 27 countries.

Figure 4. Percentage of countries with lifesaving commodities included in the Essential Medicines List



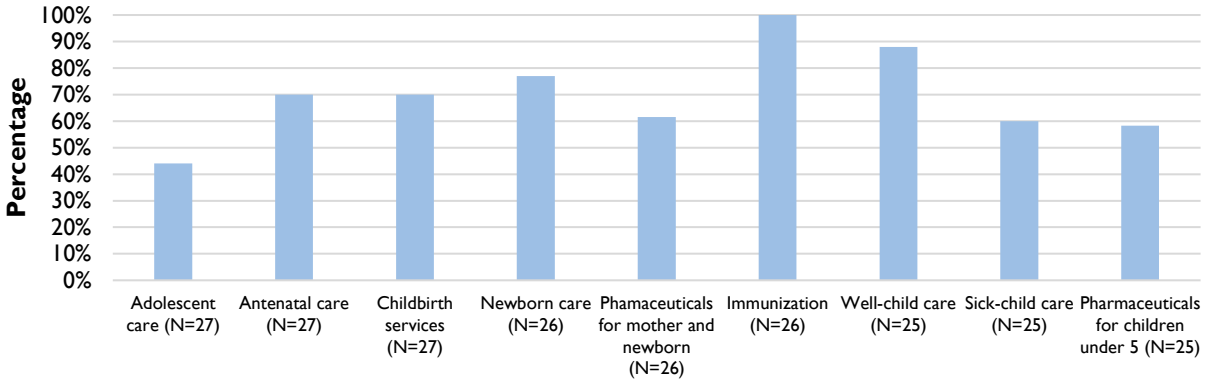
MCSP Contribution to Essential Drugs and Commodities Policies

Policy Element	Specific Examples
Essential drugs	• **Bangladesh:** Through the MCHIP (AA), worked in partnership with multiple stakeholders (SNL; Johns Hopkins University; International Centre for Diarrhoeal Disease Research, Bangladesh; Bangladesh Paediatric Association; PATH through the CHX WG) to support the MOH to add CHX to the EML. • **Nigeria:** MCSP played a key role and communicated with states to get CHX included in state EMLs. • **Liberia, Mozambique, Burma:** MCSP supported the national government to adopt and adapt the revised WHO guidelines for treatment of pneumonia to using amoxicillin dispersible tablets to treat childhood pneumonia. • **Mozambique:** Before 2016, when the new National EML was approved, misoprostol only existed as a specialty drug. During 2016 and 2017, MCSP successfully advocated through its senior commodity advisor at the MOH to include misoprostol as an oxytocin alternative for community use.

Financing

There are many potential aspects of financing, such as results-based financing and insurance schemes that could have been looked at, but due to the limited availability of secondary data concerning these elements, they were excluded from this review. Policies establishing user fee waivers have been adopted by many countries to ensure equitable access to health care services for poorer and more vulnerable populations, including pregnant women, infants, and children. Overall, policies for user fee waivers are most widespread for immunization, well-child visits, ANC, and childbirth, and are moderately widespread for pharmaceuticals and supplies for mothers, newborns, and children. Fee waiver policies for services for adolescents ages 15–19 are less common, with only 12 of 27 countries (44%) providing complete fee waivers (Figure 5).

Figure 5. Complete user fee waivers in public system



MCSP Contribution to Financing Policies

Policy Element	Specific Examples
Financing	• **Ghana:** CHPS is a strategy to improve delivery of primary health care services. The shift from facility-based to community-based health service delivery is an important health system reform adopted by the Ghana Health Service to reduce maternal and child mortality. Efforts to roll out CHPS in Ghana were constrained by lack of national costing and implementation guidelines. MCSP played a key role in supporting the Ghana Health Service to develop CHPS implementation guidelines and cost estimates. MCSP introduced the CHPS Planning Tool, an Excel-based tool that helps stakeholders to easily project investment and annual operating costs. At subnational level, the tool helps districts identify and mobilize resources, informing decision-making and supporting implementation. To assist the Government of Ghana to make the health system more efficient, accountable, and responsive, MCSP is conducting an actuarial study of the CHPS model and mapping CHPS providers. Results of the study will help determine the contents of the national health insurance scheme benefit package, its financing and payment mechanisms, and service delivery system. • **Nigeria:** In Ebonyi State, MCSP worked with the state MOH and State Primary Care Health Care Development Agency to develop and disseminate a strategy and planning tools to improve financing for essential primary care and RMNCAH drugs through a drug-revolving fund pilot. In addition to obtaining the state MOH's endorsement of the strategy, MCSP also led the institutionalization of financial, logistics management, and M&E tools with the state MOH as it began implementation of the strategy.

Health Information Systems

MCSP undertook a review across 24+ countries to better understand MNH, FP, nutrition, and child health-related content (data elements) in routine HMISs across USAID-supported countries. The review highlighted widespread gaps in the availability of basic essential data across FP and MNCH. All countries have information systems that help national immunization programs plan, implement, monitor, evaluate, and refine

their activities. In the majority of MCSP-supported countries, vaccine information management systems rely heavily on manual, paper-based, and sometimes fragmented components/tools.

Countries examined in the review have adopted different approaches to health information management, with 18 of the countries electing to track and display RMNCAH-related data through national RMNCAH scorecards, compared to nine countries that have not adopted this information tool.

Policies that enable integration of health data collected at the community level into national HMIS are also widespread. Of the 22 countries with data available on this topic, 21 countries allow community-level data to be routinely collected and integrated into the national HMIS. However, though community-level data are collected and reported, there are still widespread gaps in the linkages between community HISs and country HMISs.

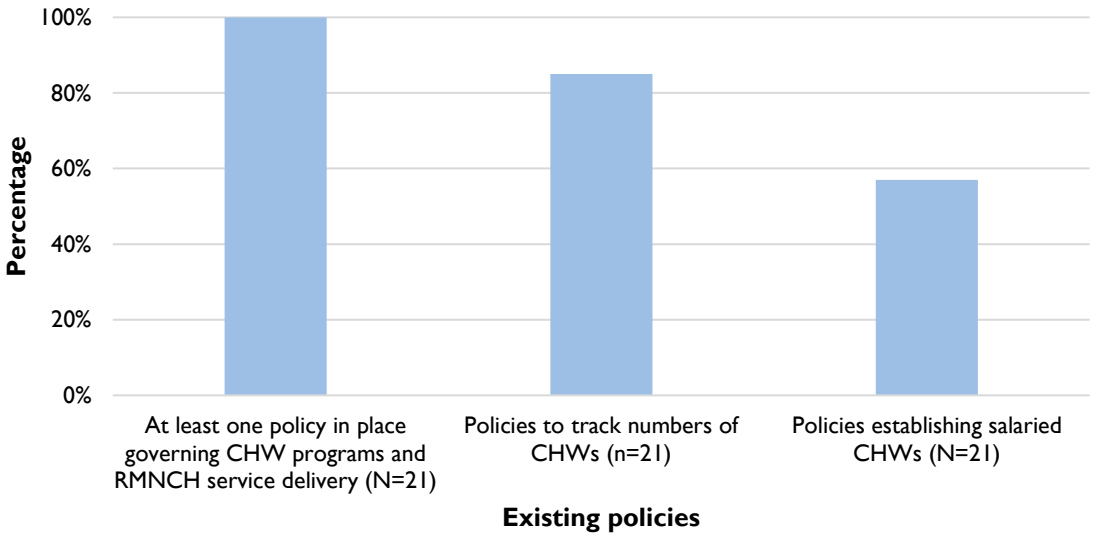
MCSP's Contribution to Strengthening the Health Information System

Policy Element	Specific Examples
Inclusion of key RMNCAH metrics in national HMIS	• **Kenya:** MCSP successfully advocated for the inclusion of key FP indicators in the national HMIS. • **Mozambique:** MCSP was instrumental in supporting the MOH to ensure routine collection of child health data for well and sick children, and their inclusion or availability in Mozambique's national HMIS for the first time. • **Rwanda:** MCSP played a key role in the revision of child health indicators in the HMIS and subsequently standardized reporting tools for child health interventions. MCSP successfully advocated for the inclusion of key FP and MNH indicators in the national HMIS. • **Ethiopia:** MCSP successfully advocated for the inclusion and revision of key FP and newborn indicators (specifically PSBI, KMC, asphyxia, and PNC) in the national HMIS. • **Nigeria:** MCSP successfully advocated for inclusion of key FP and MCH indicators in the HMIS. • **Tanzania:** MCSP successfully advocated for the inclusion of key malaria indicators in the national HMIS. In addition, because there are several parallel data collection information systems for immunization, MCSP supported the MOH to pilot a new vaccine information management system that combines and streamlines data collection into one visualization platform to reduce the duplication of efforts for data management required by health workers. The new system provides immunization program stakeholders with a Web-based, one-stop source of information on vaccine and immunization commodities, cold chain assets, and RI data. • **Namibia:** MCSP provided technical support to the Namibian MOH and Social Science's Health Information and Research Directorate to develop, test, and refine a key piece of the national HIS architecture: the Master Facility List (MFL). The 582 unique health facility identifiers from the MFL are being used across the health system to reduce duplication, map infrastructure and services, and enable data sharing and interoperability between systems such as DHIS 2.0, ePMS, and pTracker. The MFL is hosted by the office of the prime minister.

Community and Civil Society

Effective community-based approaches are critical to improving RMNCAH, both in terms of engagement of key civil society actors and community-based service delivery. Policies that facilitate engagement of CHWs, community members, CSOs, and the private sector in public health programs are needed if interventions are to be effective, accepted, equitable, and sustainable. Of the 21 countries included in this assessment with relevant available data (Figure 6), 100% have at least one policy in place governing CHW programs and RMNCAH service delivery, 81% have policies that provide for the tracking of CHW-related data, and 57% have a policy establishing salaried CHWs. In contrast, less is known about the state of policies regarding government engagement of CSOs and the private sector in health programs. For example, data on policies related to meaningful government engagement of CSOs could only be found for 14 of 27 countries. Regarding government engagement of the private sector in health programming, data from 13 countries indicate that in the majority (85%), the government provides sufficient and timely information to private-sector partners to facilitate their input into health policy processes. In only two of these 13 countries (15%) does the government not engage private-sector partners in this way.

Figure 6. Community health policies



MCSP Contribution to Community and Civil Society Policies

Policy Element	Specific Examples
Government supports meaningful engagement of CSOs	• **DRC:** In support of DRC's action plan developed at the ICHC in South Africa in March 2017, MCSP provided technical and financial assistance to develop the National Community Health Strategic Plan. The strategic plan guides implementation of key activities in community health and clarifies roles of key actors at all levels of the system. • **Rwanda:** MCSP worked with the Government of Rwanda to draft and finalize the national community mobilization strategy. • **Nigeria:** For Bauchi and Sokoto states, MCSP provided key technical leadership and inputs to develop and finalize community mobilization and engagement strategies.
At least one policy governing CHW programs and RMNCAH service delivery	• **Egypt:** MCSP supported the Ministry of Health and Population in assessing 15 components of Egypt's national RR CHW program. Findings from this assessment informed development of a new RR strategy, including policies on hiring new CHWs and providing CHWs with transportation incentives. The Ministry of Health and Population and MCSP jointly launched the new RR strategy in December 2017. • **Ghana:** MCSP supported the development of the CHPS implementation guidelines to help standardize the CHPS strategy. MCSP also developed the CHPS Planning Tool, identified and utilized resources effectively, and planned for sustainability.

Gender

Gender policies and standards are still in the early stages in most countries. Despite the importance of gender issues within public health, publicly available data on adoption of gender-related policies around the world are sparse. In this assessment, MCSP was unable to find publicly available data on availability of national gender strategies for RMNCAH, standards for the provision of GBV treatment services, and standards for provision of gender-sensitive service delivery in the 27 priority countries. The absence of available data tracking uptake of gender-related policies and standards at country level highlights a critical gap in knowledge in this policy area.

MCSP Contribution to Gender Policies

Policy Element	Specific Examples
Standards for GBV services	• **Global:** MCSP worked with the CDC and WHO to develop GBV quality assurance standards and gender service delivery standards for improving gender-sensitive/inclusive RMNCAH care. • **Guinea:** MCSP played a key role in revising GBV management standard operating procedures and integrating GBV prevention and management with the Reproductive Health Norms and Procedures (Guinea's key guidance on primary health care delivery).
Policy for implementation of standards for gender-sensitive service delivery/MOH gender strategies for RMNCAH	• **Mozambique:** MCSP supported the development of the second National Gender Strategy for the Health Sector 2018–2023 and helped integrate gender into the sector annual plan that guides annual priorities and activities. The program contributed to male engagement standards for RMNCAH services with the MOH and partners to ensure that key aspects of male engagement are met in all facilities. • **Nigeria:** MCSP supported the MOH to develop the country's first gender and health policy as well as a strategic implementation framework for it. MCSP also helped integrate gender into the 2017–2022 Ebonyi and Kogi states strategic health development plan that guides priorities and activities in the next 5 years. • **Rwanda:** MCSP integrated gender considerations into the FP and ASRH strategic plan and the MNCH strategic plan.

Conclusion

This review highlights the need for the global RMNCAH community to collectively address some key policy gaps and advance the operationalization of those policies. It is also important to generate evidence on what policy elements contribute most to impact. The table below summarizes areas of progress and gaps in RMNCAH policies across various health system areas. It is also important to keep in mind that new interventions and strategies are always being developed, which necessitates robust mechanisms to review and update policies. These updates may require including new commodities in EMLs, incorporating new indicators, and other similar actions.

A mother and her daughter in Nigeria. Photo: Karen Kasmauski/MCSP

Within such a dynamic environment, a program like MCSP that mainly supports implementation can make meaningful contributions not only to policy implementation but also to policy evaluation, agenda setting, formulation, and adoption. The program's participation in global WGs means it is informed of new developments. Within countries, MCSP's presence means it is well-placed to assist governments to effectively and efficiently operationalize and iteratively refine their polices, taking into account results from initial policy implementation. Thus, programs with a mandate to support implementation of or increase demand for services should be involved in helping countries to assess the adequacy of current policies, formulate new or update old policies, and adopt, implement, and refine those policies.

Governance/ Planning	**Costed multiyear RMNCAH plans:** Existence of national-level, costed plans was found to be high across the components of RMNCAH. The existence of costed plans is still a large gap in the areas of child health, along with the absence of more comprehensive QoC strategies in alignment with the WHO MNCH QoC Network framework was still low as of 2018, though momentum is growing in this area.
Human Resources	Progress is mixed regarding policy elements currently in place to ensure sufficient human resources where needed and authorize them to deliver critical services. Most countries have adopted policies that ensure availability of human resources for RMNCAH services in underserved areas, though much fewer have comprehensive, updated national databases that track health workers by cadre and district to operationalize the policy. In the realm of task shifting, a majority of countries have policies in place authorizing midwives to perform all seven signal functions. In contrast, policies authorizing community-level provision of certain RMNCAH services/products still lag behind.
Essential Drugs	Overall, there is a high level of inclusion of most of the UN Commission on Life-Saving Commodities for Women and Children's drugs in EMLs. The biggest gaps are seen in CHX, misoprostol, and reproductive health-related commodities.
Financing	Complete user fee waivers are widespread for immunization and well-child care; moderately widespread for ANC, maternity care, and newborn and sick-child care; and least established for adolescent care.
Health Information Systems	There are widespread gaps in the availability of basic essential data elements across the RMNCAH spectrum.
Community	All countries examined had at least one policy in place governing CHW programs and RMNCAH service delivery, along with policies that provide for the tracking of CHW-related data. Countries that have a policy establishing salaried CHWs are limited. Less information was available about the state of policies regarding government engagement of CSOs and the private sector in health programs.
Gender	There was an absence of standardized data around availability of national gender-related policies and standards.

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Annex 3. Funding Overview

MCSP was a 5-year cooperative agreement with a $560 million award ceiling (see Table 1 for a breakdown of funding by element). Over the life of project, MCSP core funds comprised 22% of the total budget (Figure 1). Of this, 43% were funds that came through core but were designated for field activities (i.e., Ebola, Zika, Ghana Displaced Children and Orphans Fund, Madagascar Plague), as shown in Figure 2. Figures 2 and 3 reflect the breakdown of core funds, of which the largest proportion was MCH. There were multiple subelements within MCH core funding: immunization and polio received 22% of funds, MH received 12%, Community Health received 10%, Child Health received 9%, HSS received 9%, Newborn Health received 9%, and WASH received 3%. Global Development Alliances, which included SMGL, Survive & Thrive, MAMA, and mPowering, constituted 19% of core MCH funding, with the remaining 7% of MCH funding reserved for miscellaneous needs, such as events, Acting on the Call, and the Lives Saved Tool.

In the context of field funding (Figure 3), MCSP supported a range of country programs, with Haiti, Mozambique, and Nigeria receiving the largest percentages of field funds (17%, 12%, and 12%, respectively) for comprehensive technical assistance and service delivery. Through its funding, MCSP also supported smaller programs with specific studies in countries such as Nepal.

Table 1. MCSP funding by element

	Core Funding Breakdown*												
	FP	HIV/AIDS	WASH	MCH**	Nutrition	Malaria	Ebola	Zika	Infectious Disease	DCOF/ DCHA	NTD	All Field and Bureaus	Total
Total Obligated to date*	$9,725	$5,270	$1,390	$46,125	$3,491	$3,175	$39,997	$8,900	$380	$3,600	$200	$434,480	$556,732

DCOF = Displaced Children and Orphans Fund; DCHA = Bureau for Democracy, Conflict, and Humanitarian Assistance; NTD = neglected tropical diseases

*Amounts are in thousands

** Does not include WASH,

MCSP's cost share requirement was 10% of expenses incurred over the life of the project. MCSP exceeded this requirement, identifying 16.3% of project expenses as cost share and meeting 163% of the cost share requirement. Please see the separate Cost Share Report for additional information.

Table 2. MCSP life-of-project cost share summary

	Expenses (Inception to Date)	Total Cost Share Required (10% of Expenses)	Total Cost Share Identified	Excess Cost Share Reported	Percentage of Required Cost Share Identified
Total Cost Share	$548,895,137	$52,944,845	$88,071,439	$32,398,187	163%

Figure 1. Field, core, and bureau funding

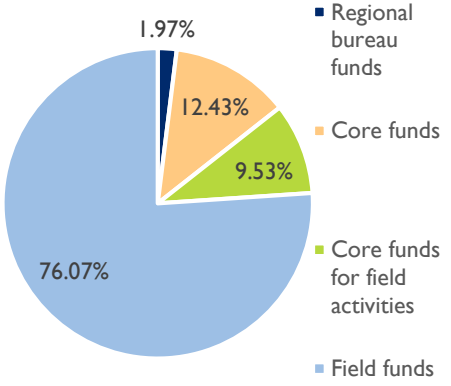


Figure 2. MCSP core funding by element

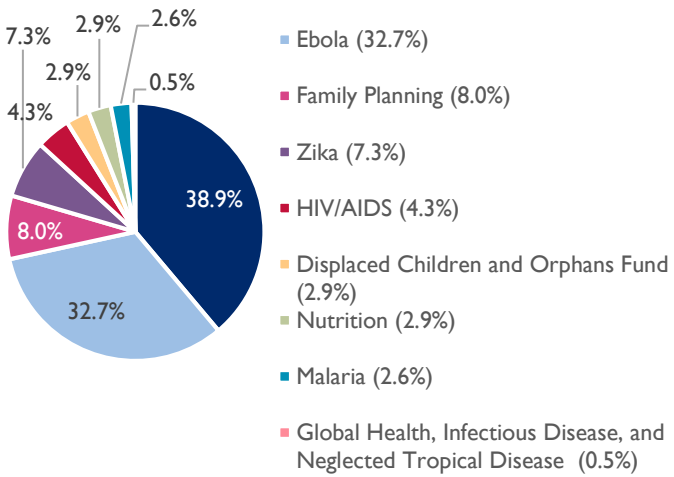


Figure 3. MCSP field funding by country˜

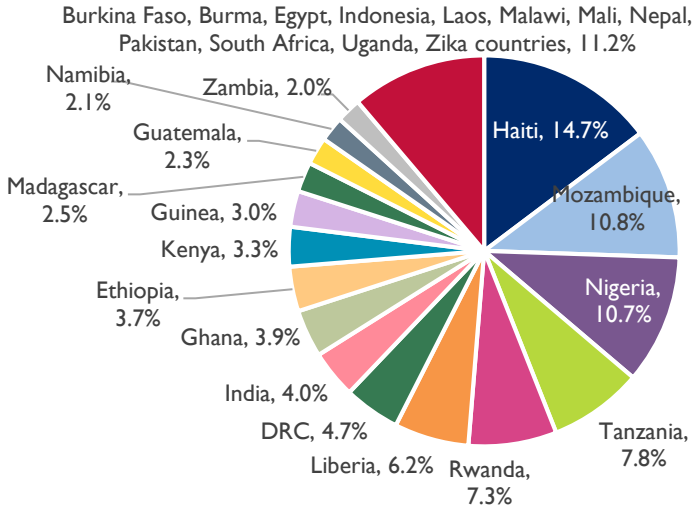


Figure 4. Core funding by technical or cross-cutting area*

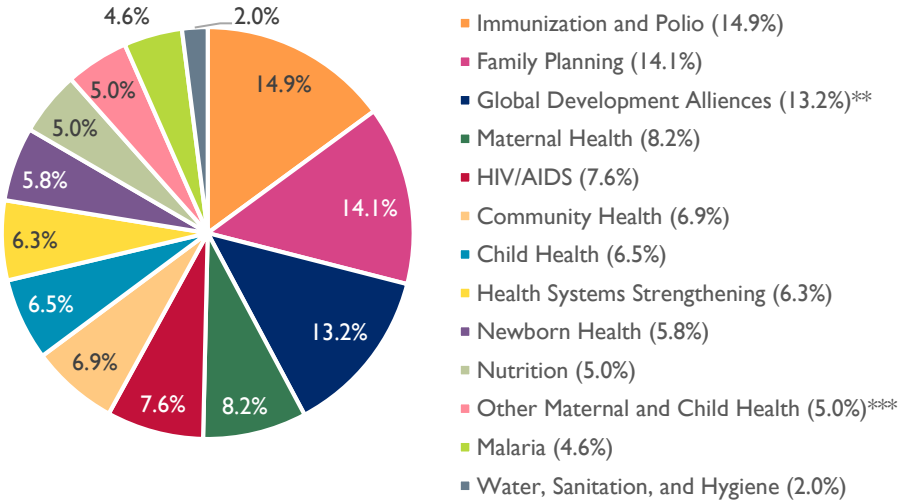
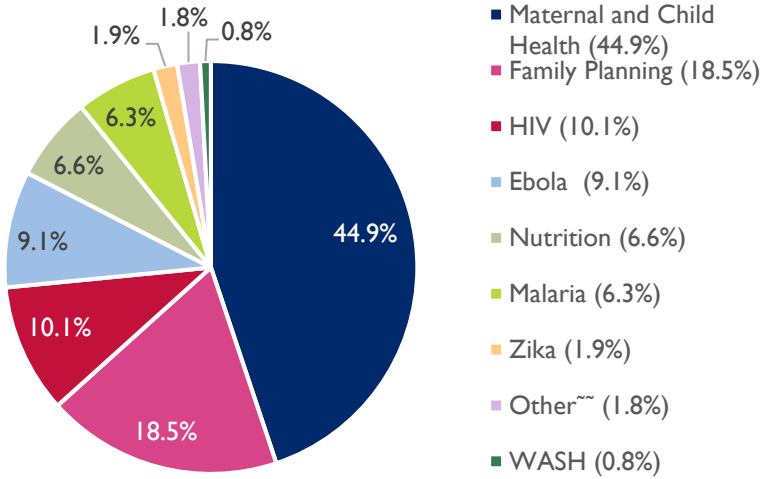


Figure 5. Field funding by type˜



* Figure 4 does not include core funds which were used for field programs, such as Ebola, Zika, Displaced Children and Orphans Fund, and plague funding
** The Global Development Alliances included mPowering, the Mobile Alliance for Maternal Action, Saving Mothers Giving Life, Survive and Thrive, and Helping Babies Breathe.
*** "Other Maternal and Child Health" in Figure 4 includes funding to support dissemination events, the Lives Saved Tool, USAID's Acting on the Call report, and M&E support (specifically, the RMNCH Scorecard).

˜ Figures 3 and 5 include core funds which were used for field programs, such as Ebola, Zika, Displaced Children and Orphans Fund, and plague funding
˜˜ "Other" in Figure 5 includes funding for Education, program design and learning, Displaced Children and Orphan's Funding, gender-based violence, plague, tuberculosis, and neglected tropical diseases

Annex 4. Performance Monitoring Plan

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
1	Couple-years of protection (CYP) in MCSP-supported areas	Total: 2,171,470 Haiti: 68,294 Mali: 2,103,176	Total CYP: 834,797 Ethiopia – BEmONC: 1,643 Guinea – FP – MCH/GBV: 12,248 Haiti – Social Marketing: 79,023 Kenya: 78,352 Mali: 460,612 Mozambique: 201,013 Nigeria – MNH: 805 Zambia: 1,504	Total CYP: 598,600 Ethiopia – BEmONC: 2,307 Guinea – MCH/GBV: 48,949 Guinea – Restoration Services: 80,387 Haiti – SSQH: 93,184 Kenya: 211,961 Liberia – Restoration of Health Services (RHS): 21,055 Malawi: 11,998 Mozambique: 80,736 Nigeria – MNCH: 48,025	Total: 1,811,658 DRC: 7,187 Guinea – Restoration Services: 32,479 Haiti – SSQH: 405,036 India – FP: 220,510 Kenya: 305,846 Liberia – RHS: 24,062 Malawi: 40,296 Mozambique: 268,421 Nigeria – RMNCH: 56,303	Total: 2,709,227 DRC: 10,076 Guatemala: 65,755 Haiti – SSQH: 108,144 India – FP: 630,585 India – Healthy Cities: 559,318 Mozambique: 550,099 Nigeria – RMNCH: 90,641 Pakistan – AFPP: 52,667 Zambia: 641,943	Total: 758,376 DRC: 2956 Guatemala: 9,650 India – FP: 428,419 Mozambique: 99,098 Pakistan: 62,496 Zambia: 155,756
2	Percent of women delivering in MCSP-supported health facilities who accept a method of FP prior to discharge	Mali (12,152/19,290): 63%	Ethiopia – BEmONC: 498/12,761 (4%) Guinea – FP – MCH/GBV: 3,574/15,595 (23%) Mali: 41,370 (numerator only) Madagascar: 171/1,205 (14%) Zambia: 56/10,460 (1%)	Ethiopia – BEmONC: 699/36,194 (2%) Guinea – MCH/ GBV: 16,849 (numerator only) Guinea – Restoration Services: 29,568/123,142 (24%) Madagascar: 3,002/21,857 (14%) Mozambique: 3,062/41,869 (7%) Nigeria – MNCH: 1,615/22,962 (7%) Rwanda: 5,926/104,965 (6%) Tanzania: 6,232/42,737 (15%)	DRC: 320/5,360 (6%) Guinea – Restoration Services: 10,072/34,175 (30%) India – FP: 24,212/130,606 (19%) Madagascar: 11,546/54,264 (21%) Mozambique: 22,074/146,820 (15%) Nigeria – RMNCH: 5,035/20,937 (24%) Rwanda: 22,869/101,283 (23%)	DRC: 2,036/11,144 (20%) India – FP: 47,312/248,117 (19%) Madagascar: 5,079/25,275 (20%) Mozambique: 38,922/161,010 (24%) Nigeria – RMNCH: 8,301/22,198 (37%) Rwanda: 44,711/96,632 (46%)	DRC: 599/26,16 (23%) India – FP: 30,360/131,779 (23%) Mozambique: 12,514/46,545 (27%)
3	Number of facilities where MCSP increased access to permanent FP methods	New PMP Indicator			Total: 32 Nigeria – RMNCH: 8 Rwanda: 24	Total: 200 India – FP: 186 Mozambique: 14	None Reported
4	Number of countries where MCSP support includes training of service providers	1: Haiti	5: Madagascar, Haiti, Nigeria, Tanzania, Zambia	4: Kenya, Nigeria, Rwanda, Tanzania	4: Egypt, Kenya, Nigeria, Rwanda	3: India, Nigeria, Rwanda	None Reported

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
	and/or promotion of permanent methods						
5	Number of clients attending essential MNCH services at MCSP-supported facilities who adopted an FP method during that visit	None reported	Total: 330,076 Guinea – FP – MCH/GBV: 35,446 Mozambique – Bridge: 291,824 Nigeria – MNH: 2,412 Zambia: 394	Total: 137,468 Guniea – MCH/GBV: 69,432 Guinea – Restoration Services: 997 Liberia – RHS: 7,230 Madagascar: 3,043 Nigeria – MNCH: 13,231 Rwanda: 43,535	Total: 39,357 DRC: 3,855 Guinea – Restoration Services: 172 Madagascar: 8,171 Nigeria – RMNCH: 27,159	Total: 37,096 Barbados: 143 DRC: 7,782 Guyana: 114 Nigeria – RMNCH: 29,008 St. Lucia: 49	Total: 2,454 DRC: 2,454
6	Number of service delivery points that expanded the types of contraceptive methods available with MCSP support	Total: 281 Haiti – Social Marketing: 106 Mali: 175	Total: 71 Ethiopia – BEmONC: 18 Haiti – Social Marketing: 51 Haiti – SSQH : 2	Total: 163 Ethiopia – BEmONC: 24 Madagascar: 64 Nigeria – MNCH: 6 Rwanda: 69	Total: 782 DRC: 48 Haiti – SSQH: 164 Madagascar: 459 Nigeria – RMNCH: 8 Rwanda: 103	Total: 633 DRC: 88 India – FP: 52 Madagascar: 459 Nigeria – RMNCH: 14 Zambia: 20	Total: 88 DRC: 88
7	Percentage of MCSP-supported facilities that offer delivery services with MgSO4 available in the delivery room	None reported	Ethiopia – BEmONC: 18/22 (82%) Guinea – FP – MCH/GBV: 234/234 (100%) Mozambique – Bridge: 127/127 (100%) Zambia: 17/91 (19%)	Guinea – MCH/ GBV: 234/234 (100%) Guinea – Restoration Services: 218/218 (100%) Kenya: 289/289 (100%) Liberia – RHS: 32/77 (42%) Madagascar: 695/695 (100%) Mozambique: 1,211/1,211 (100%) Nigeria – MNCH: 34/120 (28%) Rwanda: 78/170 (46%)	Kenya: 289/289 (100%) Liberia – RHS: 56/77 (73%) Madagascar: 815/815 (100%) Nigeria – RMNCH: 46/240 (19%) Rwanda: 78/170 (46%)	Liberia - RHS:Madagascar: 822/822 (100%) Rwanda: 168/174 (97%)	None Reported
8	Percentage of pregnant women who received IPTp	New PMP Indicator			Burkina Faso: 606/704 (86%) IPTp1: Kenya: 64,394/97,768 (66%) Liberia – RHS: 7,328/10,547 (70%) Nigeria – RMNCH: 44,184/63,398 (80%)	IPTp1: Burkina Faso: 1618/1703 (95%) Liberia – EMS: 10,976/14,656 (75%) Liberia – RHS: 7,229/9,726 (74%) Nigeria – RMNCH: 35,646/62,092 (57%)	See Table 1 for details related to this indicator.

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
						Zambia: 207,711/277,985 (75%)	
9	Number of deliveries in MCSP-supported health facilities (institutional deliveries)	New PMP Indicator			Total: 631,861 Guinea – Restoration Services: 28,275 Haiti – SSQH: 19,959 Kenya: 59,333 Laos: 732 Liberia – RHS: 15,645 Madagascar: 90,723 Malawi: 76,253 Mozambique: 146,820 Nigeria –MAMA: 11,827 Nigeria – RMNCH: 25,776 Rwanda: 104,855 Tanzania: 52,580	Total: 834,759 Guatemala: 523 Haiti – SSQH: 6,119 Kenya: 7,080 India – Healthy Cities: 6,270 Liberia – RHS: 4,315 Madagascar: 60,901 Malawi: 32,048 Mozambique: 161,010 Nigeria – MAMA: 18,153 Nigeria – RMNCH: 24,617 Rwanda: 99,041 Zambia: 421,762	Total: 61,244 Guatemala: 197 Mozambique: 46,918 Zambia: 14,129
10	Percentage of women receiving a uterotonic in the third stage of labor in MCSP-supported areas	Mali: 17,221/19,290 (89%)	Ethiopia – BEmONC: 12,680/13,663 (93%) Madagascar: 3,186/3,561 (90%) Zambia: 9,881/10,460 (94%)	Ethiopia – BEmONC: 15,838/22,892 (69%) Guinea – Restoration Services: 79,986/90,686 (88%) Haiti – SSQH: 6,087/24,393 (25%) Laos: 98/105 (93%) Madagascar: 35,917/36,774 (98%) Mozambique: 38,895/41,869 (93%) Nigeria – MNCH: 18,867/40,585 (47%) Rwanda: 95,047/104,965 (91%) Tanzania: 70,221/110,461 (64%)	Guinea – Restoration Services: 26,580/28,275 (94%) Haiti – SSQH: 14,816/19,959 (74%) Kenya: 13,793/59,333 (23%) Laos: 707/732 (97%) Madagascar: 89,449/90,103 (99%) Mozambique: 144,351/146,820 (98%) Nigeria – RMNCH: 21,810/25,776 (81%) Rwanda: 91,760/101,283 (91%) Tanzania: 48,040/52,580 (91%)	Guatemala: 335/523 (64%) Haiti – SSQH: 4,196/6,119 (69%) India – Healthy Cities: 2,628/6,270 (42%) Madagascar: 60,197/60,901 (99%) Mozambique: 160,534/161,010 (100%) Nigeria – RMNCH: 24,134/24,617 (98%) Rwanda: 85,188/99,041 (86%) Zambia: 476,242/421,762 (113%)	Guatemala: 167/197 (85%) Mozambique: 44,722/46,918 (95%) Zambia: 14,129/14,129 (100%)
11	Number of newborns admitted to facility-based KMC at MCSP-supported facilities	Total: 1,026 Mali: 1,026	Total: 437 Mozambique: 437	Total: 5,254 Kenya: 55 Mozambique: 2,607 Nigeria – MNCH: 158 Rwanda: 1,869 Tanzania: 565	Total: 6,521 Kenya: 313 Mozambique: 2,213 Nigeria – RMNCH: 255 Rwanda: 2,136 Tanzania: 1,604	Total: 8,676 Mozambique: 6,552 Nigeria – RMNCH: 521 Rwanda: 1,603	Total: 2,116 Mozambique: 2,116

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
12	Percentage of babies not breathing/crying at birth who were successfully resuscitated in MCSP-supported areas	Mali: 301/324 (93%)	Ethiopia – BEmONC: 94 (numerator only) Guinea – FP – MCH/GBV: 355 (numerator only) Madagascar: 156/199 (79%) Mozambique: 128/171 (75%) Zambia: 447/520 (86%)	Ethiopia – BEmONC: 272 (numerator only) Guinea – MCH/GBV: 1,662 (numerator only) Guinea – Restoration Services: 4,095 (numerator only) Madagascar: 2,579/2,928 (88%) Mozambique: 565/657 (85%) Nigeria – MNCH: 105/105 (100%) Rwanda: 2,087/2,799 (75%)	Guinea – Restoration Services: 1,236/1,988 (62%) Madagascar: 6,069/6,791 (89%) Mozambique: 1,687/2,048 (82%) Nigeria – RMNCH: 821/862 (95%) Rwanda: 4,761/6,207 (81%)	Madagascar: 3,547/4,092 (87%) Mozambique: 1,652/2,072 (80%) Nigeria – RMNCH: 1,118/1,166 (96%) Rwanda: 3,319/3,986 (83%)	Mozambique: 479/576 (83%)
13	Percentage of newborns who were not breathing spontaneously/crying at birth for whom resuscitation actions (stimulation and/or bag and mask) were initiated	New PMP Indicator			Rwanda: 2,799/2,799 (100%)	Nigeria – RMNCH: 862/862 (100%) Rwanda: 6,207/6,207 (100%)	None Reported
14	Number of countries in which interventions to address the unique RMNCH needs of FTYP are initiated	None reported	Total: 1 Nigeria	Total: 3 Madagascar, Mozambique, Nigeria	Total: 3 Madagascar, Mozambique, Nigeria	Total: 4 Madagascar, Mozambique, Nigeria, Zambia	None Reported
15	Number of children ages 2–59 months with fever during the reporting period (3 months) for whom advice or treatment was sought from a community case management (CCM)-trained CHW in MCSP-supported areas	Total: 23,713 Mali: 23,713	None Reported	Total: 152,450 Rwanda: 152,450	Total: 309,786 DRC: 22,599 Mozambique: 95,674 Rwanda: 191,513	Total: 377,395 DRC: 38,983 Mozambique: 122,848 Rwanda: 211,077 Uganda: 4,487	Total: 13,195 Mozambique: 13,195
16	Number of children ages 2–59 months with fast or difficult breathing during the reporting period (3 months) for whom advice or treatment was sought from a CCM-trained CHW in MCSP- supported areas	Total: 6,235 Mali: 6,235	None reported	Total: 24,405 Rwanda: 24,405	Total: 100,973 DRC: 5,562 Haiti – SSQH: 61,273 Rwanda: 34,138	Total: 44,149 DRC: 10,176 Haiti – SSQH: 4,337 Mozambique: 15,630 Rwanda: 14,006	None Reported

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
17	Number of cases of child diarrhea treated in USAID-assisted (MCSP) programs	Total: 6,259 Mali: 6,259	Total: 7,180 Kenya: 6,811 Mali: 369	Total: 119,457 Guinea – MCH/GBV: 454 Guinea – Restoration Services: 1,307 Kenya: 54,231 Liberia – RHS: 4,446 Mozambique: 3,232 Namibia: 451 Rwanda: 55,336	Total: 221,492 DRC: 20,898 Guinea – Restoration Services: 592 Haiti – SSQH: 20,953 Kenya: 35,266 Liberia – RHS: 6,810 Mozambique: 68,302 Nigeria – RMNCH: 2,530 Rwanda: 63,205 Uganda: 2,936	Total: 228,643 DRC: 33,123 Haiti – SSQH: 1,057 Liberia – RHS: 1,909 Mozambique: 97,216 Nigeria – RMNCH: 6,292 Rwanda: 73,841 Uganda: 15,205	Total: 8,310 Mozambique: 8,310
18	Number of cases of child pneumonia treated with antibiotics by trained facility or CHWs in US government (MCSP)-supported programs	Total: 6,235 Mali: 6,235	Total: 3,732 Kenya: 2,998 Mali: 734	Total: 105,245 Guinea – MCH/GBV: 697 Guinea – Restoration Services: 6,961 Kenya: 24,495 Liberia – RHS: 11,268 Mozambique: 2,680 Rwanda: 59,144	Total: 154,384 DRC: 21,682 Guinea – Restoration Services: 6,157 Kenya: 17,694 Liberia – RHS: 22,200 Mozambique: 14,108 Nigeria – RMNCH: 2,992 Rwanda: 68,746 Uganda: 805	Total: 163,946 DRC: 41,943 Liberia – RHS: 8,725 Mozambique: 18,531 Nigeria – RMNCH: 6,454 Rwanda: 74,117 Uganda: 14,176	Total: 3,130 Mozambique: 3,130
19	Percentage of children under 12 months old who received DPT3/Penta3 vaccine in MCSP-supported areas	Malawi: 397,503/440,194 (90%) Uganda: 18,309/24,427 (75%)	Malawi: 34,970/100,235 (35%) Tanzania: 129,316/120,417 (107%) Uganda: 72,969/99,907 (73%)	Haiti – SSQH: 33,087/41,344 (80%) Kenya: 85,634/90,241 (95%) Liberia – RHS: 13,366/18,747 (71%) Malawi: 30,916/47,088 (66%) Mozambique: 31,084 (numerator only) Nigeria – RI: 455,561/478,678 (95%) Tanzania: 173,057/171,812 (101%) Uganda – 40,022/46,452 (86%)	Haiti – SSQH: 94,533/84,832 (111%) Kenya: 57,856/82,095 (71%) Liberia – RHS: 21,537/33,141 (65%) Madagascar: 60,433/62,849 (96%) Malawi: 35,172/47,588 (74%) Mozambique: 115,756/106,248 (109%) Nigeria – RI: 443,369/466,222 (95%) Tanzania: 177,237/169,297 (105%) Uganda: 118,636/146,008 (81%) Zambia: 181,016/176,211 (103%)	Burkina Faso: 12,738/11,960 (107%) Haiti – SSQH: 21,051/21,208 (99%) Liberia – RHS: 8,520/15,020 (57%) Madagascar: 41,824/48,065 (87%) Malawi: 8,886/12,175 (73%) Mozambique: 129,737/110,292 (118%) Nigeria – RI: 377,060/470,762 (80%) Tanzania: 469,669/530,538 (89%)	Burkina Faso: 26,824/23,920 (112%) Guatemala: 5,000/5,962 (84%) Mozambique: 25,515/20,851 (122%) Nigeria – RI: 88,974/118,018 (75%) Tanzania: 70,062/77,597 (90%) Uganda: 30,228/38,411 (79%) Zambia: 53,434/60,349 (89%)

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
						Uganda: 110,105/149,172 (74%) Zambia: 234,051/239,784 (98%)	
20	Percentage of target health facilities with appropriate handwashing supplies in the delivery room in MCSP-supported areas	Mali: 175/175 (100%)	Guinea – FP – MCH/GBV: 74/234 (32%)	Guinea – FP – MCH/GBV: 74/234 (32%) Kenya: 289/289 (100%) Liberia – RHS: 77/77 (100%) Nigeria – MNCH: 97/120 (81%) Rwanda: 157/170 (92%)	DRC: 10/10 (100%) Ethiopia – CBNC: 13/13 (100%) Haiti – SSQH: 69/69 (100%) Kenya: 415/415 (100%) Laos: 11/12 (92%) Liberia – RHS: 77/77 (100%) Rwanda: 157/172 (91%)	DRC: 35/35 (100%) Guatemala: 1/11 99%) Liberia – RHS: 77/77 (100%) Nigeria – RMNCH: 321/321 (100%)	DRC: 40/40 (100%)
21	Number of children under 5 reached by MCSP-supported nutrition programs	Total: 5,879 Mali: 5,879	Total: 117,388 Kenya: 117,388	Total: 461,305 Haiti – SSQH: 105,348 Kenya: 355,957	Total: 1,316,038 Haiti – SSQH: 361,825 Kenya: 422,996 Mozambique: 531,217	Total: 3,147,605 DRC: 44,637 Guatemala: 267,888 Haiti – SSQH: 139,174 Mozambique: 2,695,906	Total: 143,600 Guatemala: 44,786 Mozambique: 98,814
22	Number of HIV-positive pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission	None reported	Total: 17,884 Haiti – Social Marketing: 546 Mozambique: 16,602 Zambia: 736	Total: 687 Haiti – SSQH: 662 Liberia – RHS: 25	Total: 1,125 Haiti – SSQH: 1,109 Liberia – RHS: 16	Total: 184 Haiti – SSQH: 158 Liberia – RHS: 26	None Reported
23	Number of MCSP-supported countries with PSE strengthened to improve RMNCH services with MCSP support	Total: 2	Total: 4	Total: 7	Total: 11	Total: 7	None Reported
24	Number of people trained through USG-supported programs	Total: 555	Total: 19,006	Total: 75,054	Total: 187,793	Total: 200,694	Total: 11,377 See Table 2 for details related to this indicator.
25	Number of MCSP-supported health facilities actively implementing a QI approach	Total: 177	Total: 1,239	Total: 1,263	Total: 1,159	Total: 911	Total: 204 See Table 3 for details related to this indicator.

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
26	Number of countries where MCSP has supported the scale-up of high-impact RMNCH interventions	None reported	Total: 9	Total: 16	Total: 17	Total: 17	See Table 4 for details related to this indicator.
27	Percentage of pregnant women who received IFA	New PMP Indicator			Liberia – RHS: 9,901/10,547 (94%) Mozambique: 98,445/169,023 (58%) Nigeria – RMNCH: 13,135/63,398 (21%) Rwanda: 97,542/110,062 (89%)	Mozambique: 152,272/189,646 (82%) Nigeria – RMNCH: 60,617/62,092 (98%) Rwanda: 106,348/111,748 (95%)	Mozambique: 31,856/34,924 (91%)
28	Percentage of newborns who were put to the breast within 1 hour of birth	New PMP Indicator			Kenya: 21,561/24,320 (89%) Madagascar: 88,765/90,723 (98%) Malawi: 96,390/123,967 (78%) Mozambique: 131,981/140,855 (94%) Nigeria – RMNCH: 18,491/24,546 (75%) Rwanda: 92,211/97,090 (95%) Zambia: 131,015/150,173 (87%)	Guatemala: 488/682 (72%) Kenya: 6,236/7,080 (88%) Madagascar: 53,605/54,471 (98%) Malawi: 11,069/12,367 (90%) Mozambique: 149,599/159,031 (94%) Nigeria – RMNCH: 21,178/24,156 (88%) Rwanda: 88,067/93,263 (94%) Zambia: 148,655/ 204,654 (73%)	Guatemala: 501/639 (78%) Mozambique: 25,626/27,646 (93%) Zambia: 47,145/55,474 (85%)
29	Percentage of women counseled on exclusive breastfeeding prior to discharge after birth	New PMP Indicator			Malawi: 67,364/76,253 (88%) Nigeria – RMNCH: 2,636/25,776 (10%)	Malawi: 28,664/32,048 (89%) Nigeria – RMNCH: 5,209/24,617 (21%)	None Reported
30	Percentage of infants under 6 months old reported as exclusively breastfed	New PMP Indicator			Kenya: 11,542/13,229 (87%)	Guatemala: 103/142 (73%) Kenya: 3,343/3,666 (91%)	Guatemala: 92/131 (70%)
31	Number of children under 2 (0–23 months) reached with community-level nutrition interventions through US government-supported programs	New PMP Indicator			Total: 226,973 Haiti – SSQH: 144,606 Kenya: 23,095 Mozambique: 59,272	Total: 788,786 DRC: 6,795 Haiti – SSQH: 94,060 Kenya: 7,054 Mozambique: 680,877	Mozambique: 94,787

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
32	Rapid diagnostic test testing rate: Percentage of children in malaria-endemic areas aged 0–59 months presenting with fever who were tested with rapid diagnostic test or microscopy	New PMP Indicator			DRC: 89,670/92,478 (97%) Liberia – RHS: 72,256/115,096 (63%) Mozambique – Malaria: 393,294/394,844 (100%) Mozambique: 919,807/922,539 (100%) Nigeria – RMNCH: 8,298/9,388 (88%) Rwanda: 191,513/191,947 (100%) Uganda: 29,126/32,268 (90%)	DRC: 132,667/147,949 (90%) Liberia – EMS: 58,613/73,485 (80%) Liberia – RHS: 18,061/29,907 (60%) Mozambique: 1,183,291/1,184,519 (100%) Rwanda: 211,077/211,076 (100%) Uganda: 90,919/96,401 (94%)	Liberia – EMS: 118,510/136,953 (87%) Mozambique: 188,706/188,717 (100%)
33	Percent of confirmed malaria cases in children aged 0–59 months that receive first-line antimalarial treatment (ACT)	New PMP Indicator			DRC: 68,651/73,317 (94%) Kenya: 108,026/108,026 (100%) Liberia – RHS: 75,447/49,432 (153%) Mozambique: 598,195/518,448 (115%) Mozambique – Malaria: 231,282/241,204 (96%) Nigeria – RMNCH: 16,493/16,699 (99%) Rwanda: 117,884/117,939 (100%) Uganda: 17,474/13,382 (95%)	DRC: 99,882/107,544 (93%) Liberia – EMS: 51,502/41,609 (124%) Liberia – RHS: 15,383/10,874 (142%) Mozambique: 657,702/645,415 (102%) Nigeria – RMNCH: 31,271/31,535 (99%) Rwanda: 138,969/138,969 (100%) Uganda: 50,946/53,949 (94%)	Liberia – EMS: 71,305/73,459 (97%) Mozambique: 120,702/121,574 (99%)
34	Number of children aged 0–59 months referred to a higher-level health facility by CHW or primary health facility for treatment of severe diarrhea, pneumonia, malaria, and/or danger signs in US government (MCSP)-supported programs per 1,000 children aged 0–59 months (estimate) in MCSP areas	New PMP Indicator			Total: 84,181 DRC: 1,550 Rwanda: 81,793 Uganda: 838	Total: 181,704 DRC: 2,153 Nigeria – RMNCH: 255 Rwanda: 172,983 Uganda: 6,313	None Reported

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
35	Percentage of target health facilities in MCSP-supported areas that make at least one WASH improvement that was identified in their action plan	New PMP Indicator2w32			None reported	Total: 2 DRC: 35/35 (100%) Haiti: 69/69 (100%)	Total: 1 DRC: 40/40 (100%)
36	Institutional maternal mortality ratio	New PMP Indicator			Liberia – RHS: 41/15,645 (262 per 100,000) Madagascar: 73/89,806 (81 per 100,000) Mozambique: 201/146,820 (137 per 100,000) Nigeria – RMNCH: 26/25,776 (101 per 100,000)	Liberia – RHS: 10/4,315 (231 per 100,000) Madagascar41/60,901 (67 per 100,000) Mozambique: 193/161,010 (120 per 100,000) Nigeria – RMNCH: 40/24,617 (162 per 100,000)	Mozambique: 44/46,918 (95 per 100,000)
37	Number of people completing an intervention pertaining to gender norms that meet minimum criteria	None reported	None reported	Total: 14,409 Ethiopia – BeMONC: 64 Haiti – PCMD: 9 Haiti – SSQH: 2,817 Mozambique: 632 Nigeria – MNCH: 252 Tanzania: 10,635	Total: 577 Liberia – HRH: 25 Mozambique: 121 Nigeria – RMNCH: 431	Total: 548 Liberia – HRH: 185 Nigeria – RMNCH: 363	None Reported
38	Number of countries where MCSP supported a gender analysis	Mali: 1	None Reported	Total: 3 Guinea – MCH/GBV, Nigeria – MNCH, Tanzania	Total: 2 Liberia – HRH, Nigeria – RMNCH	Total: 4 Liberia – HRH, Nigeria – RMNCH, Rwanda, Tanzania	None Reported
39	Number of people receiving post-GBV care	New PMP Indicator			Total: 8,964 Guinea – MCH/GBV: 34 Haiti – SSQH: 3,340 Rwanda: 5,590	Total: 8,176 Haiti – SSQH: 393 Rwanda: 7,783	None Reported
40	Number of visits accompanied by male partners to specified RMNCH services	New PMP Indicator			Total: 142,284 Mozambique: 140,284 Nigeria – RMNCH: 1,894	Total: 209,351 Mozambique: 191,572 Nigeria – RMNCH: 17,779	Total: 60,937 India – FP: 82 Mozambique: 60,855
41	Number of young people accessing sexual reproductive health services in MCSP-supported facilities/areas	New PMP Indicator			Total: 519,340 Haiti – SSQH: 485,947 Mozambique: 13,852 Nigeria – RMNCH: 13,566	Total: 242,250 Haiti – SSQH: 128,390 Nigeria – RMNCH: 23,865 Zambia: 89,995	None Reported

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
					Zambia: 5,975		
42	Number of countries that have introduced a health service innovation with MCSP support	Mali: 1	2 Priority innovations 2 Other innovations	10 Priority innovations 8 Other innovations	15 priority innovations 1 Other innovation	11 priority innovations 4 Other innovations	1 Priority innovation
43	Number of grants awarded to local nongovernmental institutions to advance RMNCH services	None reported	Total: 5 Malawi: 1 Nigeria – MNH: 4	Total: 22 DRC: 1 Haiti – PCMD: 3 Mozambique: 1 Namibia: 1 Nigeria – MNCH: 4 Rwanda: 4 Tanzania: 8	Total: 10 DRC: 1 Mozambique: 1 Nigeria – RMNCH: 4 Rwanda: 4	Total: 9 DRC: 1 Namibia: 1 Nigeria – RMNCH: 4 Rwanda: 3	Total: 8 Barbados: 1 Grenada: 3 Guyana: 1 St. Lucia: 1 Trinidad and Tobago: 2
44	Number of local partners whose capacity MCSP has built	None reported	Total: 23 Burma: 1 Ethiopia – BEmONC: 11 Ghana: 3 Madagascar: 3 Malawi: 1 Nigeria – MNH: 4	Total: 59 Ethiopia – BeMONC: 2 Ghana – PSE/CHPS: 3 Liberia – RHS: 1 Madagascar: 3 Mozambique: 32 Myanmar (Burma): 4 Namibia: 1 Nigeria – MNCH: 4 Rwanda: 1 Tanzania: 8	Total: 26 DRC: 5 Egypt: 1 Ghana – PSE/ CHPS: 3 Liberia – HRH: 2 Liberia – RHS: 1 Madagascar: 3 Myanmar (Burma): 3 Nigeria – RMNCH: 4 Rwanda: 4	Total: 26 Egypt: 1 Ghana – PSE/ CHPS: 5 Liberia – HRH: 5 Liberia – RHS: 1 Madagascar: 5 Myanmar (Burma): 4 Namibia: 1 Nigeria – RMNCH: 4	Total: 17 DRC: 8 Barbados: 1 Grenada: 2 Guyana: 2 St. Lucia: 2 Trinidad and Tobago: 2
45	Number of countries that have used information and communication technologies to improve the performance of health systems or support service delivery with MCSP support	Mali: 1	Total: 4 Ghana – PSE/CHPS, Guinea – IPC, Madagascar, Nigeria – MNH	Total: 8 Ghana – PSE/CHPS, Guinea – MCH/GBV, Madagascar, Namibia, Nigeria – MAMA, Nigeria – MNCH, Nigeria – RI, Tanzania	Total: 7 Egypt, Ghana – PSE/CHPS, Haiti – SSQH, Madagascar, Namibia, Nigeria – RMNCH, Rwanda	Total: 6 Egypt, Ghana – PSE/CHPS, Guatemala, Madagascar, Namibia, Tanzania	None Reported
46	Number of countries that have introduced new vaccines with MCSP support	None reported	Total: 2 Malawi: 2 Tanzania: 1	Total: 9 Kenya: 2 Liberia – RHS: 1 Malawi: 1 Nigeria – RI: 2 Tanzania: 2 Uganda: 1	Total: 3 Malawi: 1 Nigeria – RI: 1 Tanzania: 1	Total: 3 Mozambique: 2 Tanzania: 1 Uganda: 1	None Reported
47	Number of countries where MCSP has used innovative approaches to strengthen referral systems	Total: 1 Mali	Total: 1 Guinea – IPC	Total: 5 Guinea – MCH/GBV, Haiti – PCMD, Nigeria	Total: 5 Kenya, Madagascar, Mozambique – PCMD,	Total: 5 Guatemala, Madagascar,	None Reported

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
				– MNH, Nigeria – RI, Rwanda – PCMD	Namibia, Nigeria – RMNCH	Mozambqiue, Namibia, Nigeria - RMNCH	
48	Number of (national) policies drafted with US government (MCSP) support	Total: 2	Total: 8	Total: 42	Total: 37	Total: 32	Total: 1 DRC: 1
49	Number of studies completed	Total: 1	Total: 1	Total: 15	Total: 14	Total: 26	Total: 8 DRC: 2 Nigeria – Routine Immunization: 3 Uganda: 3
50	Number of articles submitted for publication in peer-reviewed journals	None Reported	None Reported	Total: 5 Guinea – MCH/GBV: 2 Kenya: 1 Madagascar: 2	Total: 1 Madagascar: 1	Total: 6 DRC: 1 Madagascar: 1 Nigeria – RMNCH: 3 Tanzania: 1	Total: 3 DRC: 2 Nigeria – Routine Immunization: 1
51	Number of technical reports/papers, policy/research/ program briefs, and fact sheets produced and disseminated	Total: 1 Mali: 1	Total: 21 Ghana – PSE/CHPS: 3 Guinea – FP – MCH/ GBV: 5 Guinea – IPC: 6 Madagascar: 2 Mozambique – Bridge: 1 Nigeria – MNH: 3 Uganda: 1	Total: 60 Guinea – MCH/GBV: 5 Guinea – IPC: 4 India – FP: 2 Liberia – RHS: 4 Madagascar: 2 Nigeria – MNCH: 3 Nigeria – RI: 4 Rwanda: 5 Tanzania: 29 Uganda: 2	Total: 25 Ghana – PSE/CHPS: 7 Liberia – RHS: 3 Madagascar: 3 Malawi: 1 Nigeria – RI: 3 Rwanda: 8	Total: 49 Ghana – PSE/CHPs: 10 Liberia – RHS: 2 Madagascar: 4 Malawi: 1 Nigeria – HTS: 2 Nepal: 1 Nigeria – RI: 6 Rwanda: 4 Tanzania: 6 Uganda: 10 Zambia: 3	Total: 16 Burkina Faso: 2 Nigeria – Routine Immunization: 4 Uganda: 10
52	Number of MCSP-supported countries that have integrated new RMNCH indicators into the national HMIS	None reported	Total: 1 Mozambique – Bridge	Total: 3 Ghana – PSE/CHPS, Kenya, Nigeria – MNCH	Total: 2 Liberia – RHS, Rwanda – PCMD	Total: 4 Liberia – RHS, Mozambique, Nigeria – RMNCH, rwanda	None Reported
53	Number of MCSP-supported countries pilot-testing new RMNCH indicators	Total: 1 Mali	None reported	Total: 3 Madagascar, Nigeria – MNCH, Tanzania	Total: 3 Madagascar, Nigeria – RMNCH, Rwanda – PCMD	Total: 3 Guatemala, Mozambique, Nigeria - RMNCH	None Reported
54	Percentage of MCSP target districts that have a systematic approach to track and display a priority set of RMNCH indicators	Mali: 13/13 (100%)	None Reported	Ghana – PSE/CHPS: 107/107 (100%) Kenya: 29/29 (100%) Madagascar: 56/74 (76%)	Ghana – PSE/CHPS: 87/87 (100%) Kenya: 32/32 (100%) Madagascar: 76/76 (100%)	DRC: 8/8 (100%) Ghana – PSE/CHPs: 84/84 (100%) Madagascar: 76/76 (100%)	DRC: 8/8 (100%)

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
				Mozambique: 6/19 (32%) Nigeria – RI: 43/43 (100%) Nigeria – RMNCH: 6/34 (18%) Rwanda: 10/16 (63%)	Mozambique: 34/34 (100%) Namibia: 2/19 (11%) Rwanda: 10/16 (63%)	Mozambique: 34/34 (100%) Nigeria – RMNCH: 34/34 (100%) Rwanda: 10/16 (63%) Zambia: 42/42 (100%)	
55	Percentage of MCSP target districts with regular feedback mechanisms supported by the program to share information on progress toward RMNCH health targets with community members and/or CSOs	Mali: 13/13 (100%)	Guinea – FP – MCH/GBV: 2/20 (10%) Mozambique – Bridge: 7/7 (100%)	Kenya: 29/29 (100%) Nigeria – RI: 43/43 (100%) Rwanda: 16/16 (100%) Tanzania: 13/16 (81%)	Ghana – PSE/CHPS: 87/87 (100%) Namibia: 2/19 (11%) Rwanda: 16/16 (100%)	Ghana – PSE/CHPS: 84/84 (100%) Nigeria – RMNCH: 34/34 (100%) Rwanda: 16/16 (100%) Zambia: 24/42 (57%)	None Reported
56	Percentage of MCSP target districts that conducted a data quality assessment in the past year that included RMNCH indicators	Mali: 7/13 (54%)	Guinea – IPC: 2/24 (8%) Nigeria – MNH: 34/34 (100%) Tanzania: 16/16 (100%)	Guinea – MCH/GBV: 2/20 (10%) Kenya: 29/29 (100%) Namibia: 12/34 (35%) Nigeria – MNCH: 34/34 (100%) Nigeria – RI: 20/43 (47%) Rwanda: 10/16 (63%) Tanzania: 16/16 (100%) Uganda: 6/6 (100%)	Ghana – PSE/CHPS: 87/87 (100%) Kenya: 32/32 (100%) Madagascar: 65/76 (86%) Mozambique: 13/34 (38%) Namibia: 2/19 (11%) Nigeria – RI: 14/43 (33%) Rwanda: 10/16 (63%) Tanzania: 16/16 (100%) Uganda: 1/9 (11%)	DRC: 8/8 (100%) Ghana – PSE/CHPS: 84/84 (100%) Madagascar: 11/76 (86%) Mozambique: 13/34 (38%) Nigeria – RMNCH: 12/34 (35%) Rwanda: 16/16 (100%) Zambia: 24/42 (57%)	DRC: 8/8 (100%)
57	Number of countries implementing a MPDSR system with MCSP support	Total: 1 Mali	Total: 3 Guinea, Nigeria, Zambia	Total: 8 Guinea, Haiti, Kenya, Liberia, Mozambique, Nigeria, Rwanda, Tanzania	Total: 6 Guatemala, Kenya, Liberia, Mozambique, Nigeria, Rwanda	Total: 8: Guatemala, Kenya, Liberia, Mozambique, Nigeria, Rwanda, Tanzania, Zambia	None Reported
58	Percentage of MCSP target districts implementing planning and management processes in support of multiple RMNCH interventions	New PMP Indicator			Ghana – PSE/CHPS: 87/87 (100%) Guinea – HSS: 22/22 (100%) Madagascar: 76/76 (100%) Mozambique: 34/34 (100%) Rwanda: 10/16 (63%)	Ghana – PSE/CHPS: 84/84 (100%) Madagascar: 76/76 (100%) Mozambique: 34/34 (100%) Rwanda: 16/16 (100%) Zambia: 42/42 (100%)	None Reported

#	Indicator	FY 2014 Data	FY 2015 Data	FY 2016 Data	FY 2017 Data	FY 2018 Data	FY 2019 Data
59	Number of countries with MCSP-supported costed plans to inform RMNCH program implementation	New PMP Indicator			Total: 2 DRC, Ghana	Total: 2 DRC, Rwanda	Total: 1 DRC
60	Percentage of active community groups in MCSP target districts implementing RMNCAH activities according to their community action plans	New PMP Indicator			Ethiopia – CBNC: 285/345 (83%) Mozambique: 621/758 (82%)	DRC: 15/15 (100%) Ghana – PSE/CHPs: 84/84 (100%) Guatemala: 11/17 (65%) Mozambique: 758/758 (100%) Zambia: 24/26 (92%)	DRC: 19/19 (100%)
61	Percentage of communities in MCSP target districts collaborating with facility providers to implement QI plans	New PMP Indicator			Haiti – SSQH: 10/172 (6%) Rwanda: 30/164 (18%)	Guatemala: 13/17 (77%) Mozambique: 82/86 (95%)	None Reported
62	Percentage of MCSP target districts with at least one participatory community engagement activity in their annual plans and budgets	New PMP Indicator			Ghana – PSE/CHPS: 87/87 (100%) Rwanda: 16/16 (100%)	Ghana – PSE/CHPS: 84/84 (100%) Rwanda: 1/16 (6%)	None Reported

Table 1. Details on Indicator 8: IPTp

Country	ANC1	IPTp1	IPTp2	IPTp3	IPTp4
Liberia – EMS	43,852	54%	37%	23%	15%
Mozambique	66,600		62%		42%

Table 2. Details on Indicator 24: People trained

Row Labels	FP/ Reproductive health	MNH	Child health and nutrition	Immu-nization	Malaria	WASH	Gender	HSS	Monitoring and evaluation	Other
Burkina Faso				330						
Burma		42								
Egypt		176	296							1,433
Ghana – ECD			418							

Row Labels	FP/ Reproductive health	MNH	Child health and nutrition	Immu-nization	Malaria	WASH	Gender	HSS	Monitoring and evaluation	Other
Guatemala			463							
India – FP	225						4,790			
Liberia – EMS					187					
Liberia - HRH								16		
Mozambique	222	300	493	161		139	124	323	486	204
Pakistan - AFPP	549									
Total	**996**	**518**	**1,670**	**491**	**187**	**139**	**4,914**	**339**	**486**	**1,637**

Table 3. Details on Indicator 25: Facilities actively supporting quality improvement approaches

Country	Hospital	Health center	Clinic
Guatemala	5	19	
India – FP	15	171	
Liberia - EMS	17	33	166
Mozambique	8	45	
Total	**45**	**268**	**166**

Table 4. Details for Indicator 26: High-impact interventions

Intervention	LOP data	Countries covered
Maternal Health Interventions		
Group ANC	Burkina Faso, Burma, Ethiopia – BeMONC, Ethiopia – CBNC, Guatemala, Guinea – Restoration Services, Haiti – PCMD, Haiti – SSQH, Kenya, Liberia – HRH, Liberia – RHS, Madagascar, Mozambique, Mozambique – Bridge, Nigeria – RMNCH, Rwanda, Tanzania, Zambia	18
Comprehensive EmONC	Guinea – Restoration Services, Haiti – PCMD, Haiti – SSQH, Kenya, Liberia – HRH, Liberia – RHS, Mozambique, Nigeria – RMNCH, Rwanda, Tanzania, Zambia	11
Community-based services: PPH prevention	Haiti – PCMD, Haiti – SSQH, Kenya, Mozambique, Rwanda	5
Facility-based services: PPH prevention	Burma, DRC, Ethiopia – BeMONC, Guatemala, Guinea – Restoration Services, Haiti – PCMD, Haiti – SSQH, Kenya, Laos, Liberia – HRH, Liberia – RHS, Madagascar, Mozambique, Mozambique – Bridge, Nigeria – RMNCH, Rwanda, Tanzania	17

Intervention	LOP data	Countries covered
Infection (diagnosis and treatment)	Burma, DRC, Ethiopia – BeMONC, Guatemala, Guinea – Restoration Services, Haiti – PCMD, Haiti – SSQH, Kenya, Liberia – HRH, Liberia – RHS, Mozambique, Mozambique – Bridge	12
PE/E management (MgSO4 and/or hypertensives)	Burma, DRC, Ethiopia – BeMONC, Guatemala, Guinea – Restoration Services, Haiti – PCMD, Kenya, Liberia – HRH, Liberia – RHS, Madagascar, Mozambique, Mozambique – Bridge, Nigeria – RMNCH, Rwanda, Tanzania	15
PPH management	Burma, DRC, Ethiopia – BeMONC, Guatemala, Guinea – Restoration Services, Haiti – PCMD, Haiti – SSQH, Kenya, Laos, Liberia – HRH, Liberia – RHS, Madagascar, Mozambique, Mozambique – Bridge, Nigeria – RMNCH, Rwanda, Tanzania	17
RMC	Burma, DRC, Ethiopia - BeMONC, Ethiopia - CBNC, Guatemala, Haiti - PCMD, Kenya, Laos, Liberia - HRH, Madagascar, Mozambique, Mozambique - Bridge, Nigeria - RMNCH, Tanzania	14
MPDSR	Mozambique - Bridge, Guatemala, Haiti - PCMD, Liberia - HRH, Kenya, Mozambique, Liberia - RHS, Nigeria - RMNCH, Zambia, Rwanda, Haiti - SSQH, Tanzania	12
PNC	Mozambique - Bridge, Ethiopia - CBNC, DRC, Egypt, Guatemala, Haiti - PCMD, Liberia - HRH, Kenya, Laos, Madagascar, Nigeria - MAMA, Burma, Mozambique, Liberia - RHS, Rwanda, Haiti - SSQH	16
Routine MNH care	Burma, DRC, Egypt, Ethiopia - BeMONC, Ethiopia - CBNC, Guatemala, Guinea - Restoration Services, Haiti - PCMD, Haiti - SSQH, Kenya, Laos, Liberia - HRH, Liberia - RHS, Madagascar, Mozambique, Mozambique - Bridge, Nigeria - RMNCH, Rwanda, Tanzania	19
Newborn Health Intervention		
CHX	Haiti - PCMD, Kenya, Madagascar, Mozambique, Nigeria - RMNCH	5
KMC	Burma, DRC, Ethiopia - BeMONC, Ethiopia - CBNC, Guatemala, Kenya, Liberia - HRH, Liberia - RHS, Madagascar, Mozambique, Mozambique - Bridge, Nigeria - RMNCH, Rwanda, Tanzania	14
Newborn resuscitation (ENC, HBB)	Burma, DRC, Ethiopia - BeMONC, Ethiopia - CBNC, Guatemala, Guinea - Restoration Services, Haiti - PCMD, Kenya, Laos, Liberia - HRH, Liberia - RHS, Madagascar, Mozambique, Mozambique - Bridge, Nigeria - RMNCH, Rwanda, South Africa, Tanzania	18
PSBI	DRC, Ethiopia - CBNC, Guatemala, Kenya, Liberia - HRH, Liberia - RHS, Mozambique, Mozambique - Bridge, Nigeria - RMNCH	9
PTB management with ACS	Burma, Haiti - PCMD, Liberia - HRH, Madagascar, Mozambique, Rwanda, South Africa	7
PTB management without ACS	Haiti - PCMD, Haiti - SSQH, Liberia - HRH, Madagascar, Mozambique, Mozambique - Bridge, Rwanda	7
Child Health Interventions		
Advocacy for resource mobilization	Ethiopia - CBNC, DRC, Haiti - PCMD, Kenya, Burma, Namibia, Liberia - RHS, Nigeria - RMNCH, Rwanda, Haiti - SSQH, Uganda	11
Demand generation and promotion of appropriate family practices	Mozambique - Bridge, Ethiopia - CBNC, DRC, Egypt, Guatemala, Kenya, Nigeria - MAMA, Namibia, Mozambique, Rwanda, Haiti - SSQH, Uganda	12
Facility-based services: emergency triage assessment and treatment	Haiti - PCMD, Kenya, Burma, Mozambique, Rwanda	5

Intervention	LOP data	Countries covered
Facility-based services: IMCI	Burma, DRC, Ethiopia - CBNC, Guatemala, Guinea - Restoration Services, Haiti - PCMD, Haiti - SSQH, Kenya, Liberia - RHS, Mozambique, Mozambique - Bridge, Mozambique - Malaria, Nigeria - RMNCH, Rwanda, Uganda	15
iCCM	Burma, DRC, Ethiopia - CBNC, Kenya, Mozambique, Nigeria - RMNCH, Rwanda	7
Policy/advocacy	DRC, Haiti - PCMD, Guinea - HSS, Kenya, Burma, Namibia, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda, Haiti - SSQH, Uganda	12
QI	Ethiopia - CBNC, DRC, Guatemala, Liberia - HRH, Guinea - HSS, Kenya, Burma, Namibia, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda, Haiti - SSQH, Uganda	14
FP Interventions		
Community-based services: FP/PPFP	DRC, Guinea - Restoration Services, Haiti - SSQH, Kenya, Malawi, Mozambique, Rwanda	7
Expanding method choice	DRC, Haiti - PCMD, Haiti - SSQH, India - FP, Kenya, Madagascar, Malawi, Nigeria - RMNCH, Rwanda, Tanzania, Zambia	11
Facility-based services: LAM	DRC, Guatemala, Guinea - Restoration Services, Haiti - PCMD, Haiti - SSQH, Kenya, Liberia - HRH, Liberia - RHS, Malawi, Mozambique, Mozambique - Bridge, Nigeria - RMNCH, Rwanda, Tanzania	14
Integration: FP/ postabortion care	Guatemala, Haiti - SSQH, Kenya, Liberia - HRH, Liberia - RHS, Madagascar, Mozambique - Bridge, Rwanda	8
Interval LARCs	DRC, Guatemala, Haiti - PCMD, Haiti - SSQH, Kenya, Liberia - HRH, Liberia - RHS, Malawi, Mozambique, Mozambique - Bridge, Nigeria - RMNCH, Pakistan - AFPP, Rwanda	13
Permanent methods	Guatemala, Haiti - SSQH, India - FP, Kenya, Malawi, Rwanda	6
Postpartum LARCs	DRC, Ethiopia - BeMONC, Guatemala, Guinea - Restoration Services, Haiti - PCMD, Haiti - SSQH, Kenya, Liberia - HRH, Liberia - RHS, Madagascar, Malawi, Mozambique, Mozambique - Bridge, Nigeria - RMNCH, Pakistan - AFPP, Rwanda, Tanzania	17
Adolescent and Youth Health Interventions		
Adolescent-Responsive Health Services	Guatemala, Liberia - HRH, Madagascar, Namibia, Nigeria - RMNCH, Zambia, Rwanda	7
First time and young parents	Madagascar, Mozambique, Nigeria - RMNCH, Zambia, Tanzania	5
Immunization Interventions		
Disease specific – measles	Kenya, Liberia - RHS, Madagascar, Malawi, Mozambique, Nigeria - RI, Tanzania	7
Disease specific – polio	DRC, Haiti - SSQH, Kenya, Liberia - RHS, Madagascar, Malawi, Mozambique, Nigeria - RI, Tanzania, Uganda	10
Disease specific – tetanus	Haiti - SSQH, Kenya, Malawi, Nigeria - RI, Tanzania	5
Integrating immunization into child health	Kenya, Malawi, Mozambique, Liberia - RHS, Zambia, Haiti - SSQH, Tanzania, Uganda	8
Integrating immunization into newborn health programs	Ethiopia - CBNC, Kenya, Madagascar, Mozambique, Haiti - SSQH, Tanzania	6

Intervention	LOP data	Countries covered
National-level EPI support	Burkina Faso, Kenya, Madagascar, Malawi, Mozambique, Liberia - RHS, Nigeria - RMNCH, Zambia, Nigeria - RI, Haiti - SSQH, Tanzania, Uganda	12
New vaccine – inactivated polio vaccine	Haiti - SSQH, Kenya, Liberia - RHS, Nigeria - RI, Tanzania, Uganda	6
New vaccine – measles second	Kenya, Malawi, Tanzania, Zambia	4
New vaccine – measles/rubella	Haiti - SSQH, Kenya, Malawi, Mozambique, Tanzania	5
New vaccine – pneumococcal conjugate vaccine	Malawi, Mozambique, Nigeria - RI, Tanzania	4
New vaccine – rotavirus	Haiti - SSQH, Kenya, Liberia - RHS, Malawi, Tanzania, Uganda	6
RED/REC	Burkina Faso, Kenya, Madagascar, Malawi, Mozambique, Liberia - RHS, Zambia, Nigeria - RI, Haiti - SSQH, Tanzania, Uganda	11
Malaria Interventions		
Community-based malaria demand creation/SBCC	Mozambique - Bridge, Burkina Faso, DRC, Kenya, Nigeria - MAMA, Mozambique, Rwanda	7
Community-based services: malaria case management	DRC, Mozambique, Mozambique - Malaria, Nigeria - RMNCH, Rwanda	5
Facility-based services: malaria case management	Burkina Faso, Mozambique	2
Facility-based services: MiP	DRC, Kenya, Liberia - RHS, Madagascar, Mozambique, Mozambique - Malaria, Tanzania	7
Malaria data capture and use	Burkina Faso, Kenya, Liberia - HRH, Liberia - RHS, Madagascar, Mozambique, Mozambique - Bridge, Mozambique - Malaria, Nigeria - RMNCH, Tanzania	10
Malaria operations research	DRC, Kenya, Madagascar, Mozambique - Malaria, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda	8
Malaria policy	Kenya, Madagascar, Nigeria - RMNCH, Rwanda	4
Malaria QI	Kenya, Madagascar, Mozambique - Malaria, Burma, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda	8
National-level malaria support	DRC, Kenya, Madagascar, Mozambique - Malaria, Burma, Mozambique, Liberia - RHS, Rwanda	8
Nutrition Interventions		
Approaches to address complementary feeding	Mozambique - Bridge, Ethiopia - CBNC, DRC, Egypt, Guatemala, Haiti - PCMD, Kenya, Mozambique, Haiti - SSQH	9
Baby-Friendly Initiatives	Kenya, Malawi	2
Context-driven nutrition and counseling and promotion	Ethiopia - CBNC, DRC, Egypt, Guatemala, Haiti - PCMD, Kenya, Malawi, Namibia, Mozambique, Tanzania	10
Early initiation of exclusive breastfeeding	DRC, Egypt, Ethiopia - CBNC, Ghana - ECD, Guatemala, Haiti - PCMD, Haiti - SSQH, Kenya, Malawi, Mozambique, Mozambique - Bridge, Nigeria - MAMA, Tanzania	13
Integrating nutrition into iCCM	DRC, Mozambique, Haiti - SSQH	3
Maternal anemia/IFA	Guatemala, Haiti - PCMD, Haiti - SSQH, Kenya, Mozambique, Mozambique - Bridge	6
Nutrition TWG	Guatemala, Haiti - PCMD, Mozambique, Zambia, Haiti - SSQH	5

Intervention	LOP data	Countries covered
WASH Interventions		
Facility-based clean birth practices	DRC, Guatemala, Laos, Mozambique, Nigeria - RMNCH	5
Healthcare facility cleanliness	DRC, Guatemala, Mozambique	3
Post-emergency Infection prevention and control	Ghana - PSE/CHPs, Guinea - HSS, Liberia - RHS	3
Household and community nutrition-sensitive behaviors	DRC, Guatemala, Kenya, Mozambique	4
Community Health Interventions		
Capacity-building for CHWs	Burkina Faso, Ethiopia - CBNC, DRC, Egypt, India - FP, Haiti - PCMD, Kenya, Malawi, Burma, Namibia, Mozambique, Nigeria - RMNCH, Nigeria - RI, Rwanda, Haiti - SSQH, Tanzania, Uganda	17
Capacity-building of local CSOs	Guatemala, Haiti - PCMD, Malawi, Burma, Namibia, Mozambique, Nigeria - RMNCH, Haiti - SSQH, Uganda	9
Capacity-strengthening approaches	Mozambique - Bridge, Burkina Faso, Ethiopia - CBNC, DRC, Egypt, Guatemala, Kenya, Malawi, Nigeria - MAMA, Mozambique, Nigeria - RMNCH, Nigeria - RI, Rwanda, Haiti - SSQH, Uganda	15
CHW policy and planning	Ethiopia - CBNC, DRC, Egypt, Haiti - PCMD, Guinea - HSS, Kenya, Namibia, Mozambique, Nigeria - RMNCH, Rwanda, Haiti - SSQH	11
Community health TWG	Ethiopia - CBNC, DRC, Egypt, Haiti - PCMD, Kenya, Namibia, Mozambique, Rwanda, Haiti - SSQH	9
Demand generation and SBCC	Mozambique - Bridge, Ethiopia - CBNC, DRC, Egypt, Guatemala, Kenya, Malawi, Nigeria - MAMA, Namibia, Mozambique, Nigeria - RMNCH, Nigeria - RI, Rwanda, Haiti - SSQH, Tanzania	15
Social accountability	Ethiopia - CBNC, Guatemala, Malawi, Mozambique, Rwanda	5
Strengthening government-civil society partnerships	Egypt, India - FP, Guatemala, Haiti - PCMD, Malawi, Burma, Mozambique, Rwanda, Haiti - SSQH, Tanzania	10
Support for community HMIS	Ethiopia - CBNC, DRC, Egypt, India - FP, Kenya, Namibia, Mozambique, Nigeria - RMNCH, Rwanda, Haiti - SSQH, Tanzania	11
Gender Interventions		
GBV	Liberia - HRH, Guinea - MCH/GBV, Liberia - RHS, Rwanda, Haiti - SSQH	5
Gender and health policy	Mozambique, Liberia - RHS, Rwanda	3
Gender-sensitive services	DRC, Liberia - HRH, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda	6
Male engagement	Mozambique - Bridge, Egypt, Madagascar, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda, Haiti - SSQH	8
Promoting gender equity/women's empowerment	Mozambique - Bridge, Ethiopia - CBNC, Kenya, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda	7
Studies/assessments	Egypt, Liberia - HRH, Madagascar, Mozambique, Liberia - RHS, Nigeria - RMNCH, Rwanda	7
High-Impact HSS Interventions		
Equity – financial or private sector	Ghana - PSE/CHPs, Nigeria - RMNCH, Haiti - SSQH	3

Intervention	LOP data	Countries covered
Equity – moving to the community and task shifting	Burkina Faso, Ethiopia - CBNC, DRC, Egypt, Ghana - IPC, Malawi, Burma, Namibia, Mozambique, Ghana - PSE/CHPs, Liberia - RHS, Nigeria - RI, Haiti - SSQH	13
Finance	Ghana - PSE/CHPs, Rwanda, Haiti - SSQH	3
HMIS/HIS	Mozambique - Bridge, Ethiopia - CBNC, DRC, Egypt, India - FP, Haiti - PCMD, Guinea - HSS, Ghana - IPC, Kenya, Madagascar, Mozambique - Malaria, Malawi, Namibia, Mozambique, Ghana - PSE/CHPs, Liberia - RHS, Nigeria - RMNCH, Nigeria - RI, Rwanda, Haiti - SSQH, Tanzania	21
Human capacity development – in-service	Mozambique - Bridge, Burkina Faso, Ethiopia - CBNC, DRC, Egypt, India - FP, Guatemala, Haiti - PCMD, Liberia - HRH, Ghana - IPC, Madagascar, Mozambique - Malaria, Burma, Namibia, Mozambique, Ghana - PSE/CHPs, Liberia - RHS, Nigeria - RMNCH, Nigeria - RI, Rwanda, South Africa, Haiti - SSQH, Tanzania, Uganda	24
Human capacity development – mentoring/coaching	Mozambique - Bridge, Burkina Faso, Ethiopia - CBNC, DRC, Egypt, India - FP, Guatemala, Haiti - PCMD, Liberia - HRH, Ghana - IPC, Kenya, Madagascar, Mozambique - Malaria, Burma, Namibia, Mozambique, Ghana - PSE/CHPs, Liberia - RHS, Nigeria - RMNCH, Nigeria - RI, Rwanda, South Africa, Haiti - SSQH, Tanzania, Uganda	25
Human capacity development – pre-service	Haiti - PCMD, Liberia - HRH, Madagascar, Malawi, Burma, Mozambique, Ghana - PSE/CHPs, Nigeria - RMNCH, Nigeria - RI, Tanzania	10
Subnational planning and management	Ethiopia - CBNC, DRC, Egypt, India - FP, Guinea - HSS, Ghana - IPC, Malawi, Burma, Namibia, Mozambique, Ghana - PSE/CHPs, Nigeria - RMNCH, Nigeria - RI, Haiti - SSQH, Tanzania, Uganda	16
Integration Interventions		
Integration: FP/immunization	Kenya, Madagascar, Malawi, Mozambique, Liberia - RHS, Haiti - SSQH	6
Integration: FP/MIYCN	DRC, Egypt, Kenya, Mozambique, Rwanda, Haiti - SSQH	6
Digital Health Interventions		
Client education and behavior change	Egypt, Nigeria - MAMA, Ghana - PSE/CHPs, Nigeria - RI	4
Data collection and reporting	Ethiopia - CBNC, DRC, Egypt, Guatemala, Madagascar, Namibia, Liberia - RHS, Nigeria - RI, Tanzania	9
Electronic decision support	Guatemala, Madagascar, Tanzania	3
Human resource management	Egypt, Ghana - PSE/CHPs	2
Provider to provider communications	Egypt	1
Provider Workplanning and Scheduling	Tanzania	1
Supply Chain Management	Malawi, Tanzania	2

Annex 5. MCSP Action-Oriented Learning Agenda

Multicountry Studies with Global Significance				
Learning Question	**Countries**	**Technical Areas**	**Themes**	**Dissemination Products**
Multicountry: Systematic support for scale-up of five high-impact interventions • What does it take to effectively scale up proven interventions in LMICs? How can international development partners and technical agencies best support a government to achieve progress in the country along a scale-up pathway?	DRC, Mozambique, Nigeria, Rwanda	Child Health, Maternal Health, Newborn Health, Family Planning	Sustainable impact at scale	Brief: Scaling Up Integrated Community Case Management for Childhood Illness in the Democratic Republic of the Congo Brief: Scaling up practice improvement for labor management and immediate newborn care in Rwanda Brief: Cost Analysis for Scaling Up a Practice Improvement Package for HBB/ENC in Rwanda Brief: Scaling Up Immediate Postpartum Family Planning Services in Rwanda Brief: Cost Analysis for Scale-Up of Postpartum Family Planning in Rwanda
Services for FTYPs • For first-time parents, what factors influence their intentions to seek services and to use ANC, maternal and newborn care, and FP (including PPFP) services at relevant times in their reproductive life course?	Madagascar, Nigeria	Family Planning	Innovations to address key gaps in coverage, quality, and equity	Brief: Tanora Mitsinjo Taranaka – Lessons Learned from an Integrated Approach to Increase Use of Health Services by First-Time Young Parents in Madagascar Report: Formative Research to Identify Factors that Impact the Use of Sexual and Reproductive Health Services by First-Time/Young Parents in Two Regions of Madagascar Brief: Findings from formative research with first-time parents in two states of Nigeria Briefs: Highlights from Formative Research with First-Time Young Parents in 6 Nigerian States Brief: Lessons Learned from an Integrated Approach for Reaching First-time Young Parents in Nigeria Report: Factors Influencing Use of Health Services by First-Time Young Parents: Findings from Formative Research in Six States in Nigeria

Multicountry Studies with Global Significance				
Learning Question	**Countries**	**Technical Areas**	**Themes**	**Dissemination Products**
				Toolkit: Factors impacting use of health services by first-time/young parents: A formative research toolkit Brief: Because my husband and I have never had a baby before…Results and lessons from programs reaching first-time parents in Madagascar, Mozambique, and Nigeria Journal article: Reaching the Youngest Moms and Dads: A Socio-Ecological View of Actors and Factors Influencing First-time Young Parents' Use of Sexual and Reproductive Health Services in Madagascar
Asia Gestational age Estimation Study • What is the practice of GA estimation and documentation in facility-based ANC settings in India and Cambodia?	India, Cambodia	Maternal Health	Innovations to address key gaps in coverage, quality, and equity	Forthcoming in 2020
HMIS review • Which key data elements related to MNCH indicators are present in routine HISs in priority countries, and how are they managed?	24 priority countries	Maternal Health, Newborn Health, Child Health, Family Planning, Nutrition	Measurement and data use for action	Desk Review: Review of the Maternal and Newborn Health Content of National Health Management Information Systems in 24 Countries Brief: Selected Results of an Analysis of the Maternal and Newborn Content of Routine Information Systems in 24 Countries Report: Survey on Data Availability in Electronic Systems for Maternal and Newborn Health Indicators in 24 USAID Priority Countries Brief: Postpartum Family Planning Indicators for Routine Monitoring in National Health Management Information Systems Report: What Data on Family Planning Are Included in National Health Management Information Systems?

Multicountry Studies with Global Significance				
Learning Question	**Countries**	**Technical Areas**	**Themes**	**Dissemination Products**
				Poster: Child Health and Nutrition: What Data is Available in Routine Health Information Systems in 23 Countries?
Landscape assessment of CHW policies • What are the key components and characteristics of government CHW programs according to national policy, strategy, and guidance documents?	22 priority countries		Community action for health	Desk Review: Landscape Analysis of National Community Health Worker Programs
Landscape assessment of community health structures • What is the importance given to community participation and engagement as well as the roles and responsibilities of CSOs and community groups in existing national policies, plans, strategies, and guidelines of priority countries?	22 priority countries		Community action for health	Desk Review: The Role of Community Structures in Health Systems in 22 of 25 USAID Priority Maternal and Child Health Countries: A Landscape Analysis of Existing Policies
Landscape analysis of maternal nutrition • What are the major barriers to adequate food intake during pregnancy, and what are programs doing to address the problem?	24 priority countries	Nutrition	Technical and/or country-specific	Journal article: Addressing barriers to maternal nutrition in low- and middle-income countries: A review of the evidence and programme implications Brief: Addressing Barriers to Maternal Nutrition: Evidence and Program Considerations
Landscape analysis of community-based distribution of IFA • Is community-based distribution of IFA supplements being implemented, and what are the barriers to effective implementation?	24 priority countries	Nutrition	Community action for health	Journal article: Community-based distribution of iron–folic acid supplementation in low- and middle-income countries: a review of evidence and programme implications Brief: Community-Based Distribution of Iron-Folic Acid Supplementation: Evidence and Program Implications
Landscape analysis of EBF • What innovative approaches are programs taking to address the major barriers to and factors facilitating/motivating EBF in the first 6 months?	24 priority countries	Nutrition	Innovations to address key gaps in coverage, quality, and equity	Journal article: Addressing barriers to exclusive breast-feeding in low- and middle-income countries: a systematic review and programmatic implications Brief: Addressing Barriers to Exclusive Breastfeeding: Evidence and Program Considerations for Low- and Middle-Income Countries

Multicountry Studies with Global Significance				
Learning Question	**Countries**	**Technical Areas**	**Themes**	**Dissemination Products**
Junk food landscape analysis • To what extent is the consumption of junk food by children younger than 5 years old a nutrition problem in the USAID-MCSP 24 priority countries, and what are the factors influencing the feeding of these foods to children?	24 priority countries	Nutrition	Technical and/or country-specific	Brief: Key Country Experiences in Addressing Junk Food Consumption in Maternal, Infant, and Young Child Nutrition Programming
Situation analysis of inpatient care of newborns and young infants • What is the status of inpatient care of newborns and young infants from 0–59 days old in Nepal and Rwanda?	Nepal, Rwanda	Newborn Health	Quality	Report: Situation Analysis of Inpatient Care of Newborns and Young Infants: Rwanda
MPDSR assessment • What is the status of (including operational barriers to) implementation of facility-based MDSR, PDSR, and/or combined systems (when existent) in select countries in the Africa region?	Nigeria, Rwanda, Tanzania, Zimbabwe	Maternal Health, Newborn Health	Quality	Brief: A Regional Assessment of Facility-Level Maternal and Perinatal Death Surveillance and Response Systems in Four Sub-Saharan African Countries Poster: A Regional Assessment of Facility-Level Maternity and Perinatal Death Surveillance and Response Systems in Four Sub-Saharan Countries Poster: Subnational and facility leadership as drivers of maternal and perinatal death surveillance and response in four Sub-Saharan African Countries Report: Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Ebonyi and Kogi States, Nigeria Report: Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Rwanda Report: Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Kagera and Mara Region, Tanzania Report: Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Zimbabwe

Multicountry Studies with Global Significance				
Learning Question	**Countries**	**Technical Areas**	**Themes**	**Dissemination Products**
Process indicators for RI • Which process indicators are appropriate for providing real-time system data to demonstrate strengthening of RI on a pathway to uniformly high immunization coverage that is sustainable over time?	Malawi, Nigeria, Uganda	Immunization	Measurement and data use for action	Brief: Indicators That Describe the Strength of the Routine Immunization System: Preliminary Learning Poster: Improving the generation, quality and use of data for routine immunization systems through the use of process indicators and other strategies: Lessons drawn from Maternal and Child Survival Program (MCSP) multicountry learning activities
Data use for RI • What are the lessons learned regarding approaches to improve the generation and active use of RI data?	Haiti, Kenya, Liberia, Madagascar, Malawi, Mozambique, Nigeria, Tanzania, Uganda, Pakistan, Zimbabwe	Immunization	Measurement and data use for action	Brief: Improving the Generation, Quality and Use of Routine Immunization Data: Preliminary Learning Poster: Improving the generation, quality and use of data for routine immunization systems through the use of process indicators and other strategies: Lessons drawn from Maternal and Child Survival Program (MCSP) multicountry learning activities
Respectful care assessments • What are women's experiences of childbirth care, including disrespect and abuse, during facility-based deliveries?	Nigeria, Ethiopia, Guatemala	Maternal Health	Quality	Journal article: Respectful maternity care in Ethiopian public health facilities Brief: Mistreatment of Women in Public Health Facilities of Ethiopia
RMNCH indicator testing • What are the usefulness, feasibility, acceptability, and reliability of RMNCH indicators that may HISs in LMICs?	Madagascar, Nigeria	Family Planning, Maternal Health, Newborn Health, Child Health	Quality; measurement and data use for action	Forthcoming in 2020
FP and immunization service integration • How does integration of FP and immunization services affect service provision, utilization, and quality?	Liberia, Malawi, Tanzania	Family Planning, Immunization	Health systems strengthening	Journal article: Successful Proof of Concept of Family Planning and Immunization Integration in Liberia Journal article: Operationalizing Integrated Immunization and Family Planning Services in Rural Liberia: Lessons Learned From Evaluating Service Quality and Utilization Report: Family Planning and Immunization Integration in Liberia Brief: Family Planning and Immunization Integration in Malawi

Multicountry Studies with Global Significance				
Learning Question	**Countries**	**Technical Areas**	**Themes**	**Dissemination Products**
				Report: Family Planning and Immunization Integration – Rapid Assessment Report: Dowa and Ntchisi Districts, Malawi Report: Qualitative Assessment of Family Planning and Immunization Service Integration in Malawi: Dowa and Ntchisi Districts Report: Family Planning and Immunization Integration in Tanzania: Formative Assessment Results
Birth tracking for RI in Malawi and Nigeria • Does involvement of village leaders in newborn tracking for vaccination using the My Village My Home tool result in improved vaccination coverage and timeliness of vaccination in communities in Malawi? • Can engaging traditional barbers and other community resource people to identify and refer newborns to routine vaccination sites increase the timeliness of vaccination and decrease children "left out" of RI in two states in Nigeria?	Malawi, Nigeria	Immunization	Community action for health	Video: My Village My Home: Strengthening Routine Immunization in Malawi Brief: Community Monitoring of Individual Children's Vaccinations: Six Country Experiences
FP and MNCH service integration • What are effective mechanisms and models of PPFP implementation for integrating FP with MNCH services, including immunization and nutrition?	India, Kenya	Family Planning, Maternal Health, Newborn Health, Child Health	Health systems strengthening	Journal article: Maximizing Opportunities: Family Planning and Maternal, Infant, and Young Child Nutrition Integration in Bondo Sub-County, Kenya Journal article: Postpartum family planning integration with maternal, newborn and child health services: a cross-sectional analysis of client flow patterns in India and Kenya Journal article: Characteristics of successful integrated family planning and maternal and child health services: Findings from a mixed-method, descriptive evaluation
Integrated MNH capacity-building • Do training activities that integrate basic newborn care with basic emergency	Ethiopia, Nepal	Maternal Health, Newborn Health	Health systems strengthening;	Forthcoming

Multicountry Studies with Global Significance				
Learning Question	**Countries**	**Technical Areas**	**Themes**	**Dissemination Products**
obstetric care effectively ensure providers' competencies in basic newborn care?			human capacity development	
Introducing a hormonal IUD (LNG-IUS) as a FP method option within a broader strategy to strengthen LARC services • What are the benefits of including LNG-IUS as a method choice, and what are adopters' reasons for choosing LNG-IUS? What are the rates of early discontinuation and expulsion? What are LNG-IUS implementation challenges and opportunities?	Kenya, Zambia	Family Planning	Innovations to address key gaps in coverage, quality, and equity	Journal article: A Global Learning Agenda for the Levonorgestrel Intrauterine System (LNG IUS): Addressing Challenges and Opportunities to Increase Access Report: Long-Acting and Permanent Methods Community of Practice – Technical Meeting: What's Next with the LNG-IUS?
Resource mobilization for iCCM scale-up • What is the country and global experience in resource mobilization for iCCM scale-up?	Ghana, Kenya, Nigeria, Uganda, Zambia	Child Health	Sustainable impact at scale	Report: Leveraging the Global Fund New Funding Model for Integrated Community Case Management: A Synthesis of Lessons from Five Countries Report: The Global Fund New Funding Model: Lessons from Kenya on iCCM Integration into the Malaria Concept Note

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Feasibility of community delivery of IPTp-SP • What is the feasibility of community delivery of IPTp-SP in Burkina Faso through the delivery of IPTp-SP under direct observation through the existing network of CHWs?	Burkina Faso	Malaria	Community action for health	Brief: Testing the Feasibility of Community IPTp in Burkina Faso
Integrating nutrition and iCCM of child illness • What are the best approaches for integrating nutrition into iCCM to improve health and nutritional outcomes for children under 5? Can preventive and curative aspects of nutrition be integrated	DRC	Nutrition, Child Health	Technical and/or country-specific	Report: Strengthening Nutrition in the Integrated Community Case Management of Childhood Illness in Democratic Republic of Congo Journal article: Strengthening nutrition services within integrated community case management (iCCM) of childhood

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
into the iCCM platform? Is this feasible, and what are the gaps and opportunities to improve service delivery of nutrition counseling and iCCM?				illnesses in the Democratic Republic of Congo: Evidence to guide implementation Journal article: Who are the real community health workers in Tshopo Province, Democratic Republic of the Congo? Brief: Experience from Democratic Republic of Congo: Strengthening integration of nutrition and iCCM Poster: Designing Community Health Services Based on the Community's Conception of Health: Evidence from the DRC
Measuring quality and additional coverage of iCCM of child illness • What are feasible measures for tracking the additional coverage achieved from implementing iCCM? What are feasible measures for quality of iCCM programs using routine information systems?	DRC	Child Health	Quality; equity, including gender equity; measurement and data use for action	Forthcoming
Audit and feedback for management of eclampsia • Does active audit feedback improve the QoC through increased and appropriate use of MgSO4 and antihypertensive therapy among women in referral hospitals who develop severe pre-eclampsia, eclampsia, or those suffering hypertensive crises?	Ethiopia	Maternal Health	Quality	Report: Active Audit and Feedback Intervention to Increase Use of Magnesium Sulfate and Anti-Hypertensive Therapy among Women with Severe Pre-eclampsia and Eclampsia in Public Referral Hospitals in Ethiopia
Referral compliance PSBI • Do caretakers of referred sick newborns with PSBI comply with referral, and do they receive appropriate and adequate treatment at the health center? Who complies with referral and who doesn't, and why?	Ethiopia	Newborn Health	Innovations to address key gaps in coverage, quality, and equity	Report: Do Caretakers of Sick Newborns with Possible Serious Bacterial Infection (PSBI) Referred from Health Post to Health Center Comply with the Referral? A cross-sectional study in Tigray, Amhara, Oromia and SNNPR regions, Ethiopia

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Tracking women in perinatal period to improve PPFP coverage • How feasible and effective is it to track women through a reproductive continuum (inclusive of all methods in extended postpartum) and their receipt of key health services and uptake of key behaviors? Test and refine means to track intrafacility referrals and linkages for immunization and FP.	Ethiopia	Family Planning	Health systems strengthening	Baseline Report: Utilizing All Health System Contacts to Offer Postpartum Family Planning (PPFP) to Pregnant Women and Women within Twelve Months Postpartum in Ethiopia Journal Article: Counseling at All Contacts for Postpartum Contraceptive Use: Can Paper-based Tools Help Community Health Workers Improve Continuity of Care? A Qualitative Study from Ethiopia
Urban CHPS • What is an appropriate model for urban CHPS?	Ghana		Health systems strengthening; community action for health	Brief: Community-based Health Planning and Services (CHPS) in Ghana – Formative Research to Adapt the CHPS Model to Urban Settings
Assessing model referral networks • Does referral and counterreferral completion rate improve when adequate transport, communication, and clinical protocols are in place? What are practical mechanisms for tracking referral completion? Is the community satisfied with the referral and counterreferral system?	Haiti	Maternal Health, Newborn Health, Child Health	Health systems strengthening	Case study: Establishing Model Referral Networks in Haiti
PNC assessment • Which are the major program platforms in India to reach mothers and newborns at home in the postnatal period with preventive services, including assessment, counseling, and referrals? How have home visits for PNC been included and implemented in state-level programs? What are the conditions that need to be met to achieve high effective coverage of postnatal home visits in the typical program setting at scale?	India	Maternal Health, Newborn Health	Sustainable impact at scale	Forthcoming

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Feasibility of iCCM • What is the feasibility of implementing iCCM of child illness?	Kenya	Child Health	Community action for health	Midline Report: Feasibility Study of the Implementation of Integrated Community Case Management in Bondo: Leveraging Existing Systems Endline Report: Feasibility Study of the Implementation of iCCM in Bondo Sub-County: Leveraging Existing Systems Report: Bondo iCCM Study: Key Findings and Recommendations Journal Article: Coaching Community Health Volunteers in Integrated Community Case Management Improves the Care of Sick Children Under-5: Experience from Bondo, Kenya
Method failure in implant users in relation to specific antiretroviral therapy regimens • What are unintentional pregnancy rates among women using a contraceptive implant while taking efavirenz as a component of antiretroviral therapy?	Kenya	Family Planning, HIV	Technical and/or country-specific	Journal Article: Contraceptive implant failures among women using antiretroviral therapy in western Kenya: a retrospective cohort study
Assessment of revised EPI pre-service curriculum • What is the change in perceptions, knowledge, and skills of graduates following implementation of the revised EPI content in the pre-service curriculum for nurses?	Kenya	Immunization	Technical and/or country-specific	Report: Evaluation of the Initiative to Strengthen Nurses' Expanded Programme on Immunization Pre-Service Training in Kenya Journal Article: Outcomes of the Expanded Programme on Immunization Pre-Service Training Initiatives in Kenya: A Mixed Methods Study
Supportive supervision for QI • Do providers and supervisors find structured supportive supervision in MNH and FP clinical skills, postprovider training, to be feasible and acceptable?	Madagascar	Maternal Health, Newborn Health, Family Planning	Health systems strengthening	Brief: Supportive Supervision in Madagascar – Feasibility and Acceptability for Reproductive, Maternal, and Newborn Health
Male engagement in birth preparedness • Is an intervention at community and facility levels to encourage couples communication effective at increasing ANC attendance, joint birth	Mozambique	Maternal Health	Equity, including gender equity	Poster: Improving Maternal Health Through Male Involvement in Birth Preparedness and Complication Readiness Planning (BPCR): Experiences from the Maternal and Child Survival Program in Mozambique

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
preparedness and complication readiness plans, institutional birth, and use of modern FP?				Report: Male Engagement and Couples Communication in RMCH in Nampula and Sofala Provinces of Mozambique
Assessing referral networks • Is implementation of a set of activities to improve facilitated referral feasible, and does it increase rates of referral completion across defined referral networks for a key set of MNCH services?	Mozambique	Maternal Health, Newborn Health, Child Health	Health systems strengthening	Conference presentation: Strengthening Referral Networks for Reproductive, Maternal, Newborn, and Child Health Services
Treatment of PSBI in infants by private-sector providers • What are current practices for the management of PSBI among sick young infants 0–2 months in private drug shops and clinics?	Nepal	Newborn Health	Innovations to address key gaps in coverage, quality, and equity	Brief: Management of Sick Young Infants 0–2 Months of Age in the Private Sector in Nepal: Results of a National Survey of Medicine Shops and Clinics Report: A National Survey on Care of Possible Serious Bacterial Infection among Sick Young Infants 0-2 Months in Private Sector Medicine Shops and Clinics in Nepal
Assessment of bubble continuous positive airway pressure • Can care for newborn infants with respiratory distress be improved with the introduction of bubble continuous positive airway pressure in selected hospitals?	Nigeria	Newborn Health	Innovations to address key gaps in coverage, quality, and equity	Brief: Improving Care for Newborns with Respiratory Distress in Nigeria Through Use of Bubble Continuous Positive Airway Pressure Devices
HelloMama assessment • What is the feasibility of using age- and stage-based interactive short message service and voice messaging to improve MNCH knowledge, uptake of services, and satisfaction?	Nigeria	Maternal Health, Newborn Health	Innovations to address key gaps in coverage, quality, and equity	Brief: HelloMama – Using Digital Health Platforms to Improve Health Outcomes for Pregnant Women and New Mothers in Nigeria Brief: HelloMama – Engagement with Mobile Network Operators in Nigeria Brief: HelloMama Project Brief
Enhancing Quality iCCM through PPMVs and Partnerships	Nigeria	Child Health	Equity, including gender equity;	Brief: Improving Health Outcomes for Children Under Five in Nigeria

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
• Do training and support provided to PPMVs to manage and treat sick children improve the quality of services provided to sick children by PPMVs?			health systems strengthening	Poster: Quality of management and treatment services for sick children at patent and proprietary medicine vendors (PPMVs) in two states in Nigeria
Assessment of LDHF training and mobile mentoring for MNH clinical skills • Are LDHF site-based in-service trainings as effective or more effective than group-based offsite trainings for transferring knowledge and skills to the job?	Nigeria	Maternal Health, Newborn Health	Health systems strengthening; human capacity development	Journal article: Simulation-based low-dose, high-frequency plus mobile mentoring versus traditional group-based training approaches on day of birth care among maternal and newborn healthcare providers in Ebonyi and Kogi States, Nigeria; a randomized controlled trial Brief: Onsite LDHF Training Versus Traditional Offsite Group-Based Training for Maternal and Newborn Health Care Workers in Ebonyi and Kogi States Nigeria
WASH for maternal and newborn sepsis prevention • How can positive behaviors related to appropriate cord care (CHX application or the practice of clean, dry cord care), delivery hygiene, and hand hygiene be strengthened during the period from the onset of labor through the first 2 days of life?	Nigeria	Water, Sanitation, and Hygiene; Maternal Health; Newborn Health	Quality; health systems strengthening	Report: Phase I: WASH for Neonatal and Maternal Sepsis Reduction Study Report: Water Sanitation and Hygiene (WASH) for Newborn and Maternal Sepsis Reduction in Nigeria- Final Activity Report Journal article: Hygiene During Childbirth: An Observational Study to Understand Infection Risk in Healthcare Facilities in Kogi and Ebonyi States, Nigeria Journal article: Barriers and opportunities experienced by staff when implementing infection prevention and control guidelines during labour and delivery in healthcare facilities in Nigeria
Mentoring for improved retention of skills for newborn resuscitation • Do LDHF, mentoring, and QI approaches for capacity-building improve retention of providers' skills and performance in labor management and newborn resuscitation in Rwanda, and can this approach be scaled up successfully?	Rwanda	Newborn Health	Health systems strengthening; human capacity development	Case study: An Alternative to Classroom-Based Health Worker Training in Rwanda Conference Presentation: Mentoring Evidence and Country Experiences

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Facility perinatal mortality indicator testing • Can monitoring stillbirth and very early newborn death provide a valid indicator of quality of intrapartum care, and what is the appropriate scale of application of the indicator? Can an indicator to measure facility perinatal mortality be introduced to routine HMISs as a wider-scale QoC indicator?	Tanzania	Maternal Health, Newborn Health	Quality; measurement and data use for action	Brief: The Facility Perinatal Mortality Indicator Study: Tanzania: A Study to Validate an Indicator on Facility-Based Perinatal Mortality Manuscript: Tracking facility-based perinatal deaths in Tanzania: results from an indicator validation assessment Manuscript: From training to workflow: a mixed-methods assessment of integration of Doppler into maternity ward triage and admission in Tanzania Manuscript: Systematic review of Doppler for detecting intrapartum fetal heart abnormalities and measuring perinatal mortality in low- and middle-income countries
Assessment of social and behavior change communication around LAM and transition in context of optimal maternal infant and young child nutrition practices • What are the barriers and facilitating factors for optimal nutrition and PPFP practices; the sociocultural cues to birth spacing and related nutrition behaviors; and the perceived links between breastfeeding, return to fecundity, and introduction of first foods in Mara and Kagera, Tanzania? • Are new approaches for communicating about the LAM and transition in context of optimal MIYCN practices acceptable and feasible?	Tanzania	Family Planning, Nutrition	Quality; community action for health; innovations to address key gaps in coverage, quality, and equity	Baseline report: Family Planning and Maternal, Infant, and Young Child Nutrition: Formative Study Journal article: Perspectives on maternal, infant, and young child nutrition and family planning: Considerations for rollout of integrated services in Kagera and Mara, Tanzania
Assessment of the REC-QI approach for RI • What are the results of the REC-QI approach and the principle enablers/drivers of change along the REC-QI continuum from "orient" to "sustain"? What are enabling and inhibiting factors for uptake and	Uganda	Immunization	Innovations to address key gaps in coverage, quality, and equity	Guide: Strengthening the Routine Immunization System through a Reaching Every Child-Quality Improvement Approach in Uganda Brief: Learning from Implementation of the Reaching Every Child using Quality Improvement to Strengthen the Routine Immunization System in Uganda

Individual Country Studies with Global Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
sustainability of the REC-QI practices by health facilities?				

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Assessment of MiP in ANC • What is the content of routine ANC visits, and how are prevention and treatment of MiP included or not included in ANC services in Burma?	Burma	Maternal Health, Malaria	Technical and/or country-specific	Report: Assessment of Antenatal Care Including Malaria in Pregnancy, in Three Regions of Myanmar
Assessment of KMC • What is the experience of implementing KMC in Burma? What factors affect uptake of KMC?	Burma	Newborn Health	Quality	Forthcoming in 2020
Assessment of blended versus traditional BEmONC training in Ethiopia • Are the knowledge gains through the blended BEmONC training similar or better to those gains through the conventional BEmONC training approach?	Ethiopia	Maternal Health, Newborn Health	Health systems strengthening; human capacity development	Brief: A Blended Learning Approach for Basic Emergency Obstetric and Newborn Care Training in Ethiopia Journal Article: Comparing the effectiveness of a blended learning approach with a conventional learning approach for basic emergency obstetric and newborn care training in Ethiopia
Knowledge, Practices, and Coverage Survey • What is the coverage of key MNH interventions, and how did this change over time?	Ethiopia	Maternal Health, Newborn Health	Measurement and data use for action	Brief: Assessing Knowledge, Practice, and Coverage of Newborn Care Services in Ethiopia Report: Community Based Newborn Care (CBNC) / Newborns in Ethiopia Gaining Attention (NEGA) Project: End-line Survey Report
Assessment of early pregnancy identification and home-based ANC and PNC • What are key barriers to and facilitators for early pregnancy identification, birth notification, and early home PNC visits?	Ethiopia	Maternal health, Newborn Health	Health systems strengthening	Brief: Barriers and facilitators for early pregnancy identification, birth notification, and antenatal and postnatal visits in Amhara National Regional State, Ethiopia Report: Barriers and Facilitators for Early Pregnancy Identification, Birth Notification, and Antenatal and Postnatal Visits in Amhara Regional State, Ethiopia

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Assessment of health extension worker counseling for care of LBW babies • What is the care given to LBW babies? How is this care related to attitudes and care practices, and quality of counseling by health extension workers?	Ethiopia	Newborn Health	Health systems strengthening	Brief: Communities and health extension workers provide care for low birth weight babies in Amhara and Oromia regions Report: How Communities and Health Extension Workers Provide Care to Low-Birthweight Babies in the Amhara and Oromia Regions, Ethiopia
Assessment of Ghanaian health workers' practice with task analysis • How does the current job description of nurses and midwives working in CHPS zones compare to their training and actual delivery of services? Does this vary between regions or rural versus urban areas?	Ghana	Family Planning, Maternal Health, Newborn Health, Child Health	Health systems strengthening	Brief: Assessing Ghanaian Health Care Workers' Practice through Task Analysis
Health and nutrition annual survey • What are the health and nutritional status, morbidity, and anemia of children 0–59 months old and their mothers, and how have they changed over time?	Guatemala	Child Health, Nutrition	Technical and/or country-specific	Forthcoming
Introduction of advance distribution of misoprostol for self-administration • Is it safe, feasible, and acceptable to distribute misoprostol at CHW home visits to pregnant women? Can a scalable model of misoprostol distribution be developed?	Haiti	Maternal Health	Technical and/or country-specific	Forthcoming
Testing data visualization for FP QI • Which FP quality indicators, data visualization, and sharing approaches are useful for informing FP QI efforts?	India	Family Planning	Measurement and data use for action	Forthcoming
Introduction of progesterone-only pills and centchroman • What are the feasibility, acceptability, and program effectiveness of introducing	India	Family Planning	Technical and/or country-specific	Forthcoming

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
new and approved modern contraceptive methods in the existing FP basket?				
Improving the quality of female sterilization services • How effective is an intervention on improving quality of FP services? Is there a change in clients' and providers' perspectives about quality of FP services provided?	India	Family Planning	Technical and/or country-specific	Forthcoming
Measuring maternal mortality • What are the determinants and causes of maternal mortality?	Indonesia	Maternal Health	Measurement and data use for action	Forthcoming
Measuring newborn mortality • What are the determinants and causes of newborn mortality?	Indonesia	Newborn Health	Measurement and data use for action	Forthcoming
Assessment of oral rehydration therapy corners • Are oral rehydration therapy corners functional, and to what extent do they adhere to the intervention standards outlined in Kenya's National Oral Rehydration Therapy Corner Operational Guidelines?	Kenya	Child Health; Water, Sanitation, and Hygiene	Technical and/or country-specific	Report: A Rapid Assessment of Oral Rehydration Therapy Corners in Bondo, Igembe North, and Igembe Central Subcounties, Kenya
Health facility assessment • What is the status of maternal, newborn, and FP service delivery in health facilities?	Madagascar	Family Planning, Maternal Health, Newborn Health	Quality	Journal article: Service Availability and Readiness Assessment of Maternal, Newborn and Child Health Services at Public Health Facilities in Madagascar Journal article: Evaluation of the availability of the personnel qualified in maternal and neonatal health in Madagascar Brief: MCSP Madagascar- Improving Quality of Maternal and Newborn Care and Postpartum Family Planning Services Brief: Improving Service Readiness and Provider Capacity Summary: Findings from the Endline Assessment of the MCSP Madagascar Program

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Malaria care seeking • What are gaps, attitudes, and practices that may prevent timely care seeking in the formal health system and/or that may lead to nonadherence to national guidelines for malaria treatment among pregnant women and caregivers of children under 15 with febrile illness?	Madagascar	Malaria	Community action for health	Forthcoming
Immunization coverage survey • What is the immunization coverage of children ages 12–23 months and protection at birth from newborn tetanus of infants ages 0–11 months? What are reasons for the uptake or refusal of vaccination services, knowledge of parents or caretakers on immunization, and sources of information about vaccination for the community?	Malawi	Immunization	Technical and/or country-specific	Journal article: Vaccination coverage and timely vaccination with valid doses in Malawi
Knowledge, Attitudes, Practices, and Coverage Survey • What are changes in knowledge, attitudes, practices, and coverage of key RMNCH areas, including malaria, FP, nutrition, WASH, and gender equity?	Mozambique	Child Health; Family Planning; Immunization; Malaria; Maternal Health; Newborn Health; Nutrition; Water, Sanitation, and Hygiene	Equity, including gender equity	Forthcoming
Addressing barriers to EBF • How can we improve the successful identification of and counseling on barriers to EBF by facility- and community-based health providers?	Mozambique	Nutrition	Technical and/or country-specific	Brief: Addressing Barriers to Exclusive Breastfeeding in Nampula, Mozambique: Opportunities to Strengthen Counseling and Use of Job Aids Report: Addressing Barriers to Exclusive Breastfeeding in Nampula, Mozambique: Opportunities to Strengthen Counseling and Use of Job Aids

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
RI system strengthening memorandum of understanding • What are the key processes, achievements, challenges, and opportunities associated with the implementation of a quadripartite memorandum of understanding model for RI system strengthening in Bauchi and Sokoto states?	Nigeria	Immunization	Health systems strengthening	Case study: Strengthening Routine Immunization through Subnational Partnerships – The Experience in Bauchi State, Nigeria Case study: Strengthening Routine Immunization through Subnational Partnerships – The Experience in Sokoto State, Nigeria Poster: Implementing a Quadripartite Memorandum of Understanding to Achieve Sustained Financing for Routine Immunization in Bauchi State, Nigeria Guide: Implementing a Memorandum of Understanding with Basket Funding to Improve Routine Immunization Systems
Barriers and facilitators to child health care seeking • What are the barriers and facilitating factors (including gender-related factors) that influence families' practices related to seeking care for sick children under five?	Nigeria	Child Health	Equity, including gender equity	Forthcoming
Child health knowledge, practices, and coverage survey • What are the knowledge, practices, and intervention coverage for child health in households?	Nigeria	Child Health	Equity, including gender equity; measurement and data use for action; health systems strengthening	Forthcoming
Use of GISs for RI • How can spatial tools be used to integrate multiple data sources for improved population estimates and primary health care health facility catchment area maps that in turn lead to better targeting of RI services?	Nigeria	Immunization	Measurement and data use for action	Journal Article: From paper maps to digital maps: enhancing routine immunisation microplanning in Northern Nigeria Poster: How can Geospatial Data be used to Strengthen Routine Immunization in the States of Bauchi and Sokoto, Nigeria?
Assessment of MNH QoC and health facility readiness	Nigeria	Maternal Health, Newborn Health	Quality; measurement	Brief: Ensuring Better Care for Nigerian Pregnant Women and New Mothers and their Babies

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
• How ready are facilities to provide MNH care? How skilled and knowledgeable are providers in the performance of evidence-based MNH practices?			and data use for action	Report: Evaluation of Interventions to Improve Reproductive, Maternal, and Newborn Health Service Availability and Readiness in Kogi and Ebonyi States
Polio household study • What are household factors affecting demand for polio vaccination and rates of missed children in northern Nigeria?	Nigeria	Immunization	Technical and/or country-specific	Journal article: Polio Immunization Social Norms in Kano State, Nigeria: Implications for Designing Polio Immunization Information and Communication Programs for Routine Immunization Services Journal article: Understanding vaccine hesitancy in polio eradication in northern Nigeria Journal article: Association of Volunteer Communication Mobilizers' Polio-Related Knowledge and Job-Related Characteristics With Health Message Delivery Performance in Kano District of Nigeria
Assessing intermittent screening and treatment for preventing MiP • What is the effectiveness of intermittent screening and treatment for preventing MiP in high-prevalence districts?	Rwanda	Malaria, Maternal Health	Technical and/or country-specific	Forthcoming
Assessment of artemether-lumefantrine therapeutic efficacy • What is the effectiveness of artemether-lumefantrine in treating children with uncomplicated clinical malaria?	Rwanda	Malaria	Technical and/or country-specific	Forthcoming
Assessment of gender-sensitive services • Are there differences in treatment faced by women versus men in accessing health services? Do gender discrimination and biases impact the way health providers treat women accessing health services?	Rwanda	Family Planning, Maternal Health, Newborn Health	Equity, including gender equity	Forthcoming

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
Malaria knowledge, attitudes, and practices survey • What is the knowledge of malaria control (prevention, treatment) activities among the population living in three different transmission zones?	Rwanda	Malaria	Technical and/or country-specific	Forthcoming
Health facility assessment • Have program interventions improved the readiness of public health to provide comprehensive RMNCH services?	Rwanda	Family Planning, Maternal Health, Newborn Health, Child Health	Quality	Questionnaire: Rwanda Health Facility Assessment Core Questionnaire Adapted from SARA and SPA tools Brief: Assessing Key Health Services for Mothers and Children in Rwanda Brief: Improving RMNCH Service Readiness and Quality: Summary Findings from an Endline Analyses of the MCSP Rwanda Program
Assessment of iCCM of child illness strategy • What are the lessons learned from implementation of iCCM of child illness that will help to strengthen CHW performance and further introduction of other high-impact health interventions at community level?	Rwanda	Child Health, Malaria	Technical and/or country-specific	Report: Evaluation of the Integrated Community Case Management Strategy in Rwanda
Comprehensive council health plans for RI • What are ways in which councils could develop more accurate comprehensive council health plans to support improved council-level vaccination program delivery?	Tanzania	Immunization	Health systems strengthening	Brief: Increasing Immunization Coverage Through Strengthening Comprehensive Council Health Planning (CCHP) in Kagera Tanzania Report: Strengthening Comprehensive Council Health Planning to Increase Immunization Coverage Conference presentation: Strengthening Community Involvement to Improve Comprehensive Council Health Plans (CCHP) in Kagera Region, Tanzania
Knowledge, practices, and coverage survey • What are baseline knowledge, practices, and coverage in the areas of maternal health, newborn health, FP,	Tanzania	Family Planning, Immunization, Malaria, Maternal	Measurement and data use for action; equity,	Journal article: Factors associated with institutional delivery: Findings from a cross-sectional study in Mara and Kagera regions in Tanzania

Individual Country Studies Mainly of Local Significance				
Learning Question	**Country**	**Technical Areas**	**Themes**	**Dissemination Products**
immunization, and, during pregnancy, IPTp and sleeping under insecticide-treated bed nets?		Health, Newborn Health	including gender equity	Journal article: Women's Experience of Facility-Based Childbirth Care and Receipt of an Early Postnatal Check for Herself and Her Newborn in Northwestern Tanzania
No-scalpel vasectomy exploratory assessment • What are male care-seeking patterns and needs for FP? What would an acceptable model of male services that includes no-scalpel vasectomy alongside other desired services for men look like?	Togo	Family Planning	Technical and/or country-specific	Executive Summary: Rapid Formative Assessment on Male Engagement in Family Planning and Extension of No Scalpel Vasectomy Services in Togo Report: Evaluation Formative Rapide sur l'Engagement des hommes dans la Planification Familiale et l'extension des services pour la Vasectomie sans bistouri au Togo

Annex 6. List of Success Stories, Blogs, and Announcements (events, conferences, webinars, etc.)

#	Title	Type	Date	Country/ Region	Intervention Area(s)
1	Brief from the Antenatal Corticosteroids Technical Working Group	Blog	10/27/2014	Global	Maternal Health, Newborn Health
2	mMentoring in Ghana: Innovative use of technology improves midwifery care	Blog	10/28/2014	Ghana	mHealth
3	USAID Features MCSP blog - "You Can't Save Lives If You Don't Fight Pneumonia"	Blog	11/13/2014	Global	Immunization
4	MCSP on Global Moms Challenge - "Condoms: a practical history of prevention"	Blog	2/13/2015	Global	Family Planning
5	MCSP on Gates: Saving Lives with Better Gestational Age Estimation	Blog	2/15/2015	Global	Maternal Health, Child Health
6	USAID Impact blog highlights MCSP work to save lives from Ebola	Blog	2/20/2015	Guinea	Ebola/IPC
7	A Girl's Big Dreams Lead to a Midwifery Career in Pakistan	Blog	3/4/2015	Pakistan	Maternal Health
8	March 8th: Making the Status of Women and Girls a Priority	Blog	3/8/2015	Global	Gender
9	Addressing Malnutrition to Improve Maternal, Newborn & Child Health Outcomes	Blog	3/18/2015	Global	Nutrition
10	Why Are Junk Foods Considered "Essential Foods" for Egyptian Children?	Blog	4/3/2015	Egypt	Nutrition
11	Investing in Integrated Health Services to Defeat Malaria	Blog	4/22/2015	Global	Malaria
12	Bringing Communities and Health Workers Together to Expand Immunization Coverage	Blog	4/23/2015	Global	Immunization
13	MCSP on USAID blog: "Vaccinating Each Child to Build a Village"	Blog	4/28/2015	India	Immunization
14	Ready for Action: The WHO Expands Postpartum Family Planning, Increasing Chances for Maternal and Child Survival	Blog	6/2/2015	Global	Family Planning

#	Title	Type	Date	Country/ Region	Intervention Area(s)
15	Top Five Reads and Resources: Maternal and Child Survival Program	Blog	6/12/2015	Global	mHealth
16	What women, girls and their partners want	Blog	6/29/2015	Global	Family Planning
17	eLearning Improves Health Training Institutions in Ghana	Blog	7/1/2015	Ghana	mHealth
18	How to measure the quality of facility-based labor and delivery care in sub-Saharan Africa	Blog	7/6/2015	Global	Maternal Health
19	Navigating the Turbulent Waters of Federal Compliance	Blog	7/10/2015	Global	RMNCH
20	We are all in this together: Removing barriers to family planning access	Blog	7/10/2015	Global	Family Planning
21	Advancing a No-Missed-Opportunities Approach through Integrating Family Planning and Immunization Services	Blog	7/10/2015	Liberia	Family Planning
22	In Kenya, Encouraging Breastfeeding at the Community Level Is Saving Lives	Blog	8/4/2015	Kenya	Maternal Health, Newborn Health
23	From launch to saving lives: what does it take to introduce new vaccines?	Blog	8/27/2015	Global	Immunization
24	WHO Misoprostol Approval Means Lifesaving Treatment for Women in Low-Resource Settings	Blog	9/8/2015	Global	Maternal Health
25	Making the Sustainable Development Goals a Reality: Five Things We Need to Know	Blog	9/24/2015	Global	RMNCH
26	Four Ways Addressing Gender Makes Maternal and Child Health Programs More Effective	Blog	9/28/2015	Global	Gender
27	Investing in Marginalized Populations to Improve Newborn Survival in Latin America & the Caribbean	Blog	10/16/2015	LAC	Newborn Health
28	Want to save 3 billion lives? Improve quality of care at birth	Blog	10/16/2015	Global	Maternal Health
29	Scaling up Malaria in Pregnancy Interventions to Improve Maternal and Child Health	Blog	10/16/2015	Global	Maternal Health, Malaria, Child Health
30	Beyond creature comforts: Respectful maternity care saves lives	Blog	10/20/2015	Global	Maternal Health
31	Introducing USAID'S New Community Health Framework	Blog	11/11/2015	Global	Community Health

#	Title	Type	Date	Country/ Region	Intervention Area(s)
32	If we know how to save preterm babies, why are they still dying?	Blog	11/12/2015	Global	Newborn Health
33	From Chiang Mai to Mexico City to Nusa Dua: Family Planning Is Key to Saving Lives	Blog	1/11/2016	Global	Family Planning
34	"Where are Mothers and Newborns in the Post-2015 Era?"	Blog	2/5/2016	Global	Maternal Health, Newborn Health
35	Walking the Talk: Three Keys to Ending Vaccine-Preventable Deaths	Blog	2/22/2016	Africa Region	Immunization
36	Community Health Workers Are Key to Universal Health Coverage	Blog	4/5/2016	Global	Community Health
37	Respect During Childbirth Is a Right, Not a Luxury	Blog	4/7/2016	Global	Maternal Health
38	Pre-elimination Activities Are Saving Lives from Malaria in Rwanda	Blog	4/19/2016	Rwanda	Malaria
39	As the World Focuses on Zika Virus, Malaria Continues Its Deadly Toll	Blog	4/22/2016	Global	Malaria
40	Data for Decision-Making: Empowering Local Data Use	Blog	4/29/2016	Africa Region	Immunization. Monitoring and Evaluation
41	Midwives and the Things They Carry	Blog	5/5/2016	Global	Maternal Health
42	Meeting the Sustainable Development Goals through Postpartum Family Planning	Blog	5/10/2016	Kenya	Family Planning
43	Spotlight on Madagascar: Growing the Postpartum Family Planning Movement	Blog	5/23/2016	Madagascar	Family Planning
44	"Gone are the days when all family health affairs were left to women alone": A Ugandan father Speaks	Blog	6/16/2016	Uganda	Gender
45	Thinking Broadly about Reducing Missed Opportunities	Blog	7/8/2016	Liberia	Immunization, Family Planning
46	The breast and beyond: Improving feeding practices in Kenya	Blog	7/29/2016	Kenya	Newborn Health/Nutrition
47	Better-Designed Health Information Systems Make for Better Health Outcomes	Blog	8/19/2016	Global	Health Systems Strengthening, Monitoring and Evaluation

#	Title	Type	Date	Country/ Region	Intervention Area(s)
48	In Nigeria, More Women Are Choosing a Modern Method to Safely Plan Their Families	Blog	9/16/2016	Nigeria	Family Planning
49	Men in Mozambique Step Up to Help Their Spouses Prepare for Birth	Blog	9/20/2016	Mozambique	Gender, Maternal Health
50	A Healthy Competition: Achieving "Clean Clinic Status" in Haiti	Blog	10/13/2016	Haiti	WASH
51	Looking to invest in health? Here's how to get the biggest bang for your buck	Blog	2/13/2017	Global	Immunization
52	Family Planning Is Key to UN Sustainable Development Goals	Blog	3/3/2017	Global	Reproductive Health
53	Transforming the Community Health Landscape: From Alma Ata to the Institutionalizing Community Health Conference	Blog	3/20/2017	Global	Community Health
54	Community-Based Maternal Health Care: Meeting Women Where They Are	Blog	3/21/2017	Global	Community Health, Maternal Health
55	Communities: The key to unlocking better health for every child	Blog	3/21/2017	Global	Community Health, Child Health
56	Strong Government Leadership & Management Are Key to Building Sustainable Community Health Systems	Blog	3/22/2017	Global	Community Health
57	Making Community Systems the Bedrock of Global Health Investments	Blog	3/22/2017	Global	Community Health
58	Why Equity Matters for Health	Blog	3/23/2017	Global	Community Health
59	Improving Equitable Access to Lifesaving Maternal Health Care in Rural Bangladesh	Blog	3/23/2017	Bangladesh	Community Health, Maternal Health, Newborn Health
60	Uganda Hosts First International Symposium on Community Health Workers	Blog	3/23/2017	Uganda	Community Health
61	Strengthening HIV linkage and retention through improved community & facility collaboration in Botswana	Blog	3/24/2017	Botswana	Community Health, HIV
62	Say no to stigma: The critical role of key populations in the development of community-based services	Blog	3/24/2017	Global	Community Health, HIV
63	Mobile Technology Allows Community Health Workers to Quickly Identify & Refer in Côte d'Ivoire	Blog	3/24/2017	Côte d'Ivoire	Community Health, HIV

#	Title	Type	Date	Country/ Region	Intervention Area(s)
64	Generating local solutions: How CARE's Community Score Card is helping achieve health access for all	Blog	3/27/2017	Global	Community Health
65	It takes a village and data: Using routine health information to ensure safe, institutionalized births in Mozambique	Blog	3/27/2017	Mozambique	Community Health, Maternal Health
66	In Sierra Leone, Ensuring Sustainable Financing for Community Health	Blog	3/28/2017	Sierra Leone	Community Health
67	Connecting the disconnect: Community health and health systems strengthening	Blog	3/28/2017	Global	Community Health, Health Systems Strengthening
68	Community health workers & health volunteers: Leaving old debates behind	Blog	3/28/2017	Global	Community Health
69	Change always happens at the community level – it's about trust	Blog	3/28/2017	Global	Community Health
70	Making healthcare affordable: Women's savings and loans clubs to the rescue	Blog	3/29/2017	Nigeria	Community Health, Maternal Health
71	Where There Are No Supervisors: Community Health Worker Peer Support Groups	Blog	3/29/2017	Global	Community Health
72	District Partnerships Enhance Community Participation for RMNCH in Rwanda	Blog	3/29/2017	Rwanda	Child Health, Community Health, Maternal Health, Newborn Health
73	It Takes a Village: Improving Nutrition through Community Health Workers	Blog	3/29/2017	Global	Community Health, Nutrition
74	Harnessing the Power of Community Networks	Blog	3/29/2017	Global	Community Health
75	Getting the message home: Advocacy for health accountability in Uganda	Blog	3/30/2017	Uganda	Community Health, HIV
76	Using Quality Improvement Approaches for Better Community Health	Blog	3/30/2017	Global	Community Health
77	Reaching the "last mile" in South Sudan with community health workers	Blog	3/30/2017	South Sudan	Community Health
78	ICHC 2017: Five Key Takeaways for Maternal Health	Blog	3/31/2017	Global	Community Health
79	Vaccines work… when vaccination works	Blog	4/19/2017	Global	Immunization

#	Title	Type	Date	Country/ Region	Intervention Area(s)
80	Entering the "Elimination Phase," Nepal Steps Forward to End Malaria	Blog	4/21/2017	Nepal	Malaria
81	A dream realized: Rwandan community health worker champions child health	Blog	4/21/2017	Rwanda	Community, Malaria
82	A Pre-Discharge Checklist for Improving Facility-Based Postnatal Care for Mothers and Newborns	Blog	6/15/2017	Rwanda	Maternal Health, Newborn Health
83	Every Newborn Action Plan 2017 Report: Celebrating Every Birth & Ending Preventable Deaths	Blog	6/20/2017	Global	Newborn Health
84	5 things we've learned from a bottom-up approach to health system strengthening	Blog	6/27/2017	Global	HSS
85	Better Together: Revitalizing Family Planning & Nutrition Services	Blog	7/28/2017	Tanzania	Nutrition, Reproductive Health
86	Reaching the Youngest Mothers to Save Lives	Blog	9/8/2017	Global	Maternal Health, Reproductive Health
87	How economic empowerment is changing women's futures – and the world	Blog	9/22/2017	Global	Maternal Health, Reproductive Health
88	In Mozambique, a Month-long Celebration of Breastfeeding	Blog	10/16/2017	Mozambique	Newborn Health, Nutrition
89	Using Data to Drive Our Work in Haiti	Blog	2/15/2018	Haiti	Reproductive Health, Monitoring and Evaluation
90	If my daughter lived in the countries where I work	Blog	3/5/2018	Global	Maternal Health
91	Singing for Change in Mozambique This World Breastfeeding Week	Blog	7/31/2018	Mozambique	Newborn Health, Nutrition
92	Why public health practitioners need to learn the art of scale-up: The case of chlorhexidine for umbilical cord care	Blog	8/1/2018	Liberia, Nigeria	Newborn Health
93	Country Profiles Illuminate Successes – and Challenges – in the Fight against Malaria	Blog	9/27/2018	Global	Malaria
94	Rethinking Innovation in Maternal and Child Health in Africa: Five Case Studies	Blog	10/19/2018	Nigeria	Innovation
95	Exploring Cause and Effect: Use of Contribution Analysis to Describe Intervention Impact	Blog	3/6/2019	Global	Monitoring and Evaluation
96	When A Gender Expert's Friend Experiences Partner Violence	Blog	3/6/2019	Nigeria	Gender

#	Title	Type	Date	Country/ Region	Intervention Area(s)
97	Living in the In-Between: Learning from Egypt's Growing Pains	Blog	3/7/2019	Egypt	Gender
98	Across Africa, Data Dashboards in Health Facilities Are Improving Decision Making	Blog	3/13/2019	Global	Monitoring and Evaluation
99	Breastfeeding Advocacy Toolkit – An Online Resource For Breastfeeding Promotion and Support	Blog	3/20/2019	Global	Nutrition
100	Making Data More Actionable through Data Visualization	Blog	3/22/2019	Global	Monitoring and Evaluation
101	Are Low- and Middle-Income Countries Collecting Priority Maternal and Newborn Health Service Data?	Blog	3/28/2019	Global	Monitoring and Evaluation
102	Supporting Smart Investments in Digital Health- Introducing the DHIRT	Blog	3/29/2019	Global	Digital Health
103	After Birth and Beyond: Improving Care for Women with Pre-Eclampsia and Eclampsia	Blog	5/6/2019	Global	Maternal Health
104	Driving Change One Woman, One Family at a Time	Blog	6/17/2019	Global	Health Systems Strengthening
105	Countering Gender Inequality Saves Women – and Their Children	Blog	7/18/2019	Global	Gender
106	Introducing the Maternal and Child Survival Program	Success Story	9/26/2014	Global	RMNCH
107	Preventing Needless Deaths and the Intergenerational Costs of Inaction	Success Story	9/27/2014	Global	RMNCH
108	File under good news: MCSP in 2015	Success Story	2/5/2015	Global	RMNCH
109	Helping Babies Survive & Thrive	Success Story	4/20/2015	Global	Newborn Health
110	Celebrating Midwives and the Communities They Support in the World's Newest Country	Success Story	5/6/2015	South Sudan	Maternal Health
111	Improving Facilities to Serve the Women Who Need Them	Success Story	5/6/2015	Tanzania	Maternal Health
112	Midwifery and Nursing Tutors in Ghana Schooled on Infection Prevention and Control	Success Story	6/12/2015	Ghana	Ebola/IPC
113	Thinking Outside the "Family Planning Box" to Ensure No Missed Opportunities	Success Story	6/12/2015	Global	Family Planning

#	Title	Type	Date	Country/ Region	Intervention Area(s)
114	Saving Women's Lives Means Involving Men	Success Story	6/16/2015	Global	Maternal Health
115	MCSP's Olivia Vélez Featured by Johns Hopkins in "Women of Digital Health" Series	Success Story	7/27/2015	Global	mHealth
116	We Must Accelerate IPTp Uptake and Anemia Prevention to Save Mothers and Infants	Success Story	7/29/2015	Global	Malaria, Nutrition
117	Celebrating the Clean Household Approach	Success Story	10/15/2015	Global	WASH
118	Bringing Newborn Care Closer to Communities in Ethiopia	Success Story	1/8/2016	Ethiopia	Newborn Health
119	In Mozambique, Strong Community and Facility Linkages Improve Antenatal Care and Delivery Services	Success Story	1/14/2016	Mozambique	Maternal Health
120	Extended Health Services Vital to Remote Communities in Namibia	Success Story	2/29/2016	Namibia	Community Health
121	In Ethiopia, Respectful Maternity Care Is Increasing Facility Births	Success Story	3/21/2016	Ethiopia	Maternal Health
122	In Tanzania, First Responders Are Stopping Malaria at the Community Level	Success Story	4/18/2016	Tanzania	Malaria
123	Hope comes knocking: Preventing malaria in pregnancy in Kenya	Success Story	4/20/2016	Kenya	Malaria, Maternal Health
124	Integrated community case management of childhood illness is happening in Bondo, western Kenya	Success Story	8/5/2016	Kenya	Child Health
125	Tanzania Reduces Infant Mortality with Lifesaving Vaccines	Success Story	8/25/2016	Tanzania	Immunization
126	Mock Scenarios and Hands-On Trainings Lead to Big Improvements at Liberian Hospital	Success Story	8/29/2016	Liberia	Maternal Health, Family Planning
127	Buying Condoms? Contraceptive Questions? Ask Your Hairdresser	Success Story	9/26/2016	Guinea	Family Planning
128	Mobile Health Teams in Haiti Offer an Extensive Menu of Family Planning Methods to Women in Need	Success Story	8/29/2016	Haiti	Reproductive Health
129	In Madagascar, Midwife Uses Data to Eliminate Umbilical Infections	Success Story	11/4/2016	Madagascar	Maternal Health, Newborn Health
130	In Tanzania, Linking Underserved Communities to Care Is Saving Women and Babies	Success Story	11/14/2016	Tanzania	Reproductive Health, Newborn Health

#	Title	Type	Date	Country/ Region	Intervention Area(s)
131	Skilled Healthcare Workers in Nigeria Are Helping to End Needless Maternal and Newborn Deaths	Success Story	12/2/2016	Nigeria	Maternal Health, Newborn Health
132	Key to increasing clinic attendance in rural Malawi? Integrating services	Success Story	12/7/2016	Malawi	Reproductive Health
133	Indian Facility Embraces Respectful, "Client Centric" Care after MCSP Training	Success Story	12/13/2016	India	Reproductive Health, Maternal Health
134	Success Testing Clients for HIV in Namibia Serves as Basis for Case Study	Success Story	12/19/2016	Namibia	HIV
135	Effective Training and Proper Equipment Are Saving Newborns in Madagascar	Success Story	12/21/2016	Madagascar	Newborn Health
136	Skills Labs in Ghana's Midwifery Schools Improve Confidence of Trainers and Students	Success Story	12/22/2016	Ghana	Maternal Health
137	"I realized I was losing her": A Rwandan midwife uses new skills to save a mother's life	Success Story	1/10/2017	Rwanda	Maternal Health
138	No need for referral: Malagasy Doctor Manages Emergency Thanks to MCSP Training	Success Story	2/24/2017	Madagascar	Maternal Health
139	Real life super women: Transforming maternal & newborn health in Liberia	Success Story	3/8/2017	Liberia	Maternal Health, Newborn Health
140	Nigeria Commits to Scaling Up Use of Antiseptic Gel to Reduce Newborn Deaths	Success Story	3/15/2017	Nigeria	Newborn Health
141	Malaria: One Disease, Many Faces	Success Story	4/25/2017	Global	Malaria
142	One visit, one family at a time: Improving nutrition in Mozambique	Success Story	5/22/2017	Mozambique	Nutrition
143	Claudine's Story: From Tragedy to Tea Shop	Success Story	5/22/2017	Rwanda	Maternal Health
144	Rising from the Ashes: Strengthening Guinea's Local Health Systems after Ebola	Success Story	6/8/2017	Guinea	Health Systems Strengthening, Ebola
145	2017 International Day of the African Child	Success Story	6/9/2017	Global	Child Health
146	Ample Time to Breastfeed & Importance of Nutrition Critical for Moms and Babies	Success Story	6/14/2017	Global	Nutrition
147	Haitian Communities Empowered to Address Their Own Health Issues	Success Story	6/30/2017	Haiti	Community Health

#	Title	Type	Date	Country/ Region	Intervention Area(s)
148	Going Door to Door in Haiti to Improve Health	Success Story	7/14/2017	Haiti	Community Health, Maternal Health, Zika
149	Working with Fathers in Kenya to Ensure Mothers and Babies Survive	Success Story	7/26/2017	Haiti	Gender, Maternal Health
150	A Champion for Mothers in Remote India	Success Story	8/16/2017	India	Maternal Health
151	In Haiti, HIV Peer Educator Inspires Hope	Success Story	8/21/2017	Haiti	HIV
152	A Rwandan Midwife Mentor Delivers Emergency Care with Cool Confidence	Success Story	8/25/2017	Rwanda	Maternal Health
153	Mentoring Health Care Workers in Rwanda Is Saving Lives	Success Story	8/25/2017	Rwanda	Newborn Health
154	In Her Arms: A Newborn and a New Implant	Success Story	8/25/2017	Madagascar	Reproductive Health
155	A Liberian Woman Follows Her Dream to Make Childbirth Safer	Success Story	8/25/2017	Liberia	Maternal Health, Newborn Health
156	WASH in Health Care Facilities: A Toolbox for Improving Quality of Care	Success Story	10/11/2017	Global	WASH
157	In Mozambique, Nurses Gain Confidence and Skills to Diagnose and Treat Severe Malaria	Success Story	10/13/2017	Mozambique	Malaria
158	In Rwanda, an Abandoned Child Is Saved From Malnutrition and Dehydration	Success Story	11/8/2017	Rwanda	Child Health, Nutrition
159	Mobilizing Haitian Mothers to Improve Child Nutrition	Success Story	11/13/2017	Haiti	Child Health, Nutrition
160	Slideshow: World Prematurity Day 2017	Success Story	11/15/2017	Global	Newborn Health, Maternal Health
161	In Mozambique, Nurses Are Using Health Information to Make Lifesaving Decisions	Success Story	11/30/2017	Mozambique	Maternal Health, Newborn Health, Child Health
162	Beyond the Classroom: Strengthening the Capacity of Burmese Health Care Providers	Success Story	12/6/2017	Burma	Maternal Health, Newborn Health, Health Systems Strengthening
163	Caring for Rwanda's Survivors of Gender-Based Violence	Success Story	12/6/2017	Rwanda	Gender

#	Title	Type	Date	Country/ Region	Intervention Area(s)
164	Haitian Teens Leave Youth Clubs as Community Health Advocates	Success Story	1/16/2018	Haiti	Reproductive Health, SBCC, Community Health
165	Opting for POP	Success Story	1/16/2018	India	Reproductive Health
166	In Madagascar, Giving Providers Modern Tools to Battle an Ancient Disease	Success Story	1/16/2018	Madagascar	Health Systems Strengthening
167	Reaching Young Women and First-Time Moms with Friendly, Lifesaving Services in Madagascar	Success Story	1/30/2018	Madagascar	Maternal Health, Reproductive Health
168	Screen and Treat Now	Success Story	1/30/2018	Mozambique	Maternal Health
169	In Guinea, Local Health Teams Learn to Identify and Address Pressing Challenges	Success Story	2/12/2018	Guinea	Health Systems Strengthening
170	In Mozambique, A Mother's First Child Lives Thanks to Neonatal Resuscitation Training	Success Story	2/14/2018	Mozambique	Newborn Health
171	Ethiopian Faith Leaders Help Prevent Maternal and Newborn Deaths	Success Story	2/15/2018	Ethiopia	Maternal Health, Newborn Health
172	Mentoring Makes the Difference	Success Story	2/22/2018	Rwanda	Maternal Health
173	Rallying for Women and Children in Ethiopia	Success Story	2/26/2018	Ethiopia	Maternal Health, Newborn Health
174	Protecting a Malagasy Mother's "Moment of Happiness" through Respectful Maternity Care	Success Story	3/2/2018	Madagascar	Maternal Health
175	Mapping Communities for a Healthy Future	Success Story	3/2/2018	Uganda	Community Health
176	Communities take action to improve WASH in Mozambique	Success Story	4/2/2018	Mozambique	WASH
177	In Ethiopia, Health Extension Workers Are Learning Skills That Save Lives	Success Story	4/4/2018	Ethiopia	Community Health, Newborn Health
178	Meeting the Immunization Needs of the Urban Poor	Success Story	4/18/2018	Kenya	Immunization
179	Health Care Providers in Mozambique Empowered to Treat Complex Malaria in Pregnancy Cases	Success Story	4/19/2018	Mozambique	Malaria
180	Using Existing Health and Food Systems to Combat Rising Obesity Rates	Success Story	4/24/2018	Global	Nutrition

#	Title	Type	Date	Country/ Region	Intervention Area(s)
181	Congolese Community Comes Together to Improve Child Health	Success Story	4/30/2018	DRC	Child Health
182	Rwandan Midwife Mentor Takes the Lead in Providing Lifesaving Care	Success Story	5/3/2018	Rwanda	Maternal Health
183	A personal tragedy sets Naw Eh Paw Htoo on a path to midwifery	Success Story	5/7/2018	Burma	Maternal Health
184	"HelloMama" Messaging Service Delivers Vital Health Messages in Nigeria	Success Story	5/9/2018	Nigeria	Maternal Health, Newborn Health
185	If You Build It, They Will Come: Strengthening Liberia's Health Infrastructure	Success Story	5/22/2018	Liberia	Health Systems Strengthening
186	In Liberia, Modified Training Improves Quality of Child and Infant Care Post-Ebola	Success Story	6/15/2018	Liberia	Child Health, Newborn Health
187	Engaging Men Is Saving Lives in Mozambique	Success Story	6/15/2018	Mozambique	Gender
188	Ghanaian Health Workers Embrace Early Childhood Development	Success Story	6/15/2018	Ghana	Child Health
189	Permanent Relief: Lifelong Contraceptives Give Nigerian Women Peace of Mind	Success Story	7/10/2018	Nigeria	Reproductive Health
190	Managing Low Birth Weight in Rwanda	Success Story	7/25/2018	Rwanda	Newborn Health
191	In Northern Nigeria, barbers trim newborn mortality – one haircut at a time	Success Story	8/6/2018	Nigeria	Newborn Health
192	In Liberia, Youth Health Clubs Are Reducing Unplanned Pregnancies	Success Story	8/21/2018	Liberia	Reproductive Health
193	Newly Trained Volunteer Saves Burmese Child's Life with Speedy Diagnosis & Referral	Success Story	8/21/2018	Burma	Child Health
194	In Madagascar, Respectful Care & Family Planning Go Hand-in-Hand	Success Story	9/25/2018	Madagascar	Reproductive Health
195	Ending the Game of Chance: Improving Access to Essential Medicines in Nigeria with Better Data Use	Success Story	10/4/2018	Nigeria	Child Health, Health Systems Strengthening, Maternal Health, Newborn Health
196	Deliveries at DR Congo Health Center Surge Thanks to the "Clean Clinic Approach"	Success Story	10/11/2018	DRC	WASH

#	Title	Type	Date	Country/ Region	Intervention Area(s)
197	Rwandan Community Health Worker Theodosie Is Vital Part Of Health Care Delivery	Success Story	11/5/2018	Rwanda	Community Health
198	It Takes a Village: Community Loans Are Saving Lives In Mozambique	Success Story	11/9/2018	Mozambique	Community Health
199	Finding The Undiagnosed: Partner HIV Testing In Namibia	Success Story	11/29/2018	Namibia	Community Health, HIV
200	In Nigeria, Faith In Health Care Is Saving Lives	Success Story	1/3/2019	Nigeria	Maternal Health, Newborn Health
201	In Madagascar, A Young Father Steps Up His Role In Family Health	Success Story	1/12/2019	Madagascar	Community Health, Reproductive Health
202	The First 42 Days: Prioritizing Moms and Babies in Rural India	Success Story	1/17/2019	India	Maternal Health, Newborn Health
203	From Life-Threatening Pregnancy to Happy Birth Day: Mozambican Providers Act Quickly to Save Lives	Success Story	1/29/2019	Mozambique	Maternal Health
204	Trained Volunteers Provide TB Diagnoses – and Hope – to Burmese Families	Success Story	2Mazambique/6/2019	Burma	Community Health
205	Disease Surveillance Is Key to Freeing Madagascar from Polio	Success Story	2/14/2019	Madagascar	Immunization
206	Health and Wellness Centers "Reach the Unreached" in India	Success Story	2/14/2019	India	Community Health
207	Burmese Midwife Leads "Small but Mighty" Health Team Linking Rural Villages to Lifesaving Care	Success Story	3/1/2019	Burma	Health Systems Strengthening
208	Students Need Protection, Too: Family Planning Targets Future Nurses & Midwives in Liberia	Success Story	3/4/2019	Liberia	Reproductive Health
209	A Wider Basket Gives Wider Wings to Women in India	Success Story	3/8/2019	India	Reproductive Health
210	You Can't Treat What You Don't See: Valuing Child Health Data Collection in Mozambique	Success Story	3/15/2019	Mozambique	Monitoring and Evaluation
211	If at first you do succeed: Engaging communities to improve vaccine uptake in Tanzania	Success Story	4/17/2019	Tanzania	Immunization
212	Play On, Baby!	Success Story	4/24/2019	Ghana	Early Childhood Development
213	The Power of Partnerships for Improved Routine Immunization in Nigeria	Success Story	4/25/2019	Nigeria	Immunization

#	Title	Type	Date	Country/ Region	Intervention Area(s)
214	Tanzania Deploys the Most Advanced Health Information Exchange in sub-Saharan Africa	Success Story	4/26/19	Tanzania	Measurement, Monitoring, Evaluation, and Learning
215	No matter age, gender, religion or caste: Improving access for all in India	Success Story	4/29/2019	India	Community Health
216	Engaging Indian Women Directly is Improving Contraceptive Uptake	Success Story	5/1/2019	India	Reproductive Health
217	Calling All Girls	Success Story	5/13/2019	Tanzania	Maternal Health
218	A New Generation of Indian Men Take Up Family Planning	Success Story	6/10/2019	India	Reproductive Health
219	A Ugandan Community Identifies and Addresses its Own Challenges to Protect Children from Disease	Success Story	6/14/2019	Uganda	Immunization, Child Health, Community Health
220	From Screening to Cleaning: This Nurse Leads by Example	Success Story	6/14/02019	India	Reproductive Health
221	Managing Low Birth Weight in Rwanda	Success Story	7/30/2019	Rwanda	Newborn
222	Going the Extra Mile to Ensure Voluntary Contraceptive Uptake in India	Success Story	8/20/2019	India	Reproductive Health
223	In India, A Mother of Three Makes Informed Choices about Her Fertility	Success Story	9/13/2019	India	Reproductive Health
224	Friend, Confidant, "Mitanin": an Indian Mother Trains to Improve Her Community's Health	Success Story	9/16/2019	India	Community Health
225	In Burma, Clinical Child Health Training is Saving Lives in Remote Communities and Facilities Alike	Success Story	10/1/2019	Burma	Child Health
226	Try, Try Again: Reimagined Provider Training is Saving Children in Uganda	Success Story	10/18/2019	Uganda	Child Health
227	Save the Date! Global Maternal Newborn Health Conference: October 2015	Announcement	12/20/2014	Global	Maternal Health, Newborn Health
228	RBM partnership launches Global Call to Action for malaria during pregnancy	Announcement	4/21/2015	Global	Malaria
229	ENAP Progress Report, Strategies toward EPMM launch at 68th World Health Assembly	Announcement	5/10/2015	Global	Newborn Health
230	Video: Dr. Koki Agarwal on "Enhancing U.S. Engagement on Maternal and Child Health"	Announcement	5/11/2015	Global	Maternal Health, Child Health

#	Title	Type	Date	Country/ Region	Intervention Area(s)
231	Delivering for Mothers and Newborns: Ending Preventable Maternal and Newborn Deaths	Announcement	5/19/2015	Global	Maternal Health, Newborn Health
232	ORB: A Groundbreaking, Online Global Library for Training Frontline Health Workers	Announcement	6/1/2015	Global	mHealth
233	USAID, Kiwanis Work to Eliminate Maternal & Newborn Tetanus	Announcement	7/15/2015	Global	Maternal Health, Newborn Health
234	Innovating for Impact: Acting to End Preventable Child and Maternal Deaths in the Post 2015 Era	Announcement	9/26/2015	Global	Maternal Health, Child Health
235	Third Annual Regional Meeting of Priority Interventions for Newborn Health in LAC	Announcement	9/26/2015	LAC	Newborn Health
236	April 13th Event: After Mexico City and before Copenhagen – Keeping Our Promise to Mothers and Newborns	Announcement	4/4/2016	Global	Maternal Health, Newborn Health
237	Join MCSP at Women Deliver in Denmark!	Announcement	5/4/2016	Global	RMNCH
238	Achieving Impact at Scale, May 25th	Announcement	5/11/2016	Global	Scale-Up
239	Building Political Will for Gender Equity to Achieve MNC Survival Goals	Announcement	5/26/2016	Global	Gender
240	MCSP's Dr. Kavle speaks with Voice of America about World Breastfeeding Week	Announcement	8/3/2016	Global	Nutrition
241	MCSP's Anne Pfitzer speaks with Voice of America about Breastfeeding	Announcement	10/18/2016	Global	Newborn Health, Reproductive Health
242	Oct 28: What Next? Putting The Lancet Maternal Health Series into Action	Announcement	10/24/2016	Global	Maternal Health
243	RSVP now! "Thinking Differently: Fresh Evidence on Innovations for Healthy Women, Newborns, and Children"	Announcement	10/31/2016	Global	Maternal Health, Newborn Health, Child Health
244	Dec 5 event: Ready, Set, Launch — A Country-Level Launch Planning Guide for Global Health Innovations	Announcement	11/29/2016	Global	Innovations, Newborn Health
245	Interview with MCSP's Lisa Noguchi: Dealing with Zika	Announcement	12/20/2016	Global	Maternal Health, Zika
246	March 2: Webinar on Kangaroo Mother Care and Preterm Babies	Announcement	2/27/2017	Global	Newborn Health
247	March 14: Institutionalizing Community Health Conference Twitter Chat	Announcement	3/1/2017	Global	Community Health

#	Title	Type	Date	Country/ Region	Intervention Area(s)
248	April 7: Community Health in the SDG Era	Announcement	4/6/2017	Global	Community Health
249	April 26: #TalkWIW Twitter Chat	Announcement	4/18/2017	Global	Immunization
250	June 8: The Critical Role of SBC across the Service Delivery Continuum	Announcement	5/2/2017	Global	SBCC
251	Institutionalizing Community Health Conference blogging: Keep up with our experts!	Announcement	5/17/2017	Global	Community Health
252	June 21: Immunization in a Social Media World – Insight & Analysis from Ukraine	Announcement	5/24/2017	Global	Immunization
253	August 16: Global Digital Health Network Monthly meeting	Announcement	8/11/2017	Global	Digital Health
254	MCSP at the 2017 International Congress of Nutrition	Announcement	10/12/2017	Global	Nutrition
255	Workshop Ensures Child Health & Nutrition Data Is Used for Decision Making	Announcement	10/27/2017	Global	Child Health, Nutrition, Monitoring and Evaluation
256	FP2020 Features MCSP Director in "Health Workers & Heroes"	Announcement	11/30/2017	Bangladesh	Reproductive Health
257	December 15th: MCSP & UNICEF Community Health Information Systems Webinar	Announcement	12/5/2017	Rwanda, Mozambique	Digital Health, Community Health
258	Institutionalizing Community Health Conference: Webinar Series	Announcement	12/14/2017	Global	Community Health
259	February 27th: Addressing Critical Health System Barriers to Improve RMNCAH Services	Announcement	1/30/2018	Global	Health Systems Strengthening
260	Climbing the slope of enlightenment: Reflections from the Global Digital Health Forum	Announcement	2/1/2018	Global	Digital Health
261	March 15th: Mobilizing Innovation to Eliminate Global Health Disparities	Announcement	3/8/2018	Global	Innovations
262	Workshop Highlights Rapid Scale-Up of Immediate Postpartum Family Planning Services in Rwanda	Announcement	3/16/2018	Rwanda	Reproductive Health
263	MCSP at the 2018 International Social and Behavior Change Communication Summit	Announcement	4/12/2018	Global	SBCC

#	Title	Type	Date	Country/ Region	Intervention Area(s)
264	May 16th: Implementing High Impact Health Interventions	Announcement	4/16/2018	Global	Child Health, Newborn Health, Reproductive Health
265	June 19th – Stronger Systems for Healthier Moms and Kids: Tackling Health System Constraints in Ghana and Guinea	Announcement	5/24/2018	Ghana, Guinea	Strengthening Health Systems, Maternal Health, Child Health
266	July 11th – The Polio Journey: 30 Years of Experience	Announcement	7/2/2018	Global	Immunization
267	Save the date: Aligning the Stars for Quality RMNCH Care! What Does It Take?	Announcement	8/20/2018	Global	Child, Maternal, Newborn, Reproductive Health, Health Systems Strengthening
268	MCSP Health Management Information Systems Webinar Series	Announcement	8/23/2018	Global	Maternal, Newborn, Child Health, Nutrition
269	October 16th: Long-Acting Reversible Contraception and Permanent Methods	Announcement	9/14/2018	Global	Reproductive Health
270	MAMA Webinar and Presentation Slides Now Available!	Announcement	10/4/2018	Bangladesh, South Africa, India, Nigeria	Newborn Health
271	Presentations from the 2018 Global Symposium on Health Systems Research Now Available!	Announcement	11/6/2018	Global	Health Systems Strengthening
272	MCSP Presentations from the 2018 FIGO World Congress Now Available!	Announcement	11/9/2018	Global	Maternal Health, Newborn Health
273	MCSP Presentations from the 2018 International Conference on Family Planning Now Available!	Announcement	12/18/2018	Global	Reproductive Health
274	Now Available: Digital Health Showcase Webinar and Presentation Slides	Announcement	12/18/2018	Global	Digital Health
275	PMNCH Side Event Showcases the Power of Partnerships	Announcement	12/29/2018	India	Child Health, Community Health, Maternal Health
276	5th Global Digital Health Forum: Interactive Sessions and TED-Style Talks	Announcement	2/7/2019	Global	Digital Health
277	Feb 15th Webinar: New WHO Community Health Worker Guideline Additional Resources	Announcement	2/13/2019	Global	Community Health
278	February 12th – How to Strengthen Nutrition within the Health Platform: Programmatic Evidence and Experience from Three Countries	Announcement	2/13/2019	Mozambique, Malawi, Tanzania	Newborn Health, Nutrition

#	Title	Type	Date	Country/ Region	Intervention Area(s)
279	Human Capacity Development Webinar Series Begins Feb 28th	Announcement	2/14/2019	Rwanda, Laos, Ethiopia	Health Systems Strengthening
280	March 7th Launch Event: Expanding Maternal and Newborn Survival Opportunities in Indonesia	Announcement	2/26/2019	Indonesia	Maternal Health, Newborn Health
281	March 26th: Measurement Matters! Improving Routine RMNCAH Data For Better Outcomes	Announcement	3/12/2019	Global	Monitoring and Evaluation
282	May 6th: Harnessing the Power of Communities to Achieve Equity and Primary Health Care for All	Announcement	4/16/2019	Global	Community Health
283	July 10th: Improving Nutrition Services in the Care of the Ill and Vulnerable Newborn and Child	Announcement	7/2/2019	Global	Maternal Health, Newborn Health
284	MCSP Presentations from the Women Deliver 2019 Conference	Announcement	7/4/2019	Global	Maternal Health, Newborn Health
285	What's new with first-time parents? Three takeaways from our recent knowledge-sharing event	Announcement	7/15/2019	Global	Maternal Health, Newborn Health
286	Webinar: Addressing Barriers to Exclusive Breastfeeding in Nampula, Mozambique	Announcement	8/8/2019	Mozambique	Maternal Health, Newborn Health
287	Webinar: Community health information systems and data use: Learning from Africa and resources for practitioners	Announcement	8/9/2019	Africa	Community Health
288	September 25th Technical Consultation: Expanding Contraceptive Method Choice	Announcement	10/8/2019	Global	Community Health
289	Now available: Resources from the Gender-Responsive Approaches to RMNCAH Webinar	Announcement	10/22/2019	Global	Gender
290	November 7th webinar: 30+ countries in less than 30 minutes	Announcement	10/30/2019	Global	Monitoring, Evaluation, & Learning

Annex 7A. Communications Events

#	Month and Year	Name of Event	Location	Co-Sponsors
1	October 2014	CORE Group Fall Meeting	Washington, DC	CORE Group
2	November 2014	American Public Health Association Annual Meeting	New Orleans, Louisiana	USAID Global Health
3	November 2014	CHW Forum	Washington, DC	
4	December 2014	mWomen Breakfast at Global mHealth Forum	Washington, DC	mPowering
5	February 2015	Maternal Mortality Mapping Meeting	Washington, DC	
6	April 2015	Helping Babies Survive Asia Regional Workshop	Dhaka, Bangladesh	Save the Children Bangladesh
7	May 2015	Integrating Maternal and Newborn Care: Strengthening the Continuum	Geneva, Switzerland	United Nations Population Fund, Every Woman Every Child, UNICEF, A Promise Renewed
8	November 2015	Rwanda MCSP Launch	Rwanda	
9	November 2015	Liberia MCSP Launch	Liberia	
10	November 2015	Global Maternal and Newborn Health Conference	Mexico City, Mexico	MH Task Force, Save the Children's SNL
11	January 2016	ICFP	Denpasar, Indonesia	
12	January 2016	PPFP Follow-Up Workshop ICFP	Denpasar, Indonesia	FP2020, Bill & Melinda Gates Foundation, United Nations Population Fund, WHO
13	January 2016	International Summit on Social and Behavior Change Communications Summit	Addis Ababa, Ethiopia	
14	February 2016	Ministerial Conference on Immunization in Africa	Addis Ababa, Ethiopia	
15	March 2016	USAID's Mini-University	Washington, DC	
16	April 2016	Woodrow Wilson Center Event – Global Maternal and Newborn Health Conference Follow-Up Event: "After Mexico City and Before Copenhagen: Keeping Our Promise to Mothers and Newborns"	Washington, DC	SNL, MH Task Force, PATH
17	April 2016	Capitol Hill Reception and Learning Expo: Racing to Close the Immunization Gap	Washington, DC	PATH, American Academy of Pediatrics, American Red Cross, Gavi, The Global Poverty Project,

#	Month and Year	Name of Event	Location	Co-Sponsors
				International AIDS Vaccine Initiative, International Vaccine Access Center, John Snow Inc., RESULTS, Save the Children, Shot@Life, UNICEF
18	May 2016	Women Deliver Conference	Copenhagen	Population Council, International Confederation of Midwives, WHO, Global Maternal Newborn Health Conference, MH Task Force
19	May 2016	Scaling Up High-Impact Interventions	Washington, DC	
20	May 2016	Field Staff Visits to US State Department and Capitol Hill	Washington, DC	
21	May 2016	CORE Group Global Health Practitioner Spring Conference	Portland, Oregon	CORE Group
22	June 2016	Capitol Hill Briefing: Building Political Will for Gender Equity to Achieve Maternal, Newborn and Child Survival Goals	Washington, DC	Jhpiego, MSH, Save the Children, Action Network
23	June 2016	Care of the Small, Sick Newborn Forum	Washington, DC	Every Preemie–SCALE, Save the Children's Healthy Newborn Network
24	July 2016	USAID 2016 Saving Lives at Birth DevelopmentXChange	Washington, DC	
25	July 2016	Cracking the Nut Conference	Washington, DC	
26	July 2016	RBM MiP WG 2016 Meeting	Geneva, Switzerland	Global Fund
27	August 2016	World Breastfeeding Week 2016	Washington, DC	
28	September 2016	Madagascar National FP Conference	Madagascar	Government of Madagascar, MOH, United Nations Population Fund, WHO, PSI
29	September 2016	LAC Ultrasound Capacity Assessment Design Meeting	Washington, DC	American Institute of Ultrasound in Medicine, Society for Maternal-Fetal Medicine
30	September 2016	Zika Response Team Ultrasound Assessment Design Meeting	Washington, DC	ASSIST

#	Month and Year	Name of Event	Location	Co-Sponsors
31	September 2016	*The Lancet* Maternal Health Series, 2016	Washington, DC	London School of Hygiene and Tropical Medicine
32	September 2016	The Case for Male Engagement in Reproductive, Maternal and Child Health	Washington, DC	Jhpiego, Interagency Gender Working Group, Promundo, Family Included
33	October 2016	International Federation of Gynecology and Obstetrics (FIGO)	Vancouver, Canada	
34	October 2016	CORE Group Global Health Practitioners' Fall Conference	Washington, DC	
35	May 2015	Enhancing US Engagement on MCH	Washington, DC	Center for Strategic and International Studies
36	May 2015	CORE Group Spring Meeting	Washington, DC	
37	June 2015	(Re)Building health systems in West Africa: what role for ICT and mobile technologies?	Wilton Park, UK	mPowering
38	October 2016	LAM Hackathon	Baltimore, Maryland	Johns Hopkins University, USAID, Clinvue
39	November 2016	RBM MiP WG Meeting at American Society of Tropical Medicine and Hygiene Conference	Atlanta, Georgia	
40	November 2016	Walk and 5K to End HIV 2	Washington, DC	
41	November 2016	PMI MiP Partners Meeting	Washington, DC	MH Task Force, Save the Children's SNL
42	November 2016	LAC Neonatal Alliance Annual Meeting	Lima, Peru	
43	December 2016	MAMA Lessons Learned Meeting	Washington, DC	
44	December 2016	KMC Acceleration Partnership CoP Meeting	Kigali Rwanda	Save the Children's SNL, SCI Rwanda, MOH Rwanda
45	December 2016	Nelson Mandela Children's Hospital Trust Opening Ceremony	Johannesburg, South Africa	
46	December 2016	FP and Immunization Integration WG Meeting	Washington, DC	FP2020, Bill & Melinda Gates Foundation, United Nations Population Fund, WHO
47	December 2016	Convening on Men and RMC Event	Washington, DC	
48	March 2017	ICHC 2017	Johannesburg, South Africa	USAID, UNICEF, Bill & Melinda Gates Foundation, Advancing Partners &

#	Month and Year	Name of Event	Location	Co-Sponsors
				Communities, Aspen Institute, USAID ASSIST Project, CARE, CORE Group, the Global Fund, Jhpiego, MH Task Force, PMNCH, Philips, Save the Children, SPRING, World Vision
49	April 2017	External BBL: NEW Postnatal Care Home Visitation Guidance	Washington, DC	SNL
50	April 2017	Brown Bag Presentation: WASH for Newborn Sepsis Mortality Reduction Study in Nigeria	Washington, DC	
51	April 2017	The Consortium of Universities for Global Health	Washington, DC	Johns Hopkins University, USAID, UNICEF
52	April 2017	SAIS Global Women in Leadership Annual Conference	Washington, DC	
53	May 2017	Digital Health Procurement Guidance and Scorecard Advisory Committee Meeting	Rosslyn, Virginia	USAID
54	May 2017	ECSB Training of Trainers	San Salvador, El Salvador	El Salvadorian MOH
55	May 2017	Planning for a Post-Polio World	Washington, DC	The Communication Initiative, USAID
56	May 2017	Social Media Initiative in Ukraine: Analysis of Conversations on RI	New York, New York	UNICEF
57	June 2017	The Critical Role of Social and Behavior Change across the Service Care Continuum	Washington, DC	Health Communication Capacity Collaborative
58	June 2017	Acting on the Call Capitol Hill Event	Washington, DC	American Academy of Pediatrics, CARE, Global Health Council, UNICEF, Jhpiego, PATH, IntaHealth, Save the Children, Save the Children Action Network, RESULTS, MSH, Pathfinder, Frontline Health Workers Coalition
59	June 2017	Engaging "natural spaces." Immunization in a Social Media World: A communication study. Insight and Analysis from Ukraine.	Washington, DC	
60	June 2017	Reducing Missed Opportunities: A Special Joint Meeting of the FP and Immunization Integration WG and the MIYCN-FP Integration WG	Washington, DC	Pathfinder, SPRING

#	Month and Year	Name of Event	Location	Co-Sponsors
61	June 2017	An Unfinished Agenda in MH: Meeting the Needs of Women with PE/E and PPH	Washington, DC	USAID, Ending Eclampsia
62	June 2017	Technical Consultation on Gender/Empowerment Measures for MNCH Programs	Washington, DC	
63	July 2017	RMNCH Indicator Testing Meeting	Washington, DC	
64	July 2017	RBM MiP WG Annual Meeting	Geneva, Switzerland	WHO, the Global Fund, PMI, Unitaid, Jhpiego, CDC, ISGlobal, Bill & Melinda Gates Foundation, London School of Hygiene and Tropical Medicine, LSTM, the Malaria Consortium, *Institut de Recherche pour le Développement*, Abt, Chemonics, FIND, Johns Hopkins University, National Malaria Control Program
65	August 2017	ECSB Training of Trainers	Asunción, Paraguay	Paraguayan MOH
66	August 2017	Global Digital Health Network Monthly Meeting	Washington, DC	K4Health
67	August 2017	2017 Acting on the Call Summit CSO Side Event	Addis Ababa, Ethiopia	Governments of Ethiopia and India, USAID, UNICEF, Bill & Melinda Gates Foundation, Every Woman Every Child, GE, Ethiopian Airlines
68	September 2017	Reaching the Fifth Child: Sharing Approaches for Reaching Remote, Mobile, Nomadic, and Marginalized Children to Reduce Child Morbidity and Mortality	Washington, DC	CORE Group, USAID, PATH, Center for Strategic and International Studies, Catholic Relief Services, World Vision, PCI, CORE Group Polio Project
69	September 2017	SVRI Forum 2017 Satellite Reception: Building Quality Health Services for Survivors of Gender-Based Violence	Sheraton, Rio, Brazil	WHO, Jhpiego
70	September 2017	Improving PPFP Programming: Exploring Challenges and Opportunities around LARCs and Permanent Methods	Washington, DC	PSI and the LARC/Permanent Methods CoP

#	Month and Year	Name of Event	Location	Co-Sponsors
71	September 2017	Africa Regional Workshop on Improving Data for Child Health in National Health Information Systems	Johannesburg, South Africa	USAID
72	October 2017	Water and Health Conference at UNC Water Institute	Chapel Hill, North Carolina	UNC Water Institute
73	October 2017	WASH for Maternal and Neonatal Health: Behaviors, Birth Kits, and Indicators	Chapel Hill, North Carolina	
74	October 2017	Scale the Technology Now: The Case for Immediate Scaling of Mobile Digital Content Delivery Systems Using Engineering Principles	Washington, DC	Qualcomm Wireless Reach
75	October 2017	KMC Acceleration Partnership CoP, Global Workshop	Blantyre, Malawi	USAID, SNL, Every Preemie–SCALE
76	October 2017	MCSP's Learnings on WASH in Health Care Facilities	Washington, DC	
77	November 2017	ECSB Training of Trainers-Guatemala	Guatemala City, Guatemala	Guatemala MOH, PAHO, Guatemalan Neonatology Association
78	November 2017	*Bases para un modelo de atención y apoyo integrados a bebés y familias afectadas por el Zika*	Webinar	URC, ASSIST
79	December 2017	MCSP GIS Supplement Writing Workshop	Washington, DC	
80	December 2017	Community Health Information Systems: Success Stories from Rwanda and Mozambique	Webinar	UNICEF
81	December 2017	Launch of the Gender-Based Violence Quality Assurance Standards	Washington, DC	CDC, WHO
82	February 2018	Global Digital Health Network February 2018 Meeting	Washington, DC	Global Digital Health Network
83	February 2018	Addressing Critical Health System Barriers to Improve RMNCAH Service	Washington, DC	
84	April 2018	MCSP Subregional ECSB Training of Trainers	Port of Spain, Trinidad	Trinidad and Tobago MOH, Caribbean Regional Midwives Association
85	May 2018	Reducing Missed Opportunities: The Second Joint Meeting of the FP and Immunization Integration WG and the MIYCN-FP Integration WG	Washington, DC	SPRING, Pathfinder
86	May 2018	Advancing the PPFP Agenda: Building Partnerships to Meet Rwanda's FP2020 Commitments	Washington, DC	FP2020
87	May 2018	Successful Country-Led Scale-Up of RMNCAH Interventions	Washington, DC	Woodrow Wilson Center
88	June 2018	PPH CoP Annual Meeting	Washington, DC	Gynuity, WHO, Global Health Supply Chain

#	Month and Year	Name of Event	Location	Co-Sponsors
				Program–Procurement and Supply Management
89	June 2018	Family-Centered Care: A Model of Care from India	Washington, DC	
90	June 2018	Global Immunization Meeting Side Events	Kigali, Rwanda	
91	June 2018	St. Lucia National ECSB Training of Providers	Castries, St. Lucia	St. Lucia MOH, Caribbean Regional Midwives Association
92	June 2018	Stronger Systems for Healthier Moms and Kids: Tackling Health System Constraints in Ghana and Guinea	Washington, DC	USAID Health Finance and Governance Project
93	June 2018	Workshop on the Care of Infants and Their Families Affected by Zika in English-Speaking Caribbean Countries	Port of Spain, Trinidad	Trinidad MOH, Caribbean Regional Midwives Association, USAID ASSIST Project
94	July 2018	Barbados National ECSB Training of Providers	Bridgetown, Barbados	Barbados MOH, Caribbean Regional Midwives Association
95	July 2018	USAID/MCSP Support to Gavi	Washington, DC	
96	July 2018	The CCA: Improving WASH in Health Care Facilities to Strengthen Infection Prevention for Mothers and Newborns	Webinar	
97	July 2018	Workshop on Creating Capable Newborn Health Systems	Washington, DC	Save the Children, SNL
98	July 2018	Workshop to Review of Findings from Multicountry Analysis of Newborn Content of Existing IMNCI and iCCM Materials	Washington, DC	
99	August 2018	MCSP Closeout/Essential Health Launch Ceremony	Burma	Essential Health, USAID
100	August 2018	Trinidad and Tobago National ECSB Training of Providers	Port of Spain, Trinidad	Trinidad and Tobago MOH, Caribbean Regional Midwives Association
101	September 2018	Webinar: What Data Do National Health Management Information Systems Include?	Webinar	
102	September 2018	Workshop on Strengthening Inpatient Care of Newborns and Young Infants in Rwanda	Kigali, Rwanda	Rwanda Paediatric Association
103	September 2018	MAMA Lessons Learned Webinar	Washington, DC	USAID, Johnson & Johnson, Baby Center, UN Foundation

#	Month and Year	Name of Event	Location	Co-Sponsors
104	September 2018	Webinar: A Review of Health Management Information Systems - Maternal and Newborn Health and Family Planning	Webinar	
105	September 2018	Country learning and dissemination event	Madagascar	
106	September 2018	Quality Moment	Washington, DC	Woodrow Wilson Center
107	September 2018	MCSP Liberia Learning Events/Closeout	Liberia	
108	October 2018	LARC/Permanent Methods CoP Event	Washington, DC	
109	October 2018	MCSP Rwanda Learning Events/Closeout	Rwanda	
110	October 2018	Webinar: A Review of Health Management Information Systems - Child Health and Nutrition	Washington, DC	
111	October 2018	FIGO 2018	Rio de Janeiro, Brazil	FIGO, USAID
112	October 2018	Health Systems Research	Liverpool, United Kingdom	
113	Oct-Nov 2018	INS Workshop	Accra, Ghana	USAID, UNICEF, WHO
114	November 2018	ICFP	Kigali, Rwanda	USAID, ICFP
115	November 2018	ICFP Side Events	Rwanda	FP2020
116	December 2018	PMNCH Partners Meeting	New Delhi, India	
117	December 2018	Global Digital Health Forum	Washington, DC	
118-119	December 2018	Country learning and dissemination events	Madagascar, Nigeria	
120	February 2019	Country learning and dissemination event (regional level)	Tanzania	
121	February 2019	Nutrition Supplement Launch: How to Strengthen Nutrition Within the Health Platform	Washington, DC	USAID
122	February 2019	Community Health Workers Webinar	Washington, DC	USAID
123	February 2019	Supported USAID's Exhibit at the UNF Polio Hill Event	Washington, DC	USAID
124	February 2019	Ninth Biennial Conference for the African Christian Health Associations Platform Pre-conference satellite event: Improving Care on the Day of Birth and Beyond.	Yaounde, Cameroon	USAID, Christian Connections for International Health
125	February 2019	Mentors say "Let's do this," not "You do this" - Mentoring Implementation Lessons from Rwanda, Laos and Ethiopia	Rwanda, Laos, Ethiopia	USAID
126	March 2019	'Nothing gets transformed until your mind is transformed' – Strengthening Pre-Service Education: Lessons from Ghana, Kenya and Liberia	Webinar	

#	Month and Year	Name of Event	Location	Co-Sponsors
127	March 2019	Launch of Expanding Maternal and Neonatal Survival Opportunities in Indonesia Supplement in the *International Journal of Gynecology & Obstetrics*	Washington, DC	
128-130	March 2019	Closeout Dissemination Events	DRC, Mozambique, and Tanzania	
131	March 2019	Measurement Matters! Improving Routine Reproductive, Maternal, Newborn, Child, and Adolescent Health Data for Better Outcomes	Washington, DC	
132	April 2019	Country Learning and Dissemination event	DRC	
133	April 2019	Optimizing Health Worker Performance for Improved Health Care Quality in Low- and Middle-Income Countries	Washington, DC	USAID, PEPFAR, HRH2030
134	May 2019	Harnessing the Power of Communities to Achieve Equity and Primary Health Care for All	Washington, DC	
135	May 2019	CORE Group Spring Conference	Washington, DC	
136-137	May 2019	Country Learning and Dissemination events	Ghana, Guatemala	
138-142	May 2019	Country Learnng and Dissemination events (Zika countries)	Barbados, Grenada, Guyana, St. Lucia, Trinidad and Tobago	
143	May 2019	Knowledge sharing event on first time young parents	Washington, DC	E2A
144	May 2019	Nelson Mandela Children's Hospital Conference	South Africa	Nelson Mandela Children's Hospital
145	May 2019	PPH CoP meeting	Washington, DC	PPH CoP
146	May 2019	GA Technical Consultation meeting	Washington, DC	GA Technical Working Group
147	May 2019	Social Accountability Webinar		UNICEF, CORE Group
148	June 2019	Women Deliver	Vancouver, CA	
149	June 2019	Acting on the Call Launch event: Celebrating U.S. Leadership in Preventable Child and Maternal Deaths	Washington, DC	MNCH Roundtable
150-152	July 2019	Webinar: USAID Advancing Nutrition on Integrating Nutrition Services	Webinar	USAID's Advancing Nutrition Project
153	July 2019	Webinar: Community Health Information Systems and Data Use	Webinar	
154	July 2019	Webinar: Addressing Barriers to Exclusive Breastfeeding in Nampula, Mozambique	Webinar	
155	September 2019	Country learning and dissemination events	India, Togo, Pakistan	

#	Month and Year	Name of Event	Location	Co-Sponsors
156	September 2019	Webinar: Evaluating WASH and IPC to improve quality of care in maternal and newborn health	Webinar	
157	September 2019	Technical consultation: Expanding Contraceptive Method Choice	Washington, DC	E2A
158	October 2019	Gender-Responsive Approaches to Reproductive, Maternal, Newborn, Child, and Adolescent Health	Webinar	
159	October 2019	CORE Group Conference Fall 2019	Nairobi, Kenya	
160	November 2019	American Public Health Association Conference 2019	Philadelphia, PA	
161	November 2019	USAID's flagship MCSP: 30+ Countries in less than 30 Minutes	Webinar	
162	November 2019	PPH Voices for the Field Stakeholder Consultation	Dakar, Senegal	USAID
163	November 2019	ASTMH Conference 2019	National Harbor, MD	
164	December 2019	Global Digital Health Forum 2019	Rockville, MD	

Annex 7B. Presentations at International Conferences

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
1	September 2014	Eighth International Perinatology Meeting	Goldy Mazia	Newborn Health Priorities in Latin American and the Caribbean	Newborn Health
2	November 2014	WHO Regional Office for South-East Asia's Regional Meeting on ENAP and PNC for Mothers and Newborns	Neena Khadka	Presentation: HBB: A Brief Introduction	Newborn Health
3	November 2014	The Network – Toward Unity for Health Annual Conference 2014	Karen LeBan	Creating Successful Health Partnerships between Universities, NGOs and communities	Community Health/Civil Society Engagement
4	November 2014	American Medical Informatics Symposium Annual Conference	Olivia Velez	Global Health Informatics	Digital Health
5	November 2014	American Public Health Association Annual Meeting	Melanie Morrow	Collaborating with USAID to End Preventable Maternal and Child Deaths	Community Health/Civil Society Engagement
6	November 2014	American Public Health Association Annual Meeting	Tanvi Monga	CHWs and Equity	Community Health/Civil Society Engagement
7	November 2014	10th International Conference on KMC	Goldy Mazia	LAC Experience and Lessons Learned Regionally; Disseminate Experiences of the LAC KMC Virtual Community	Newborn Health
8	November 2014	10th International Conference on KMC	Neena Khadka	Key Note Speech Presentation: KMC an Epitome of Quality Loving Care	Newborn Health
9	December 2014	mHealth Summit and Global mHealth Forum	Olivia Velez	mHealth Ecosystem	Digital Health
10	December 2014	Ouagadougou Partnership Fourth Annual Meeting	Anne Pfitzer	PPFP	Family Planning
11	February 2015	African Federation of Obstetrics and Gynecology Meeting	Jeffrey Smith	EPMM Strategies, Antenatal Corticosteroids, and Clinical Governance	Maternal Health
12	February 2015	14th World Congress on Public Health Conference	Rebecca Fields	REC-QI Process	Immunization

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
13	February 2015	World Federation of Public Health Associations Biannual Conference	Karen LeBan	Innovative Approaches to Achieve Community-Based Primary Health Care Outcomes	Community Health/Civil Society Engagement
14	March 2015	Intercountry Support Team for Eastern and Southern African and EPI Managers Meeting	Rebecca Fields	REC-QI Process	Immunization
15	March 2015	A Conversation About the Rising Global Midwifery Movement	Lisa Noguchi	Global Midwifery Initiatives: MCSP	Maternal Health
16	March 2015	Global Health Mini-University	Susheela Engelbrecht	Increasing Uptake and Correct Administration of Magnesium Sulfate for Management of Severe PE/E	Maternal Health, Newborn Health
17	March 2015	Global Health Mini-University	Lindsay Grenier	Treating Mom to Save Baby: Integrated Preterm Birth Management	Maternal Health, Newborn Health
18	March 2015	Global Health Mini-University	Myra Betron	Gender Analysis for MH Programs	Gender
19	March 2015	Mobile World Congress	Olivia Velez	Design and Implementation of mHealth for LMICs	Digital Health
20	April 2015	Johns Hopkins University MiP Symposium	Jane Coleman	Challenges in Implementing WHO's Updated Policy Recommendation on Use of IPTp	Malaria
21	April 2015	Johns Hopkins University MiP Symposium	Elaine Roman	Increasing MIP Coverage: What's Working!	Malaria
22	April 2015	CORE Group Spring Conference	Michael Pacque	Challenges and Successes in Diagnosis and Treatment of Malaria in the iCCM and IMCI Platforms	Child Health
23	April 2015	CORE Group Spring Conference	Jane Coleman, Rae Galloway, Michel Pacque, Lisa Noguchi	Malaria Control: Improving Health Outcomes for Mothers and Children	Malaria, Child Health
24	April 2015	CORE Group Spring Conference	Rae Galloway	Trends in Maternal and Child Anemia and Control	Nutrition
25	April 2015	CORE Group Spring Conference	Laura Raney	mHealth: Tools You Can Use	Digital Health
26	April 2015	CORE Group Spring Conference	Dyness Kasungami	Improving the Quality and Scale of National iCCM Activities through Programmatic Harmonization	Child Health

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
27	April 2015	CORE Group Spring Conference	Emma Sacks	WHO Building Blocks for Health Systems Strengthening: Adding Communities to the Mix and Cross-Cutting Themes in Community Engagement from USAID's Child Survival CSHGP FY14 cohort	Community Health/Civil Society Engagement
28	April 2015	CORE Group Spring Conference	David Shanklin, Eric Sarriott, Emma Sachs	WHO Building Blocks Platform for Health Systems Strengthening: Where Are Communities?	Community Health/Civil Society Engagement
29	April 2015	CORE Group Spring Conference	Emma Sachs, Melanie Morrow	Cross-Cutting Themes in Community Health/Engagement from the CSHGP FY2014 Cohort	Community Health/Civil Society Engagement
30	April 2015	CORE Group Spring Conference	Lisa Noguchi	MCSP	Maternal Health, Newborn Health
31	April 2015	CORE Group Spring Conference	Lisa Noguchi	Prevention of MiP: Promoting IPTp-SP Early in the Second Trimester	Malaria, Maternal Health
32	April 2015	CORE Group Spring Conference	Carolyn Moore	mPowering Frontline Health Workers Content Platform	Digital Health
33	April 2015	CORE Group Spring Conference	Lisa Noguchi	Putting New Guidelines into Practice: Challenges of Early ANC Attendance and IPTp-SP (Interactive Presentation and Discussion)	Maternal Health
34	April 2015	CORE Group Spring Conference	Jim Ricca	Implementation Research	Measurement, Monitoring, Evaluation, and Learning
35	May 2015	FP and Immunization Integration WG	Rebecca Fields	Reducing Missed Opportunities for Immunization: Experience and Practical Implications	Immunization, Family Planning
36	May 2015	International Summit on Nutrition in Adolescent Girls and Young Women	Rae Galloway	Reaching Girls and Young Women in the Cultural Context	Nutrition
37	May 2015	Preterm Birth/LBW Global TWG	Lisa Noguchi	Planned MCSP Operations Research on Gestational Age Estimation in Asia	Newborn Health, Maternal Health
38	June 2015	American College of Nurse-Midwives Annual Meeting	Catherine Carr	Strengthening Midwifery in the Caribbean: Building the Caribbean Regional Midwives Association	Maternal Health, Newborn Health

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
39	June 2015	American College of Nurse-Midwives Annual Meeting	Lindsay Grenier	Helping Mothers and Babies Survive: Threatened Preterm Birth Care	Maternal Health
40	June 2015	Accelerating Access to PPFP – Global Meeting	Anne Pfitzer	Bundle of Love, Part 1: Integration on the Day of Birth (0–48 Hours)	Family Planning
41	June 2015	Accelerating Access to PPFP – Global Meeting	Anne Pfitzer	If We Do PPFP, Let's Measure It	Family Planning
42	June 2015	Accelerating Access to PPFP – Global Meeting	Mark Hathaway	Debunking Menstruation Requirements: Overcoming a Critical Barrier for PPFP	Family Planning
43	June 2015	Accelerating Access to PPFP – Global Meeting	Chelsea Cooper	The Role of CHWs in Delivering PPFP	Family Planning
44	June 2015	Accelerating Access to PPFP – Global Meeting	Anne Pfitzer	M&E: Data, Registers, Recordkeeping, HMISs, Major Data Sources, Clinical Governance	Family Planning
45	June 2015	Accelerating Access to PPFP – Global Meeting	Rebecca Fields	Do No Harm! Opportunities in Integrating FP and Immunization Services	Immunization, Family Planning
46	June 2015	Accelerating Access to PPFP – Global Meeting	Rae Galloway	Bundling Counseling to Increase Uptake of MIYCN and FP	Family Planning, Nutrition
47	June 2015	International Congress of Nursing	Stacie Stender	Infectious Diseases: The Battle Continues	Immunization
48	June 2015	1mCHW Campaign's South-South Workshop	Serge Raharison	C3PO Tool: CHW Coverage and Capacity Planning for Outcomes	Child Health
49	June 2015	Protect, Innovate, and Accelerate	Rebecca Fields	Promising Practices in Driving and Sustaining Demand	Immunization
50	August 2015	Call to Action Summit 2015	Anna Bryant	CCMCentral: One-Stop Shop for Increasing Equitable Access for Child Health Services	Child Health
51	August 2015	Respiratory Therapists and Neonatal Nurses Conference	Goldy Mazia	Helping Babies Survive	Newborn Health
52	August 2015	Respiratory Therapists and Neonatal Nurses Conference	Goldy Mazia	The LAC Neonatal Alliance	Newborn Health
53	September 2015	2015 Integrated Nutrition Conference	Justine Kavle	Nutrition and FP Integration: Developing Programmatic Approaches to Addressing IYCF, LAM, and PPFP in East Africa	Nutrition
54	September 2015	Family Compensation Fund's Health Maintenance Organization First	Goldy Mazia	Helping Babies Survive Strategy and the Work of the Alliance	Newborn Health

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
		National Primary Health Care conference			
55	October 2015	American Society of Tropical Medicine and Hygiene	Elaine Roman	Prioritizing MiP as Malaria Transmission Declines	Malaria
56	October 2015	Fall 2015 Global Health Practitioner Conference	Justine Kavle	Factors Associated with Growth in the First 1,000 Days and Implications for Programming	Newborn Health
57	October 2015	FIGO World Conference of Gynecology and Obstetrics	Patricia Gomez	mMentoring: Supporting Post-Training Knowledge Retention, Building Confidence and Increasing Performance in Midwifery Tutors and Preceptors	Health Systems Strengthening
58	November 2015	Global mHealth Forum	Carolyn Moore	mPowering Frontline Health Workers ORB Content Platform	Health Systems Strengthening
59	December 2015	Ouagadougou Partnership Fourth Annual Meeting	Anne Pfitzer	PPFP	Family Planning
60	January 2016	ICFP	Chelsea Cooper	SMART in Egypt and FP-Nutrition Study in Tanzania	Family Planning
61	January 2016	ICFP	Devon Mackenzie	One-Stop Shop or Service Silos? A Cross-Sectional Analysis of PPFP Integration with MNCH Services Using a Client Flow Assessment Tool	Family Planning
62	January 2016	ICFP	Rae Galloway	The Power of Counseling for Changing Practices in FP and MIYCN n in Dhamar, Yemen	Family Planning, Nutrition
63	February 2016	Health Equity Initiative	Tanvi Monga	Health Equity/CHWs	Community Health/Civil Society Engagement
64	February 2016	WHO Planning Meeting of the Strategic Global Assessment of IMCI	Michel Pacque	Child Health Leadership Mapping	Child Health
65	February 2016	UNICEF-Convened Regional Meeting on Scaling Up iCCM	Dyness Kasungami	Co-led sessions on iCCM implementation, planning, and M&E, and participated in planning sessions with countries	Community Health/Civil Society Engagement
66	February 2016	International Social and Behavior Change Communication Summit 2016	Raphael Nshunju	Importance of Social and Behavior Change Communication in Immunization and the Experience of using REC and CHWs in Tanzania	Social and Behavior Change Communication, Immunization

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
67	February 2016	International Social and Behavior Change Communication Summit 2016	Chelsea Cooper	FP-Nutrition Study in Tanzania and the Trials of Improved Practices in Yemen	Social and Behavior Change Communication
68	February 2016	Society of Maternal-Fetal Medicine Annual Conference	Mark Hathaway	Postpartum IUD/FP	Maternal Health
69	March 2016	Global Vaccine and Immunization Research Forum	Rebecca Fields	Immunization in the Second Year of Life	Immunization
70	March 2016	Global Health Mini-University	Rebecca Fields	Immunization: What's New, What Works, and What's in It for You	Immunization
71	May 2016	Global Health Practitioner Conference Spring 2016	Justine Kavle	Re-Envisioning Approaches to Improve PPFP and MIYCN in Tanzania	Nutrition
72	May 2016	Information and Communications Technologies for Development Conference	Alpha Nsaghurwe	Strengthening Health Systems Using the Enterprise Architecture Approach in Tanzania	Health Systems Strengthening
73	May 2016	Midwifery Symposium, Young Midwives in the Lead Program	Sheena Currie	Painting a Global Portrait: Major Programmes and Initiatives on Midwifery	Health Systems Strengthening, Maternal Health
74	June 2016	Launch of IPPF Zika Response Program	Lisa Noguchi	MCSP Zika Response Program	Zika
75	June 2016	Reunion Regional de la Iniciativa IBP – America Latina y el Caribe	Lisa Noguchi	Access to LARCs	Family Planning
76	July 2016	Cracking the Nut: Health	Vikas Dwivedi	Building Strong Community Health Information Systems: Interaction of Health Systems, Communities, and Technology	Health Systems Strengthening
77	July 2016	Cracking the Nut: Health	Dyness Kasungami	Building Strong Community Health Information Systems: Interaction of Health Systems, Communities, and Technology	Health Systems Strengthening
78	July 2016	AIDS 2016	Lisa Noguchi	Pre-Exposure Prophylaxis in Pregnancy: Time to Deliver?	HIV/AIDS
79	August 2016	Infectious Diseases Society for Obstetrics and Gynecology	Lisa Noguchi	Scientific Oral Presentation Session One	Maternal Health
80	August 2016	USAID Breastfeeding Symposium	Justine Kavle, Sarah Straubinger	BFCI: National Guidelines and Implementation Experience from Kenya	Nutrition

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
81	August 2016	Regional Forum on Permanent Methods of Contraception	Lynn Kanyuuru	Sustainable Pre-Service and In-Service Training Approaches and Strategies for Overcoming Access Barriers	Family Planning
82	September 2016	Partnerships for the Future: Could Medical Professional Organizations Be the Key to Closing Gaps in the Health SDGs?	Goldy Mazia	Fireside Chat #2: Leveraging Partnerships with Medical Professional Organizations	Newborn Health
83	October 2016	What Next? Putting *The Lancet* Maternal Health Series into Action: Woodrow Wilson Center event	Kathleen Hill	Panel discussion	Maternal Health
84	October 2016	Second Economic Community of West African States Forum of Good Health Practices	Anne Pfitzer	Insight on the #ActionPPFP Movement Worldwide	Family Planning
85	October 2016	Micronutrient Forum Global Conference	Justine Kavle	Maternal Diet during Pregnancy and Lactation: Current Evidence and Implications for Programs	Nutrition
86	October 2016	Micronutrient Forum Global Conference	Justine Kavle	Community-Based Distribution of IFA Supplementation: Evidence and Program Implications for Anemia Programming for Women and Girls	Nutrition
87	October 2016	Fall 2016 Global Health Practitioner Conference: Community Health Transitions: Leading for Impact	Justine Kavle	Junk Food Consumption Is a Nutrition Problem among Infants and Young Children: Evidence and Program Considerations for LMICs	Nutrition
88	October 2016	MCSP CoP for Quality webinar	Rebecca Fields and Milly Namaalwa	Reaching Every Community-QI: Experience with Strengthening Local Management of Services in Uganda	Child Health, Immunization
89	October 2016	American Society of Tropical Medicine and Hygiene, RBM MiP WG	MCSP Malaria Team	Multiple presentations	Malaria
90	November 2016	Issues in the Reduction of Maternal and Neonatal Mortality in Low-Income Countries	Kathleen Hill	QoC in MNH	Maternal Health
91	November 2016	FIGO/African Society of Gynecology and Obstetrics	Lisa Noguchi	GestDate: A Mobile Application to Estimate Gestational Age	Digital Health

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
92	November 2016	Advance FP Quarterly Leadership Group	Anne Pfitzer	PPFP Advocacy Priorities	Family Planning
93	November 2016	Annual Technical Meeting of Priority Action for Neonatal Health	Goldy Mazia	Annual Technical Meeting of Priority Action for Neonatal Health	Newborn Health
94	November 2016	Health Systems Research Symposium	Carolyn Moore, Mike Bailey	Open Deliver: A Process for Distributing Quality-Assured Digital Training Content	Health Systems Strengthening/ Equity, Digital Health
95	November 2016	Health Systems Research Symposium	Vikas Dwivedi	Building Resilient Health Systems: Interaction of Health Systems, Communities, and Technology in Design of Strong Health Information Systems	Health Systems Strengthening/ Equity; Measurement, Monitoring, Evaluation, and Learning; Digital Health
96	November 2016	11th Workshop and Congress of the International Network on KMC	Neena Khadka	Ensuring QoC for Small Babies through QI and Mentorship: From Delivery Room to Discharge	Newborn Health
97	November 2016	Health Systems Research Symposium	Mark Kabue, Dyness Kasungami	Community Care-Seeking Practices for Child Under-5 Change With Implementation iCCM - Experience from Bondo, Kenya; Role of Health and Community Support Systems in Successful iCCM Implementation; Monitoring iCCM: A Feasibility Study of the Indicator Guide for Monitoring and Evaluating iCCM	Child Health; Monitoring, Measurement, Evaluation, and Learning
98	November 2016	Health Systems Research Symposium	Dyness Kasungami	Health Systems and Community Support for Successful Implementation of iCCM: A Case of Bondo, Kenya	Child Health
99	November 2016	Health Systems Research Symposium	Dyness Kasungami	Improving Routine Monitoring of National iCCM Programs: Feasibility of Collecting Global iCCM Indicator Guide's 18 Routine Monitoring Indicators	Child Health
100	November 2016	Think Differently: Fresh Evidence on Innovations for Healthy Women, Newborns, and Children	Koki Agarwal	From Idea to Innovation	Innovations

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
101	December 2016	Ninth Annual Conference on the Science of Dissemination and Implementation	Theresa Norton	Exploratory Study of the Role of Knowledge Brokers in Translating Knowledge to Action Following Global MNH Technical Meetings	Measurement, Monitoring, Evaluation, and Learning; Communications; Knowledge Management
102	December 2016	Meeting of FP/Immunization Integration WG	Rebecca Fields	Brief update on selected aspects of global immunization	Family Planning, Immunization
103	December 2016	Ready, Set, Launch: A Country-Level Launch Planning Guide for Global Health Innovations	Olayinka Umar-Farouk	MCSP's Efforts to Scale Up CHX and Other Initiatives	Newborn Health
104	December 2016	Global Digital Health Forum	Carolyn Moore, Mike Bailey, Alex Kellerstrass, Alex Little	Mobile Content Distribution for Health Worker Training	Digital Health
105	December 2016	2016 Second World Breastfeeding Conference	Brenda Ahoya	Monitoring Mothers' Support Groups to Improve the Quality of Support for Breastfeeding	Nutrition
106	January 2017	Prince Mahidol Award Conference 2017	Tanvi Monga	CHWs' Role in Reducing Health Disparities in MNH	Health Systems Strengthening/ Equity, Community Health/Civil Society Engagement
107	January 2017	CORE Group webinar	Tanvi Monga, David Shanklin	Equity Case Studies of Bangladesh and Honduras	Health Systems Strengthening/ Equity, Community Health/Civil Society Engagement
108	February 2017	MIYCN-FP Integration WG	Devon Mackenzie	Open Discussion on Revisions to the Mexico City Policy	Family Planning
109	March 2017	ICHC	Melanie Morrow	Global Reference Guide for CHW Programs at Scale	Community Health/Civil Society Engagement
110	March 2017	ICHC	Vikas Dwivedi	Improving Interoperability for Community Health Information System	Community Health/Civil Society Engagement; Measurement,

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
					Monitoring, Evaluation, and Learning
111	March 2017	ICHC	Melanie Morrow	Scaling Up Community Engagement in Primary Care Systems: The Care Group Approach	Community Health/Civil Society Engagement
112	March 2017	ICHC	Melanie Morrow	Introduction to the C3 Tool (CHW Coverage and Capacity) to Strengthen CHW Policy and Programming	Community Health/Civil Society Engagement
113	March 2017	ICHC	Chelsea Cooper	Enhancing Community-Based Interpersonal Communication for Behavior Change within Integrated Programming	Community Health/Civil Society Engagement, Family Planning
114	March 2017	ICHC	Michel Pacqué, Dyness Kasungami, Uche Amazigo, Jim Ricca	Evidence on Supervision and Performance Management: What Works and What Doesn't Work; Supporting CHW Performance: Supervision Systems and Performance Management; Experiences with Supervision of Health Volunteers in Community-Directed Interventions; Mentorship in the Kenyan Community Health Volunteer Program; M&E for Community Programming, Including Community Empowerment and Equity; Selected Topics in Implementation Research for Community-Based Service Delivery: Delivering iCCM: Lessons from Bondo, Kenya; Operational Research Study	Child Health
115	March 2017	WHO East and Southern EPI Managers Meeting	Asnakew Tsega	Update: Revised RED Guideline WHO Regional Office for Africa	Immunization
116	April 2017	CORE Spring 2017 Global Health Practitioner Conference	Melanie Morrow, Tanvi Monga	Overview of ICHC Session 5: Scaling Up Community Engagement in Primary Care Systems	Community Health/Civil Society Engagement
117	April 2017	CORE Group Spring 2017 Global Health Practitioner Conference	Ochiawunma Ibe	Introduction to the C3 Tool (CHW Coverage and Capacity) to Strengthen CHW Policy and Programming	Community Health/Civil Society Engagement

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
118	April 2017	CORE Group Spring 2017 Global Health Practitioner Conference	Kate Gilroy	New Info Circuit: Review of HMIS Systems for MNCH	Child Health
119	April 2017	CORE Group Spring 2017 Global Health Practitioner Conference	Alex Kellerstrass	Zika Response and ORB	Zika, Digital Health
120	April 2017	The Consortium of Universities for Global Health	Chibugo Okoli	EPMM Monitoring Framework, Including Phase I and II Indicators	Maternal Health
121	April 2017	The Consortium of Universities for Global Health	Ugo Okoli	EPMM Monitoring Framework	Maternal Health
122	May 2017	American College of Nurse-Midwives Annual Meeting	Lisa Noguchi	ZIKV in the Americas: Responding to the Evolving Epidemic and Implications for Clinical Practice	Maternal Health, Zika
123	May 2017	Planning for a Post-Polio World	Folake Olayinka	Reflecting on the Importance of REC and the Importance of Mainstreaming Best/Useful Practices from Polio Eradication for Broader Health: MNCH, TB, Malaria, Global Health Security: An Implementation Perspective	Immunization
124	May 2017	ECSB Training	Goldy Mazia	ECSB training of trainers	Newborn Health
125	May 2017	East and Southern Africa Regional WG Meeting on Immunization	Asnakew Tsega	Infant Tracking in Malawi	Immunization
126	May 2017	DHIS2 – Community Health Information System Guideline	Vikas Dwivedi	Participation in meeting for development of DHIS2 Community Health Information System Guideline	Measurement, Monitoring, Evaluation, and Learning
127	May 2017	Information and Communications Technologies for Development 2017	Steve Ollis	Sharing, Adapting, and Delivering Content in Digital Solutions	Digital Health
128	May 2017	Global Handwashing Partnership Webinar	Ian Moise	WASH Counts in Healthcare Facilities!	WASH
129	June 2017	Care and Support for Families with Children with Disabilities and Growth Retardation from Social and Health Services at the First Level	Magdalena Serpa	Experiences between Neonatal Care Units and Other Levels of Care	Newborn Health
130	June 2017	Gottesfeld-Hohler Memorial Foundation Zika Think Tank	Lisa Noguchi, Alfred Abuhamad	Obstetric Ultrasound Capacity for Detection of Congenital Zika Syndrome in LAC	Zika

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131	June 2017	SCUS BBL: Nepal's Experience with Treatment of PSBI in Newborns Where Referral Is Not Possible	Neena Khadka	Nepal's Experience with Treatment of PSBI in Newborns Where Referral Is Not Possible	Newborn Health
132	June 2017	International Confederation of Midwives Congress	Myra Betron	Screening for Gender-Based Violence in ANC and FP in Rwanda	Gender
133	June 2017	Joint Meeting of the FP/Immunization Service Integration	Rebecca Fields	Immunization: Some Key Points	Immunization, Family Planning, Nutrition
134	June 2017	MenCare Global Meeting	Joya Banerjee	Male Engagement in MCSP	Gender
135	July 2017	Lecture Series at Andres Barbero University and Universidad Nacional de Caaguazu	Goldy Mazia	Lectures on Congenital Malformations and Zika	Zika, Newborn Health
136	July 2017	High-Level Roundtable on Immunization in Ukraine	Anna Postovoitova	Communication on Social Media for Vaccination and RI in Ukraine	Immunization
137	July 2017	Cesarean Section Safety and Quality in Low-Resource Settings	John Varallo	Infection Prevention and Management; The Place of Cesarean Section in Safe Surgery Plans: Malawi, Tanzania, and Zambia	Maternal Health
138	August 2017	Infectious Disease Society for Obstetrics and Gynecology Annual Meeting	Jessica Williams, Brianne Kallam, Mark Hathaway	Exhibit with presentations providing overview of MCSP, with focus on Zika response and other infectious disease	Zika
139	August 2017	Infectious Disease Society for Obstetrics and Gynecology Annual Meeting	Brianne Kallam	Development of Obstetric Ultrasound Service Delivery Assessment Tools in the Context of the ZIKV Epidemic in Five USAID Priority Countries	Zika
140	August 2017	USAID World Breastfeeding Week Webinar	Albertha Nyaku	Barriers to EBF: Findings from a Systematic Review of Practices in 20 Countries	Nutrition
141	August 2017	Cesarean Section Safety and Quality in Low-Resource Settings	Kathleen Hill	Informed Consent and Patient Rights	Maternal Health
142	September 2017	Global Innovation Week	Steve Ollis	Served as mentor to two digital health innovators: Living Goods and Koe Koe Tech	Digital Health
143	September 2017	CORE Group Fall 2017 Global Health Practitioner Conference	Melanie Morrow	Beyond the Building Blocks: How Health Systems Must Address Community Health to Improve MNCH	Community Health/Civil Society Engagement

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144	September 2017	Preterm Birth/LBW Global TWG on Implementation Challenges and Solutions: Respectful Newborn Care	Suzanne Stalls	Integrating RMC Programming and Approaches into MNH Programs	Maternal Health
145	September 2017	Preterm Birth/LBW Global TWG on Implementation Challenges and Solutions: Respectful Newborn Care	Kathleen Hill	The RMC Journey: Past and Future Directions/RMC Progress to Date	Maternal Health
146	September 2017	CORE Group Fall 2017 Global Health Practitioner Conference	Tanvi Monga, Yordi Molla	Using GIS to Analyze Barriers to Health Inequity	Health Systems Strengthening/ Equity, Community Health/Civil Society Engagement
147	September 2017	CORE Group Fall 2017 Global Health Practitioner Conference	Serge Raharison, Jean de Dieu Gatete, Ferdinand Bikorimana, Jerôme Pfaffmann, Patricia Jodrey, Eric Swedberg, Dyness Kasungami	Positioning iCCM to the National Priorities: The Example of DRC; Effective and Sustainable Approach for Capacity-Building: The Example of IMCI in Rwanda; The Child Health Agenda in the Context of the SDGs: Mortality Reduction Is Not Enough	Child Health
148	September 2017	West Africa EPI Managers Meeting	Michel Othepa	Immunization Delivery in Urban Slums	Immunization
149	September 2017	CORE Group Fall 2017 Global Health Practitioner Conference	Mike Favin	My Village My Home: A Tool That Helps Communities Track Vaccinations of Individual Infants	Immunization
150	September 2017	It Takes a Village: Community as Key to a Resilient Health System	Rikerdy Frederick	Put Communities in the Drivers' Seat	Community Health/Civil Society Engagement
151	September 2017	CORE Group Fall 2017 Global Health Practitioner Conference	Chris Morry	Documenting the Frontline Contributions of NGOs and Civil Society through Publication in Academic Journals	Community Health/Civil Society Engagement, Immunization
152	September 2017	USAID Multisectoral Anemia Task Force Meeting	Kathleen Hill	Anemia and Beyond: Implications of the WHO ANC Recommendations for MH and Maternal Nutrition Programming	Nutrition, Maternal Health
153	September 2017	Pan American Health Organization Meeting for Surveillance and Management of Congenital Malformations	Mark Hathaway	MCSP's LARC LRP	Family Planning

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154	September 2017	Pan American Health Organization Meeting for Surveillance and Management of Congenital Malformations	Goldy Mazia	Current Priorities in Newborn Health for the LAC Region	Newborn Health
155	September 2017	Africa Regional Workshop on Improving Routine Data for Child Health in National Health Information Systems	Vikas Dwivedi	Improving Interoperability for Child Health Data System	Measurement, Monitoring, Evaluation, and Learning
156	September 2017	Africa Regional Workshop on Improving Routine Data for Child Health in National Health Information Systems	Kate Gilroy, Michel Pacqué, Dyness Kasungami	Review of Child Health and Nutrition Data Elements in HMIS; Challenges in Fragmentation Related to Data Collection and Management; Collecting, Managing, and Using Data at the Community Level - Challenges and Solutions	Child Health
157	September 2017	LNG-IUS Consultative Group Meeting	Deborah Sitrin	Interim Findings from Enhanced M&E in Kenya and Zambia	Family Planning
158	September 2017	Global Health Mini-University	Vikas Dwivedi, Emma Williams, Kate Gilroy	Measurement Matters! Routine Health Information Systems for MNCH	Measurement, Monitoring, Evaluation, and Learning
159	September 2017	Global Health Mini-University	Jim Ricca, Ben Picillo, Vikas Dwivedi	Cost Modeling and Data Dashboards: Key Tools for Effective Scale-Up	Measurement, Monitoring, Evaluation, and Learning; Health Systems Strengthening/ Equity; Child Health
160	September 2017	Global Health Mini-University	Ben Picillo, Cicely Thomas	How Financial Analysis Can Support Scale-Up of High-Impact Interventions	Health Systems Strengthening/ Equity, Newborn Health
161	September 2017	Contemporary Forums for Women's Health and Ob-Gyn Care	Mark Hathaway	ZIKV Update: Infection Prevention and FP Counseling	Zika, Family Planning
162	September 2017	Long-Acting and Permanent Methods CoP: Technical Consultation on PPFP	Anne Pfitzer	Scaling Up PPFP in Rwanda	Family Planning

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163	September 2017	LARC and Permanent Methods CoP PPFP Technical Consultation	Deborah Sitrin	Improving PPFP Programming: Exploring Challenges and Opportunities around LARCs and Permanent Methods	Family Planning
164	October 2017	SAIS Lecture	Jim Ricca	MNH 101	Maternal Health, Newborn Health
165	October 2017	Zika Communication Network Advisory Board Meeting	Caitlin Gillespie	MCSP's Zika Pregnancy Wheel	Zika
166	October 2017	15th TechNet Conference: Building the Next Generation of Immunization Supply Chains	Nassor Mohamed	Vaccine Information Management Systems in Practice	Immunization
167	October 2017	International Congress on Nutrition	Justine Kavle	Addressing Barriers to EBF: Evidence and Lessons Learnt from Baby-Friendly Country Programs	Nutrition
168	October 2017	International Society for Quality in Health Care Conference	Chelsea Cooper	Designing a Client-Centered FP and Nutrition Counseling Package in Yemen	Reproductive Health
169	October 2017	IUNS 21st International Congress of Nutrition	Justine Kavle, Albertha Nyaku, Brenda Ahoya, Iracema Barros	Addressing Barriers to EBF Symposium	Nutrition
170	November 2017	American Public Health Association Annual Conference	Tanvi Monga	Outcomes from the ICHC	Community Health, Civil Society Engagement
171	November 2017	MDSR and Perinatal Audit TWG meeting	Kusum Thapa	(1) Current MPDSR activities MCSP-presented w/Neena Khadka, (2) MDSR Workshop Design Plan	Maternal Health
172	November 2017	Academy of Breastfeeding Medicine 22nd Annual International Meeting	Justine Kavle, Albertha Nyaku	Malawi BFHI and Kenya BFCI	Nutrition
173	November 2017	Subregional WG on Immunization for East and Southern Africa	Asnakew Tsega	Experiences on Monitoring Process Indicators for RI: Preliminary Results	Measurement, Monitoring, Evaluation, and Learning; Immunization
174	November 2017	WHO Tranexamic Acid Recommendation for PPH Treatment Webinar	Kusum Thapa	Reflections on Policy/Program Considerations for Implementing Tranexamic Acid Recommendations	Maternal Health
175	November 2017	Annual Meeting of the Academy of Breastfeeding Medicine	Albertha Nyaku	Revitalizing BFHI: From Day of Birth to 24 Months – The Malawi Case Study	Nutrition

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176	November 2017	Annual Meeting of the Academy of Breastfeeding Medicine	Justine Kavle	Addressing Barriers to EBF in LMICs: A Systematic Review and Programmatic Implications	Nutrition
177	November 2017	American Society of Tropical Medicine and Hygiene Annual Meeting	Annamagreth Mukwenda	Strengthening Midwifery Training by Continuous QI Process: The Tanzania Experience	Maternal Health
178	December 2017	Global Digital Health Forum	Steve Ollis, Erick Mwale, Jodi Lis, Vikas Dwivedi	Innovating across the Continuum of Care: Digital Health in MCSP	Digital Health
179	December 2017	Global Digital Health Forum	Steve Ollis, Adele Waugaman	Development of a Digital Health Investment Tool: A Community-Driven Effort	Digital Health
180	December 2017	Global Digital Health Forum	Steve Ollis	WeMUNIZE - An Innovative Solution to Improve RI Coverage in Northern Nigeria	Immunization, Digital Health
181	December 2017	NIH 10th Annual Conference on the Science of Dissemination and Implementation	Jenna Wright	Scaling Up CHX gel for Umbilical Cord Care in Nigeria	Measurement, Monitoring, Evaluation, and Learning
182	December 2017	FP/Immunization Integration WG Meeting	Rebecca Fields	Immunization update	Immunization, Reproductive Health
183	December 2017	Webinar - Community Health Information Systems: Success Stories from Rwanda and Mozambique	Serge Raharison and Jean de Dieu Gatete	Rwanda's National Community Health Information System	Child Health
184	March 2018	American Institute of Ultrasound in Medicine Annual Convention	Lisa Noguchi	Development of Obstetric Ultrasound Service Delivery Assessment Tools in the Context of the ZIKV Epidemic in Five USAID Priority Countries	Zika
185	April 2018	2018 International Social and Behavior Change Communication Summit	Leanne Dougherty	Engaging Traditional Barbers to Identify and Refer Newborns for RIs in Nigeria	Immunization, Child Health
186	April 2018	Social and Behavior Change Communication Summit	Bethany Arnold (on behalf of Chelsea Cooper)	Social and Behavior Change Communication for Advancing Service Integration in Malawi	Social and Behavior Change Communication, Immunization, Reproductive Health

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187	May 2018	Every Breath Counts Indicators Subgroup Meeting	Emily Stammer	Child Health Indicator Mapping and HMIS Review Findings on Pneumonia	Child Health
188	May 2018	UNICEF Stop Stunting: Power of Maternal Nutrition	Justine Kavle	Addressing Barriers to Maternal Nutrition in LMICs: A review of the Evidence and Programme Implications	Nutrition
189	May 2018	Information and Communications Technologies for Development Conference 2018	Steve Ollis	Making the Business Case for Digital Health: Cost	Digital Health
190	May 2018	63rd American College of Nurse-Midwives Annual Meeting and Exhibition	Lisa Noguchi	ZIKV in the Americas: Where Are We Now and Where Are We Headed?	Zika
191	May 2018	World Pre-Eclampsia Day: Noncommunicable Diseases: PE/E Risk Factors and Long-Term Complications	Kathleen Hill	Panel discussion during Noncommunicable Diseases: PE/E Risk Factors and Long-Term Complications	Maternal Health
192	May 2018	Information and Communications Technologies for Development Conference 2018	Mike Bailey	Open Deliver: Establishing a Peer-to-Peer Network of Content Sharing Libraries for Health Education	Digital Health
193	June 2018	Core Group 2018 Global Health Practitioners Conference	Ochiawunma Ibe	CHW Coverage and Capacity (C3) Tool for CHW (RR) Home Visit Prioritization with Egyptian Governorates	Community Health, Civil Society Engagement
194	June 2018	PPH CoP Annual Meeting	Lisa Noguchi	Hot Topics in Global Health: PE/E and PPH	Maternal Health
195	June 2018	Roundtable Discussion on Gestational Age Estimation	Lisa Noguchi	Update on the MCSP AGES Study along with Preliminary Findings from Cambodia and India, funded by the USAID Asia Bureau	Maternal Health
196	June 2018	EPMM/ENAP Metrics	Kathleen Hill	Measurement of RMC	Maternal Health
197	June 2018	Subregional Workshop on the Care of Infants and Their Families Affected by Zika	Lisa Noguchi	Congenital Zika Syndrome: A Rapid Review of Emerging Evidence in 2018	Zika
198	June 2018	Core Group 2018 Global Health Practitioner Conference	Patti Welch, Sarah Straubinger	Presentation on DRC (iCCM/nutrition) and info circuit, presentation on WHO ANC maternal nutrition updates	Nutrition

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199	June 2018	Subregional Workshop on the Care of Infants and Their Families Affected by Zika	Lisa Noguchi	Counseling on Birth Spacing in the PNC Period	Zika
200	June 2018	Global Immunization Meeting	Folake Olayinka	Realigning Partnerships to Achieve Post-2020 Goals	Immunization
201	July 2018	Addis AFRO RED Meeting	Craig Burgess	AFRO RED Guide Outstanding Issues	Immunization
202	July 2018	m360 Africa	Steve Ollis	Digital Health at Scale: Key Considerations for Developing Markets	Digital Health
203	July 2018	RMC in Humanitarian Settings	Kate Brickson	What Global Guidance Exists on RMC, and to What Extent Is It Applied in Humanitarian Settings?	Maternal Health
204	August 2018	Where's the Link? MCH, Aid, and Armed Conflict	Kathleen Hill	Panel on Health in Conflict Areas	Maternal Health
205	September 2018	Triangle Global Health Conference	Steve Ollis	The State of Digital Health in International Development	Digital Health
206	September 2018	Le Changement Social et de Comportement pour la PFPP	Anne Pfitzer	Le Changement: Social et Comportemental pour la PFPP; Comportments Clés et Reflexions	Family Planning
207	October 2018	Sixth General Assembly of the Asia eHealth Information Network and Conference	Steve Ollis	Health Data Collaborative Digital Health and Interoperability Global Goods Workshop	Digital Health
208	October 2018	Global Health Mini-University 2018	Jim Ricca and Representatives from RTI and MEASURE Evaluation	Moving beyond Data, toward Learning and Action	
209	October 2018	Global Health Mini-University 2018	Lisa Noguchi, Goldy Mazia	ECSB and the Maternal Infection Connection	
210	October 2018	Global Health Mini-University 2018	Folake Olayinka, Iqbal Hossain	Stepping Up Systems to Reach Every Child in Urban Slums	Immunization
211	October 2018	Global Health Mini-University 2018	Disha Ali, Asnakew Tsega, Rebecca Fields	Using Data to Strengthen Immunization: Thinking Outside the Box	Immunization
212	October 2018	Global Health Mini-University 2018	Folake Olayinka	New Tools for Long-Standing Challenges: Applying GIS Technology in Immunization	Immunization

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213	October 2018	Global Health Mini-University 2018	Joanne Thomas	Multicountry Analysis for Inpatient Care of Newborns and Young Infants	Newborn Health
214	October 2018	Global Health Mini-University 2018	Steve Ollis	The Best Digital Health Tools You're Not Using	Digital Health
215	October 2018	Global Health Mini-University 2018	Leah Hart	ECSB and the Maternal Infection Connection	Newborn Health, Maternal Health
216	October 2018	Global Health Mini-University 2018	Joya Banerjee, Kristina Grabbe, Julie Pulerwitz (Pop Counil), Ruti Levtov (Promundo)	Engaging Men as Clients, Supportive Companions and Champions of Change in Global Health	Health Systems Strengthening/Equity, Gender
217	October 2018	Global Health Mini-University 2018	Kate Gilroy	Improving Routine Data to Strengthen Child Health Programs: What's Next?	Child Health
218	October 2018	Harnessing the Power of Digital Health and Big Data in Designing and Implementing Public Health Policies in Latin America	Steve Ollis	Harnessing the Power of Digital Health	Digital Health
219	October 2018	Water and Health Conference at UNC Water Institute	Stephen Sara and Jason Lopez	Assessing the Status of WASH Services and Infection Prevention Readiness in Delivery Rooms and PNC Wards: Results from a Survey of 41 Health Facilities in Guatemala and Nigeria and Achieving and Maintaining Incremental WASH Improvements in Health Care Facilities: A Case Study from DR Congo	WASH
220	October 2018	2018 Global Symposium on Health Systems Research	Stephen Mutwiwa	Mentorship Capacity-Building in Rwanda	Health Systems Strengthening
221	October 2018	2018 Global Symposium on Health Systems Research	Keokedthong Phongsavan, Helen Catton	Mentorship Capacity-Building in Lao PDR	Health Systems Strengthening
222	October 2018	2018 Global Symposium on Health Systems Research	Lisa Hilmi	Using Data to Improve the Health Systems for All in the Area of RMNCH	Health Systems Strengthening; Measurement, Monitoring, Evaluation, and Learning
223	October 2018	2018 Global Symposium on Health Systems Research	Achille Kabore, Tanvi Monga, David Shanklin	Promising Social Accountability Approaches to Improved Health in Malawi: Evidence on	Community Health

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				What Works and What Doesn't from Case Studies	
224	October 2018	2018 Global Symposium on Health Systems Research	Nassor Mohamed	Strengthening Community Involvement to Improve Comprehensive Council Health Plans in Kagera Region, Tanzania	Health Systems Strengthening, Community Health
225	October 2018	2018 Global Symposium on Health Systems Research	Theresa Norton, Catherine Howell, Charlene Reynolds	Following the Knowledge Trail: How Is Health Knowledge Used in Low-Income Countries after Participant Exposure to Global Conferences?	Measurement, Monitoring, Evaluation, and Learning
226	October 2018	2018 Global Symposium on Health Systems Research	Masduq Abdulkarim, Leanne Dougherty, Fiyidi Mikailu	How Can Geospatial Data Be Used to Strengthen RI in the States of Bauchi and Sokoto, Nigeria?	Measurement, Monitoring, Evaluation, and Learning; Immunization
227	October 2018	2018 Global Symposium on Health Systems Research	Disha Ali, Asnakew Tsega, Rebecca Fields, Leah Ewald, Kate Bagshaw, Tamah Kamlem, Folake Olayinka, Hillary Murphy	Improving the Generation, Quality, and Use of Data for RI Systems through the Use of Process Indicators and Other Strategies	Measurement, Monitoring, Evaluation, and Learning; Health Systems Strengthening
228	October 2018	2018 Global Symposium on Health Systems Research	Leanne Dougherty, Masduq Abdulkarim, Folake Olayinke, Femi Oyewole	Implementing a Quadripartite Memorandum of Understanding to Achieve Sustained Financing for RI in Bauchi State, Nigeria	Immunization; Measurement, Monitoring, Evaluation, and Learning
229	October 2018	2018 Global Symposium on Health Systems Research	Mary Kinney, Kusum Thapa, Joseph de Graft-Johnson, Kathleen Hill, Gbaike Ajayi, Alyssa Om'Iniabohs, Edwin Tayebwa, Fadzai Mutseyekwa, Chrisostom Lipingu, Oladapo Shittu	Subnational and Facility Leadership: Drivers of MPDSR	Measurement, Monitoring, Evaluation, and Learning
230	October 2018	2018 Global Symposium on Health Systems Research	Michel Pacque, Sarah Dalglish, Justine Kavle, Jimmy Anzolo, Evariste Mbombeshayi, Lacey Gibson	Designing Community Health Services Based on the Community's Conception of Health: Evidence from DRC	Community Health, Health Systems Strengthening

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231	October 2018	2018 Global Symposium on Health Systems Research	Kate Gilroy, Emily Stammer, Elizabeth Hourani, Tamah Hulliams	Child Health and Nutrition: What Data Is Available in Routine Health Information Management Systems in 23 Countries?	Child Health; Nutrition; Measurement, Monitoring, Evaluation, and Learning
232	October 2018	2018 Global Symposium on Health Systems Research	Abimbola Olayemi, Kate Gilroy, Felix Ogaga, Chinwe Nweze, Miranda Gyangyang, Emily Stammer, Michel Pacque	Quality of Management and Treatment Services for Sick Children at PPMVs in Two States in Nigeria	Health Systems Strengthening
233	October 2018	2018 Global Symposium on Health Systems Research	Gilda Sitefane, Connie Lee, Joya Banerjee, Kathryn Smock, Mercino Ombe	Improving MH through Male Involvement in Birth Preparedness and Complications Readiness Planning: Experiences from MCSP in Mozambique	Gender
234	November 2018	America Public Health Association Conference San Diego 2018	Ochiawunma Ibe	Key Characteristics and Components of Government-Led CHW Programs in 22 USAID	Community Health/Civil Society Engagement; Measurement, Monitoring, Evaluation, and Learning
235	November 2018	15th International Conference on Urban Health: Managing Urbanization for Health: A Priority for All Nations	Folake Olayinka	Designing and Implementing Data-Driven Interventions and Strategies to Reduce Vaccine-Preventable Diseases in Urban Settings (panel)	Immunization
236	November 2018	2018 FIGO World Congress	Ali Abdelmegeid, Mohamed Elghazaly, Mai Dawoody, Sayeda Elziny, Soad Abdelmegied, Hossam Abbas, Sally Saher, Rachel Taylor	Adapting a Low-Dose, High-Frequency Training Approach to Egypt's CHWs	Community Health
237	November 2018	2018 FIGO World Congress	Leonel Gomez and Suzanne Stalls	Integración de Procesos para el Mejoramiento Continuo del la Provisión de Servicios en Salud Materno-Neonatal: Prueba de Concepto en Guatemala	Maternal Health, Newborn Health
238	November 2018	2018 FIGO World Congress	Eva Lathrop	Advanced Distribution of Misoprostol to Prevent Postpartum Hemorrhage at Home Births in Haiti	Maternal Health

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239	November 2018	2018 FIGO World Congress	Amos Asiedu	Assessing the Practices of Ghanaian Health Workers through Task Analysis	Community Health; Measurement, Monitoring, Evaluation, and Learning
240	November 2018	2018 FIGO World Congress	Victor Ndicunguye	Fostering an Enabling Environment to Improve Management of Severe PE/E at Health Center Level: A Case of 10 Districts in Rwanda	Maternal Health, Health Systems Strengthening
241	November 2018	2018 FIGO World Congress	Gathari Ndirangu, Susan Ontiri, Lynn Kanyuuru, Lilian Mutea, Rose Kosegi	QI Strategies in Kenya Result in Better Emergency Obstetric and Newborn Care Services	Health Systems Strengthening, Maternal Health, Newborn Health
242	November 2018	2018 FIGO World Congress	Suzanne Stalls	Why Experience of Care Matters for Maternal Health Outcomes: Early Learning from Guatemala and Nigeria	Maternal Health
243	November 2018	2018 FIGO World Congress	Amos Asiedu	Assessing Community Health Nursing Students' Knowledge and Skills after Equipping Skills Labs	Community Health; Measurement, Monitoring, Evaluation, and Learning
244	November 2018	2018 FIGO World Congress	Winnie Mwebesa, Joseph Johnson, Melanie Yahner	Connecting the Youngest Parents to Health Services: Gaps, Lessons, and Opportunities	Family Planning, Adolescent Sexual and Reproductive Health
245	November 2018	2018 FIGO World Congress	Lisa Miyako Noguchi	Gestational Age Estimates at Rajasthan Health Centers: Adequate for Antenatal Corticosteroid Use?	Maternal Health
246	November 2018	2018 FIGO World Congress	Adetiloye Oniyire, Emmanuel Ugwa, Gladys Olisaekee, Onwe Boniface, Adekunle Aladare, Gabriel Alobo	Clinical Governance and Quality of Maternal and Newborn Care in Selected Health Facilities in Nigeria	Health Systems Strengthening, Maternal Health, Newborn Health
247	November 2018	2018 FIGO World Congress	Mark Hathaway, Lisa Miyako Noguchi, Brianne Kallam, Caitlin Gillespie, Elana Fiekowsky, Jose Hermida, Floris	Development of Obstetric Ultrasound Service Delivery Assessment Tools in the Context of the Zika Epidemic	Measurement, Monitoring, Evaluation, and

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			Nesi, Max Lelio Joseph, Alfred Abuhamad		Learning; Maternal Health
248	November 2018	2018 FIGO World Congress	Ernestina David	Strengthening Referral Networks for RMNCH Services	Health Systems Strengthening, RMNCH
249	November 2018	2018 FIGO World Congress	Kusum Thapa	MPDSR Gaps and Opportunities in Four Sub-Saharan African Countries: Moving from the Global to the Local	Maternal Health; Newborn Health; Measurement, Monitoring, Evaluation, and Learning
250	November 2018	2018 FIGO World Congress	Emmanuel Ugwa, Oniyire Adetiloye, Gabriel Alobo, Boniface Onwe, Gladys Olisaekee, Adekunle Aladare	Use of Maternal and Newborn Data for Decision-Making by Health Workers in Selected Facilities in Ebonyi and Kogi States, Nigeria	Community Health; Measurement, Monitoring, Evaluation, and Learning
251	November 2018	2018 FIGO World Congress	Blami Dao	Assessing Communication and Transport Protocols in Three Health Referral Networks in Haiti	Health Systems Strengthening
252	November 2018	2018 ICFP	Victor Ndaruhutse, Felix Sayinzoga, Joel Serucaca, William Winfrey, Anne Pfitzer	Tracking the Post-Discontinuation Contraceptive Use Pathways in Rwanda: Second Analysis of 2014-15 Demographic and Health Survey	Measurement, Monitoring, Evaluation, and Learning; Family Planning
253	November 2018	2018 ICFP	Geeta Chhibber	Early Lessons from Implementing Clinical Safety Checklist for Voluntary Female Sterilization in India	Family Planning
254	November 2018	2018 ICFP	Haingo Ralaison, Melanie Yahner, Jean Pierre Rakotovao, Andrianandraina Ralaivaomisa	Increasing Use of Health Services among FTYPs through an Integrated Reproductive, Maternal, and Newborn Health Approach: Lessons from a Proof-of-Concept in Madagascar	RMNCH, Community Health
255	November 2018	2018 ICFP	Wendy Castro	Our First Baby: A Gender-Transformative Approach to Increase Use of Maternal, Reproductive Health, and FP among FTYPs in Mozambique	RMNCH, Family Planning

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256	November 2018	2018 ICFP	Mukarugwiro Beata	Improving Provider Skills and Increasing Voluntary FP Uptake through Clinical Mentorship: Experience from 10 Districts in Rwanda	Community Health, Family Planning
257	November 2018	2018 ICFP	Francois Kamali	Community Health Mentorship as an Innovative Approach to Strengthen Knowledge, Skills, and Links between Clinical and Community-Based Provision of FP	Community Health, Family Planning, Health Systems Strengthening
258	November 2018	2018 ICFP	Noella Umulisa, Ntabakirabose Jean de Dieu, Alfred Twagiramungu, Beatrice Mukamana, Catherine Mugeni	Results from Training Additional CHWs in Community-Based Provision of FP in Rwamagana and Kamonyi Districts in Rwanda	Community Health, Family Planning
259	November 2018	2018 ICFP	Suzanne Mukakabanda	Strengthening PPFP Counselling and Provision in the Immediate Postpartum Period Increases Uptake of PPFP in Rwanda	Family Planning, Health Systems Strengthening
260	November 2018	2018 ICFP	Victor Ndicunguye	Voluntary Tubal Ligation under Local Anesthesia by Mini-Laparotomy Provided in Outreach Increases Access and Service Provision of Permanent FP Methods in Rwanda	Family Planning
261	November 2018	2018 ICFP	Marie Grace Mahoro	From a Classic Training Approach to an Onsite Training Approach Improves Provider Knowledge and Skills: Learnings from Rwanda	Community Health, Family Planning
262	November 2018	2018 ICFP	Haswell Malombo, Lola Aladesanmi, Emeldah Bbelemu Makupe, Timothy Kasuba I, Jackson Chileshe, Gathari Ndirangu Gichuhi, Lean Elliott, Misheck Kabamba	Increasing Voluntary Uptake of FP at Kenani Refugee Camp in Nchelenge District of Luapula Province, Zambia	Family Planning
263	November 2018	2018 ICFP	Jean-Marie Mbonyintwali, Richard Sezibera, Aleksandra Blagojevic, Agnes Ntibanyurwa, Michael Mugisha	Role of Rwanda's Parliament in Promoting Voluntary FP: Achievements in Improving Legislation and Accountability	Family Planning
264	November 2018	2018 ICFP	Janvier Mungarulire, Pascal Musoni, Beatrice Mukamana, Evariste Kayitare	Integration of PPFP Counselling in CHWs' Home Visits to Pregnant Mothers' Families to Strengthen Voluntary PPFP Uptake	Community Health, Family Planning

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265	November 2018	2018 ICFP	Benjamin Picillo, Jacqueline Umunyana	Cost Analysis for Scaling Up an Immediate PPFP Intervention in Rwanda	
266	November 2018	2018 ICFP	Nicholas Karugahe, Jovite Sinzahera, Devon Mackenzie	Advocacy for Inclusion of Indicators in the National HMIS to Measure PPFP Uptake in Rwanda	Measurement, Monitoring, Evaluation, and Learning; Family Planning
267	November 2018	2018 ICFP	Modeste Harerimana, Khatidja Naithani, Alfred Twagiramunga, Ladislas Nsabimana, Bosco Kwizera, Malick Kayumba	Contribution of Mass Campaign and Service Delivery through Outreach to Increase FP Uptake, Rwanda	Family Planning
268	November 2018	2018 ICFP	Jean Bosco Bazimaziki, Niyonzima Donat, Namanya William, Dukuzimana Marie Alice, Alfred Twagiramungu	The Role of Health Posts in Providing FP for Populations Living in Catchment Areas Served by Faith-Based Health Centers in Rwanda	Family Planning
269	November 2018	2018 ICFP	Jacqueline Umunyana, Felix Sayinzoga, Joel Serucaca, Beata Mukarugwiro, Suzanne Mukakabanda, Alfred Twagiramungu	Scaling up Immediate PPFP in Rwanda	Family Planning
270	November 2018	2018 ICFP	Alfred Twagiramungu, Marcel Manariyo, Beata Mukarugwiro, Joel Serucaca, Felix Sayinzoga	Exploration of the Characteristics of Clients Seeking Voluntary Vasectomy in Rwanda	Family Planning
271	November 2018	2018 ICFP	Fauzia Assad, Waqas Abrar	Measuring Institutional Sustainability of FP Training Units: Evidence from Pakistan	Measurement, Monitoring, Evaluation, and Learning; Family Planning
272	November 2018	2018 ICFP	Aderonke Are-Shodeinde, Melanie Yahner, Emmanuel Ugwa, Heather Gardner, Shelah Bloom, Oniyire Adeteloye, Alyssa Om'Iniabohs, Ayne Worku	The Role of Male Partners in the Use of FP and MH Services by First-Time Adolescent Mothers in Nigeria	Gender, Family Planning, Maternal Health
273	November 2018	2018 ICFP	Gladys Olisaekee, Bright Orji, Emmanuel Ugwa, Nkechi Ani,	Quality Improvement for PPFP: Selected Health Facilities in Ebonyi State, Nigeria	Family Planning, Quality, Health

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			Loveth Chukwurah, Hannatu Abdullahi, Uduak Okum, Boniface Onwe		Systems Strengthening
274	November 2018	2018 ICFP	Hannatu Abdullahi, Emmanuel Ugwa, Adetiloye Oniyire, Loveth Chukwurah, Elizabeth Alalade, Anne Pfitzer, Neeta Bhatnagar, Florence Abiodun, Gbenga Ishola	Expanding Contraceptive Access for Postpartum Women through Competency-Based Training: Learning from Two States in Nigeria	Community Health, Family Planning
275	November 2018	2018 ICFP	Chelsea Cooper, Sheila Makoko, Steven Shire, Hannah Gibson, Hannah Hausi, Hannah Tappis, Jacqueline Wille, Asnakew Tsega	Improving Access to Services through FP and Immunization Service Integration in Malawi	Health Systems Strengthening, Family Planning
276	November 2018	2018 ICFP	Bakolisoa, Razafindravony, Andrianandraina Ralaivaomisa, Ramananjanahary Haingonirina Eulalie, Jean Pierre Rakotovao, Eliane Razafimandimby	Améliorer le Counseling en Planification Familiale dans les Services Intégrés en Utilisant des Cartes Conseils Adaptées à la Stratégie de Counseling Équilibré Plus	Family Planning
277	November 2018	2018 ICFP	Brenda Onguti, Susan Ontiri, Gathari Gichuhi, Deborah Sitrin, Lean Elliott, Neeta Bhatnagar, Anne Pfitzer	Introduction of the LNG-IUS in the Public Sector in Kenya Shows Early Positive Uptake	Innovation, Family Planning
278	November 2018	2018 ICFP	Jacqueline Wille, Anne Pfitzer, Christine Maricha Ayuyo, Elizabeth Sasser, Jonesmus Wambua, Molly Strachan, Stacie Stender, Timothy Muhavi, Valentino Wabwile	Contraceptive Implant Failures among Women on ART in Nine Facilities in Western Kenya: Implications for FP Counseling for Women Living with HIV	Family Planning
279	November 2018	2018 ICFP	Vivek Yadav, Ashish Srivastava, Arpit Nagar, Angela Nash-Mercado, Bulbul Sood	Expanding and Strengthening the Public Sector Contraceptive Basket with Progestin-Only Pills in India	Health Systems Strengthening, Family Planning
280	November 2018	2018 ICFP	China Wondimu, Deborah Sitrin, Anne Pfitzer, Devon Mackenzie, Tigist Worku, Gebi Hussein	Feasibility of Population-Level Tracking of PPFP Choices and Uptake among Women Giving Birth at the Kebele Level	Measurement, Monitoring, Evaluation, and Learning; Family Planning

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
281	November 2018	2018 ICFP	Titiane Selego, Lucie Zikudieka, Osee Likunda, Jocelyne Kibungu, Alain Matengo, Therese Mokaria, Doudou Mbengi, Jean-Pierre Osoko, Gbaike Ajayi, Lior Miller, Leah Elliott, Megan Lydon, Anne Pfitzer, Susheela Engelbrecht, Kate Gilroy	Améliorer L'accès Aux Services de PF Pour les Communautés Rurales Mal Desservies en RDC	Family Planning
282	November 2018	2018 ICFP	Bikolimana Ndungutse, Mamy Muziga Ingabire, Stephen Mutwiwa, Alfred Twagiramungu, Mutabazi Georgette, Anicet Nzabonimpa, Manariyo Marcel, Karamaga, Eliphaz	The Effectiveness of Linking Facility-Based Youth Corners and Youth Clubs at the Community Level to Increase Voluntary Use of FP and Other Reproductive Health Care by Young People	Community Health, Family Planning
283	November 2018	2018 ICFP	Felix Sayinzoga, Joel Serucaca, Victor Ndaruhutse, William Winfrey, Anne Pfitzer	PPFP: Amenorrhea, EBF, and the Timing of FP Uptake in Rwanda: Secondary Analysis of Demographic Health Survey 2014-15	Family Planning
284	November 2018	2018 ICFP	Victor Ndaruhutse, Felix Sayinzoga, Joel Serucaca, William Winfrey, Anne Pfitzer	Tracking Post-Discontinuation Contraceptive Use Pathways in Rwanda: Second Analysis of 2014–15 Demographic and Health Survey	Measurement, Monitoring, Evaluation, and Learning; Family Planning
285	November 2018	2018 ICFP	Deborah Sitrin, Devon Mackenzie, Christina Maly, Sara Kennedy, Anne Pfitzer	What Gets Measured Matters: Review of FP Indicators in National HMISs of 18 Countries	Measurement, Monitoring, Evaluation, and Learning; Family Planning
286	December 2018	11th Annual Conference on the Science of Dissemination and Implementation in Health	Olayinka Umar-Farouk	Evaluating the Use of Social Media to Accelerate Nationwide Scale-Up of a Newborn Health Intervention in Nigeria	Measurement, Monitoring, Evaluation, and Learning
287	December 2018	Global Digital Health Forum 2018	Steve Ollis	Making the Business Case for Digital Health	Digital Health
288	December 2018	Global Digital Health Forum 2018	Steve Ollis	Making the Business Case for Digital Health: Cost Models	Digital Health

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
289	December 2018	2018 Partners' Forum	Folake Olayinka	Partnerships and Accountability for MCH in Challenging Contexts	Immunization
290	December 2018	The Partnership for Maternal, Newborn, and Child Health Partners' Forum 2018	Folake Olayinka and Kate Bagshaw	Partnership across Countries for Women, Children, and Communities: Learning from the 30-Year Journey of Polio Eradication	Immunization
291	January 2019	African Regional Immunization Stakeholders Meeting	Asnakew Tsega	Changing the Paradigm - Tailoring Technical Support to Specific Country Needs	Immunization
292	February 2019	Le Sommet Francophone pour le Changement Social et de Comportement	Kate Bagshaw	Suivi Communautaire des Vaccinations Individuelles des Enfants	Immunization
293	February 2019	UNF's Shot@Life Campaign's Annual Champion Summit	Folake Olayinka	Emerging Technology/Innovation panel	Immunization
294	March 2019	Global Forum on the Global Vaccines Action Plan Post 2020 Initiative: Co-Creating the Feature of Immunization Post 2020	Folake Olayinka	What is the Country-Centric Relevance of Having a Global Vision and Strategy for Vaccines and Immunization?	Immunization
295	March 2019	2019 Health Innovations Conference	Steve Ollis	Keynote session: Harnessing the Fourth Industrial Revolution for Health and What the Opportunities for Health Are	Digital Health
296	April 2019	Technical Consultation on Small and Sick Newborn Care (TBC)	Neena Khadka	n/a	Newborn Health
297	April 2019	Unite For Sight's 16th Annual Global Health and Innovation Conference at Yale	Asnakew Tsega	My Village My Home: A Tool That Helps Communities Track Vaccinations of Individual Infants in Two Districts Malawi	Immunization
298	April 2019	The 11th Information Communications Technology for Development (ICT4D) Conference	Lisa Kowalski, Joy Kamunyori	N/A- representing Global Digital Health Network at media booth	Digital Health
299	May 2019	2019 Core Group Global Health Practitioner Conference	Folake Olayinka	Comprehensive care for pregnant and lactating women and their infants and young children: reducing missed opportunities	Health Systems Strengthening, Community Health

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
300	May 2019	2019 Global Health Practitioner Conference	Dr. Ravinder Kaur, Neena Khadka, Cori Mazzeo, Joanne Thomas	The First 42 Days: A mobile health app for creating partnerships between facility and community health providers to improve postnatal care in rural India	Digital Health, Community Health
301	May 2019	CORE Group Health Practitioner Conference	Steve Ollis	Supporting Smart Investments in Digital Health- Introducing the Digital Health Investment Review Tool; Digital Health & the Tools You May Not Be Using, But Should	Digital Health
302	May 2019	CORE Group Global Health Practitioner Conference	Issam El Adawi	"The power of partnership: collaborating to develop and deploy a digital system for Egypt's Community Health Workers" and "Adapting a 'Low Dose, High Frequency' capacity building approach to improve competence, confidence, and performance among Egypt's Community Health Workers"	Health Systems Strengthening, Community Health
303	May 2019	Women Deliver 2019	Koki Agarwal	Power of Partnerships: How can we individually and collectively forge partnerships that create and sustain an enabling environment for midwives and collaborators that enhances woman centered care?	Maternal Health
304	May 2019	Women Deliver 2019	Koki Agarwal	The Ongoing Fight to Free a Billion Women from the Burden of Malaria	Malaria, Maternal Health
305	May 2019	Women Deliver 2019	Kathleen Hill	Women at the Center of Care for Maternal Health	Maternal Health
306	May 2019	Women Deliver 2019	Chibugo Okoli	Maternal and Perinatal Death Surveillance and Response: Every Death Tells a Story	
307	May 2019	Women Deliver 2019	Anne Pfitzer	What Works: Using evidence from the world's largest family planning programs to reach global goals	Family Planning
308	May 2019	Women Deliver 2019	Folake Olayinka	How Women Deliver Health to Communities: Elevating Voices of Women at the Frontlines of Community Health	Immunization, Polio
309	May 2019	Women Deliver 2019	Koki Agarwal	Change is Possible: Next Steps to BetterBirth Globally	Maternal Health

#	Month and Year	Name of Conference	Presenter(s)	Presentation or Poster	Technical Area
310	May 2019	Women Deliver 2019	Koki Agarwal	Healthy Mom, Better World: Fighting HIV, TB and Malaria to Improve Maternal Health	Maternal Health
311	May 2019	Women Deliver 2019	Myra Betron	Rethinking Women's Health: Gender-based innovative science for integrated health systems	Gender
312	May 2019	Women Deliver 2019	Koki Agarwal	Let's Get What We Want: Contraceptive Innovation, Access, Quality and Choice	Family Planning
313	May 2019	Women Deliver 2019	Veronica Reis	Respectful, People-Centered Care: Getting Beyond Aspirational	Gender
314	May 2019	Women Deliver 2019	Myra Betron	What do men have to do with it? The Merits of Male Engagement	Gender
315	September 2019	MERLTech 2019	Steve Ollis	Living Our Vision Applying the Principles for Digital Development as an Evaluative Methodology	Digital Health
316	November 2019	ASTMH: 68th Annual meeting	Kate Gilroy	Using partnerships and existing systems to improve the quality of integrated services for sick children at patent and proprietary medicine vendors in two states in Nigeria	Child Health
317	November 2019	ASTMH: 68th Annual meeting	Elizabeth Hourani and Michel Pacqué	Integrating Community Case Management (iCCM) past the bend in the river in the Democratic Republic of Congo (DRC)	Child Health
318	November 2019	ASTMH: 68th Annual meeting	Kate Gilroy	Information on malaria diagnosis and treatment included in health management information systems in 23 countries	Child Health, Malaria

Annex 8. List of Peer-Reviewed Manuscripts Published

#	Month and Year	Name of Article	Journal Name	Authors	Hyperlink	Technical Area
1	August 2014	Community health systems as complex adaptive systems: Ontology and praxis lessons from an urban health experience with demonstrated sustainability	*Systemic Practice and Action Research*	Sarriot, Eric; Kouletio, Michelle	https://link.springer.com/article/10.1007/s11213-014-9329-9	Community Health and Civil Society Engagement
2	August 2014	Advancing the application of systems thinking in health: Sustainability evaluation as learning and sense-making in a complex urban health system in Northern Bangladesh	*Health Research Policy and Systems*	Sarriot, Eric; Kouletio, Michelle; Jahan, Shamim; Rasul, Izaz; Musha, AKM	https://health-policy-systems.biomedcentral.com/articles/10.1186/1478-4505-12-45	Community Health and Civil Society Engagement
3	August 2014	Plausible role for CHW peer support groups in increasing care-seeking in an integrated community case management project in Rwanda: A mixed methods evaluation	*Global Health: Science and Practice*	Langston, Anne; Weiss, Jennifer; Landeggera, Justine; Pullum, Thomas; Morrow, Melanie; Kabadege, Melene; Mugeni, Catherine; Sarriot, Eric	http://www.ghspjournal.org/content/2/3/342.abstract	Community Health and Civil Society Engagement, Child Health
4	September 2014	Findings from the use of a narrative story and leaflet to influence shifts along the behavior change continuum toward postpartum contraceptive uptake in Sylhet District	*Patient Education and Counseling*	Cooper CM, Ahmed S, Winch PJ, Pfitzer A, McKaig C, Baqui AH	https://www.ncbi.nlm.nih.gov/pubmed/25306103	Family Planning
5	September 2014	Successful Proof of Concept of Family Planning and Immunization Integration in Liberia	*Global Health: Science and Practice*	Cooper, Chelsea M; Fields, Rebecca; Mazzeo, Corinne I; Taylor, Nyapu; Pfitzer, Anne; Momolu, Mary; Jabbeh-Howe, Cuallau	http://www.ghspjournal.org/content/3/1/71	Immunization, Family Planning
6	September 2014	Immunisation training needs in Malawi	*East African Medical Journal*	Tsega A, Hausi HT, Steinglass R, Chirwa GZ	https://www.ncbi.nlm.nih.gov/pubmed/26866081	Immunization
7	October 2014	Sociocultural factors perpetuating the practices of early marriage and childbirth in Sylhet District, Bangladesh	*International Health*	Elizabeth G. Henry, Nicholas B. Lehnertz, Ashraful Alam, Nabeel Ashraf Ali, Emma K. Williams, Syed Moshfiqur Rahman, Salahuddin	https://academic.oup.com/inthealth/article-abstract/7/3/212/791	Community Health

#	Month and Year	Name of Article	Journal Name	Authors	Hyperlink	Technical Area
				Ahmed, Shams El Arifeen, Abdullah H. Baqui, Peter J. Winch	465?redirectedFrom=fulltext	
8	December 2014	Setting global research priorities for integrated community case management (iCCM): Results from a CHNRI (Child Health and Nutrition Research Initiative) exercise	*Journal of Global Health*	Wazny, Kerri; Sadruddin, Salim; Zipursky, Alvin; Hamer, Davidson H; Jacobs, Troy; Kallander, Karin; Pagnoni, Franco; Peterson, Stefan; Qazi, Shamim; Raharison, Serge; Ross, Kerry; Young, Mark; Marsh, David R	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4267102/	Child Health
9	December 2014	Monitoring coverage of fully immunized children	*Vaccine*	Tsega, Asnakew; Daniel, Fussum; Steinglass, Robert	http://www.sciencedirect.com/science/article/pii/S0264410X14014479	Immunization
10	December 2014	The future of routine immunization in the developing world: challenges and opportunities	*Global Health: Science and Practice*	Shen, Angela K.; Fields, Rebecca; McQuestion, Mike	http://www.ghspjournal.org/content/2/4/381	Immunization
11	January 2015	Uterotonic use immediately following birth: using a novel methodology to estimate population coverage in four countries	*BMC Health Services Research*	Ricca, Jim; Dwivedi, Vikas; Varallo, John; Singh, Gajendra; Pallipamula, Suranjeen Prasad; Amade, Nazir; de Luz Vaz, Maria; Bishanga, Dustan; Plotkin, Marya; Al-Makaleh, Bushra; Suhowatsky, Stephanie; Smith, Jeffrey Michael	https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-014-0667-1	Maternal Health
12	March 2015	Engaging Communities With a Simple Tool to Help Increase Immunization Coverage	*Global Health: Science and Practice*	Jain, Manish; Taneja, Gunjan; Amin, Ruhul; Steinglass, Robert; Favin, Michael	http://www.ghspjournal.org/content/3/1/117.full	Immunization
13	March 2015	The rise in stunting in relation to avian influenza and food consumption patterns in Lower Egypt in comparison to Upper Egypt: results from 2005 and 2008 DHS	*BMC Public Health*	Kavle, Justine; El-Zanaty, Fatma; Landry, Megan; Galloway, Rae	https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-015-1627-3	Nutrition
14	March 2015	Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low- and middle-income countries	*Contraception*	Moore, Zhuzhi; Pfitzer, Anne; Gubin, Rehana; Charurat, Elaine; Elliott, Leah; Croft, Trevor	https://www.ncbi.nlm.nih.gov/pubmed/25769442	Family Planning

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15	March 2015	A causal loop analysis of the sustainability of integrated community case management in Rwanda	*Social Science & Medicine*	Sarriot, Eric; Morrow, Melanie; Langston, Anne; Weiss, Jennifer; Landegger, Justine; Tsuma, Laban	http://www.sciencedirect.com/science/article/pii/S0277953615001501	Community Health and Civil Society Engagement
16	March 2015	Neglected Value of Small Population-based Surveys: Comparison with Demographic and Health Survey Data	*Journal of Health, Population and Nutrition*	Langston, Anne C; Prosnitz, Debra M; Sarriot, Eric G	https://www.ncbi.nlm.nih.gov/pubmed/25995729	MMEL
17	May 2015	Respectful maternal and newborn care: building a common agenda	*BMC Reproductive Health*	Sacks, Emma; Kinney, Mary	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4460639/	Maternal Health, Newborn Health
18	June 2015	Institutionalizing early vaccination of newborns delivered at government health facilities: Experiences from India	*International Journal of Medical Research and Review*	Taneja, Gunjan; Mentey, Vijaya Kiran; Jain, Manish; Sagar, Karan Singh; Tripathi, Bhupendra; Favin, Michael; Steinglass, Robert	http://www.jsi.com/JSIInternet/Resources/publication/display.cfm?txtGeoArea=INTL&id=15755&thisSection=Resources	Immunization
19	June 2015	Development and Validation of an Index to Measure the Quality of Facility-Based Labor and Delivery Care Processes in Sub-Saharan Africa	*PLOS ONE*	Tripathi, Vandana; Stanton, Cynthia; Strobino, Donna; Bartlett, Linda	https://www.ncbi.nlm.nih.gov/pubmed/26107655	Maternal Health, Newborn Health
20	June 2015	Transition from the Lactational Amenorrhea Method to other modern family planning methods in rural Bangladesh: Barrier analysis and implications for behavior change communication program intervention design	*Evaluation and Program Planning*	Kouyaté, Robin Anthony; Ahmed, Salahuddin; Haver, Jaime; McKaig, Catharine; Akter, Nargis; Nash-Mercado, Angela; Baqui, Abdullah	http://www.sciencedirect.com/science/article/pii/S014971891400130X	Family Planning
21	June 2015	A facility birth can be the time to start family planning: Postpartum intrauterine device experiences from six countries	*International Journal of Gynecology & Obstetrics*	Pfitzer, Anne; Mackenzie, Devon; Blanchard, Holly; Hyjazi, Yolande; Kumar, Somesh; Kassa, Serawit Lisanework; Marinduque, Bernabe; GraceMateo, Marie; Mukarugwiro, Beata; Ngabo, Fidele; Zaeem, Shabana; Zafar, Zonobia; Smith, Jeffrey Michael	http://www.sciencedirect.com/science/article/pii/S002072921500137X	Family Planning

#	Month and Year	Name of Article	Journal Name	Authors	Hyperlink	Technical Area
22	June 2015	Oxytocin in Uniject Disposable Auto-Disable Injection System versus Standard Use for the Prevention of Postpartum Hemorrhage in Latin America and the Caribbean: A Cost-Effectiveness Analysis	*PLOS ONE*	Pichon-Riviere, Andrés; Glujovsky, Demián; Garay, Osvaldo Ulises; Augustovski, Federico; Ciapponi, Agustin; Serpa, Magdalena; Althabe, Fernando	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129044	Maternal Health
23	July 2015	Exploring why junk foods are 'essential' foods and how culturally tailored recommendations improved feeding in Egyptian children	*Maternal & Child Nutrition*	Kavle, Justine A; Mehanna, Sohair; Saleh, Gulsen; Fouad, Mervat A; Ramzy, Magda	https://www.ncbi.nlm.nih.gov/pubmed/25536155	Nutrition
24	August 2015	Facility-based active management of the third stage of labour: assessment of quality in six countries in sub-Saharan Africa	*Bulletin of the World Health Organization*	Bartlett, Linda; Cantor, David; Lynam, Pamela; Kaur, Gurpreet; Rawlins, Barbara; Ricca, Jim; Tripathi, Vandana; Rosen, Heather E	https://www.ncbi.nlm.nih.gov/pubmed/26549903	Maternal Health
25	August 2015	Implementation of the Every Newborn Action Plan: Progress and lessons learned	*Seminars in Perinatology*	Kinney, MV; Cocoman, O; Dickson, KE; Daelmans, B; Zaka, N; Rhoda, NR; Moxon, SG; Kak, L; Lawn, JE; Khadka, N; Darmstadt, GL	http://www.seminperinat.com/article/S0146-0005(15)00051-8/pdf	Newborn Health
26	September 2015	Count every newborn; a measurement improvement roadmap for coverage data	*BMC Pregnancy and Childbirth*	Moxon, Sarah G; Ruysen, Harriet; Kerber, Kate J; Amouzou, Agbessi; Fournier, Suzanne; Grove, John; Moran, Allisyn C; Vaz, Lara ME; Blencowe, Hannah; Conroy, Niall; Gülmezoglu, A Metin; Vogel, Joshua P; Rawlins, Barbara; Sayed, Rubayet; Hill, Kathleen; Vivio, Donna; Qazi, Shamim A; Sitrin, Deborah; Seale, Anna C; Wall, Steve; Jacobs, Troy; Peláez, Juan Gabriel Ruiz; Guenther, Tanya; Coffey, Patricia S; Dawson, Penny; Marchant, Tanya; Waiswa, Peter; Deorari, Ashok; Enweronu-Laryea, Christabel; El Arifeen, Shams; Lee, Anne CC; Mathai, Matthews; Lawn, Joy E	https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-15-S2-S8	Newborn Health

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27	September 2015	Kangaroo mother care: a multi-country analysis of health system bottlenecks and potential solutions	*BMC Pregnancy and Childbirth*	Vesel, Linda; Bergh, Anne-Marie; Kerber, Kate J; Valsangkar, Bina; Mazia, Goldy; Moxon, Sarah G; Blencowe, Hannah; Darmstadt, Gary L; de Graft Johnson, Joseph; Dickson, Kim E; Peláez, Juan Gabriel Ruiz; Ritter von Xylander, Severin; Lawn, Joy E	http://www.biomedcentral.com/content/pdf/1471-2393-15-S2-S5.pdf	Newborn Health
28	September 2015	The Effect of Integrating Family Planning with a Maternal and Newborn Health Program on Postpartum Contraceptive Use and Optimal Birth Spacing in Rural Bangladesh	*Studies in Family Planning*	Ahmed, Saifuddin; Ahmed, Salahuddin; McKaig, Catharine; Begum, Nazma Mungia, Jaime; Norton, Maureen; Baqui, Abdullah H	http://onlinelibrary.wiley.com/doi/10.1111/j.1728-4465.2015.00031.x/abstract	Family Planning
29	September 2015	Factors associated with early growth in Egyptian infants: implications for addressing the dual burden of malnutrition	*Maternal & Child Nutrition*	Kavle, Justine A; Flax, Valerie L; Abdelmegeid, Ali; Salah, Farouk; Hafez, Seham; Ramzy, Magda; Hamed, Doaa; Saleh, Gulsen; Galloway, Rae	http://onlinelibrary.wiley.com/doi/10.1111/mcn.12213/epdf	Nutrition
30	October 2015	Evaluation of the availability of qualified personnel in maternal and neonatal health in Madagascar	*African Evaluation Journal*	Sandrine Andriantsimietry, JeanPierre Rakotovao, Eliane Ramiandrison, Haja Andriamiharisoa, Eric Razakariasy, Rachel Favero, Eva Bazant, Patricia Gomez, Blami Dao	http://www.aejonline.org/index.php/aej/article/view/156/224	Maternal Health, Newborn Health
31	December 2015	Case Study: Primary Healthcare Clinical Placements during Nursing and Midwifery Education in Lesotho	*World Health & Population*	Alice Christensen, Semakaleng Phafoli, Johannah Butler, Isabel Nyangu, Laura Skolnik, Stacie C. Stender	http://www.longwoods.com/content/24493	Health Systems Strengthening
32	December 2015	Approaches to Postpartum Family Planning	*International Perspectives on Sexual and Reproductive Health*	Anne Pfitzer, Clifton Kenon, Holly Blanchard	http://www.ncbi.nlm.nih.gov/pubmed/27295722	Family Planning
33	December 2015	Increasing Access to Prevention of Postpartum Hemorrhage Interventions for Births in Health Facilities and at Home in Four Districts of Rwanda	*African Journal of Reproductive Health*	Blami Dao, Fidele Ngabo, Jeremie Zoungrana, Barbara Rawlins, Beata Mukarugwiro, Pascal Musoni, Rachel Favero, Juliet MacDowell, Kanyamanza Eugene	http://www.ncbi.nlm.nih.gov/pubmed/27337854	Maternal Health

#	Month and Year	Name of Article	Journal Name	Authors	Hyperlink	Technical Area
34	December 2015	Case Study: Experience Applying and Tracking a Quality Improvement Approach for Maternal and Newborn Health Services in Sub-Saharan Africa	*World Health & Population*	Barbara Rawlins, Young-Mi Kim, Jaime Haver, Aleisha Rozario, Adrienne Kols, Hillary Chiguvare, Matias Anjos, Emmanuel Otolorin, Jacqueline Aribot	http://www.longwoods.com/content/24495	Maternal Health, Newborn Health
35	December 2015	Small Nations, Large Impact: The Caribbean Regional Midwives Association	*International Journal of Childbirth*	Debrah Lewis, Marcia Rollock, Margaret Marshall, Catherine Carr, Judith Fullerton	http://www.ingentaconnect.com/content/springer/ijc/2015/00000005/00000004/art00002	Maternal Health, Newborn Health, Health Systems Strengthening
36	December 2015	Overview of a multi-stakeholder dialogue around Shared Services for Health: the Digital Health Opportunity in Bangladesh	*Health Research Policy and Systems*	Sania Ashraf, Carolyn Moore, Vaibhav Gupta, Anir Chowdhury, Abdul K. Azad, Neelu Singh, David Hagan, Alain Labrique	http://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-015-0063-2	eHealth
37	January 2016	Monitoring iCCM: a feasibility study of the indicator guide for monitoring and evaluating integrated community case management	*Health Policy and Planning*	Timothy Roberton, Dyness Kasungami, Tanya Guenther, Elizabeth Hazel	http://heapol.oxfordjournals.org/content/31/6/759	Child Health, MMEL
38	January 2016	The three waves in implementation of facility-based kangaroo mother care: a multi-country case study from Asia	*BMC International Health and Human Rights*	Anne-Marie Bergh, Joseph de Graft-Johnson, Neena Khadka, Alyssa Om'Iniabohs, Rekha Udani, Hadi Protomo, Socorro De Leon-Mendoza	http://www.ncbi.nlm.nih.gov/pubmed/26818943	Newborn Health
39	February 2016	A literature review of quantitative indicators to measure the quality of labor and delivery care	*International Journal of Gynecology & Obstetrics*	Vandana Tripathi	http://www.ijgo.org/article/S0020-7292(15)00652-9/abstract	Maternal Health, Newborn Health, MMEL
40	March 2016	Promoting Healthy Behaviors among Egyptian Mothers: A Quasi-Experimental Study of a Health Communication Package Delivered by Community Organizations	*PLOS ONE*	Angie Brasington, Ali Abdelmegeid, Adrienne Kols, Vikas Dwivedi, Young-Mi Kim, Barbara Rawlins, Neena Khadka, Anita Gibson	http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0151783	Community Health; SBCC
41	March 2016	Measurement of Health Program Equity Made Easier: Validation of a Simplified Asset Index Using	*Global Health: Science and Practice*	Alex Ergo, Julie Ritter, Davidson R. Gwatkin, Nancy Binkin	http://www.ncbi.nlm.nih.gov/pubmed/27016551	Equity

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		Program Data From Honduras and Senegal				
42	April 2016	Looking Back and Planning Ahead: Examining Global Best Practices in Communication for Inactivated Polio Vaccination Introduction in Rwanda	*Global Health Communication*	Suruchi Sood, Ann Klassen, Carmen Cronin, Philip Massey, Corinne Shefner-Rogers	http://tandfonline.com/doi/full/10.1080/23762004.2016.1161418	Immunization
43	April 2016	Polio Immunization Social Norms in Kano State, Nigeria: Implications for Designing Polio Immunization Information and Communication Programs for Routine Immunization Services	*Global Health Communication*	Abdullahi I. Musa	http://tandfonline.com/doi/full/10.1080/23762004.2016.1161419	Immunization
44	April 2016	Redefining Immunization: Not Just a Shot in the Arm	*Global Health Communication*	Nancy Anderson, Nana Wilson, Tamica Moon, Natalia Kanem, Amad Diop, Erick Gbodossou	http://tandfonline.com/doi/full/10.1080/23762004.2016.1161416	Immunization
45	May 2016	Polio Eradication and Health Systems in Karachi: Vaccine Refusals in Context	*Global Health Communication*	Svea Closser, Rashid Jooma, Emma Varley, Naina Qayyum, Sonia Rodrigues, Akasha Sarwar, Patricia Omidian	http://tandfonline.com/doi/full/10.1080/23762004.2016.1178563	Immunization
46	May 2016	Exploratory study of the role of knowledge brokers in translating knowledge to action following global maternal and newborn health technical meetings	*Public Health*	Theresa Norton, Catherine Howell, Charlene Reynolds	http://www.publichealthjrnl.com/article/S0033-3506(16)30048-8/abstract	Communications, Knowledge Management
47	June 2016	Vaccination coverage and timely vaccination with valid doses in Malawi	*Vaccine Reports*	Asnakew Tsega, Hannah Hausi, Geofrey Chriwa, Robert Steinglass, Dasha Smith, Musa Valle	http://www.sciencedirect.com/science/article/pii/S1879437816300158	Immunization
48	June 2016	Uncivil and skewed language on civil society?	*The Lancet*	Sarriot EG, LeBan K, Sacks E, Sow C, Burgess C	http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)30731-0.pdf	Community Health
49	July 2016	Evidence-Based Engagement of the Somali Pastoralists of the Horn of Africa in Polio Immunization:	*Global Health Communication*	Rustam Haydarov, Saumya Anand, Bram Frouws, Brigitte Toure, Sam Okiror, Bal Ram Bhui	http://tandfonline.com/doi/full/10.1080/23	Immunization

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		Overview of Tracking, Cross-Border, Operations, and Communication Strategies			762004.2016.1205890	
50	July 2016	Community Engagement, Routine Immunization, and the Polio Legacy in Northern Nigeria	*Global Health Communication*	Anne McArthur-Lloyd, Andrew McKenzie, Sally E. Findley, Cathy Green, Fatima Adamu	http://tandfonline.com/doi/full/10.1080/23762004.2016.1205887	Immunization
51	July 2016	Variations in the Uptake of Routine Immunization in Nigeria: Examining Determinants of Inequitable Access	*Global Health Communication*	Comfort Z. Olorunsaiye, Hannah Degge	http://tandfonline.com/doi/full/10.1080/23762004.2016.1206780	Immunization
52	July 2016	Association of Volunteer Communication Mobilizers' Polio-Related Knowledge and Job-Related Characteristics With Health Message Delivery Performance in Kano District of Nigeria	*Global Health Communication*	Rabia Sadat, Abu Mohd Naser	http://tandfonline.com/doi/full/10.1080/23762004.2016.1199939	Immunization
53	August 2016	Coverage, compliance, acceptability and feasibility of a program to prevent pre-eclampsia and eclampsia through calcium supplementation for pregnant women: an operations research study in one district of Nepal	*BMC Pregnancy and Childbirth*	Kusum Thapa, Harshad Sanghvi, Barbara Rawlins, Yagya B. Karki, Kiran Regmi, Shilu Aryal, Yeshoda Aryal, Peter Murakami, Jona Bhattarai, Stephanie Suhowatsky	https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-016-1033-6	Maternal Health
54	August 2016	A common monitoring framework for ending preventable maternal mortality, 2015–2030: phase I of a multi-step process	*BMC Pregnancy and Childbirth*	Allisyn C. Moran, R. Rima Jolivet, Doris Chou, Sarah L. Dalglish, Kathleen Hill, Kate Ramsey, Barbara Rawlins, Lale Say	http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-016-1035-4	Maternal Health, MMEL
55	September 2016	Providing antenatal corticosteroids for preterm birth: a quality improvement initiative in Cambodia and the Philippines	*International Journal for Quality in Health Care*	Jeffrey Michael Smith, Shivam Gupta, Emma Williams, Kate Brickson, Keth Lysotha, Navuth Tep, Anthony Calibo, Mary Christine Castro, Bernabe Marinduque, Mark Hathaway	http://www.ncbi.nlm.nih.gov/pubmed/27614015	Maternal Health, Newborn Health
56	September 2016	Postpartum Family Planning During Sociopolitical Transition: Findings	*International Perspectives on Sexual and*	Chelsea M. Cooper, Elaine Charurat, Issam El-Adawi, Young-Mi Kim, Mark	http://www.jstor.org/stable/10.1363/42e1216	Family Planning

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		from an Integrated Community-Based Program in Egypt	*Reproductive Health*	R. Emerson, Wael Zaki, Anne Schuster		
57	September 2016	Service Availability and Readiness Assessment of Maternal, Newborn and Child Health Services at Public Health Facilities in Madagascar	*African Journal of Reproductive Health*	Sandrine H. Andriantsimietry, Raymond Rakotomanga, Jean Pierre Rakotovao, Eliane Ramiandrison, Marc Eric R. Razakariasy, Rachel Favero, Patricia Gomez, Blami Dao, Eva Bazant	http://www.ajrh.info/home/abstract.php?abstractTitle=Service Availability and Readiness Assessment of Maternal, Newborn and Child Health Services at Public Health Facilities in Madagascar&id=237	Maternal Health, Newborn Health, Child Health
58	October 2016	Practice of skin-to-skin contact, exclusive breastfeeding and other newborn care interventions in Ethiopia following promotion by facility and community health workers: results from a prospective outcome evaluation	*Acta Paediatrica*	Abdullah Baqui, Jennifer A. Callaghan-Koru, Joseph de Graft-Johnson, Abiy Seifu Estifanos, Rachel Patton-Molitors, Barbara Rawlins, Carina Rosado, Ephrem Daniel Sheferaw, Bogale Worku	https://www.ncbi.nlm.nih.gov/pubmed/27644765	Newborn Health
59	December 2016	Limits of "Skills And Drills" Interventions to Improving Obstetric and Newborn Emergency Response: What More Do We Need to Learn?	*Global Health: Science and Practice*	Jim Ricca	http://www.ghspjournal.org/content/4/4/518.full.pdf+html	Maternal Health, Newborn Health, Health Systems Strengthening
60	December 2016	Optimizing treatment for the prevention of pre-eclampsia/eclampsia in Nepal: is calcium supplementation during pregnancy cost-effective?	*Cost Effectiveness and Resource Allocation*	Isabelle Feldhaus, Amnesty E. LeFevre, Chandra Rai, Jona Bhattarai, Deirdre Russo, Barbara Rawlins, Pushpa Chaudhary, Kusum Thapa	http://resource-allocation.biomedcentral.com/articles/10.1186/s12962-016-0062-3	Maternal Health
61	January 2017	Geographic information system for improving maternal and newborn health: recommendations for policy and programs	*BMC Pregnancy and Childbirth*	Yordanos Molla, Barbara Rawlins, Prestige Makanga, Marc Cunningham, Juan Ávila, Corrine Ruktanonchai, Kavita Singh, Sylvia Alford, Mira Thompson, Vikas Dwivedi, Allisyn Moran, Zoe Matthews	http://www.biomedcentral.com/1471-2393/17/26	MMEL

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62	March 2017	Treatment of Infections during Pregnancy: Progress and Challenges	*Birth Defects Research*	Lisa Noguchi, Richard Beigi	http://onlinelibrary.wiley.com/doi/10.1002/bdr2.1005/epdf	Maternal Health
63	March 2017	Effect of Volunteer Household Counseling in Improving Knowledge of Birth Preparedness and Complication Readiness of Pregnant Women in Northwest Nigeria	*African Journal of Reproductive Health*	Gbenga Ishola, Funke Fayehun, Uche Isiugo-Abanihe, Tunde Segun, Samaila Yusuf, Bright Orji, Barbara Rawlins, Emmanuel Otolorin	https://www.ajol.info/index.php/ajrh/article/view/156381	Maternal Health, Community Health
64	March 2017	Cross-sectional observational assessment of quality of newborn care immediately after birth in health facilities across six sub-Saharan African countries	*BMJ*	Joseph de Graft-Johnson, Linda Vesel, Heather E Rosen, Barbara Rawlins, Stella Abwao, Goldy Mazia, Robert Bozsa, Winifrede Mwebesa, Neena Khadka, Rosemary Kamunya, Ashebir Getachew, Gaudiosa Tibaijuka, Jean Pierre Rakotovao, Alemnesh Tekleberhan	http://bmjopen.bmj.com/content/7/3/e014680.full?ijkey=Bv2xA8bg4vw6kZp&keytype=ref	Newborn Health
65	April 2017	Using a quality improvement model to enhance providers' performance in maternal and newborn health care: a post only intervention and comparison design	*BMC Pregnancy and Childbirth*	Firew Ayalew, Gizachew Eyassu, Negash Seyoum, Jos van Roosmalen, Eva Bazant, Young Mi Kim, Alemnesh Tekleberhan, Hannah Gibson, Ephrem Daniel, Jelle Stekelenburg	https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-017-1303-y	Maternal Health, Newborn Health, Health Systems Strengthening
66	May 2017	Respectful Maternity Care in Ethiopian Public Health Facilities	*Reproductive Health*	Ephrem Daniel Sheferaw, Eva Bazant, Hannah Gibson, Hone Belete Fenta, Firew Ayalew Desta, Tsigereda Bekele Belay, Maria Mamo, Aelaf Erdachew Kebebu, Sintayehu Abebe Woldie, Young-Mi Kim, Thomas van den Akker, Jelle Stekelenburg	https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-017-0323-4	Maternal Health
67	June 2017	The Polio Communication Network Contribution to the Polio Outbreak Response in Ethiopia's Somali Region, 2013–2015	*Global Health Communication*	Shalini Rozario, Mohammed Diaaeldin Omer, Kathleen Gallagher, Aron Kassahun Aregay, Bukhari Shikh Aden, Sahardid Mohamoud Abdi	http://www.tandfonline.com/doi/full/10.1080/23762004.2017.1330604	Immunization
68	June 2017	Program considerations for integration of nutrition and family planning: beliefs around maternal diet and breastfeeding within the	*Maternal & Child Nutrition*	Justine A. Kavle, Sohair Mehanna, Ghada Khan, Mohamed Hassan, Gulsen Saleh, Cyril Engmann	http://onlinelibrary.wiley.com/doi/10.1111/mcn.12469/full	Nutrition, Family Planning

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		context of the nutrition transition in Egypt				
69	June 2017	Beyond new vaccine introduction: the uptake of pneumococcal conjugate vaccine in the African region	*Pan African Medical Journal*	Folake Olayinka, Leah Ewald, Robert Steinglass	http://www.panafrican-med-journal.com/content/series/27/3/3/full/#.WUvtOTLyvIV	Immunization
70	June 2017	Immunization Review Meetings: "Low Hanging Fruit" for capacity building and data quality improvement?	*Pan African Medical Journal*	Lora Shimp, Nassor Mohammed, Lisa Oot, Evans Mokaya, Timothy Kiyemba, Gerald Ssekitto, Adriana Alminana	http://www.panafrican-med-journal.com/content/series/27/3/21/full/#.WUvtnjLyvIU	Immunization
71	June 2017	Institutionalizing community-focused maternal, newborn, and child health strategies to strengthen health systems: A new framework for the Sustainable Development Goal era	*Globalization and Health*	William T. Story, Karen LeBan, Laura C. Altobelli, Bette Gebrian, Jahangir Hossain, Judy Lewis, Melanie Morrow, Nennifer N. Nielsen, Alfonso Rosales, Marcie Rubadt, David Shanklin, Jennifer Weiss	https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-017-0259-z	Community Health and Civil Society Engagement
72	August 2017	Maximizing Opportunities: Family Planning and Maternal, Infant, and Young Child Nutrition Integration in Bondo Sub-County, Kenya	*Maternal and Child Health Journal*	Chelsea Cooper, Angella Ogutu, Everlyn Matiri, Hannah Tappis, Devon Mackenzie, Anne Pfitzer, Rae Galloway	https://www.ncbi.nlm.nih.gov/pubmed/28766091	Nutrition, Family Planning
73	August 2017	Barriers to maternal nutrition in low and middle income countries: a review of the evidence and program implications	*Maternal & Child Nutrition*	Justine Kavle; Megan Landry	http://onlinelibrary.wiley.com/doi/10.1111/mcn.12508/pdf	Nutrition
74	September 2017	Use of cellular phone contacts to increase return rates for immunization services in Kenya	*Pan African Medical Journal*	Evans Mokaya, Isaac Mugoya, Jane Raburu, Lora Shimp	http://www.panafrican-med-journal.com/content/article/28/24/full/	Digital Health, Immunization
75	September 2017	Accelerating Harmonization in Digital Health	*World Health & Population*	Carolyn Moore, Laurie Werner, Amanda Puckett BenDor, Mike Bailey, Nighat Khan	https://www.longwoods.com/content/25306	Digital Health
76	September 2017	A Formative Assessment of Nurses' Leadership Role in Zambia's Community Health System	*World Health and Population*	Allison Annette Foster, Fastone M. Goma, Judith Shamian, Carolyn Moore, Marjorie Kabinga-Makukula, Nellisiwe Luyando Chizuni, Charity	https://www.ncbi.nlm.nih.gov/pubmed/29400274	Community Health and Civil Society Engagement

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				Kapenda, Stembile Mugore, Claire Viadro, Laura Hollod, Gail Tomblin Murphy		
77	October 2017	Addressing barriers to exclusive breast-feeding in low- and middle-income countries: a systematic review and programmatic implications	*Public Health Nutrition*	Kavle J, LaCroix E, Stevens H	https://www.ncbi.nlm.nih.gov/pubmed/28965508	Nutrition
78	October 2017	Understanding vaccine hesitancy in polio eradication in northern Nigeria	*Vaccine*	Sebastian Taylor, Mahmud Khan, Ado Muhammad, Okey Akpala, Marit van Strien, Chris Morry, Warren Feek, Ellyn Ogden	https://www.sciencedirect.com/science/article/pii/S0264410X17313282	Immunization
79	October 2017	Community-based distribution of iron-folic acid supplementation in low- and middle-income countries: a review of evidence and programme implications	*Public Health Nutrition*	Kavle J, Landry M	https://www.ncbi.nlm.nih.gov/pubmed/29061205	Nutrition
80	October 2017	Applying the Care Group model to tuberculosis control: findings from a community-based project in Mozambique	*International Journal of Tuberculosis and Lung Disease*	Amberle Brown, Pieter Ernst, Adolfo Cambule, Melanie Morrow, Deborah Dortzbach, JE Golub, Henry Perry	https://doi.org/10.5588/ijtld.17.0179	Community Health and Civil Society Engagement
81	December 2017	Consensus-based approach to develop a measurement framework and identify a core set of indicators to track implementation and progress towards effective coverage of facility-based Kangaroo Mother Care	*Journal of Global Health*	Tanya Guenther, Sarah Moxon, Bina Valsangkar, Greta Wetzel, Juan Ruiz, Kate Kerber, Hannah Blencowe, Queen Dube, Shashi Vani, Donna Vivio, Hema Magge, Socorro De Leon-Mendoza, Janna Patterson, Goldy Mazia	https://www.ncbi.nlm.nih.gov/pubmed/29057074	Newborn Health
82	March 2018	India needs a policy for couples who lose children after sterilization	*BMJ Sexual and Reproductive Health*	Pavan Pandey	https://srh.bmj.com/content/44/3/223	Family Planning
83	April 2018	Postpartum family planning integration with maternal, newborn and child health services: a cross-sectional analysis of client flow patterns in India and Kenya	*BMJ Open*	Devon Mackenzie, Anne Pfitzer, Christina Maly, Charles Waka, Gajendra Singh	https://bmjopen.bmj.com/content/8/4/e018580	Family Planning

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84	April 2018	Gottesfeld-Hohler Memorial Foundation Zika Virus Think Tank Summary	*Obstetrics & Gynecology*	Hobbins JC, Platt LD, Copel JA, Euser AG, Afshar Y, Irani RA, Levine D, Sanz Cortes M, Abuhamad A, Gaw SL, Harris K, Herrera M, Lynch L, Melo A, Noguchi L, Aguiar R, Sheffield JS, Minton KK	https://www.ncbi.nlm.nih.gov/pubmed/29528928	Zika
85	June 2018	Hubris, humility and humanity: expanding evidence approaches for improving and sustaining community health programmes	*BMJ Global Health*	Asha S George, Amnesty E LeFevre, Meike Schleiff, Arielle Mancuso, Emma Sacks, Eric Sarriot	https://gh.bmj.com/content/3/3/e000811	Community Health and Civil Society Engagement
86	July 2018	Tracking facility-based perinatal deaths in Tanzania: Results from an indicator validation assessment	*PLOS ONE*	Marya Plotkin, Dunstan Bishanga, Hussein Kidanto, Mary Carol Jennings, Jim Ricca, Amasha Mwanamsangu, Gaudiosa Tibaijuka, Ruth Lemwayi, Benny Ngereza, Mary Drake, Jeremie Zougrana, Neena Khadka, James A. Litch, Barbara Rawlins	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0201238	Newborn Health, MMEL
87	July 2018	A renewed focus on preventing malaria in pregnancy	*BMC Reproductive Health*	Erin K. Ferenchick, Elaine Roman, Katherine Wolf, Lia Florey, Susan Youll, Viviana Mangiaterra, Koki Agarwal, Julie Gutman	https://doi.org/10.1186/s12978-018-0573-9	Malaria
88	August 2018	Expanding the agenda for addressing mistreatment in maternity care: a mapping review and gender analysis	*Reproductive Health*	Myra L. Betron, Tracy L. McClair, Sheena Currie, Joya Banerjee	https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-018-0584-6	Maternal Health, Gender
89	August 2018	Simulation-based low-dose, high-frequency plus mobile mentoring versus traditional group-based training approaches on day of birth care among maternal and newborn healthcare providers in Ebonyi and Kogi States, Nigeria; a randomized controlled trial	*BMC Health Services Research*	Emmanuel Ugwa, Emmanuel Otolorin, Mark Kabue, Gbenga Ishola, Cherrie Evans, Adetiloye Oniyire, Gladys Olisaekee, Boniface Onwe, Amnesty Lefevre, Julia Bluestone, Bright Orji, Gayane Yenokyan, Ugo Okoli	https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-018-3405-2	Health Systems Strengthening
90	September 2018	Designing interoperable health information systems using Enterprise Architecture approach	*International Journal of Health*	Susan Higman, Vikas Dwivedi, Alpha Nsaghurwe, Moses Busiga, Hermes Sotter Rulagirwa, Dasha Smith, Chris	https://www.ncbi.nlm.nih.gov/pubmed/30182517	MMEL

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		in resource-limited countries: A literature review	*Planning and Management*	Wright, Ssanyu Nyinondi, Edwin Nyella		
91	September 2018	A cross-sectional study of partograph utilization as a decision making tool for referral of abnormal labour in primary health care facilities of Bangladesh	PLOS One	Abdullah Nurus Salam Khan, Sk Masum Billah, Ishtiaq Mannan, Imteaz Ibne Mannan, Tahmina Begum, Marufa Aziz Khan, Munia Islam, S. M. Monirul Ahasan, Jebun Nessa Rahman, Joby George, Shams El Arifeen, Umme Salma Jahan Meena, Iftekhar Rashid, Joseph de Graft-Johnson	https://www.ncbi.nlm.nih.gov/pubmed/30188940	Maternal Health
92	October 2018	Coaching Community Health Volunteers in Integrated Community Case Management Improves the Care of Sick Children Under-5: Experience from Bondo, Kenya	*International Journal of Integrated Care*	Makeba Shiroya-Wandabwa, Mark Kabue, Jonesmus Wambua, Dyness Kasungami, Dan Otieno, Charles Waka, Augutine Ngindu, Christine Ayuyo, Sanyu Kigondu, Julius Oliech, Isaac Malonza	https://www.ncbi.nlm.nih.gov/pubmed/30651723	Child Health
93	December 2018	Factors associated with institutional delivery: Findings from a cross-sectional study in Mara and Kagera regions in Tanzania	*PLOS ONE*	Bishanga DR, Drake M, Kim YM, Mwanamsangu AH, Makuwani AM, Zoungrana J, Lemwayi R, Rijken MJ, Stekelenburg J	https://www.ncbi.nlm.nih.gov/pubmed/30586467	Maternal Health, Newborn Health
94	December 2018	The power of counseling: Changing maternal, infant, and young child nutrition and family planning practices in Dhamar, Yemen	*Health Care for Women International*	Ali Mohamed Assabri, Chelsea Cooper, Khaled Ali Al-Gendhari, Anne Pfitzer, Rae Galloway	https://www.tandfonline.com/doi/full/10.1080/07399332.2018.1533016	Family Planning, Nutrition
95	December 2018	A Global Learning Agenda for the Levonorgestrel Intrauterine System (LNG IUS): Addressing Challenges and Opportunities to Increase Access	*Global Health: Science and Practice*	Kate H. Rademacher, Tabitha Sripipatana, Anne Pfitzer, Anna Mackay, Sarah Thurston, Ashley Jackson, Elaine Menotti and Hayley Traeger	http://www.ghspjournal.org/content/6/4/635	Family Planning
96	January 2019	How are gender inequalities facing India's one million ASHAs being addressed? Policy origins and adaptations for the world's largest all-female community health worker programme	*Human Resources for Health*	Ved R, Scott K, Gupta G, Ummer O, Singh S, Srivastava A, George AS	https://www.ncbi.nlm.nih.gov/pubmed/30616656	Community Health and Civil Society Engagement

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97	February 2019	The revitalization and scale-up of the Baby-Friendly Hospital Initiative in Malawi	*Maternal & Child Nutrition*	Justine A. Kavle, Patricia R. Welch, Florence Bwanali, Kanji Nyambo, Janet Guta, Natalia Mapongo, Sarah Straubinger, Susan Kambale	https://onlinelibrary.wiley.com/doi/10.1111/mcn.12724	Nutrition
98	February 2019	Baby-Friendly Community Initiative—From national guidelines to implementation: A multisectoral platform for improving infant and young child feeding practices and integrated health services	*Maternal & Child Nutrition*	Justine A. Kavle, Brenda Ahoya, Laura Kiige, Rael Mwando, Florence Olwenyi, Sarah Straubinger, Constance M. Gathi	https://onlinelibrary.wiley.com/doi/10.1111/mcn.12747	Nutrition
99	February 2019	Accelerating progress for complementary feeding in Kenya: Key government actions and the way forward	*Maternal & Child Nutrition*	Brenda Ahoya, Justine A. Kavle, Sarah Straubinger, Constance M. Gathi	https://onlinelibrary.wiley.com/doi/10.1111/mcn.12723	Nutrition
100	February 2019	Perspectives on maternal, infant, and young child nutrition and family planning: Considerations for rollout of integrated services in Mara and Kagera, Tanzania	*Maternal & Child Nutrition*	Chelsea M. Cooper, Justine A. Kavle, Joyce Nyoni, Mary Drake, Ruth Lemwayi, Lemmy Mabuga, Anne Pfitzer	https://onlinelibrary.wiley.com/doi/10.1111/mcn.12735	Nutrition, Family Planning
101	February 2019	Strengthening nutrition services within integrated community case management (iCCM) of childhood illnesses in the Democratic Republic of Congo: Evidence to guide implementation	*Maternal & Child Nutrition*	Justine A. Kavle, Michel Pacqué, Sarah Dalglish, Evariste Mbombeshayi, Jimmy Anzolo, Janvier Mirindi, Maphie Tosha, Octave Safari, Lacey Gibson, Sarah Straubinger, Richard Bachunguye	https://onlinelibrary.wiley.com/doi/10.1111/mcn.12725	Nutrition, Child Health
102	February 2019	Rethinking integrated nutrition-health strategies to address micronutrient deficiencies in children under five in Mozambique	*Maternal & Child Nutrition*	Melanie Picolo, Iracema Barros, Mathieu Joyeux, Allison Gottwalt, Edna Possolo, Betuel Sigauque, Justine A. Kavle	https://onlinelibrary.wiley.com/doi/10.1111/mcn.12721	Nutrition
103	February 2019	Innovative approaches to enhancing maternal and newborn survival: Indonesia's experience in an era of global commitments to reducing mortality	*International Journal of Gynecology & Obstetrics*	Koki Agarwal, Katherine Lilly, Jeffrey Smith	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12729	Maternal Health, Newborn Health
104	February 2019	Expanding Maternal and Neonatal Survival in Indonesia: A program overview	*International Journal of*	Anne Hyre, Nancy Caiola, Dwirani Amelia, Trisnawaty Gandawidjaja,	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12730	Maternal Health, Newborn Health

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			Gynecology & Obstetrics	Sudibyo Markus, Mohammad Baharuddin		
105	February 2019	Changes in obstetric case fatality and early newborn mortality rates in hospitals after the implementation of the Expanding Maternal and Neonatal Survival program in Indonesia: Results from a health information system	*International Journal of Gynecology & Obstetrics*	Saifuddin Ahmed, Maya Tholandi, Alisa Pedrana, Ali Zazri, Nony Parmawaty, Agus Rahmanto, Reena Sethi	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12731	Maternal Health, Newborn Health
106	February 2019	The effect of Expanding Maternal and Neonatal Survival interventions on improving the coverage of labor monitoring and complication prevention practices in hospitals in Indonesia: A difference-in-difference analysis	*International Journal of Gynecology & Obstetrics*	Maya Tholandi, Reena Sethi, Alisa Pedrana, Siti Nurul Qomariyah, Dwirani Amelia, Pancho Kaslam, Sudirman Sudirman, Mandri S. Apriatni, Agus Rahmanto, Mark Emerson, Saifuddin Ahmed	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12732	Maternal Health, Newborn Health
107	February 2019	Assessing the effect of the Expanding Maternal and Neonatal Survival program on improving stabilization and referral for maternal and newborn complications in Indonesia	*International Journal of Gynecology & Obstetrics*	Alisa Pedrana, Siti Nurul Qomariyah, Maya Tholandi, Bambang Wijayanto, Trisnawaty Gandawidjaja, Dwirani Amelia, Mandri Apriatni, Sudirman Sudirman, Ali Zazri, Reena Sethi, Mark Emerson, Saifuddin Ahmed	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12733	Maternal Health, Newborn Health
108	February 2019	Presence of doctors and obstetrician/gynecologists for patients with maternal complications in hospitals in six provinces of Indonesia	*International Journal of Gynecology & Obstetrics*	Alisa Pedrana, Maya Tholandi, Siti Nurul Qomariyah, Reena Sethi, Anne Hyre, Dwirani Amelia, Stephanie Suhowatsky, Saifuddin Ahmed	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12734	Maternal Health, Newborn Health
109	February 2019	Assessment of knowledge of evidence-based maternal and newborn care practices among midwives and nurses in six provinces in Indonesia	*International Journal of Gynecology & Obstetrics*	Reena Sethi, Maya Tholandi, Dwirani Amelia, Alisa Pedrana, Saifuddin Ahmed	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12735	Maternal Health, Newborn Health
110	February 2019	Maternal death reviews: A retrospective case series of 90 hospital-based maternal deaths in 11 hospitals in Indonesia	*International Journal of Gynecology & Obstetrics*	Mohammad Baharuddin, Dwirani Amelia, Stephanie Suhowatsky, Ary Kusuma, Mohammad Hud Suhargono, Benjamin Eng	https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.12736	Maternal Health

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111	February 2019	Characteristics of successful integrated family planning and maternal and child health services: Findings from a mixed-method, descriptive evaluation	*F1000Research*	Anne Pfitzer, Christina Maly, Hannah Tappis, Mark Kabue, Sadie Healy, Devon Mackenzie, Vineet Srivastava, Gathari Ndirangu	https://f1000research.com/articles/8-229/v1	Family Planning, Maternal Health, Newborn Health, Child Health
112	February 2019	Women's Experience of Facility-Based Childbirth Care and Receipt of an Early Postnatal Check for Herself and Her Newborn in Northwestern Tanzania	*International Journal of Environmental Research and Public Health*	Bishanga DR, Massenga J, Mwanamsangu AH, Kim YM, George J, Kapologwe NA, Zoungrana J, Rwegasira M, Kols A, Hill K, Rijken MJ, Stekelenburg J	https://www.ncbi.nlm.nih.gov/pubmed/30736396	Maternal Health, Newborn Health
113	March 2019	Effect of Birth Preparedness on Institutional Delivery in Semiurban Ethiopia: A Cross-Sectional Study	*Annals of Global Health*	Rosado C, Callaghan-Koru JA, Estifanos AS, Sheferaw E, Shay T, De Graft-Johnson J, Rawlins B, Gibson H, Baqui AH, Nonyane BAS	https://www.ncbi.nlm.nih.gov/pubmed/30924620	Maternal Health
114	March 2019	Taking stock of 10 years of published research on the ASHA programme: examining India's national community health worker programme from a health systems perspective	*Health Research Policy and Systems*	Kerry Scott, Asha S. George, Rajani R. Ved	https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-019-0427-0	Community Health and Civil Society Engagement
115	March 2019	Impact of Socio-Economic Factors and Health Information Sources on Place of Birth in Sindh Province, Pakistan: A Secondary Analysis of Cross-Sectional Survey Data	*International Journal of Evironmental Research and Public Health*	Jin-Won Noh, Young-mi Kim, Nabeel Akram, Ki-Bong Yoo, Jooyoung Cheon, Lena J. Lee, Young Dae Kwon, Jelle Stekelenburg	https://www.mdpi.com/1660-4601/16/6/932/htm	Community Health and Civil Society Engagement
116	April 2019	Hygiene During Childbirth: An Observational Study to Understand Infection Risk in Healthcare Facilities in Kogi and Ebonyi States, Nigeria	*International Journal of Environmental Research and Public Health*	Buxton H, Flynn E, Oluyinka O, Cumming O, Esteves Mills J, Shiras T, Sara S, Dreibelbis R	https://www.ncbi.nlm.nih.gov/pubmed/30979005	Water, Sanitation, and Hygiene
117	June 2019	Barriers and enablers for practicing kangaroo mother care (KMC) in rural Sindh, Pakistan	*PLoS ONE*	Qamar Zaman Jamali, Rashed Shah, Farhana Shahid, Aisha Fatima, Saraswati Khalsa, Jana Spacek, Presha Regmi	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0213225	Newborn Health
118	June 2019	Contraceptive implant failures among women using antiretroviral	*Gates Open Research*	Anne Pfitzer, Jacqueline Wille, Jonesmus Wambua, Stacie C Stender, Molly Strachan, Christine Maricha	https://gatesopenresearch.org/articles/3-1482/v1	Family Planning, HIV

#	Month and Year	Name of Article	Journal Name	Authors	Hyperlink	Technical Area
		therapy in western Kenya: a retrospective cohort study		Ayuyo, Timothy F. Kibidi Muhavi, Valentino Wabwile, Supriya D. Mehta, Elizabeth Sasser		
119	June 2019	Beyond the building blocks: integrating community roles into health systems frameworks to achieve health for all	*BMJ Global Health*	Emma Sacks, Melanie Morrow, William T Story, Katharine D Shelley, D Shanklin, Minal Rahimtoola, Alfonso Rosales, Ochiawunma Ibe, Eric Sarriot	https://gh.bmj.com/content/3/Suppl_3/e001384	Community Health and Civil Society Engagement
120	June 2019	Applying the Theoretical Domains Framework to understand knowledge broker decisions in selecting evidence for knowledge translation in low- and middle-income countries	*Health Research Policy and Systems*	Theresa C. Norton, Daniela C. Rodriguez, Sara Willems	https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-019-0463-9	Knowledge Management
121	July 2019	Comparing the effectiveness of a blended learning approach with a conventional learning approach for basic emergency obstetric and newborn care training in Ethiopia	*Midwifery*	Muluneh Yigzaw, Yibeltal Tebekaw, Young-Mi Kim , Adrienne Kols, Firew Ayalew, Gizachew Eyassu	https://www.sciencedirect.com/science/article/abs/pii/S0266613819301913	Maternal Health, Newborn Health, Health Systems Strengthening
122	July 2019	Geospatial analysis for reproductive, maternal, newborn, child and adolescent health: gaps and opportunities	*BMJ Global Health*	Zoe Matthews, Barbara Rawlins, Jennifer Duong, Yordanos B Molla, Allisyn C Moran, Kavita Singh, Florina Serbanescu, Andrew J Tatem, Kristine Nilsen	https://gh.bmj.com/content/4/Suppl_5/e001702	MMEL
123	July 2019	Best practices in availability, management and use of geospatial data to guide reproductive, maternal, child and adolescent health programmes	*BMJ Global Health*	Yordanos B Molla, Kristine Nilsen, Kavita Singh, Corrine Warren Ruktanonchai, Michelle M Schmitz, Jennifer Duong, Florina Serbanescu, Allisyn C Moran, Zoe Matthews, Andrew J Tatem	https://gh.bmj.com/content/4/Suppl_5/e001406	MMEL
124	July 2019	Using spatial analysis and GIS to improve planning and resource allocation in a rural district of Bangladesh	*BMJ Global Health*	T A Robin, Marufa Aziz Khan, Nazmul Kabir, Sk Towhidur Rahaman, Afsana Karim, Imteaz Ibne Mannan, Joby George, Iftekhar Rashid	https://gh.bmj.com/content/4/Suppl_5/e000832	MMEL
125	July 2019	Who are the real community health workers in Tshopo Province, Democratic Republic of the Congo?	*BMJ Global Health*	Sarah L Dalglish, Sarah Straubinger, Justine A Kavle, Lacey Gibson, Evariste Mbombeshayi, Jimmy Anzolo, Kerry Scott, Michel Pacqué	https://gh.bmj.com/content/4/4/e001529	Community Health and Civil Society Engagement

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126	July 2019	From training to workflow: a mixed-methods assessment of integration of Doppler into maternity ward triage and admission in Tanzania	*Journal of Global Health Reports*	Mary Carol Jennings, Dunstan R. Bishanga, Sheena Currie, Barbara Rawlins, Gaudiosa Tibaijuka, Ahmad Makuwani, Jim Ricca, John George, Filbert Mpogoro, Stella Abwao, Lusekelo Njonge, Jeremie Zougrana, Marya Plotkin	http://www.joghr.org/Article/joghr-03-e2019040	Newborn Health; MMEL
127	August 2019	Barriers and opportunities experienced by staff when implementing infection prevention and control guidelines during labour and delivery in healthcare facilities in Nigeria	*Journal of Hospital Infection*	H. Buxton, E. Flynn, O. Oluyinka, O. Cumming, J. Esteves Mills, T. Shiras, S. Sara, R. Dreibelbis	https://www.sciencedirect.com/science/article/pii/S0195670119303123	Water, Sanitation and Hygiene
128	August 2019	Findings and Lessons Learned From Strengthening the Provision of Voluntary Long-Acting Reversible Contraceptives With Postabortion Care in Guinea	*Global Health: Science and Practice*	Anne Pfitzer, Yolande Hyjazi, Bethany Arnold, Jacqueline Aribot, Reeti D. Hobson, Tsigue G. Pleah, Shani Turke, Benita O'Colmain, Sharon Arscott-Mills	http://www.ghspjournal.org/content/7/Supplement_2/S271	Family Planning
129	September 2019	Outcomes of the Expanded Programme on Immunization Pre-Service Training Initiatives in Kenya: A Mixed Methods Study	*World Journal of Vaccines*	Iqbal Hossain, Evans Mokaya, Isaac Mugoya, Folake Olayinka, Lora Shimp	https://www.scirp.org/Journal/paperinformation.aspx?paperid=94800	Immunization
130	September 2019	Operationalizing Integrated Immunization and Family Planning Services in Rural Liberia: Lessons Learned From Evaluating Service Quality and Utilization	*Global Health: Science and Practice*	Allyson R. Nelson, Chelsea M. Cooper, Swaliho Kamara, Nyapu D. Taylor, Topian Zikeh, Cefanee Kanneh-Kesselly, Rebecca Fields, Iqbal Hossain, Lolade Oseni, Birhanu S. Getahun, Anne Fiedler, Anne Schuster, Hannah Tappis	http://www.ghspjournal.org/content/7/3/418	Immunization, Family Planning
131	September 2019	Reaching the Youngest Moms and Dads: A Socio-Ecological View of Actors and Factors Influencing First-time Young Parents' Use of Sexual and Reproductive Health Services in Madagascar	*African Journal of Reproductive Health*	Susan Igras, Melanie Yahner, Haingo Ralaison, Jean Pierre Rakotovao, Rachel Favero, Sandrine Andriantsimietry, Justin Ranjalahy Rasolofomanana	https://www.ajrh.info/index.php/ajrh/article/view/1893/pdf	Family Planning
132	September 2019	Management of Preeclampsia, Severe Preeclampsia, and Eclampsia	*Global Health: Science and Practice*	Anna Williams, Marufa Aziz Khan, Mohammed Moniruzzaman, Sk Towhidur Rahaman, Imteaz Ibne	http://www.ghspjournal.org/content/early/	Maternal Health

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		at Primary Care Facilities in Bangladesh		Mannan, Joseph de Graft-Johnson, Iftekhar Rashid and Barbara Rawlins	2019/09/16/GHSP-D-19-00124	
133	October 2019	'Maybe we can turn the tide': an explanatory mixed-methods study to understand how knowledge brokers mobilise health evidence in low- and middle-income countries	*Evidence & Policy A Journal of Research Debate and Practice*	Theresa C. Norton, Daniela C. Rodriguez, Catherine Howell, Charlene Reynolds, Sara Willems	https://www.researchgate.net/publication/336378653_'Maybe_we_can_turn_the_tide'_an_explanatory_mixed-methods_study_to_understand_how_knowledge_brokers_mobilise_health_evidence_in_low-_and_middle-income_countries	Knowledge Management
134	October 2019	Counseling at All Contacts for Postpartum Contraceptive Use: Can Paper-based Tools Help Community Health Workers Improve Continuity of Care? A Qualitative Study from Ethiopia	*Gates Open Research*	Muluneh Yigzaw Mossie, Anne Pfitzer, Yousra Yusuf, China Wondimu, Eva Bazant, Vaiddehi Bansal, Devon Mackenzie, Deborah Sitrin, Tsigue Pleah	https://gatesopenresearch.org/articles/3-1652	Family Planning
135	October 2019	Systematic review of Doppler for detecting intrapartum fetal heart abnormalities and measuring perinatal mortality in low- and middle-income countries	*International journal of gynaecology and obstetrics*	Plotkin M, Kamala B, Ricca J, Fogarty L, Currie S, Kidanto H, Wheeler SB	https://www.ncbi.nlm.nih.gov/pubmed/31646629	Newborn Health, MMEL

Annex 9. List of Core-Funded Tools and Materials Developed

#	Year	Publication Name	Country/Region	Technical Area
1	2014	Case Studies of Large-Scale Community Health Worker Programs	Global	Community Health
2	2014	Summary Report of the Community Health Worker Forum	Global	Community Health
3	2014	Developing and Strengthening Community Health Worker Programs at Scale	Global	Community Health
4	2014	A Review of the Maternal and Newborn Health Content of National Health Management Information Systems in 13 Countries in Sub-Saharan Africa and South Asia	Africa; Asia	Maternal Health, Newborn Health
5	2014	MCSP Technical Team Fact Sheets: Maternal, Newborn, WASH, Malaria, Child, Community Health/Civil Society Engagement, Nutrition, Reproductive, and Immunization (French and English)	Global	Maternal Health, Newborn Health, WASH, Malaria, Child Health, Community Health/Civil Society Engagement, Nutrition, Family Planning, Immunization
6	2014	Postpartum Family Planning Annotated Bibliography: 2008–2014	Global	Family Planning
7	2014	Article XII. Evaluation of the Helping Babies Breathe (HBB) initiative scale-up in Malawi	Malawi	Newborn Health
8	2014	Article XIV. Mali: Qualitative study of the low utilization of Essential Community Care	Mali	Measurement, Monitoring, Evaluation, and Learning
9	2014	Article XIII. Preliminary lessons learned: Integration of IMNCI standards in three health centers in Guinea	Guinea	Child Health
10	2015	Feasibility Study of the Implementation of Integrated Community Case Management (iCCM) in Bondo: Leveraging Existing Systems	Kenya	Maternal Health, Child Health
11	2015	WHO Recommendations for Prevention and Treatment of Maternal Peripartum Infections	Global	Maternal Health
12	2015	Strategies to Strengthen Community Maternal, Newborn and Child Health: Findings from a Cohort of Child Survival and Health Grants Ending in 2014	Global	Maternal Health, Newborn Health, Child Health
13	2015	WHO Recommendations on Interventions to Improve Preterm Birth Outcomes	Global	Maternal Health
14	2015	WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia	Global	Maternal Health
15	2015	WHO recommendations on prevention and treatment of postpartum haemorrhage	Global	Maternal Health
16	2015	WHO recommendations on active management of the third stage of labour	Global	Maternal Health
17	2015	Respectful Maternity Care Workshop: Meeting Report	Tanzania	Maternal Health
18	2015	Pathway of Opportunities for Postpartum Women to Adopt Family Planning	Global	Family Planning

#	Year	Publication Name	Country/Region	Technical Area
19	2015	Integrating Maternal, Infant, and Young Child Nutrition and Family Planning Services in Bondo Sub-County, Kenya	Kenya	Nutrition, Family Planning
20	2015	Treatment of Uncomplicated Malaria Among Women of Reproductive Age	Global	Malaria
21	2015	Global Call to Action to scale-up coverage of intermittent preventive treatment of malaria in pregnancy: seminar report	Global	Malaria
22	2015	Global Call to Action: maximize the public health impact of intermittent preventive treatment of malaria in pregnancy in sub-Saharan Africa	Africa	Malaria
23	2015	Postnatal Care for Mothers and Newborns	Global	Maternal Health, Newborn Health
24	2015	Recommendations for Augmentation of Labour	Global	Maternal Health
25	2015	Helping Babies Breathe Country Case Study: Colombia	Colombia	Newborn Health
26	2015	Helping Babies Breathe Country Case Study: Dominican Republic	Dominican Republic	Newborn Health
27	2015	Moving Toward Viable, Integrated Community Health Platforms to Institutionalize Community Health in National Strategies to End Preventable Child and Maternal Deaths	Global	Community Health, Child Health, Maternal Health
28	2015	iCCM Central Postcard	Global	Child Health
29	2015	Global Health Content for Local Solutions Consultations Synopsis	Global	mPowering
30	2015	Using Data Dashboards for Results-Based Management and Accountability	Global	Measurement, Monitoring, Evaluation, and Learning
31	2015	Helping Babies Breathe Country Case Study: Colombia; Successful National Scale-Up Led by the Ministry of Health and Neonatology Association	Colombia	Newborn Health
32	2015	Review of Monitoring of Malaria in Pregnancy through National Health Management Information Systems: Results from Six Countries in Sub-Saharan Africa	Africa	Measurement, Monitoring, Evaluation, and Learning; Malaria
33	2015	Maternal and Child Survival Start Up Report	Global	Maternal Health, Child Health
34	2015	Factors Associated with Growth in the First Year of Life in Egyptian Children: Implications for the Double Burden of Malnutrition	Egypt	Nutrition
35	2015	Successful Practices to Increase Intermittent Preventive Treatment (IPTp) in Ghana	Ghana	Malaria
36	2015	Case Study: Experience Applying and Tracking a Quality Improvement Approach for Maternal and Newborn Health Services in Sub-Saharan Africa	Africa	Health Systems Strengthening, Maternal Health, Newborn Health
37	2015	Case Study: Primary Healthcare Clinical Placements during Nursing and Midwifery Education in Lesotho	Lesotho	Maternal Health
38	2015	The Global Fund New Funding Model: Lessons from Zambia on the Addition of Integrated Community Case managed (iCCM)	Zambia	Child Health

#	Year	Publication Name	Country/Region	Technical Area
39	2015	The Global Fund New Funding Model: Lessons from Nigeria on Negotiating the Inclusion of Integrated Community Case Management (iCCM) of Childhood Illness	Nigeria	Child Health
40	2015	The Global Fund New Funding Model: Lessons from Uganda on Integrating the Integrated Community Case Management Model (iCCM)	Uganda	Child Health
41	2015	The Global Fund New Funding Model: Lessons from Ghana on Negotiating the Inclusion of Integrated Community Case Management (iCCM) of Childhood Illness	Ghana	Child Health
42	2015	Family Planning Needs during the First Two Years Postpartum in Uganda	Uganda	Family Planning
43	2015	Technical Consultation on Reporting and Mapping Maternal Deaths in Countries with High Maternal Mortality	Global	Maternal Health
44	2015	Feasibility Study of the Implementation of Integrated Community Case Management in Bondo: Leveraging Existing Systems	Kenya	Child Health
45	2015	Article V. Family planning needs during the first two years postpartum in Madagascar	Madagascar	Family Planning
46	2015	Article VI. Family planning needs during the first two years postpartum in Mozambique	Mozambique	Family Planning
47	2015	Article VII. Family planning needs during the first two years postpartum in Nigeria	Nigeria	Family Planning
48	2015	Article VIII. Family planning needs during the first two years postpartum in Tanzania	Tanzania	Family Planning
49	2015	Article X. Family planning needs during the first two years postpartum in Burkina Faso	Burkina Faso	Family Planning
50	2015	Article XI. Family planning needs during the first two years postpartum in Ghana	Ghana	Family Planning
51	2015	Identification of a Short Quality of Care Index to Measure the Quality of Facility Routine Labor and Delivery Care in Sub-Saharan Africa	Sub-Saharan Africa	Maternal Health
52	2015	Piloting a Streamlined Index for Assessment of Quality of Labor and Delivery Care in Tanzania— Findings and Recommendations	Tanzania	Maternal Health
53	2015	Article IX. Scaling up high-impact health interventions in complex adaptive systems: Lessons from MCHIP	Global	Measurement, Monitoring, Evaluation, and Learning
54	2015	Postnatal Care for Mothers and Newborns: Highlights from the World Health Organization 2013 Guidelines	Global	Maternal Health, Newborn Health
55	2015	Article II. Leveraging the Global Fund New Funding Model for integrated community case management: A synthesis of lessons from five countries	Ghana; Kenya; Nigeria; Uganda; Zambia	Child Health
56	2015	Article I. The Global Fund New Funding Model: Lessons from Kenya on iCCM integration into the Malaria Concept Note	Kenya	Child Health
57	2015	Article III. Case study: improving quality of care and outcomes for child health using the standards-based management and recognition approach in Zimbabwe	Zimbabwe	Child Health

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58	2015	Article IV. SBM-R for child health, a synthesis of initial experiences in Guinea and Zimbabwe	Zimbabwe	Child Health
59	2016	Report on MCSP Support for the Polio Switch in April 2016	Global	Immunization
60	2016	Strengthening Human Capacity Development to Improve RMNCH Outcomes	Global	Health Systems Strengthening, Equity
61	2016	Maternal and Child Survival Program Equity Toolkit	Global	Health Systems Strengthening, Equity
62	2016	Prevention and Control of Pneumonia and Diarrhea: Technical Reference Materials	Global	Child Health
63	2016	Rwanda Health Facility Assessment Core Questionnaire Adapted from SARA and SPA tools	Rwanda	Health Systems Strengthening, Equity
64	2016	Alternative Birth Positions Training Materials	Global	Maternal Health
65	2016	Making Every Baby Count: Audit and Review of Stillbirths and Neonatal Deaths	Global	Newborn Health
66	2016	MCSP Fact Sheet	Global	
67	2016	Reaching Every Community Using Quality Improvement (REC-QI): Mapping to support routine immunization microplanning in Uganda	Uganda	Immunization
68	2016	Operational Guidance for Maternal and Child Survival Country Programs: In-Service Clinical Training	Global	Health Systems Strengthening, Equity
69	2016	MCSP Innovations Fact Sheet	Global	Innovations
70	2016	MCSP Nutrition Brief	Global	Nutrition
71	2016	Mini-Laparotomy for Tubal Ligation Under Local Anesthesia Video	Global	Family Planning
72	2016	Overview of MCSP Year One Results Summary	Global	
73	2016	MCSP Social and Behavior Change Communication Fact Sheet	Global	Social and Behavioral Change Communication
74	2016	MCSP Health Systems Strengthening Fact Sheet	Global	Health Systems Strengthening, Equity
75	2016	MCSP Gender Fact Sheet	Global	Gender
76	2016	Strengthening the Routine Immunization System through a Reaching Every Child-Quality Improvement Approach in Uganda	Uganda	Immunization
77	2016	Health Management Information Systems (HMIS) Review	Global	Measurement, Monitoring, Evaluation, and Learning
78	2016	Review of Newborn Indicators in Maternal and Child Survival Program-Supported Countries	Global	Newborn Health
79	2016	Maternal and Child Survival Program: Zambia	Zambia	
80	2016	Mapping Global Leadership in Child Health	Global	Child Health

#	Year	Publication Name	Country/Region	Technical Area
81	2016	Investing in Malaria in Pregnancy in Sub-Saharan Africa: Saving Women's and Children's Lives	Sub-Saharan Africa	Malaria
82	2016	A Rapid Assessment of Oral Rehydration Therapy Corners in Bondo, Igembe North, and Igembe Central Subcounties, Kenya	Kenya	Child Health
83	2016	The Integrated Community Case Management (iCCM) of Childhood Illness Task Force: Fact Sheet	Global	Child Health
84	2016	Literature Review: Civil Society Engagement to Strengthen National Health Systems to End Preventable Child and Maternal Death	Global	Community Health, Civil Society Engagement
85	2016	Civil Society Engagement Strategy: 2016–2019	Global	Community Health, Civil Society Engagement
86	2016	Focused Review of Successful Quality Improvement Initiatives Aimed at Compliance With Evidence-Based Practice Guidelines for Child Illness Care	Global	Child Health
87	2016	Comprehensive Approach to Health Systems Management Resource Compendium	Global	Health Systems Strengthening
88	2016	MCSP Annual Report: Year One	Global	Measurement, Monitoring, Evaluation, and Learning
89	2016	The Power of Counseling: Changing Maternal, Infant, and Young Child Nutrition and Family Planning Practices in Dhamar, Yemen	Yemen	Nutrition, Family Planning
90	2016	Haiti Fact Sheet	Haiti	
91	2016	Report on MCSP Support for the Polio Switch in April 2016	Global	Immunization
92	2016	Annex: Mapping of Global Leadership in Child Health Sub-Saharan Africa Perspective	Global	Child Health
93	2016	Goulots d'étranglement et avancées: Leçons apprises de l'introduction de nouveaux vaccins dans des pays à faibles revenues, 2008 à 2013	Global	Immunization
94	2016	Bondo iCCM Study: Key Findings & Recommendations	Kenya	Child Health
95	2016	Rapid Knowledge, Practices and Coverage (KPC) Survey Maternal and Newborn Care Module	Global	Measurement, Monitoring, Evaluation, and Learning
96	2016	The Labor & Delivery Quality of Care Short Observational Index: A User Guide	Global	Measurement, Monitoring, Evaluation, and Learning
97	2016	Postnatal Care Pre-Discharge Checklist	Global	Maternal Health, Newborn Health
98	2016	Strengthening Human Capacity Development to Improve RMNCH Outcomes	Global	Health Systems Strengthening, Human Capacity Development
99	2016	Prevention and Control of Pneumonia and Diarrhea — CSHGP Technical Reference	Global	Community Health, Child Health

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100	2016	Operational Guidance for MCSP Country Programs: In-service Clinical Training	Global	Health Systems Strengthening, Human Capacity Development
101	2016	Using Community Health Workers to promote equity and reach the most vulnerable: Unidades Comunitarios in rural Honduras	Honduras	Community Health
102	2016	Adolescent Age and Life-Stage Counseling Tools	Global	Adolescent Health
103	2016	Feasibility Study of the Implementation of iCCM in Bondo Sub-County: Leveraging Existing Systems	Kenya	Child Health
104	2016	Clean Clinic Approach: To Improve WASH at Health Care Facilities so Patients Want to Seek Care	Global	WASH
105	2016	Johns Hopkins University School of Nursing: Core Concepts for Clinical Preceptors & Faculty	Global	Maternal Health, Human Capacity Development
106	2017	Case Studies of Large-Scale Community Health Worker Programs	Global	Community Health
107	2017	Social Accountability Resources and Tools	Global	Community Health, Civil Society Engagement
108	2017	Treatment of Uncomplicated Malaria Among Women of Reproductive Age	Global	Malaria
109	2017	Water, Sanitation, and Hygiene at the Health Center: The Health System's Unaccounted for Responsibility	Global	WASH
110	2017	Policy Change to Advance Scale-Up of High-Impact Reproductive, Maternal, Newborn, and Child Health Interventions	Global	Measurement, Monitoring, Evaluation, and Learning
111	2017	Mini-Laparotomy for Tubal Ligation Under Local Anesthesia (translations)	Global	Family Planning
112	2017	Costs and Cost-Effectiveness of Community Health Investments in Reproductive, Maternal, Neonatal, and Child Health	Global	Community Health, Health Systems Strengthening, Human Capacity Development
113	2017	Family Planning and Maternal, Infant and Young Child Nutrition: Formative Study	Tanzania	Family Planning Nutrition
114	2017	Operational Guidance for Maternal and Child Survival Country Programs: Pre-Service Education	Global	Health Systems Strengthening, Human Capacity Development, Equity
115	2017	Addressing Barriers to Exclusive Breastfeeding: Evidence and Program Considerations for Low- and Middle-Income Countries	Global	Nutrition
116	2017	World Malaria Day Malaria in Pregnancy Infographic	Global	Malaria
117	2017	Postnatal Care, with a Focus on Home Visitation	Global	Newborn Health
118	2017	Addressing Barriers to Maternal Nutrition: Evidence and Program Considerations	Global	Maternal Health, Nutrition

#	Year	Publication Name	Country/Region	Technical Area
119	2017	Community-Based Distribution of Iron-Folic Acid Supplementation: Evidence and Program Implications	Global	Nutrition
120	2017	Evaluation Formative Rapide sur l'Engagement des hommes dans la Planification Familiale et l'extension des services pour la Vasectomie sans bistouri au Togo	Togo	Family Planning
121	2017	Family Planning and Immunization Integration: Formative Report	Tanzania	Family Planning, Immunization
122	2017	Reproductive, Maternal, Newborn, and Child Health: Rapid Health Systems Assessment	Global	Health Systems Strengthening, Equity
123	2017	The Comprehensive Approach to Health Systems Management	Tanzania	Health Systems Strengthening, Equity
124	2017	Operational Guidance for MCSP: Pre-Service Education	Global	Health Systems Strengthening, Equity
125	2017	Zika Response Team: Program Year 1 Workplan Activities	Global	Maternal Health
126	2017	HelloMama Brief for Engagement with Mobile Network Operators in Nigeria	Nigeria	Maternal Health, Digital Health
127	2017	HelloMama Project Brief	Nigeria	Maternal Health, Digital Health
128	2017	Basic Newborn Resuscitation Brief	Global	Newborn Health
129	2017	Optimal Feeding of Low-Birthweight Infants in Low- and Middle-Income Countries	Global	Newborn Health
130	2017	Zika Pregnancy Wheel	Global	Maternal Health, Zika
131	2017	Community-Based HIV Testing and Counseling in the Health Extension Program	Namibia	HIV
132	2017	Managing Complications in Pregnancy and Childbirth Updates	Global	Maternal Health
133	2017	Summary Brief – Managing complications in pregnancy and childbirth: a guide for midwives and doctors	Global	Maternal Health
134	2017	Assessing Knowledge, Practice, and Coverage of Newborn Care Services in Ethiopia	Ethiopia	Measurement, Monitoring, Evaluation, and Learning
135	2017	Phase I Report: WASH for Neonatal and Maternal Sepsis Reduction Study	Global	WASH
136	2017	Selected Results of an Analysis of the Maternal and Newborn Content of Routine Information Systems in 24 Countries	Global	Measurement, Monitoring, Evaluation, and Learning
137	2017	Preliminary Results of an Analysis of the Maternal and Newborn Content of Routine Information Systems in 24 Countries	Global	Measurement, Monitoring, Evaluation, and Learning
138	2017	Community-Based Newborn Health Promotion in Pastoralist Ethiopia: The Social Mobilization and Demand Creation Project	Ethiopia	Community Health/Civil Society Engagement
139	2017	MCPC Briefer (Spanish)	Global	Maternal Health
140		MCPC Briefer (Portuguese)		
141		MCPC Briefer in (French)		

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142	2017	Research Brief: Findings from formative research with first-time parents in two states of Nigeria	Nigeria	Family Planning, Adolescent Sexual and Reproductive Health
143	2017	Clean Clinic Approach One-Pager	Global	WASH
144	2017	Toolkit to Improve Early and Sustained Uptake of IPTp in (English)	Global	Malaria
145		Toolkit to Improve Early and Sustained Uptake of IPTp in (French)		
146		Toolkit to Improve Early and Sustained Uptake of IPTp in (Portuguese)		
147	2017	MCSP Engagement in the 2016 Gavi Joint Appraisal: A Summary of Country Experiences	Global	Immunization
148	2017	Monitoring Postpartum Family Planning: A challenge for routine information systems	Global	Family Planning
149	2017	Early Childhood Development Briefer (English)	Global	Early Childhood Development, Zika
150		Early Childhood Development Briefer (Spanish)		
151	2017	Joint WHO/MCSP Brief on Tranexamic Acid Recommendations	Global	Maternal Health
152	2017	Report on Urban Immunization in Kisumu County, Kenya	Kenya	Immunization
153	2017	Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Ebonyi and Kogi States, Nigeria	Nigeria	Maternal Health, Newborn Health
154	2017	Child Health Task Force Survey Report	Global	Child Health
155	2017	Are We Reaching the Worst-off? How the Myanmar Census Helped to Answer this Question	Burma	Health Systems Strengthening, Equity
156	2017	Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Zimbabwe	Zimbabwe	Maternal Health, Newborn Health
157	2017	Zika Pregnancy Wheel Briefer in French	Global	Zika
158	2017	Zika Pregnancy Wheel Briefer in Haitian Creole	LAC	Zika
159	2017	MCSP Madagascar Technical Brief: Postpartum Family Planning in English	Madagascar	Family Planning
160	2017	Long-Acting Reversible Contraception LRP	Global	Family Planning
161	2017	Updated WHO Recommendation on Tranexamic Acid for the Treatment of Postpartum Haemorrhage (English)	Global	Maternal Health
162		Updated WHO Recommendation on Tranexamic Acid for the Treatment of Postpartum Haemorrhage (French)		
163		Updated WHO Recommendation on Tranexamic Acid for the Treatment of Postpartum Haemorrhage (Portuguese)		

#	Year	Publication Name	Country/Region	Technical Area
164	2017	Estimating Gestational Age and Counseling Antenatal Care Clients in the Context of Zika: Using the MCSP Zika Pregnancy Wheel (Portuguese)	LAC	Maternal Health, Newborn Health, Zika
165	2017	Evaluation of the Initiative to Strengthen Nurses' Expanded Programme on Immunization Pre-Service Training in Kenya	Kenya	Immunization
166	2017	Documentation of REC [Reaching Every Child] in Malawi	Malawi	Immunization
167 168 169	2018	Implementing Malaria in Pregnancy Programs in the Context of World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience - English Implementing Malaria in Pregnancy Programs in the Context of World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience - French Implementing Malaria in Pregnancy Programs in the Context of World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience - Portuguese	Global	Malaria
170	2018	PPH Implementation Framework and Graphic	Global	Maternal Health
171	2018	MAMA Lessons Learned Executive Summary Handout	Global	Digital Health
172	2018	Early Childhood Development 0–3 Program in Ghana	Ghana	Early Childhood Development
173	2018	Leveraging Antenatal Care to Increase Uptake of Postpartum Family Planning: A Key Time for Counseling	Global	Family Planning
174	2018	Factors Impacting Use of Health Services by First-Time/Young Parents: A Formative Research Toolkit	Global	Family Planning; Measurement, Monitoring, Evaluation, and Learning; Adolescent Sexual and Reproductive Health
175	2018	Mentoring for Human Capacity Development: Implementation Principles and Guidance	Global	Health Systems Strengthening, Equity
176	2018	Responding to Health System Needs: Findings and Implications from Rapid Health Systems Assessments of Reproductive, Maternal, Newborn, and Child Health Services	Global	Health Systems Strengthening, Equity
177	2018	2016 WHO Antenatal Care Guidelines: Malaria in Pregnancy Frequently Asked Questions (FAQ)	Global	Malaria
178 179 180	2018	Implementing Malaria in Pregnancy Programs in the Context of World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience (English) (technically updated from previous version) Implementing Malaria in Pregnancy Programs in the Context of World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience (French) (technically updated from previous version)	Global	Malaria

#	Year	Publication Name	Country/Region	Technical Area
		Implementing Malaria in Pregnancy Programs in the Context of World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience (Portuguese) (technically updated from previous version)		
181	2018	WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience: Ultrasound Examination	Global	Maternal Health
182	2018	WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience: Summary	Global	Maternal Health
183	2018	A Regional Assessment of Facility-Level Maternal and Perinatal Death Surveillance and Response Systems in Four Sub-Saharan African Countries	Global	Maternal Health, Newborn Health
184	2018	Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Rwanda	Rwanda	Maternal Health, Newborn Health
185	2018	Prevention of Zika Virus Infection: Key Points for Counseling Women of Reproductive Age	LAC	Zika
186	2018	Africa Regional Workshop on Improving Routine Data for Child Health in National Health Information Systems	Global	Child Health
187	2018	Mobile Alliance for Maternal Action (MAMA) Lessons Learned Report	Bangladesh, India, Nigeria, South Africa	Digital Health
188	2018	Stratégie Pour Le Renforcement De L'engagement Constructif Des Hommes Dans La Santé De Leur Famille Et La Planification Familiale Au Togo	Togo	Family Planning
189	2018	Gender Knowledge, Practice and Coverage (KPC) Tool	Global	Gender
190	2018	An Approach to Increase Coverage and Equity by Adapting and Using Revised Reaching Every District: MCSP Experiences Adapting the RED Guide in Malawi and Kenya	Malawi; Kenya	Immunization
191	2018	Maternal and Child Survival Program Engagement in the 2017 Gavi Joint Appraisal and Country Engagement Framework: A Summary of Country Experiences	Global	Immunization
192	2018	Making Strides to Prevent and Treat Malaria in Pregnancy (infographic)	Global	Malaria
193 194 195 196	2018	WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience Summary (English) WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience Summary (French) WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience Summary (Spanish) WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience Summary (Portuguese)	Global	Maternal Health

#	Year	Publication Name	Country/Region	Technical Area
197 198 199 200	2018	WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience: Ultrasound Examination (English)	Global	Maternal Health
		WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience: Ultrasound Examination (French)		
		WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience: Ultrasound Examination (Portuguese)		
		WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience: Ultrasound Examination (Spanish)		
201	2018	Postpartum Hemorrhage Implementation Framework	Global	Maternal Health
202	2018	Assessment of Maternal and Perinatal Death Surveillance and Response (MPDSR) Implementation in Kagera and Mara Region, Tanzania	Tanzania	Maternal Health, Newborn Health
203 204 205 206 207 208	2018	Kangaroo Mother Care Overview Sheets (Bangladesh)	Global	Newborn Health
		Kangaroo Mother Care Overview Sheets (Ethiopia)		
		Kangaroo Mother Care Overview Sheets (India)		
		Kangaroo Mother Care Overview Sheets (Malawi)		
		Kangaroo Mother Care Overview Sheets (Nigeria)		
		Kangaroo Mother Care Overview Sheets (Rwanda)		
209	2018	What Data on Maternal and Newborn Health Do National Health Management Information Systems Include?	Global	Measurement, Monitoring, Evaluation, and Learning
210	2018	Maternal Nutrition Programming in the Context of the 2016 WHO Antenatal Care Guidelines	Global	Nutrition, Maternal Health
211	2018	Early Childhood Development: An Integral Part of Zika Response Programs (Spanish)	LAC	Zika
212 213	2018	Estimating Gestational Age and Counseling Antenatal Care Clients in the Context of Zika: Using the MCSP Zika Pregnancy Wheel (English)	LAC	Zika
		Estimating Gestational Age and Counseling Antenatal Care Clients in the Context of Zika: Using the MCSP Zika Pregnancy Wheel (Spanish)		
214	2018	MCSP Zika Response: Scoping Visit Assessment Tool	LAC	Zika
215	2018	Obstetric Ultrasound Capacity Assessment in the Context of an Outbreak of Zika Virus Infection	LAC	Zika
216	2018	DR: Obstetric Ultrasound Service Delivery in the Context of the Zika Virus Epidemic in Latin America and the Caribbean (not publicly available)	Dominican Republic	Zika

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217	2018	El Salvador: Obstetric Ultrasound Service Delivery in the Context of the Zika Virus Epidemic in Latin America and the Caribbean (not publicly available)	El Salvador	Zika
218	2018	Guatemala: Obstetric Ultrasound Service Delivery in the Context of the Zika Virus Epidemic in Latin America and the Caribbean (not publicly available)	Guatemala	Zika
219	2018	Haiti: Obstetric Ultrasound Service Delivery in the Context of the Zika Virus Epidemic in Latin America and the Caribbean (not publicly available)	Haiti	Zika
220	2018	Honduras: Obstetric Ultrasound Service Delivery in the Context of the Zika Virus Epidemic in Latin America and the Caribbean (not publicly available)	Honduras	Zika
221	2018	MCSP Zika Response Team: Work Plan Activities for Program Years 2-3	Global	Maternal Health, Newborn Health
222	2018	Improving Management Systems for Better Water, Sanitation, Hygiene, and Infection Prevention for Mothers and Newborns: Trainer's Guide	Nigeria	WASH
223	2018	Factors Influencing Use of Health Services by First-Time Young Parents: Findings from Formative Research in Six States in Nigeria	Nigeria	Reproductive Health, Adolescent Sexual and Reproductive Health
224	2018	Assessing the Effectiveness of a Web-Based Vaccine Information Management System on Immunization-Related Data Functions	Tanzania	Immunization
225	2018	Therapeutic Early Stimulation Toolkit: Helping Young Children with Disabilities Meet Their Potential	Global	Early Childhood Development
226	2018	Word of Mouth: Learning from Polio Communication and Community Engagement Initiatives	Global	Immunization
227	2018	How Communities and Health Extension Workers Provide Care to Low-Birthweight Babies in the Amhara and Oromia Regions, Ethiopia	Ethiopia	Newborn Health
228	2018	Fathers Contribute to Healthy Families Handbill	Nigeria	Gender
229	2018	Posters: Fathers Contribute to Healthy Families	Nigeria	Gender
230	2018	MCSP Synthesis Brief: Improving Quality of Care at Scale for Better RMNCH Outcomes	Global	RMNCH
231	2018	MCSP Mozambique Program Brief: Quality Improvement	Mozambique	Maternal Health, Newborn Health
232	2018	MCSP Nigeria (MNCH Program) Technical Brief	Nigeria	Maternal Health, Newborn Health
233	2018	MCSP Madagascar Brief: Improving Quality of Maternal, Newborn, and Postpartum Family Planning Services	Madagascar	Maternal Health, Newborn Health, Family Planning
234	2018	Qualitative Assessment of Family Planning and Immunization Service Integration in Malawi: Dowa and Ntchisi Districts	Malawi	Family Planning, Immunization

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235	2018	Two Promising Social Accountability Approaches to Improve Health in Malawi: Community Score Cards, and National Health Budget Consultation, Analysis and Advocacy	Malawi	Community Health
236	2018	Using Geospatial Analysis to Better Serve Disadvantaged Program Beneficiaries in Low- and Middle-Income Countries: Lessons from an Exploratory Analysis in Nigeria	Nigeria	Health Systems Strengthening
237	2018	Health Systems Strengthening in MCSP Country Programs: A Review of MCSP's Work to Strengthen Health Systems for Improved RMNCH	Global	Health Systems Strengthening
238	2018	Malaria in Pregnancy Country Profiles	Global	Maternal Health
239	2018	Visualizing and Using Routine RMNCH Data at Health Facilities: A Resource Package for Health Providers and District Managers	Global	Health Systems Strengthening
240	2018	Implementacion y mantencion de servicios de MRLD de alta calidad: Guia para el uso del Paquete de recursos de aprendizaje sobre MRLD	Global	Reproductive Health
241	2018	Child Survival and Health Grants Program Findings	Global	Community Health
242	2018	Community Health Worker Coverage and Capacity Tool	Global	Community Health
243	2018	Investigating the Effectiveness of Earthen Barriers to Mitigate the Leaching of Pathogens from Pit Latrines in Coastal Bangladesh	Bangladesh	WASH
244	2018	MCSP Nigeria Technical Brief: Gender	Global	Gender
245	2018	Strengthening Quality of Essential Day-of-Birth Care Services at Health Centers in Ethiopia	Ethiopia	Newborn Health
246	2018	Enhanced Human Capacity for Health Care Service Delivery in Liberia: MCSP/RHS Liberia Case Study	Liberia	Health Systems Strengthening
247	2018	An Alternative to Classroom-Based Health Worker Training in Rwanda: MCSP Rwanda Case Study	Rwanda	Health Systems Strengthening
248	2018	MCSP HRH Liberia Gender-Responsive Teaching Methods Facilitator's Guide	Liberia	Gender
249	2018	Research Briefs: Highlights from Formative Research with First-Time Young Parents in 6 Nigerian States	Nigeria	Family Planning, Maternal Health, Newborn Health
250	2018	Management of Sick Young Infants 0–2 Months of Age in the Private Sector in Nepal: Results of a National Survey of Medicine Shops and Clinics	Nepal	Newborn Health
251	2018	Strengthening Nutrition in the Integrated Community Case Management of Childhood Illness in Democratic Republic of Congo	DRC	Child Health
252	2018	Apoyo psicosocial para cuidadores	Global	Child Health
253	2018	MCSP Synthesis Brief: Improving Quality of Care at Scale for Better RMNCH Outcomes	Global	Family Planning, Maternal Health, Newborn Health, Child Health

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254	2018	Review of Policies and Guidelines Related to the Nutrition of Ill and Undernourished Children at the Primary Health Care Level	Global	Newborn Health, Child Health, Nutrition
255	2018	Effective Interventions to Strengthen Health Systems after the Epidemic	Ghana, Guinea, and Liberia	Health Systems Strengthening
256	2018	Digital Health Investment Review Tool	Global	Digital Health
257	2018	Polio Eradication through Community Approaches	Madagascar	Immunization
258	2018	The Maternal and Child Survival Program's Zika Response Activities	LAC	Zika
259	2018	MCSP Mozambique Program Brief: Child Health	Mozambique	Child Health
260	2018	MCSP Mozambique Program Brief: Community Health	Mozambique	Community Health
261	2018	MCSP Mozambique Program Brief: Gender	Mozambique	Gender
262	2018	MCSP Mozambique Program Brief: Strengthening Immunization Services	Mozambique	Immunization
263	2018	MCSP Mozambique Program Brief: Maternal and Newborn Health	Mozambique	Maternal Health, Newborn Health
264	2018	MCSP Mozambique Program Brief: Malaria	Mozambique	Malaria
265	2018	MCSP Mozambique Program Brief: Nutrition	Mozambique	Nutrition
266	2018	MCSP Mozambique Program Brief: Quality Improvement	Mozambique	Health Systems Strengthening
267	2018	MCSP Mozambique Program Brief: Reproductive Health: Cervical Cancer Prevention and Family Planning	Mozambique	Family Planning
268	2018	MCSP Mozambique Program Brief: Water, Sanitation, and Hygiene	Mozambique	WASH
269	2019	Community Monitoring of Individual Children's Vaccinations	Malawi, Nigeria, Tanzania	Child Health, Immunization
270	2019	Strengthening Comprehensive Council Health Planning to Increase Immunization Coverage	Tanzania	Immunization
271	2019	What to Know about Your CCEOP Application and Deploying Cold Chain Equipment	Tanzania, Mozambique	Immunization
272	2019	Restoration of Health Services Project in Liberia: Case Study: Improving Adolescent Sexual and Reproductive Health Care Services in Liberia	Liberia	Reproductive Health
273	2019	Restoration of Health Services Project in Liberia: Case Study: Improving the Use of High-Quality Data for Improved Health Services in Liberia	Liberia	Measurement, Monitoring, Evaluation, and Learning
274	2019	Restoration of Health Services Project in Liberia: Case Study: Institutionalizing IMNCHI at the Health Facility Level in Liberia	Liberia	Health Systems Strengthening
275	2019	Restoration of Health Services Project in Liberia: Case Study: Red Card/Blue Card Strategy for Improved Facility Readiness in Nimba, Liberia	Liberia	Health Systems Strengthening

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276	2019	Restoration of Health Services Project in Liberia: Case Study: Enhanced Human Capacity for Health Care Service Delivery in Liberia	Liberia	Health Systems Strengthening
277	2019	Restoration of Health Services Project in Liberia: Case Study: Improving Infection Prevention and Control in Liberian Health Facilities	Liberia	Health Systems Strengthening
278	2019	Community-Based Care in Ethiopia	Ethiopia	Maternal Health, Newborn Health, Child Health
279	2019	MCSP Nutrition Brief: Key Country Experiences in Addressing Junk Food Consumption in Maternal, Infant, and Young Child Nutrition Programming	Global	Child Health, Maternal Health, Nutrition
280	2019	MCSP Nutrition Brief: Key Country Experiences in Addressing Maternal Nutrition through Nutrition-Health Integrated Programming	Global	Maternal Health, Nutrition
281	2019	Catalyzing Change: A Look at USAID's Maternal and Child Survival Program	Global	Child Health, Maternal Health, Newborn Health
282	2019	Streamlining and Strengthening the Disease Surveillance System in Tanzania	Tanzania	Health Systems Strengthening
283	2019	Landscape Analysis of National Community Health Worker Programs	Global	Measurement, Monitoring, Evaluation, and Learning
284	2019	Caregiver Psychosocial Support Training	Global	Child Health
285	2019	Round Table on Social Accountability Malawi, September 2018: Report and Suggestions Moving Forward	Malawi	Health Systems Strengthening
286	2019	Accroître l'utilisation des services de santé par les jeunes parents à travers l'approche intégrée de SRMN: Leçons d'une démonstration de faisabilité à Madagascar	Madagascar	Maternal Health
287	2019	How Contraception Works: Mechanisms of Action (including French and Spanish)	Global	Reproductive Health
288	2019	Support Tool for Improving Quality of Antenatal Care	Global	Maternal Health
289	2019	Accelerating Access to Postpartum Family Planning Report	Global	Reproductive Health
290	2019	Design Support for a Zika Pregnancy Registry in the Caribbean Region	Latin America and the Caribbean	Health Systems Strengthening
291	2019	Measurement and Data Use for Action and Accountability	Global	Measurement, Monitoring, Evaluation, and Learning
292	2019	Increasing Family Planning Uptake Among Postpartum Women in Nigeria	Nigeria	Family Planning
293	2019	Improving Health Outcomes by Enhancing the Content and Use of RMNCH Data in Nigeria's National Health Management Information System	Nigeria	Measurement, Monitoring, Evaluation, and Learning
294	2019	Nigeria Technical Brief on Gender	Nigeria	Gender

#	Year	Publication Name	Country/Region	Technical Area
295	2019	Sustainable Financing of Essential Medicines to Strengthen the Primary Health Care System in Nigeria	Nigeria	Health Systems Strengthening
296	2019	Potential for Integrating Family Planning and Immunization in Nigeria	Nigeria	Family Planning, Immunization
297	2019	Better Care for Nigerian Women and Children	Nigeria	Quality
298	2019	Webinar: Nothing gets transformed until your mind is transformed	Global	Human Capacity Development
299	2019	Webinar: Mentoring Implementation Lessons from Rwanda, Laos, and Ethiopia	Global	Human Capacity Development
300	2019	Designing Interoperable Health Information Systems Using Enterprise Architecture Approach in Resource-Limited Countries	Global	Digital Health
301	2019	Strengthening Routine Immunization through Subnational Partnerships – The Experience in Bauchi State, Nigeria	Nigeria	Immunization
302	2019	Strengthening Routine Immunization through Subnational Partnerships – The Experience in Sokoto State, Nigeria	Nigeria	Immunization
303	2019	Experiences in New Vaccine Introduction	Global	Immunization
304	2019	Gender Technical Brief	Global	Gender
305	2019	Building Health Facility Autonomy	Global	Child Health
306	2019	Improving the Quality of Preservice Education for Health Service Providers in Nigeria	Nigeria	Human Capacity Development
307	2019	Lessons Learned from an Integrated Approach for Reaching First-time Young Parents in Nigeria	Nigeria	Adolescent Health, Family Planning
308	2019	MCSP Family Planning & Immunization Integration Brief in Malawi	Malawi	Family Planning, Immunization
309	2019	Tanora Mitsinjo Taranaka – Lessons Learned from an Integrated Approach to Increase Use of Health Services by First-Time Young Parents in Madagascar	Madagascar	Maternal Health, Family Planning, Adolescent Health
310	2019	Improving Health Outcomes for Children Under Five In Nigeria	Nigeria	Child Health
311	2019	Institutionalizing Community Health: Ten Critical Principles	Global	Community Health
312	2019	Congenital Zika Syndrome	Global	Zika
313	2019	Learning from Implementation of the Reaching Every Child using Quality Improvement to Strengthen the Routine Immunization System in Uganda	Uganda	Immunization
314	2019	Increasing Coverage of Child Health Interventions in Uganda using the Reaching Every District/Child Approach	Global	Child Health
315	2019	Hubris, Humility, and Humanity – Expanding Evidence Approaches for Improving and Sustaining Community Health Programmes	Global	Community Health
316	2019	How are Gender Inequalities Facing India's One Million ASHAs Being Addressed?	India	Gender

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317	2019	MCSP's Contribution to Critical Policies	Global	Health Systems Strengthening
318	2019	Long-Acting and Permanent Methods Community of Practice – Contraceptive Implants Technical Consultation	Global	Family Planning
319	2019	Long-Acting and Permanent Methods Community of Practice – Technical Meeting	Global	Family Planning
320	2019	Onsite LDHF Training Versus Traditional Offsite Group-Based Training for Maternal and Newborn Health Care Workers in Ebonyi and Kogi States Nigeria	Nigeria	Human Capacity Development
321	2019	MCSP Liberia Restoration of Health Services Project – Family Planning & Immunization Integration Report	Liberia	Family Planning, Immunization
322	2019	Fostering Use of Routine Reproductive, Maternal, Newborn, and Child Health Data at the Point of Care	Global	Measurement, Monitoring, Evaluation, and Learning
323	2019	Monitoring and Evaluation of Evolving Social Accountability Efforts in Health – A Literature Synthesis	Global	Measurement, Monitoring, Evaluation, and Learning
324	2019	The Role of Community Structures in Health Systems in 22 of 25 USAID Priority Maternal and Child Health Countries – A Landscape Analysis of Existing Policies	Global	Community Health, Health Systems Strengthening
325	2019	Establishing Model Referral Networks in Haiti	Haiti	Community Health
326	2019	Implementing a Memorandum of Understanding with Basket Funding to Improve Routine Immunization Systems	Global	Immunization
327	2019	MCSP Engagement in the 2018 Gavi Joint Appraisal and Portfolio Planning Processes	Global	Immunization
328	2019	MCSP Community Based Newborn Care – Newborns in Ethiopia Gaining Attention	Ethiopia	Newborn Health
329	2019	Kintambo Model Training Center	DRC	Human Capacity Development
330	2019	Increased Use of Child Health Services in Bas-Uele and Tshopo Provinces in DRC	DRC	Child Health
331	2019	Utilizing All Health System Contacts to Offer Postpartum Family Planning to Pregnant Women and Women within Twelve Months Postpartum in Ethiopia	Ethiopia	Family Planning
332	2019	Using a Health Facility Scorecard to Monitor and Improve the Coverage of Child Health Interventions in Rural Uganda	Uganda	Child Health
333	2019	Building Family Planning Services in DRC	DRC	Family Planning
334	2019	The "Clean Clinic Approach" for WASH in the Democratic Republic of the Congo	DRC	WASH
335	2019	WASH: Histoire de Réussite	DRC	WASH
336	2019	Nigeria PPFP Dedicated Counselor Initiative – Assessment and Key Results	Nigeria	Family Planning
337	2019	Postpartum Family Planning Indicators for Routine Monitoring in National Health Management Information Systems	Global	Family Planning, Measurement, Monitoring, Evaluation, and Learning

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338	2019	Assessment of Antenatal Care Including Malaria in Pregnancy, in Three Regions of Myanmar	Myanmar	Maternal Health
339	2019	HelloMama – End of Project Report	Global	Digital Health
340	2019	Strengthening Subnational Health Systems Management for Improved RMNCH	Global	Health Systems Strengthening
341	2019	District Leaders' Commitments to Support and Improve Routine Immunization in Uganda	Uganda	Immunization
342	2019	Costing of an Essential Child Health Package in Uganda	Uganda	Child Health
343	2019	Family Planning and Immunization – Integration Working Group	Global	Family Planning, Immunization
344	2019	The Maternal, Infant, and Young Child Nutrition and Family Planning Integration Working Group	Global	Nutrition
345	2019	Strengthening Health Provider Performance for Maternal Newborn Care in Lao PDR Through a Mentoring Approach	Laos	Community Health
346	2019	Provider Perspectives of Monitoring Women's Postpartum Contraceptive Decision-Making and Uptake in Ethiopia	Ethiopia	Family Planning
347	2019	Understanding the Neurodevelopmental Impact of Congenital Zika Virus Exposure	Global	Zika
348	2019	MCSP Zika Response – Therapeutic Early Stimulation and Psychosocial Support	Global	Zika
349	2019	Gender-Based Violence E-Learning Module in Ghana	Ghana	Gender
350	2019	Gender-Based Violence E-Learning Module in Madagascar	Madagascar	Gender
351	2019	Beyond the Building Blocks: Integrating Community Roles into Health Systems Frameworks to Achieve Health for All	Global	Community, Health Systems Strengthening
352	2019	Improving RMNCH Service Readiness and Quality – Summary Findings from an Endline Analyses of the MCSP Rwanda Program	Rwanda	Health Systems Strengthening, Quality
353	2019	Strengthening the Capacity of Communities to Increase Utilization of Postnatal Care Services in Nyaruguru District in Rwanda	Rwanda	Community Health, Newborn Health
354	2019	Geospatial Analysis for Reproductive, Maternal, Newborn, Child and Adolescent Health: Gaps and Opportunities	Global	Measurement, Monitoring, Evaluation, and Learning
355	2019	Best Practices in Availability, Management and Use of Geospatial Data to Guide Reproductive, Maternal, Child and Adolescent Health Programs	Global	Measurement, Monitoring, Evaluation, and Learning
356	2019	Geographic Access to Emergency Obstetric Services: A Model Incorporating Patient Bypassing Using Data from Mozambique	Mozambique	Measurement, Monitoring, Evaluation, and Learning
357	2019	How Accurate are Modelled Birth and Pregnancy Estimates? Comparison of Four Models Using High Resolution Maternal Health Census Data in Southern Mozambique	Mozambique	Measurement, Monitoring, Evaluation, and Learning

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358	2019	Understanding the Relationship Between Family Planning Method Choices and Modern Contraceptive Use – An Analysis of Geographically Linked Population and Health Facilities Data in Haiti	Global	Family Planning
359	2019	Using Geospatial Modeling to Estimate the Prevalence of Adolescent First Births in Nepal	Nepal	Newborn Health
360	2019	Using Spatial Analysis and GIS to Improve Planning and Resource Allocation in a Rural District of Bangladesh	Bangladesh	Measurement, Monitoring, Evaluation, and Learning
361	2019	Proposing Standardized Geographical Indicators of Physical Access to Emergency Obstetric and Newborn Care in Low-Income and Middle Income Countries	Global	Digital Health, Community Health
362	2019	From Paper Maps to Digital Maps: Enhancing Routine Immunization Microplanning in Northern Nigeria	Nigeria	Immunization, Digital Health
363	2019	Using Geospatial Data and Analytics to Guide Reproductive, Maternal, Newborn, Child and Adolescent Health Programs	Global	Maternal Health
364	2019	Cervical Cancer Prevention in Tanzania	Tanzania	Maternal Health, Cervical Cancer
365	2019	Disease Surveillance in Tanzania	Tanzania	Community Health
366	2019	Immunization in Tanzania	Tanzania	Immunization
367	2019	Increasing Immunization Coverage Through Strengthening Comprehensive Council Health Planning (CCHP) in Kagera Tanzania	Tanzania	Immunization
368	2019	Pre-Service Education for Immunization	Global	Human Capacity Development, Immunization
369	2019	Pre-Service Education in Tanzania	Tanzania	Human Capacity Development
370	2019	A National Survey on Care of Possible Serious Bacterial Infection among Sick Young Infants 0-2 Months in Private Sector Medicine Shops and Clinics in Nepal	Nepal	Newborn Health
371	2019	Integrating eLearning in Pre-Service Education in Ghana	Ghana	Human Capacity Development
372	2019	Who are the Real Community Health Workers in Tshopo Province, Democratic Republic of the Congo?	DRC	Community Health
373	2019	Maternal and Child Survival Program Polio Communication Program Summary	Global	Immunization
374	2019	MCSP Uganda Child Health – Baseline Report	Uganda	Child Health
375	2019	Human Capacity Development for Improved Reproductive, Maternal, Newborn, Child, and Adolescent Health	Global	Human Capacity Development
376	2019	Testing the Feasibility of Community IPTp in Burkina Faso	Burkina Faso	Community Health, Malaria

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377	2019	An Assessment of the Status of Kangaroo Mother Care in the Dominican Republic: Findings and Considerations for Sustainability	LAC (Domican Republic)	Newborn Health
378	2019	Supporting Communities to Use Health Data	Global	Measurement, Monitoring, Evaluation, and Learning
379	2019	Usefulness and Challenges in Using WHO's Electronic EPI-IMCI Course for Training Mentors in Zambia	Zambia	Immunization
380	2019	Nigeria Handwashing and Infection Prevention Behavior Compliance Communication Posters	Nigeria	WASH
381	2019	Nigeria WASH and Infection Prevention Control (IPC) Facility Assessment Scorecards	Nigeria	WASH
382	2019	Strengths, Challenges, and Opportunities for RMNCH Financing in Uganda	Uganda	Health Systems Strengthening
383	2019	Improving Nutrition Services in the Care of the Ill and Vulnerable Newborn and Child Workshops Report	Global	Nutrition, Child Health
384	2019	Global Early Childhood Development Materials	Global	Early Childhood Development
385	2019	Zika Trinidad Sub-Award Materials	LAC (Trinidad)	Zika
386	2019	Nutrition Brief – Addressing Barriers to Exclusive Breastfeeding in Nampula, Mozambique: Opportunities to Strengthen Counseling and Use of Job Aids	Mozambique	Nutrition
387	2019	Addressing Barriers to Exclusive Breastfeeding in Nampula, Mozambique: Opportunities to Strengthen Counseling and Use of Job Aids	Mozambique	Nutrition
388	2019	National Community Health Information Systems in Four African Countries	Global	Community Health
389	2019	Financing Reproductive, Maternal, Newborn and Child Health Services in Ghana: Partnerships for Primary Healthcare Models and Reforms	Ghana	Health Systems Strengthening
390	2019	Democratic Republic of Congo Strengthening MOH Institutional Capacity	DRC	Health Systems Strengthening
391	2019	Tool for Assessing Maternal and Perinatal Death Surveillance Processes in Facilities	Global	Measurement, Monitoring, Evaluation, and Learning
392	2019	Questionnaire for Assessing Maternal Perinatal Death Surveillance Processes at the Subnational Level	Global	Measurement, Monitoring, Evaluation, and Learning
393	2019	MCSP Egypt – Improving Maternal, Child Health and Nutrition Project	Egypt	Maternal Health, Child Health, Nutrition
394	2019	MCSP Ethiopia Community Based Newborn Care Project – Barriers and Facilitators for Early Pregnancy Identification, Birth Notification, and Antenatal and Postnatal Visits in Amhara Region	Ethiopia	Community Health, Newborn Health

#	Year	Publication Name	Country/Region	Technical Area
395	2019	MCSP Ethiopia Community Based Newborn Care Project – Do Caretakers of Sick Newborns with Possible Serious Bacterial Infection Referred from Health Post to Health Center Comply with the Referral in Tigray, Amhara, Oromia, and Southern Nations Nationalities, and Peoples' Regions	Ethiopia	Community Health, Newborn Health
396	2019	Nutrition Brief: Experience from Democratic Republic of Congo	DRC	Nutrition
397	2019	MCSP Ethiopia Community Based Newborn Care Project – Endline Survey Report	Ethiopia	Community Health, Newborn Health
398	2019	Communities and Health Extension Workers Provide Care for Low-Birthweight Babies in Amhara and Oromia Regions	Ethiopia	Community Health, Newborn Health
399	2019	Improving Quality of Postnatal Care in the Eastern and Southern Caribbean	LAC	Maternal Health, Newborn Health
400	2019	Updating Rwanda's Health Management Information System	Rwanda	Monitoring and Evaluation
401	2019	Mentoring the Community Health Worker in Rwanda	Rwanda	Community Health
402	2019	Evaluation of the Integrated Community Case Management Strategy in Rwanda Report	Rwanda	Community Health
403	2019	Landscape Analysis of Survive, Thrive, and Transform Interventions for Children	Global	Child Health
404	2019	Baby Friendly Community Initiative (BFCI): Implementation Experience from Kenya	Kenya	Nutrition
405	2019	"Because my Husband and I Have Never Had a Baby Before…" Results and Lessons from Interventions with First-Time Parents in Madagascar, Mozambique, and Nigeria	Africa	Family Planning, Adolescent Health
406	2019	Development of Egypt's National Community Health Worker Strategy: Optimizing a Historical Program for the Future	Egypt	Community Health, Human Capacity Development
407	2019	Mentorship Capacity Building: Sustainable Solutions for Lao PDR	Laos	Human Capacity Development
408	2019	Call to Action: Implementing the Nurturing Care Framework in Ghana	Ghana	Early Childhood Development
409	2019	MCSP Zika Response: Improving Quality of Postnatal Care in the Eastern and Southern Caribbean	LAC	Zika
410	2019	Natural Social Spaces: How Do We Research Social Media and Development Trends, Dynamics, and Impact?	Global	Immunization
411	2019	MCSP Burma's impact on strengthening the health workforce for a better tomorrow: Results from a contribution analysis	Burma	Measurement, Monitoring, Evaluation, and Learning, Human Capacity Development
412	2019	Reflections on Polio Lessons from Conflict-Affected Environments	Global	Immunization
413	2019	Survey Findings on the Scale-Up of Helping Babies Survive in the Latin America and Caribbean Region	LAC	Newborn Health
414	2019	Assessment of the MCSP Technical Assistance Model to Support Zambia's RMNCAHN Continuum of Care Program	Zambia	Health Systems Strengthening

#	Year	Publication Name	Country/Region	Technical Area
415	2019	A Health System Bottleneck Analysis of Care and Feeding of Small and Sick Newborns in Malawi: Findings and Considerations for Nutrition-Newborn Integration	Malawi	Nutrition, Newborn Health
416	2019	MCSP Community Health Contributions Series	Global	Community Health
417	2019	An Analysis of Contributions to Expanding Access to and Uptake of Quality Family Planning Services in Five States of India	India	Family Planning
418	2019	Financial Analysis to Inform the Scale-up and Sustainability of Reproductive, Maternal, Neonatal, and Child Health Interventions and Services	Global	Health Systems Strengthening
419	2019	Maternal Nutrition Operational Guidance Program Considerations for Low- and Middle-Income Countries	Global	Nutrition
420	2019	Zika Pregnancy Wheel	Global	Zika
421	2019	Helping Babies Survive in the Context of Congenital Zika Syndrome in Latin America and the Caribbean	LAC	Zika
422	2019	Situation Analysis of Inpatient Care of Newborns and Young Infants: Rwanda	Rwanda	Newborn
423	2019	Improving Service Readiness and Provider Capacity Summary Findings from the Endline Assessment of the MCSP Madagascar Program	Madagascar	Maternal Health, Newborn Health
424	2019	Revitalizing Access to Permanent Methods: Lessons Learned from MCSP Country Programs	Global	Family Planning
425	2019	What Data on Family Planning Are Included in National Health Management Information Systems?	Global	Family Planning, Measurement, Monitoring, Evaluation, and Learning
426	2019	HIV Index Testing and Partner Services: A Training Course for HIV Testing Providers	Global	HIV
427	2019	Applying the Reaching Every District/Reaching Every Child (RED/REC) approach to strengthen routine immunization in five health districts in Burkina Faso	Burkina Faso	Immunization
428	2019	Maternal and Child Survival Program Expansion of Malaria Services (MCSP/EMS) Liberia	Liberia	Malaria
429	2019	Promotion de l'engagement des hommes dans la santé de leurs familles Amélioration de la communication au sein du couple et du counseling des couples	Togo	Gender, Family Planning
430	2019	Family Planning Compliance Monitoring: Pakistan Technical Brief	Pakistan	Family Planning
431	2019	Building the Capacity of Service Providers in Delivering Sustainable, High-Quality Family Planning Services: Pakistan Technical Brief	Pakistan	Family Planning
432	2019	L'approche centre de santé assaini pour l'eau, l'assainissement et l'hygiène (EAH) en République Démocratique du Congo (DRC)	DR Congo	WASH

#	Year	Publication Name	Country/Region	Technical Area
433	2019	Reaching the Youngest Moms and Dads: A Socio-Ecological View of Actors and Factors Influencing First-time Young Parents' Use of Sexual and Reproductive Health Services in Madagascar	Madagascar	Family Planning, Maternal Health
434	2019	Cost Analysis for Clean Clinic Approach Activities in Guatemala and Implications for Scale-Up	Guatemala	WASH
435	2019	The Maternal and Child Survival Program's Zika Response Activities End-of-Project Report	LAC	Newborn Health, Child Health, Zika
436	2019	Assessment of Antenatal Care Including Malaria in Pregnancy in Three Regions of Myanmar	Burma	Malaria, Maternal Health
437	2019	MCSP Uganda Child Health End of Project Report	Uganda	Child Health, Community Health, Health Systems Strengthening, Immunization, Newborn Health
438	2019	End of Project Report: Uganda Routine Immunization Program	Uganda	Immunization
439	2019	Burkina Faso EOP Report	Burkina Faso	Child Health, Community Health, Immunization
440	2019	Geospatial analysis for reproductive, maternal, newborn, child and adolescent health: gaps and opportunities	Global	Child Health, Maternal Health, Family Planning, Newborn Health, Measurement, Monitoring, Evaluation, & Learning
441	2019	MCSP Nepal End of Project Report	Nepal	Newborn Health
442	2019	Water Sanitation and Hygiene (WASH) for Newborn and Maternal Sepsis Reduction in Nigeria	Nigeria	WASH, Maternal Health, Newborn Health
443	2019	Monitoring Environmental Health in Maternal and Newborn Health Programs In Health Care Facilities	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning, Newborn Health, WASH
444	2019	Alternative training models for strengthening health worker capacity to implement the Integrated Management of Newborn and Childhood Illness (IMNCI) strategy in Uganda	Uganda	Child Health, Health Systems Strengthening, Newborn Health
445	2019	Tools for Improving Quality of Care for Mothers and Newborns: A Review and Gap Analysis of Critical Environmental Conditions	Global	Maternal Health, Newborn Health, WASH
446	2019	Evaluation of Interventions to Improve Reproductive, Maternal, and Newborn Health Service Availability and Readiness in Kogi and Ebonyi States	Nigeria	Maternal Health, Measurement, Monitoring, Evaluation, & Learning, Newborn Health, Family Planning
447	2019	Revitalizing Access to Permanent Methods	Bangladesh, Haiti, India, Nigeria, Rwanda, Tanzania, Togo	Family Planning

#	Year	Publication Name	Country/Region	Technical Area
448	2019	Maternal Nutrition Operational Guidance: Program Considerations for Low- and Middle-Income Countries	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning, Nutrition
449	2019	Ghana Early Childhood Development: Learning Report	Ghana	Child Health, Community Health, Nutrition
450	2019	Addressing Inequities in the Coverage of Reproductive, Maternal, Newborn, and Child Health Interventions and Services: Strengthening Programmatic Approaches to Reach Underserved Women and Children	Global	Child Health, Maternal Health, Newborn Health, Family Planning
451	2019	Strengthening the Coordination of Care and Referral Systems for Reproductive, Maternal, Newborn, Child, and Adolescent Health	Global	Child Health, Maternal Health, Newborn Health, Family Planning
452	2019	Comprehensive Breastfeeding Support and Feeding of Small and Sick Newborns in Low- and Middle-Income Countries: Programmatic Considerations	Global	Newborn Health, Nutrition
453	2019	Our First Baby: Engaging First-Time Mothers and Their Partners in Mozambique	Mozambique	Family Planning, Gender, Maternal Health
454	2019	Enhancing Ownership of the Strategic Health Development Plan II in Ebonyi, Nigeria: Critical Steps in Policy Development	Nigeria	Health Systems Strengthening, Measurement, Monitoring, Evaluation, & Learning
455	2019	Exploring the Adaptation of the RED/REC Approach to Other RMNCH Areas in Haiti, Kenya, and Uganda	Haiti, Kenya, Uganda	Child Health, Community Health, Immunization, Maternal Health, Nutrition, Family Planning
454	2019	Critical principles from USAID's flagship Maternal and Child Survival Program to help countries on their journey to self-reliance	Global	Child Health, Community Health, Gender, Innovations, Maternal Health, Measurement, Monitoring, Evaluation, & Learning, Newborn Health, Nutrition, Family Planning
455	2019	Building Community Health Worker Capacity in Egypt	Egypt	Child Health, Community Health, Maternal Health, Family Planning
456	2019	Male Engagement and Couples Communication in Reproductive, Maternal and Child Health in Nampula and Sofala Provinces of Mozambique	Mozambique	Child Health, Family Planning, Maternal Health, Gender
457	2019	Ghana Early Childhood Development End-of-Project Report	Ghana	Child Health, Nutrition
458	2019	Ghana Early Childhood Development Learning Report Brief: Caregiver, Child, and Community Health Worker Assessment	Ghana	Child Health, Community Health, Nutrition
459	2020	Maternal and perinatal death surveillance and response (MPDSR) Capacity-Building Materials: MDSR module: Facilitator's guide	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning,

#	Year	Publication Name	Country/Region	Technical Area
460	2020	Maternal and perinatal death surveillance and response (MPDSR) Capacity-Building Materials: MDSR module: Learner's guide	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning,
461	2020	Maternal and perinatal death surveillance and response (MPDSR) Capacity-Building Materials: MDSR module: Powerpoints	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning,
462	2020	Maternal and perinatal death surveillance and response (MPDSR) Capacity-Building Materials: MDSR module: Handouts	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning,
463	2020	Maternal and perinatal death surveillance and response (MPDSR) Capacity-Building Materials: MDSR module: Abbreviations	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning,
464	2020	MDSR Capacity Building Materials: Handbook/Manual	Global	Maternal Health, Measurement, Monitoring, Evaluation, & Learning,
465	2020	Method choice Technical Consult meeting report	Global	Family Planning
466	2020	Learning about Learning Experiences in Applying a Global Learning Agenda for a Reproductive, Maternal, Newborn, and Child Health Implementation Support Project	Global	Measurement, Monitoring, Evaluation, & Learning
467	2020	Supporting Country-Led Efforts to Systematically Scale-Up and Sustain Reproductive, Maternal, Newborn, Child and Adolescent Health Interventions Scale-up Coordinator's Guide	Global	Measurement, Monitoring, Evaluation, & Learning
468	2020	Basic Toolkit for Systematic Scale-up	Global	Measurement, Monitoring, Evaluation, & Learning
469	2020	Moving Respectful Maternity Care into Practice in Comprehensive MCSP Maternal and Newborn Programs Operational Guidance	Global	Maternal Health
470	2020	Achieving Respectful Maternity Care for Women, Newborns and Families Flexible Operational Guidance	Global	Maternal Health
471	2020	Assurer des soins de maternité respectueux pour les femmes, les nouveau-nés et les familles Directives opérationnelles flexibles	Global	Maternal Health
472	2020	Syphilis Screening and Treatment for Pregnant Women	Global	Maternal Health
473	2020	Prevention and Management of Chlamydial and Gonorrheal Infections in Pregnancy and Prevention of Newborn Eye Infection	Global	Maternal Health, Newborn Health
474	2020	Module 1: The 2015 Zika Virus Outbreak	Global	Newborn Health
475	2020	Module 2: Care for Women at Risk for Zika Infection	Global	Newborn Health
476	2020	Module 3: Features of Congenital Zika Syndrome in Newborns	Global	Newborn Health
477	2020	Module 4: Evaluating, Testing, and Reporting Cases of Congenital Zika Virus Infection	Global	Newborn Health
478	2020	Impact Modeling Report	Global	Measurement, Monitoring, Evaluation, & Learning

#	Year	Publication Name	Country/Region	Technical Area
479	2020	Nigeria CHX scale-up brief: Supporting Nigeria's Country-led Scale-up of Chlorhexidine for Newborn Sepsis Prevention: Findings from a mixed methods case study	Nigeria	Measurement, Monitoring, Evaluation, & Learning
480	2020	Health for the People: National Community Health Worker Programs from Afghanistan to Zimbabwe	Global	Community Health
481	2020	Understanding gender and quality of care for RMNH services in Rwanda	Rwanda	Gender, Quality
482	2020	Health for the People	Global	Community Health
483	2020	Incorporating the Hormonal Intrauterine System into the Contraceptive Method Mix in the Public Health Sector in Kenya	Kenya	Family Planning
484	2020	Incorporating the Hormonal Intrauterine System into the Contraceptive Method Mix in the Public Health Sector in Zambia	Zambia	Family Planning
485	2020	Strengthening Postpartum Family Planning (PPFP) and Maternal, Infant and Young Child Nutrition (MIYCN) Outcomes in Mara and Kagera, Tanzania	Tanzania	Family Planning
486	2020	Community-Based Family Planning Breaking Barriers to Access and Increasing Choices for Women and Families	Global	Family Planning
487	2020	MCSP EOP Report	Global	All technical areas

Annex 10: List of Field-Funded Tools and Materials Developed*

Jump to Country:

*Document hyperlinks throughout this annex require access to USAID's Development Experience Clearinghouse.

#	Country	Product
1	Burkina Faso	MCSP Burkina Faso Rapid Assessment Report
2	Burkina Faso	Promoting the One Health Approach for Event-Based Surveillance (EBS) in Pouytenga District (English)
3	Burkina Faso	Applying the Reaching Every District/Reaching Every Child (RED/REC) approach to strengthen routine immunization in five health districts in Burkina Faso (English)
4	Burkina Faso	Promoting the One Health Approach for Event-Based Surveillance (EBS) in Pouytenga District (French)
5	Burkina Faso	Applying the Reaching Every District/Reaching Every Child (RED/REC) approach to strengthen routine immunization in five health districts in Burkina Faso (French)
6	Burkina Faso	Burkina Faso End of Project (EOP) Report
7	Burkina Faso	Testing the Feasibility of Community IPTp in Burkina Faso
8	Burma	The feasibility and acceptability of Kangaroo Mother Care in Neonatal Unit, Women and Children Hospital, Taunggyi, Myanmar (Study report and preliminary results brief)
9	Burma	Newborn Health and Survival: The adaptation and implementation of updates newborn guidelines to the Myanmar context
10	Burma	F-IMNCI Case Study Southern Shan State
11	Burma	MCSP Burma: IMNCI Summary Report with success stories
12	Burma	Assessment of Integrated Community Malaria Volunteer (ICMV) Pilot Project
13	Burma	Final report of IMNCI training courses in five selected states and regions, 2016 - 2018
14	Burma	MCSP Burma ICMV Success Stories
15	Burma	Strengthening small baby care at Thanlyin General Hospital through kangaroo mother care MCSP Burma (2014 - 2018)
16	Burma	Assessment of Antenatal Care Including Malaria in Pregnancy, in Three Regions of Myanmar
17	Burma	The adaptation and implementation of updated newborn guidelines to the Myanmar context (brief)
18	DRC	Supporting the scale up efforts at national level for iCCM and child health services in DRC. This is part of a larger scale up activity at MCSP focused on four countries (DRC, Nigeria, Rwanda and Mozambique).
19	DRC	Manuscript: "Who are the real community health workers in Tshopo Province, Democratic Republic of Congo?" Careseeking behaviors and the role of traditional healers at MCSP provincial level.
20	DRC	Approaches for Successful Scale-Up of iCCM in the DRC. Also including practical application at sub-national level.
21	DRC	Infographic: outlining the methodology and results from tracking additional coverage and quality for iCCM services
22	DRC	Infographic: outlining the methodology and results from tracking additional coverage and quality for iCCM services
23	DRC	Success Story: Obj 3 child health services
24	DRC	Technical Policy Brief: Capacity strengthening of Ministry of Health divisions and programs to accelerate scale up and improve quality of evidence-based RMNCH interventions

#	Country	Product
25	DRC	Technical Brief: How training, community promotion and distribution and greater contraceptive choice are changing contraceptive prevalence in MCSP-supported health zones
26	DRC	Success Story: How contraceptive choice and community promotion and distribution are leading to increased contraceptive prevalence in MCSP-supported health zones
27	DRC	Success Story: Institutional and technical strengthening of Congolese professional health associations
28	DRC	Report: Strengthening Nutrition in the Integrated Community Case Management of Childhood Illness inthe Democratic Republic of the Congo: Qualitative Research Report
29	DRC	Nutrition Brief: Will highlight preliminary nutrition outcomes at provincial level, showcasing an evidence-based approach and the role of traditional healers in improving nutrition practices in MCSP-supported health zones
30	DRC	Case Study: Clean Clinic Approach (CCA) process (WASH)
31	DRC	CCA Video: WASH Documentary /Documentaire WASH
32	DRC	CCA Video: Management / Gestion
33	DRC	CCA Video: Community Engagement / Implication de la communaute
34	DRC	CCA Video: WASH Impact / Impact WASH
35	DRC	CCA Video: Lavage des Mains Corriger
36	DRC	Infographic: WASH Histoire de Reussite
37	DRC	DRC Program Summary Video (showed at Kinshasa Close Out Event)
38	DRC	"Who are the real community health workers in Tshopo Province, Democratic Republic of Congo?" Careseeking behaviors and the role of traditional healers at MCSP provincial level.
39	DRC	Outlining the methodology and results from tracking additional coverage and quality for iCCM services
40	DRC	Success Story: Bringing child health care services to the other side of the river at the Yatuto Community Care Site
41	DRC	How contraceptive choice and community promotion and distribution are leading to increased contraceptive prevalence in MCSP-supported health zones
42	DRC	Institutional and technical strengthening of Congolese professional health associations
43	DRC	Capacity strengthening of Ministry of Health divisions and programs to accelerate scale up and improve quality of evidence-based RMNCH interventions
44	DRC	How training, community promotion and distribution and greater contraceptive choice are changing contraceptive prevalence in MCSP-supported health zones
45	DRC	Kintambo Hospital's Model RMNH Training Center. Case study will describe the tools and approaches used (i.e.: competency-based training modules, simulation with mannequins, monitoring and evaluation indicators, peer-to-peer supervision and learning, competency assessment, etc.) to set up the training center, build the capacity of trainers and the maternal, newborn and post-partum family planning service providers they train.

#	Country	Product
46	DRC	Clean Clinic Approach (CCA) process (WASH)
47	DRC	Strengthening Nutrition in the Integrated Community Case Management of Childhood Illness in the Democratic Republic of the Congo: Qualitative Research Report
48	DRC	Written for the MCSP special issue Maternal and Child Nutrition Journal supplement: Strengthening nutrition services within integrated community case management (iCCM) of childhood illnesses in the Democratic Republic of Congo: Evidence to guide implementation.
49	DRC	Nutrition Brief: Experience from Democratic Republic of Congo - Strengthening integration of nutrition and iCCM
50	DRC	IYCF Counseling Cards
51	DRC	Short Protocol KMC
52	DRC	Protocole SMOK Maternite de Kintambo
53	DRC	Outil de supervision post-formation_SMN PF
54	DRC	Rapport du 8e congres de la SOPECOD
55	DRC	Document des stratégies de mobilisation des ressources de la SOPECOD
56	DRC	OUTIL D'APPROPRIATION DU PLAN STRATÉGIQUE DE LA SOPECOD 2018-2013
57	DRC	Plan de formation continue
58	DRC	PMO C8 Final
59	DRC	Rapport de Mission Goma
60	DRC	Rapport Final SOPECOD
61	DRC	DO ONIC_Final Rapport
62	DRC	ONIC_Rapport Mission Kisangani
63	DRC	Ameliorer l'acces aux services de PF pour les communautes rurales mal desservies en RDC:
64	DRC	HCD Concept Note
65	DRC	SBC Poster
66	DRC	Rapport d'analyse préliminaire CMF
67	DRC	Rapport de mission de suivi post formation PF Buta
68	DRC	WASH Documentary
69	DRC	Video: Management Gestion
70	DRC	Video: Community Engagement
71	DRC	Video: WASH Impact
72	DRC	Video: Lavage des Mains Corriger

#	Country	Product
73	DRC	Infographic: WASH Historie de Reussite
74	DRC	DRC Program Summary Video
75	DRC	Maternal and Child Survival Program End of Project Report, DRC
76	DRC	DRC End of Program Report
77	DRC	Technical Brief: Building Family Planning Servcies in DRC (English)
78	DRC	Technical Brief: Building Family Planning Servcies in DRC (French)
79	Egypt	MCSP Egypt Improving Maternal, Child Health and Nutrition (IMCHN) End of Project Report
80	Egypt	MCSP Egypt Assessment report
81	Egypt	Raedat Refiat Program Strategy brief
82	Egypt	Development of Egypt's National Community Health Worker Strategy: Optimizing a Historical Program for the Future
83	Egypt	RR training manual in operational guidelines (participant guide)
84	Egypt	RR training manual in reproductive health (participant guide)
85	Egypt	RR training manual in newborn and child health (participant guide)
86	Egypt	RR training manual in nutrition (participant guide)
87	Egypt	RR training manual in communicable and non-communicable diseases (participant guide)
88	Egypt	RR training module in operational guidelines (trainer guide)
89	Egypt	RR training module in newborn and child health (trainer guide)
90	Egypt	RR training module in nutrition (trainer guide)
91	Egypt	RR training module in communicable and non-communicable diseases (trainer guide)
92	Egypt	Raedat Refiat talking point booklet in reproductive health
93	Egypt	Raedat Refiat talking point booklet in newborn and child health
94	Egypt	Raedat Refiat talking point booklet in nutrition
95	Egypt	Raedat Refiat talking point booklet in communicable and non-communicable diseases
96	Egypt	Basic computer skills training manual
97	Egypt	HMIS user manual
98	Egypt	LDHF adaptation brief: Building Community Health Worker Capacity in Egypt
99	Ethiopia	MCSP Baseline Assessment Report
100	Ethiopia	Evaluation of the Effects of Standards-Based Management and Recognition (SBM-R) Intervention on the Quality of Maternal and Newborn Health Care Services in Ethiopia

#	Country	Product
101	Ethiopia	MCSP Baseline Assessment Report
102	Ethiopia	Report on the Installation of We Care Solar Suitcases in Oromia Region
103	Ethiopia	MCSP and IFHP Collaboration for Strengthening BEmONC in Ethiopia
104	Ethiopia	The Effectiveness of a Blended Learning Approach for Basic Emergency Obstetric and Newborn Care Training in Ethiopia
105	Ethiopia	Mistreatment of Women in Public Health Facilities of Ethiopia
106	Ethiopia	Onsite Training Approach a Means to Improve PPFP-PPIUCD Service Uptake: Experience from Three Hospitals in Ethiopia
107	Ethiopia	Active Audit and Feedback Intervention to Increase Use of Magnesium Sulfate and Anti-Hypertensive Therapy among Women with Severe Pre-eclampsia and Eclampsia in Public Referral Hospitals in Ethiopia
108	Ethiopia	Is Fertility a desire of people living with HIV Rising in Ethiopia?
109	Ethiopia	Safe Child Birth Checklist
110	Ethiopia	Maternal and Newborn Care QI and Assessment Tool for Health Centers
111	Ethiopia	Video: A mother deserves a compassionate, respectful and caring service
112	Ethiopia	In Ethiopia, RMC is Increasing Facility Births
113	Ethiopia	Possible FP compliance Issues at St Pauls' Hospital
114	Ethiopia	List of RMNCH research priorities
115	Ethiopia	S-BEmONC end of project Performance Monitoring Plan
116	Ethiopia	The S-BEmONC Project end of project booklet
117	Ethiopia	A Blended Learning Approach for Basic Emergency Obstetric and Newborn Care (BEmONC) Training in Ethiopia
118	Ethiopia	Mistreatment of Women in Public Health Facilities of Ethiopia
119	Ethiopia	Active Audit and Feedback Intervention to Increase Use of Magnesium Sulfate and Anti-Hypertensive Therapy among Women with Severe Pre-eclampsia and Eclampsia in Public Referral Hospitals in Ethiopia
120	Ethiopia	CBNC NEGA Baseline Report
121	Ethiopia	Faith Based Leaders Mobilizing Communities to Save Lives of Mothers and Newborns - Synthesis Report
122	Ethiopia	Research Brief: Barriers and facilitators for early pregnancy identification, birth notification, and antenatal and postnatal visits in Amhara National Regional State, Ethiopia
123	Ethiopia	Research Brief: Communities and health extension workers provide care for low birth weight babies in Amhara and Oromia regions
124	Ethiopia	Research Brief: Do Caretakers of Sick Newborns with Possible Serious Bacterial Infection (PSBI) referred from health post to health center comply with the referral?
125	Ethiopia	Routine Data Quality Assessment: Findings from selected MCSP/ NEGA implementation woredas, Ethiopia
126	Ethiopia	Community Based Newborn Care (CBNC)- Newborns in Ethiopia Gaining Attention (NEGA) - Technical and Performance Brief

#	Country	Product
127	Ethiopia	Success Story: Faith leaders play a role in preventing maternal and newborn deaths
128	Ethiopia	Success story: MCSP Ethiopia CBNC NEGA program strengthens Kebele Command poss in the Arsi Zone of Ethiopia
129	Ethiopia	MCSP Ethiopia CBNC: Do Caretakers of Sick Newborns with Possible Serious Bacterial Infection (PSBI) referred from health post to health center comply with the referral?
130	Ethiopia	Research report: Barriers and facilitators for early pregnancy identification, birth notification, and antenatal and postnatal visits in Amhara National Regional State, Ethiopia
131	Ethiopia	Research Report: Communities and health extension workers provide care for low birth weight babies in Amhara and Oromia regions
132	Ethiopia	Community- Based Care in Ethiopia :Implementing a Demand Creation Strategy for Improved Maternal, Newborn and Child health outcomes
133	Ethiopia	MCSP Ethiopia Community Based Newborn Care (CBNC) - Endline Survey Report
134	Ethiopia	Maternal and Child Survival Program Community Based Newborn Care- Newborns in Ethiopia Gaining Attention, October 2014- February 2019
135	Ethiopia	Research Brief: Communities and Health Extension Workers provide care for Low- Birthweight Babies in Amhara and Oromia Regions
136	Ethiopia	Research Brief: Barriers and facilitators for early pregnancy identification, birth notification, and antenatal and postnatal visits in Amhara National Regional State, Ethiopia
137	Ghana	Call to Action
138	Ghana	ECD Learning Report
139	Ghana	EDC Program Brief
140	Ghana	Ghana Early Childhood Development Toolkit: Ages 0-3 Years: Community Health Workers' Manual for Parent/Caregiver Sessions
141	Ghana	Ghana Early Childhood Development Toolkit: Ages 0-3 Years: Flip chart for community health workers
142	Ghana	Ghana Early Childhood Development Toolkit: Ages 0-3 Years: Training of Trainers Guide
143	Ghana	IPC Success Story
144	Ghana	MCSP IPC Learning Brief
145	Ghana	Ghana IPC EOP Report
146	Ghana	USAID's Maternal and Child Survival Program, Ghana: End-of-Project Report
147	Ghana	Financing Reproductive, Maternal, Newborn and Child Health Services in Ghana: Partnerships for Primary Healthcare Models and Reforms
148	Ghana	Strengthening Community-Based Health Planning and Services in Ghana: Fixed Amount Awards Implementation and Outcomes
149	Ghana	Ghana Midwifery and Nursing Workforce Infographic
150	Ghana	Assessing Ghanaian Health Care Workers' Practice through Task Analysis
151	Ghana	Community-based Health Planning and Services (CHPS) in Ghana – Formative Research to Adapt the CHPS Model to Urban Settings
152	Ghana	Skills Laboratories in Midwifery and Nursing Training Colleges: Improving Pre-Service Education in Ghana

#	Country	Product
153	Ghana	Community Mobilization and Home Visits: Key Pillars of the Community-Based Health Planning and Services (CHPS) Program in Ghana
154	Guatemala	Mentoría para el desarrollo de las capacidades humanas: Principios para su implementación y orientación
155	Guatemala	Plan de acción para finalizar el documento normativo de la Iniciativa Comunidad Amiga de la Lactancia Materna en Guatemala
156	Guatemala	Retardo en el crecimiento infantil en Guatemala Priorizando el Crecimiento y Desarrollo Infantil en la Agenda Política Municipal del Altiplano Occidental
157	Guatemala	Importancia de la nutrición y el desarrollo: El panorama en Guatemala
158	Guatemala	Retardo En El Crecimiento En Guatemala
159	Guatemala	ABORDAJE DE MOVILIZACIÓN COMUNITARIA "Comunidades y Servicios de Salud definiendo y mejorando la calidad de provisión de servicios de Salud y Nutrición" : Guia Operativa Para El Facilitador
160	Guinea	Guinea Health Systems Strengthening End of Project EOP
161	Guinea	National infection prevention and control (IPC) program in Guinea
162	Guinea	National infection prevention and control (IPC) policy in Guinea
163	Guinea	IPC Norms and procedures
164	Guinea	IPC Monitoring and Evaluation Framework
165	Guinea	Guide for Developing Operational Action Plans for Healthcare Facilities
166	Guinea	Guide for Developing Operational Action Plans for Administrative Entities
167	Guinea	Waste Management and IPC
168	Guinea	Advocacy letter to MOH for the sustainability of IPC achievements
169	Guinea	Orientation to the Comprehensive Approach
170	Guinea	HSS in Guinea through the Comprehensive Approach (one-pager)
171	Guinea	Utilization guide for CA (AIGSS) materials
172	Guinea	Comprehensive Approach Workshop Slides
173	Guinea	Rapid Analysis of the Health System
174	Guinea	Brief: Comprehensive approach for the management of the health system
175	Guinea	MCSP Guinea RHS EOP Report
176	Guinea	ABA ROLI Manuel de para-juriste
177	Guinea	Formation des Prestataires des soins de sante dans la prise en charge des survivants/victimes des GBV
178	Guinea	Formation des Educateurs Communautaires pour la prévention et la Lutte contre les Violences Basées sur le Genre (VBG)
179	Guinea	Analyse de la situation des violences basées sur le genre (VBG) en République de Guinée

#	Country	Product
180	Guinea	Manuel de Référence pour la prévention et la Lutte contre les Violences Basées sur le Genre (VBG)
181	Guinea	PLAN DE SESSION DE FORMATION SUR LES VBG
182	Guinea	Cahier de l'Educateurs Communautaires pour la prévention et la Lutte contre les Violences Basées sur le Genre (VBG)
183	Guinea	Cahier des prestataires des soins pour la prévention et la Lutte contre les Violences Basées sur le Genre (VBG)
184	Guinea	MCSP Guinea RMNCH GBV End of Project Report
185	Guinea	MCSP Guinea Ebola Response Plan I EOP Report
186	Guinea	Standards_Performance_PCI_Hopital et CS
187	Guinea	IPC Learner's Manual
188	Guinea	IPC Facilitator's Guide
189	Guinea	IPC Learner's Manual: Data evaluation sheet
190	Guinea	Performance Standards for IPC
191	Haiti	Success Story: Building Healthy Communities
192	Haiti	Success Story: Ciné Mobile: films for healthy behavior change
193	Haiti	Haiti social marketing end of project report, April 2014-September 2015
194	Haiti	MCSP SSQH Fact Sheet
195	Haiti	Josiane's dedication demonstrates community health workers' crucial role in preventing Zika Virus disease
196	Haiti	Mobilizing Mothers to Improve Child Nutrition in Savanna Longue, Haiti
197	Haiti	Haiti Border town providers much needed family planning methods through mobile clinics
198	Haiti	SSQH Program Brief: Family Planning
199	Haiti	SSQH Program Brief: Government
200	Haiti	SSQH Program Brief: HIV
201	Haiti	SSQH Program Brief: MNH
202	Haiti	SSQH Program Study: NTC
203	Haiti	SSQH Program Brief: MRN
204	India	A New Generation of Indian Men Take Up Family Planning
205	India	The Heart of Family Planning Method Acceptance - Effective Counseling
206	India	A Wider Basket Gives Wider Wings to Women in India
207	India	Going the Extra Mile - Ensuring Continuum of Care
208	India	Finding simple solutions to improve scheduling of clients for female sterilization services

#	Country	Product
209	India	Finding a friend in a card
210	India	Ishwari's Path - A Story of Personal Evolution through Community Empowerment
211	India	Enabling Access to Family Planning Methods - An MSCP Promise
212	India	MCSP conducts its first District Orientation workshop in Nagaon, Assam
213	India	FP2020 expert group consultation with the GoI held in New Delhi
214	India	MCSP holds the first training on Oral Contraceptives in Bilaspur, Chhattisgarh
215	India	Towards ensuring quality in Family Planning services—a provider from India's coastal state shares his experience
216	India	Jayanti Laghuri - A Champion Community Health Worker Saving Lives in Tribal Odisha
217	India	Rekha's Strive to Empower Women with Family Planning
218	India	Opting for POP
219	India	Adolescent Health Day
220	India	Advocacy Brief- Adolescent Contraception
221	India	Advocacy Brief-Addressing Adolescent Mental Health needs
222	India	Advocacy Brief-Engaging with Boys, Men and Parents
223	India	Landscape Document-Adolescent Health
224	India	Technical Document-Menstrual Hygiene Management
225	India	Certificate Course Process Documentation
226	India	Community Mobilization Strategy
227	India	HWC Process Documentation
228	India	An Analysis of Contributions to Expanding Access to and Uptake of Quality Family Planning Services in Five States of India
229	India	Gender-Sensitive and Respectful Family Planning Service Delivery
230	India	Early Lessons from Implementing Clinical Safety Checklist (CSC) for Voluntary Female Sterilization in India
231	India	Expanding and Strengthening the Public Sector Contraceptive Basket with Progestin-Only Pills in India
232	India	Modern Methods of Contraception in India-The Potential of Progestin-Only Pills and Centchroman
233	India	Long Acting Reversible Contraception-The Promise of Contraceptive Implants
234	India	Increasing Access to Injectable-Contraceptives in India-The Road Ahead
235	India	MCSP State Factsheet, Assam (Family Planning)
236	India	MCSP State Factsheet, Chhattisgarh (Family Planning)
237	India	MCSP State Factsheet, Maharashtra (Family Planning)

#	Country	Product
238	India	MCSP State Factsheet, Odisha (Family Planning)
239	India	MCSP State Factsheet, Telangana (Family Planning)
240	India	MCSP State Factsheet, Chhattisgarh (Health and Wellness Centres)
241	India	MCSP State Factsheet, Jharkhand (Health and Wellness Centres)
242	India	MCSP State Factsheet, Madhya Pradesh (Health and Wellness Centres)
243	India	MCSP State Factsheet, Manipur (Health and Wellness Centres)
244	India	MCSP State Factsheet, Meghalaya (Health and Wellness Centres)
245	India	MCSP State Factsheet, Mizoram (Health and Wellness Centres)
246	India	MCSP State Factsheet, Nagaland (Health and Wellness Centres)
247	India	MCSP State Factsheet, Odisha (Health and Wellness Centres)
248	India	MCSP State Factsheet, Sikkim (Health and Wellness Centres)
249	India	MCSP State Factsheet, Tripura (Health and Wellness Centres)
250	India	Operationalization of Health and Wellness Centers
251	India	Health and Wellness Centers
252	India	Certificate Course in Community Health
253	India	MCSP India Brochure
254	India	MCSP India-Family Planning (FP) Brochure
255	India	Innovative use of mobile-based technology to strengthen quality and respectful care in family planning
256	India	Poster - Clinical Safety Checklist for Female Sterilization
257	India	Do You Know Your Family Planning Choices
258	India	Streamlining services for Female Sterilization
260	India	Poster-Management of Missing Pills
261	India	Drugs for Providing Sedation, Analgesia and Anesthesia in Minilap Tubectomy
262	India	Client card for Female Sterilization
263	India	Clinical Safety Checklist for Female Sterilization
264	India	Tool for Assessment of Quality of Postpartum Sterilization Service Provision
265	India	Managers Checklist For Ensuring Smooth Roll-Out Of Sterilization Services
266	India	Questionnaire for Telephonic Follow-up of POP and Centchroman under MCSP
267	India	Performance Standards for Quality Family Planning Services

#	Country	Product
268	India	Tool for Supportive Supervision Visit
269	India	Frequently Asked Questions about Centchroman
270	India	Frequently Asked Questions about Progestin Only Pills (POPs)
271	India	Algorithm for Follow-up of Clients Taking Centchroman
272	India	Protocol for Follow-up of Female Sterilization Clients (by Mitanin/ANM/Medical Officer)
273	India	Algorithm for Follow-up of Clients Taking POP
274	India	Key Information about Minilap
275	India	Pregnancy Checklist
276	India	Standard Operating Procedure (SOP) for Client Card
277	India	Standard Operating Procedure (SOP) for Clinical Safety Checklist
278	India	Time of Initiation of Postpartum Family Planning Methods
279	India	Community Health Officer - A key link to healthy communities
280	India	Sunil Kumar Banerjee gets access to healthcare right at his doorstep!
281	India	In Learning One Teaches, and in Teaching One Learns
282	India	Healthier Families, Stronger Communities, Resilient Countries
283	India	Leveraging Funds for a Healthy and Resilient Chhattisgarh!
284	India	Nurturing Future Community Health Leaders to Deliver Comprehensive Primary Healthcare
285	India	Creating an Engaging Environment at Health Facilities
286	India	Wellness: The True Benchmark of a Healthy Community
287	India	Women of Change Transforming the Face of Public Health Delivery
288	India	Family Planning: The armour of a strong economy
289	India	Leveraging Existing Platforms to Reach the Unreached
290	India	Goal and Objectives of Training of Providers on Oral Contraceptives
291	India	Expanding Choices for Oral Contraceptives in National Family Planning Program
292	India	A Quick Review of Physiology of Menstruation and How Reproduction Occurs
293	India	Technical Update on COCs, POPs, and ECP (Hormonal Oral Contraceptives)
294	India	Technical Update on POPs
295	India	Technical Update on Emergency Contraceptive Pill (ECP)
296	India	Technical Update on Centchroman (Non-hormonal Oral Contraceptive)

#	Country	Product
297	India	MEC for Oral Contraceptives
299	India	Counselling for Family Planning and Oral contraceptives (COCs, POPs, ECPs and Centchroman)
300	India	Helping continuing users of oral contraceptives (COCs, POPs, ECP and Centchroman)
301	India	Recap of Day 1
302	India	Exercise for Combined Oral Contraceptives (COCs)
303	India	Exercise for Emergency Contraceptive Pill (ECP)
304	India	Exercise for Progestin-only-pills (POPs)
305	India	Exercise for Combined Oral Contraceptives (COCs)
306	India	Exercise for Progestin-only-pills (POPs)
307	India	Exercise for Emergency Contraceptive Pill (ECP)
308	India	Agenda of Training on Oral Contraceptives
309	India	Course Outline
310	India	Evaluation of Training
311	India	Pre/Post-Test Questionnaire for Oral Contraceptive Pills (OCPs) Answer-key
312	India	Pre/Post-Test Questionnaire for Oral Contraceptive Pills (OCPs)
313	India	POPs
314	India	Role-play situations
315	India	Training Goal and Learning Objectives for Oral Contraceptives
316	India	Giving Additional Choice to Women on Injectable Contraceptive
317	India	Program Management Information System (PMIS)
318	India	Listing and Mapping Slums and Vulnerable Populations
319	India	TCIHC Relocation of UPHCs
320	India	TCIHC Findings From Output Tracking Survey (OTS) Round 1
321	India	Convergence for Improved Plan of Action, Gwalior - TCIHC
322	India	TCIHC Referral Mechanism Implementation Guide
323	India	Technical Brief: Referral Mechanism - TCIHC
324	India	Factsheet: Referral Mechanism - TCIHC
325	India	High Impact Approach: Improving Urban Primary Health Center Readiness - TCIHC
326	India	Technical Brief: Urban Primary Health Center Readiness - TCIHC

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327	India	High Impact Approach: Integrated Paediatric Unit - TCIHC
328	India	Technical Brief: Integrated Paediatric Unit - TCIHC
329	India	Infographic: Convergence of Services - TCIHC
330	India	City Health Plan Tool - TCIHC
331	India	India The Challenge Initiative for Healthy Cities End of Project Report
332	India	Facilitators' Guide for ASHAs' /Mitanins' Training on Health Messages related to Family Planning and Supporting FP Clients
333	India	Learning Resource Package: Training of ICTC Counsellors on Family Planning Counselling
334	India	Learning Resource Package: Family Planning Counselling
335	India	Learning Resource Package: Standardization Workshop on Minilap Sterilization
336	India	Learning Resource Package: Refresher Training cum ToT on Minilap Sterilization
337	India	Monthly Progress Report – Family planning services
338	India	Counselling Register for Family Planning Services
339	India	Facility Level Register to Document Acceptance of Oral Contraceptive Pills
340	India	Sterilization Service Delivery and Follow-up Register
341	India	Reaching the Last Mile with Health and Wellness
342	India	Internal Branding Package for Health and Wellness Centres-Ayushman Bharat
343	India	Internal Branding Package for Program Study Centers
344	India	Six-Month Continuation Rates of Progestin-Only Pills and Centchroman as Family Planning Methods Among New Users
345	India	Effects of quality improvement interventions on provider adherence to key practices during female sterilization services
346	Indonesia	EMAS Journal Supplement
347	Indonesia	Presentation on EMAS Results
348	Indonesia	Banten II Paper 1: MMR Determinants
349	Indonesia	Banten II Paper 2: MMR Reporting
350	Indonesia	Banten II Paper 3: RAPID
351	Indonesia	Banten II Paper 4: Neonatal
352	Indonesia	Banten II Study Results
353	Indonesia	Evidence Summit Executive Summary
354	Indonesia	EMAS Infographic
355	Indonesia	Evidence Summit success story

#	Country	Product
356	Kenya	Baby Friendly Community Initiative(BFCI) Implementation Guidelines
357	Kenya	Baby Friendly Community Initiative (BFCI) External Assessment Protocols
358	Kenya	Barriers to Maternal Iron-Folic Acid Supplementation and Compliance in Kisumu and Migori
359	Kenya	A Counseling Guide for Complementary Feeding for Children 6-23 Months in Kisumu and Migori, Kenya
360	Kenya	National Policy on Maternal, Infant and Young Child Nutrition (Poster)
361	Kenya	Recipes for complementary feeding children 6 - 23 months of Age in Kisumu and Migori counties
362	Kenya	Decontamination of Cups (Job Aid)
363	Kenya	Chlorine solution preparation (Poster)
364	Kenya	National Guidelines for the Diagnosis, Treatment and Prevention of Malaria in Kenya (5th version)
365	Kenya	Kenya Malaria Indicator Survey 2015
366	Kenya	Provision of MIP circular
367	Kenya	Migori iCCM Implementation Plan
368	Kenya	Report of Rapid Assessment of Devices Used to Measure Respiratory Rate and Compliance to Pneumonia Guidelines in Children Under Five Years in Migori and Kisumu Counties, 2017
369	Kenya	Feasibility Study for implementation of ICCM In Bondo-Leveraging Health Systems
370	Kenya	Management of Diarrhea in Children Below 5 Years (Poster or Job Aid)
371	Kenya	Bring your child to the health facility if... (Poster or Job Aid)
372	Kenya	MOH ORT Corner Components (Poster or Job Aid)
373	Kenya	Sick Child Recording Form
374	Kenya	LNG - IUS Learner's Workbook
375	Kenya	LNG - IUS Facilitator's Guide
376	Kenya	LNG - IUS Mentee Logbook
377	Kenya	EmONC Signal Functions (Poster)
378	Kenya	Danger signs during pregnancy (Poster)
379	Kenya	Apgar Scoring System (Poster)
380	Kenya	Vacuum Extraction (Poster)
381	Kenya	Pathway for Opportunities for Postpartum Women to Adopt Family Planning (Job Aid)
382	Kenya	A guideline for the use of Chlorhexidine for newborn umbilical cord care in Kenya
383	Kenya	Integrating Reproductive Health and HIV Care and Treatment Services, A Toolkit For Service Providers

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384	Kenya	Kangaroo Mother Care: Clinical Implementation Guidelines 2016
385	Kenya	Scaling Up Effective Interventions in Maternal and Newborn Health, Reducing Maternal and Neonatal in Kenya, An Implementation Plan for the period 2016 - 2018
386	Kenya	National Guidelines for Maternal & Perinatal Death Surveillance and Response 2016
387	Kenya	IPV Introduction Guide
388	Kenya	Guideline for Measles-Rubella Vaccination
389	Kenya	Study on Urban Immunization in Kisumu County
390	Kenya	Evaluation of the Initiative to Strengthen Nurses' Expanded Program on Immunization Pre-Service Training in Kenya
391	Laos	Maternal and Child Survival Program Mentorship Capacity Building: Sustainable Solutions for Lao PDR
392	Laos	Building Human Capacity through Peer Mentorship in Lao PDR: MCSP Lao PDR Case Study
393	Liberia	MCSP Liberia Human Resources for Health Action Framework
394	Liberia	Licensure Process for Medical Laboratory Technology Practitioners in Liberia
395	Liberia	Pre-Service Education Standards for Medical Laboratory Technician Programs
396	Liberia	Faculty Development Program Syllabus and Schedule
397	Liberia	Improving Clinical Practice Sites through a Low-Dose, High-Frequency Training Approach
398	Liberia	Improving Teaching Practices for Pre-Service Education in Liberia Case Study
399	Liberia	Strengthening Human Resources for Health Policies for Pre-Service Education in Liberia
400	Liberia	Strengthening Pre-Service Education in Liberia: A Systems Approach
401	Liberia	MCSP Liberia HRH Endline Report
402	Liberia	Developing Systems to Manage Health Workforce Pre-Service Academic Records
403	Liberia	MCSP Liberia Human Resources for Health End-of-Project Report
404	Liberia	Expansion of Malaria Services End of Project Report
405	Liberia	Liberia Restoration of Health Services Project Midline Clinical Standards Assessment Report
406	Liberia	MCSP Liberia: Restoration of Health Services Midline Assessment Findings - In Brief
407	Liberia	Restoration of Health Services Endline Assessment Report
408	Liberia	Restoration of Health Services Endline Assessment Report Brief
409	Liberia	Improving Adolescent Sexual and Reproductive Health Care Services in Liberia
410	Liberia	Improving the Use of High-Quality Data for Improved Health Services in Liberia
411	Liberia	Institutionalizing IMNCI at the Health Facility Level in Liberia

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412	Liberia	Improving Infection Prevention and Control in Liberian Health Facilities
413	Liberia	Scaling Up Chlorhexidine Cord Care for Newborns in Liberia
414	Liberia	Red Card/Blue Card Strategy for Improved Facility Readiness in Nimba, Liberia
415	Liberia	Facility Level CHX Cord Care Orientation
416	Liberia	County Level CHX Cord Care Orientation
417	Liberia	Enhanced Human Capacity for Health Care Service Delivery in Liberia
418	Liberia	Infrastructure Training Package
419	Liberia	IMNCI Case Reporting Forms
420	Liberia	IMNCI Training Package
421	Liberia	Guidance on QUARTERLY Integrated RMNCAH REVIEW MEETING
422	Liberia	Maternal and Newborn Death Surveillance and Response Facility Level Orientation Materials
423	Liberia	Managing Obstetric Hemorrhage Using Non-Pneumatic Anti-shock Garment (NASG) Training
424	Liberia	Sexual and Gender Based Violence Training
425	Liberia	End of Project Report
426	Madagascar	Madagascar Success Story
427	Madagascar	Infographic
428	Madagascar	MCSP Activities in the Analamanga Region – Regional Brochure
429	Madagascar	MCSP Activities in the Vakinakara Tra Region – Regional Brochure
430	Madagascar	PMI Malaria JP
431	Madagascar	GMNHC Presentation-Eliane
432	Madagascar	FTP Concept Note
433	Madagascar	Dr. Bakoly FP Conference Presentation
434	Madagascar	Jean Pierre FP Conference Presentation
435	Madagascar	Haingo FP Conference Presentation
436	Madagascar	Koki FP Conference Presentation
437	Madagascar	FIGO Conference Presentation
438	Madagascar	Melanie Yahner ASRH Exec Summary PDF
439	Madagascar	ASRH Brief
440	Madagascar	ASRH Final Report

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441	Madagascar	ASRH Final Report
442	Madagascar	PPFP Brief
443	Madagascar	CG/QI Brief
444	Madagascar	Digital Health Brief
445	Malawi	MCSP Malawi Immunization Technical Brief
446	Malawi	MCSP Malawi FP-Immunization Technical Brief
447	Malawi	MCSP Malawi Nutrition Technical Brief
448	Malawi	MCSP Malawi Program Achievements Brief
449	Malawi	MCSP Malawi Immunization Slide Deck
450	Malawi	MCSP Malawi FP-Immunization Slide Deck
451	Malawi	MCSP Malawi Nutrition Slide Deck
452	Malawi	MCSP Malawi Documentation of REC
453	Malawi	MCSP Malawi REC Guidelines
454	Malawi	MCSP Malawi MVMH Tool
455	Malawi	MCSP Malawi Static Tally Sheet
456	Malawi	MCSP Malawi Outreach Tally Sheet
457	Malawi	MCSP Malawi MVMH Poster
458	Malawi	MCSP Malawi MVMH Brief
459	Malawi	MCSP Malawi Guidelines for Tracking and Monitoring the Immunization Status of Infants in Malawi
460	Malawi	MCSP Malawi Immunization Coverage Baseline Cluster Survey in Dowa and Ntchisi Districts
461	Malawi	MCSP Malawi Article - Vaccination coverage and timely vaccination with valid doses in Malawi
462	Malawi	MCSP Malawi Article - Immunization training needs in Malawi
463	Malawi	Report on the Endline Immunization Coverage Survey in Dowa and Ntchisi Districts
464	Malawi	MCSP Malawi Infant Nutrition Leaflet (Chichewa)
465	Malawi	MCSP Malawi Nutrition Posters (Chichewa)
466	Malawi	MCSP Malawi Nutrition Counseling Card (English)
467	Malawi	MCSP Malawi Nutrition Counseling Card (Chichewa)
468	Malawi	MCSP Malawi BFHI Stakeholders Meeting Report
469	Malawi	MCSP Malawi BFHI WHO 20-Hour Course

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470	Malawi	MCSP Malawi FP-Immunization Qualitative Report
471	Malawi	MCSP Malawi FP-Immunization Referral Booklet
472	Malawi	MCSP Malawi FP-Immunization Referral Form
473	Malawi	MCSP Malawi Family Planning and Immunization Integration Rapid Assessment Report
474	Malawi	MCSP Malawi PY 1 Success Story
475	Malawi	MCSP Malawi PY 2 Success Story
476	Malawi	MCSP Malawi PY 3 Success Story
477	Malawi	MCSP Malawi PACHI End of Project Report
478	Mali	MCSP Mali EOP Report
479	Mozambique	Implementation of a Quality Improvement Approach for Malaria Service Delivery in Zambézia Province, Mozambique - Presentation
480	Mozambique	Technical brief – Malaria (in English and Portuguese)
481	Mozambique	Implementation of a Quality Improvement Approach for Malaria Service Delivery in Zambézia Province, Mozambique - Abstract
482	Mozambique	Malaria Case Management Training Package
483	Mozambique	National Malaria Strategic Plan, 2017-2022
484	Mozambique	Padroes Malaria Agosto 2017 (Malaria Performance Standards)
485	Mozambique	Making progress against malaria in Zambezia
486	Mozambique	Health providers are empowered to treat complex malaria cases in pregnancy
487	Mozambique	Learning for Change - Improving the Management of Malaria by Better Understanding the Cause of Death
488	Mozambique	It takes only three pills a visit to save precious lives
489	Mozambique	Gender: Male Engagement, a Powerful Strategy to Improve Women's Reproductive Health - Success Story
490	Mozambique	CECAP: Screen and Treat Now - Success Story
491	Mozambique	CECAP: Strong awareness and the integration of services at the health center is saving women's lives
492	Mozambique	Community CDA: Involving the community in actions to improve their health and development
493	Mozambique	Community VICOBA: In Mozambique, Village Community Bank Helps a Pregnant Woman in a Health Emergency
494	Mozambique	In Mozambique, community health education is helping couples make important decisions
495	Mozambique	Communities are Engaged to Take Action to Improve their own Nutrition and Health Practices
496	Mozambique	WASH: communities take action to improve WASH in Mozambique
	Mozambique	WASH: Families are involved in the fight against open defecation
	Mozambique	Cleaning Wells Prevents Spread of Diarrheal Diseases in the Community

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497	Mozambique	Immunization: MCSP Supports the Introduction of Child Health Registers to Collect Routine Child Health Data in Mozambique
498	Mozambique	Immunization: Engaging men in child health to reduce infant mortality
499	Mozambique	Reaching Every Community (REC) with Life-saving Vaccines
500	Mozambique	Monitoring & Evaluation: In mozambique, Nurses are Using Health Information to Make Lifesaving Decisions
501	Mozambique	Saving lives - Health providers managing obstetric complications such as preeclampsia and eclampsia
502	Mozambique	Newborn: In mozambique, A Mother's First Child Lives Thanks To Neonatal Resuscitation Training
503	Mozambique	Nutrition: One visit, one family at a time: Improving nutrition in Mozambique
504	Mozambique	Nutrition: Ample Time to Breastfeed & Importance of Nutrition Critical for Moms and Babies
505	Mozambique	OFB: OFB Counseling is Helping Adolescents to Make Informed Decisions
506	Mozambique	Referrals: Referral Networks are helping to manage complex obstetric and gynecological emergency cases
507	Mozambique	Referrals: Nacaroa District Health Directorate is building strategic and effective partnerships
508	Mozambique	Malema District Achieves Timely Referrals for 90% of Emergency Transfers
509	Mozambique	Referrals: Nampula Referral and Counter-Referral Network Helps to Save Lives
510	Mozambique	Improved Capacity-Building of Human Resources for Health in Nampula and Sofala Provinces through Fixed Amount Awards
511	Namibia	Evaluation of the Namibian Community Health Workers Programme
512	Namibia	Evaluation of a pilot program integrating HIV rapid testing into the national health extension program in Engela district, Ohangwena region, Namibia
513	Namibia	CBHTC index partner testing consent form
514	Namibia	CBHTC interpersonal violence screening form
515	Namibia	CBHTC cluster assessment form
516	Namibia	CBHTC cluster to facility visit record
517	Namibia	CBHTC community and facility index HTC listing forms
518	Namibia	MFL developers guide
519	Namibia	MFL data dictionary
520	Namibia	MFL admin manual
521	Namibia	MFL user guide
522	Namibia	MCSP Namibia End of Project Report
523	Namibia	Improving Access to and Quality of Integrated Primary Health Care and HIV Services in Namibia: A Compendium of Success Stories from the Maternal and Child Survival Program (2014-2018)

#	Country	Product
524	Nigeria	MCSP HelloMama Nigeria Program and Pilot Documentation Report
525	Nigeria	MCSP HelloMama - Using Digital Health Platforms to Improve Health Outcomes for Pregnant Women and New Mothers in Nigeria - Program Brief
526	Nigeria	MCSP HelloMama Implementation Road Map
527	Nigeria	MCSP HelloMama End of Project Report
528	Nigeria	Implementing the Mobile Alliance for Maternal Action Approach - Lessons from Country Programs: Bangladesh, South Africa, India and Nigeria
529	Nigeria	Evaluation of Roll-Out and Scale-Up of Partner Notification Services in Nigeria
530	Nigeria	Evaluation of Rollout and Scale-Up of Partner Notification Services in Nigeria: Summary of Findings
531	Nigeria	HIV Index Testing and Partner Services: A Training Course for HIV Testing Providers
532	Nigeria	MCSP Nigeria MNCH End of Project Report
533	Nigeria	MCSP Nigeria MNCH Infographic - Better Care for Nigerian Women and Children
534	Nigeria	Quality Improvement following maternal and newborn care embedded within broader state systems in Nigeria, IHI Conference, South Africa 2018
535	Nigeria	Nigeria MNCH Program Technical Brief - Ensuring Better Care for Nigerian Pregnant Women and New Mothers and their Babies Brief
536	Nigeria	Nigeria MNCH Program Technical Brief – Improving Quality of Maternal, Newborn and Postpartum Family Planning Care
537	Nigeria	Nigeria MNCH Program Technical Report - Evaluation of Interventions to Improve Reproductive, Maternal, and Newborn Health Service Availability and Readiness in Kogi and Ebonyi States
538	Nigeria	Mothers Savings & Loans Club Technical Brief
539	Nigeria	Safe Motherhood Posters
540	Nigeria	Nigeria MNCH Program Technical Report - Assessment of Maternal and Perinatal Death Surveillance and Response Implementation in Ebonyi and Kogi States, Nigera
541	Nigeria	Nigeria MNCH Program Technical Brief - Improving Care for Newborns with Respiratory Distress in Nigeria Through Use of Bubble Continuous Positive Airway Pressure Devices
542	Nigeria	Nigeria MNCH Program Technical Brief - Care of newborns with PSBI at the Primary Health Care Level Where Referral is Not Possible
543	Nigeria	Nigeria MNCH Program Technical Brief - Scaling up chlorhexidine for umbilical cord care in Nigeria
544	Nigeria	Nigeria MNCH Program Technical Brief - Strengthening Newborn Care in Kogi and Ebonyi States Nigeria
545	Nigeria	Nigeria MNCH Program Technical Brief - Kangaroo Mother Care in Nigeria
546	Nigeria	100K Babies Initiative in Nigeria case study
547	Nigeria	Nigeria MNCH Program Technical Brief - Increasing Family Planning Uptake Among Postpartum Women in Nigeria
548	Nigeria	Nigeria MNCH Program Technical Brief - Potential for Integrating Family Planning and Immunization in Nigeria

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549	Nigeria	Nigeria MNCH Program Technical Brief - Nigeria PPFP Dedicated Counselor Initiative: Assessment and Key Results
550	Nigeria	Family Planning Needs during the First Two Years Postpartum in Nigeria
551	Nigeria	Kogi State Family Planning Costed Implementation Plan
552	Nigeria	Nigeria MNCH Program Success Story - Permanent Relief: Lifelong Contraceptives Give Nigerian Women Peace of Mind
553	Nigeria	Nigeria MNCH Program Technical Brief - Gender
554	Nigeria	Male Engagement in Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH) Package
555	Nigeria	Health Workers for Change: A Manual to Improve Quality of Care in Nigeria
556	Nigeria	Fathers Contribute to Healthy Families (Poster and Flyers)
557	Nigeria	GBV Assessment and Service Mapping in Kogi and Ebonyi States
558	Nigeria	Nigeria MNCH Program Technical Brief - Improving Health Outcomes for Children Under Five in Nigeria
559	Nigeria	The Global Fund New Funding Model: Lessons from Nigeria on Negotiating the Inclusion of Integrated Community Case Management (iCCM) of Childhood Illness Technical Report
560	Nigeria	Nigeria MNCH Program Technical Brief - Quality of management and treatment services for sick children at patent and priorietary medicine vendors (PPMV) in two states in Nigeria
561	Nigeria	Nigeria MNCH Program Success Story - Enhancing Capacity to Save Children's Lives in Rural Communities
562	Nigeria	Nigeria MNCH Program Technical Brief - Sustainable Financing of Essential Medicines to Strengthen the Primary Health Care System in Nigeria
563	Nigeria	Nigeria MNCH Program Technical Brief - Onsite LDHF Training Versus Traditional Offsite Group-Based Training for Maternal and Newborn Health Care Workers in Ebonyi and Kogi States Nigeria
564	Nigeria	Nigeria MNCH Program Technical Brief - Improving the Quality of Preservice Education for Health Service Providers in Nigeria
565	Nigeria	Nigeria MNCH Program Technical Brief - Enhancing Ownership of the Strategic Health Development Plan II in Ebonyi, Nigeria: Critical Steps in Policy Development
566	Nigeria	Nigeria MNCH Program Technical Report - Strategy Design for the Primary Health Care - Drug Revolving Fund (PHC-DRF) Scheme with Ebonyi State Ministry of Health
567	Nigeria	Nigeria MNCH Program Technical Brief - Using Geospatial Analysis to Better Serve Disadvantaged Program Beneficiaries in Low- and Middle-Income Countries: Lessons from an Exploratory Analysis in Nigeria
568	Nigeria	Nigeria MNCH Program Technical Brief - Improving Health Outcomes by Enhancing the Content and Use of RMNCH Data in Nigeria's National Health Management Information System
569	Nigeria	Nigeria MNCH Program Technical Brief - Lessons Learned from an Integrated Approach for Reaching First-time Young Parents in Nigeria
570	Nigeria	Nigeria MNCH Program Technical Report - Factors Influencing Use of Health Services by First-Time Young Parents: Findings from Formative Research in Six States in Nigeria
571	Nigeria	Research Brief: Highlights from Formative Research with First-time Young Parents in Kogi State

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572	Nigeria	Research Brief: Highlights from Formative Research with First-time Young Parents in Ebonyi State
573	Nigeria	Research Brief: Highlights from Formative Research with First-time Young Parents in Bauchi State
574	Nigeria	Research Brief: Highlights from Formative Research with First-time Young Parents in Sokoto State
575	Nigeria	Research Brief: Highlights from Formative Research with First-time Young Parents in Cross River State
576	Nigeria	Research Brief: Highlights from Formative Research with First-time Young Parents in Ondo State
577	Nigeria	Water Sanitation and Hygiene (WASH) for Newborn and Maternal Sepsis Reduction in Nigeria: Final Activity Report
578	Nigeria	Nigeria Handwashing and Infection Prevention Behavior Compliance Communication Posters
579	Nigeria	Nigeria WASH and Infection Prevention Control (IPC) Facility Assessment Scorecards
580	Nigeria	Strengthening Routine Immunization through Subnational Partnerships The Experience in Sokoto State, Nigeria
581	Nigeria	Strengthening Routine Immunization through Subnational Partnerships The Experience in Bauchi State, Nigeria
582	Nigeria	Effects of Quality Improvement and Capacity Building Interventions on Family Planning Services in Kogi and Ebonyi States, Nigeria: A Comparison of Baseline and Endline Facility Assessment Findings
583	Nigeria	Manuscript: A cost-effectiveness analysis of traditional and geographic information system–supported microplanning approaches for routine immunization program management in northern Nigeria
584	Nigeria	Implementing a Memorandum of Understanding with Basket Funding to Improve Routine Immunization Systems
585	Nigeria	Nigeria Immunization End of Project Report
586	Nigeria	Understanding factors influencing care seeking for sick children in Ebonyi and Kogi States, Nigeria
587	Pakistan	Building the Capacity of Service Providers in Delivering Sustainable, High-Quality Family Planning Services
588	Pakistan	Family Planning Compliance Monitoring
589	Pakistan	Assessment of Perspectives and Practices on Rights-Based Family Planning in Balochistan, Pakistan
590	Rwanda	Euphraise Success Story
591	Rwanda	Rosine Success Story
592	Rwanda	Odette Success Story
593	Rwanda	Malaria Success Story
594	Rwanda	Claudine's Story
595	Rwanda	A dream realized-Success story
596	Rwanda	Assessment of MPDSR Implementation- Report
597	Rwanda	Community Based MNH Technical Brief
598	Rwanda	Child Health Technical Brief

#	Country	Product
599	Rwanda	Community Mobilization Technical Brief
600	Rwanda	FP Technical Brief
601	Rwanda	Scale Up Technical Brief
602	Rwanda	Scaling up immediate PPFP- Brief
603	Rwanda	MH Technical Brief
604	Rwanda	Newborn Health Technical Brief
605	Rwanda	Baseline Assessment- Report
606	Rwanda	MPDSR- Report
607	Rwanda	Building Health Facility Autonomy: Redesigned delivery of the Integrated Management of Childhood Illnesses Trainings in Rwanda Case Study- Brief
608	Rwanda	Cost Analysis for Scaling up a practice improvement package for HBB/ENC in Rwanda- Brief
609	Rwanda	Cost Analysis for Scale-up of PPFP in Rwanda- Brief
610	Rwanda	Evaluation of the Integrated Community Case Management Strategy in Rwanda- (ICCM Report)
611	Rwanda	An Alternative to classroom-based health worker training in RW, Case Study- Brief
612	Rwanda	A midwife saved the life of my baby – Venancie- Success Story
613	Rwanda	Improving RMNCH Service Readiness and Quality (Endline Brief)
614	Rwanda	Conquering Obstetric Fistula- Alphonsine's story- Success Story
615	Rwanda	Assessing Key Health Services for Mothers and Children in Rwanda (HFA Brief)
616	Rwanda	Strengthening the capacity of communities to increase utilization of postnatal care services in Nyaruguru district, Rwanda- Brief
617	Rwanda	EOP Report
618	Rwanda	Mentoring the community health worker-Brief
619	Rwanda	Updating Rwanda's HMIS-Brief
620	South Africa	Nursing Assessment Visit Report: Nelson Mandela Children's Hospital
621	Tanzania	MCSP Tanzania VIMS Implementation Research Study Report
622	Tanzania	Increasing Immunization Coverage Through Strengthening ComIncreasing immunization coverage through strengthening Comprehensive Council Health Planning: a learning activity in Kagera Region, Tanzania
623	Tanzania	Streamlining of the Diseases Surveillance System: An Asset review, Gap analysis and Strategies for Strengthening and Integration of the Country's Disease Surveillance Programmes
624	Tanzania	Streamlining Disease Surveillance System Implementation in Tanzania: Lessons Learnt

#	Country	Product
625	Tanzania	Designing Interoperable Health Information Systems using Enterprise Architecture Approach in Resource-limited Countries: A literature review
626	Tanzania	CCHP User Manual
627	Tanzania	Immunization prototype curriculum for environmental and public health sciences in Tanzania
628	Tanzania	Standard Operating Procedure: Correct storage temperatures for vaccines and diluents at fixed locations
629	Tanzania	Standard Operating Procedure: Installing and looking after vaccine refrigerators and freezers
630	Tanzania	Standard Operating Procedure: Looking after Cold rooms and freezer rooms
631	Tanzania	Standard Operating Procedure: Looking after standby generators
632	Tanzania	Standard Operating Procedure: Looking after Voltage regulators
633	Tanzania	Standard Operating Procedure: Monitoring temperature exposure during vaccine transport
634	Tanzania	Standard Operating Procedure: Packing vaccine and diluents for transport, using cold boxes
635	Tanzania	Standard Operating Procedure: Product arrival procedures
636	Tanzania	Standard Operating Procedure: Product arrival procedures
637	Tanzania	Designing interoperable health information systems using Enterprise Architecture approach in resource-limited countries: A literature review
638	Tanzania	Standard Operating Procedure: Responding to emergencies in fixed storage locations
639	Tanzania	Standard Operating Procedure: Safe working in cold rooms and freezer rooms
640	Tanzania	Monitoring vaccine storage temperatures: at fixed storage locations
641	Tanzania	Standard Operating Procedure Storing vaccine and water packs in refrigerators and freezers
642	Tanzania	Standard Operating Procedure: Using Vaccine Vial Monitors (VVM)
643	Tanzania	Standard Operating Procedure: When and how to conduct the Shake Test
644	Tanzania	Immunization Prototype Curriculum For Environmental And Public Health Sciences In Tanzania
645	Tanzania	Immunization Prototype Curriculum For Medical Schools In Tanzania
646	Tanzania	Immunization Prototype Curriculum For Pre-Service Nursing/Midwifery Institutions In Tanzania
647	Tanzania	Immunization Prototype Curriculum For Environmental And Public Health Sciences In Tanzania
648	Tanzania	Immunization In Practice (Iip)
649	Tanzania	Cervical Cancer Prevention in Tanzania: MCSP Tanzania Program Brief
650	Tanzania	Disease Surveillance: MCSP Tanzania Program Brief
651	Tanzania	Immunization: MCSP Tanzania Program Brief

#	Country	Product
652	Tanzania	Increasing Immunization Coverage Through Strengthening ComIncreasing immunization coverage through strengthening Comprehensive Council Health Planning: a learning activity in Kagera Region, Tanzania Brief
653	Tanzania	Health Information Systems: MCSP Tanzania Program Brief
654	Tanzania	Pre-Service Education for Immunization: MCSP Tanzania Program Brief
655	Tanzania	Pre-Service Education in Tanzania: MCSP Tanzania Program Brief
656	Uganda	Using an Innovative Approach to Expand and Increase Access to Essential Child Health Interventions
657	Uganda	Using Integrated Management of Newborn and Childhood Illnesses to Save Children's Lives
658	Uganda	Provider Training and Community Leadership: Improving Care for Children under Five
659	Uganda	Increasing Coverage of Child Health Interventions in Uganda using the Reaching Every District/Child Approach
660	Uganda	Using a health facility scorecard to monitor and improve the coverage of child health interventions in rural Uganda
661	Uganda	Strengths, Challenges, and Opportunities for RMNCH Financing in Uganda
662	Zambia	MCSP Zambia End of Project Report
663	Zambia	MCSP Zambia TA Study Report
664	Zambia	Maternal and Child Survival Program: Zambia
665	Zimbabwe	A Community-based Health Worker Peer-to-Peer Supportive Supervision Training, Facilitator Guide
666	Zimbabwe	A Community-based Health Worker Peer-to-Peer Supportive Supervision Training, Participant Guide
667	Zimbabwe	Gender Based Violence - A Facilitator Manual
668	Zimbabwe	Family Health Handbook for Improved Family and Community Health
669	Zimbabwe	Family Health Handbook for Improved Family and Community Health
670	Zimbabwe	Emergency Triage Assessment and Treatment (ETAT): Triaging for Non Clinical Staff
671	Zimbabwe	DOMCCP Video: Hope in the Valley

Annex 11: MCSP Impact and Results: Supporting countries in their journey to self-reliance

USAID's flagship MCSP partnered with 32 countries to increase maternal and child survival and build resilient, accountable and responsive health systems in 52 programs. From 2014 to 2019, MCSP supported countries on their path to self-reliance. Through the generous support of the American people, USAID invested in key components of health systems and capacity building of country-led institutions to address health challenges. As a result, government partners committed their own domestic resources in cost-effective solutions that yield immediate and long-lasting results. The following annex provides examples of how MCSP supported countries on their journeys to self-reliance for preventing maternal and child deaths, aligned with cross-cutting themes.

Themes

- Domestic resource mobilization
- Strategic transitions to government
- Scale-up interventions/approaches beyond the zone of implementation
- Resilient health systems and system strengthening
- Innovations that have increased coverage, quality and scale
- Policy
- Workforce strengthened
- Data used for action
- Transforming communities – scalable social accountability mechanisms

Country Name	Theme	Result
Burkina Faso	Resilient Health Systems and system strengthening; Workforce strengthened	With MCSP support, the EPI in Burkina Faso updated its RED/REC approach training materials based on WHO reference documentation and used revised training tools to build capacity of three regional EPI focal points, 15 health district team members, and 128 health facility managers in Center, Center-East, and East health regions. The MOH, with MCSP support, adapted a microplanning tool to aid participants in preparing and updating district/health facility catchment area maps, identifying health centers and locations of priority communities, identifying client barriers to accessing and using immunization services, identifying solutions to challenges, and preparing work plans and plans for immunization sessions.
Burkina Faso	Data used for action; Health systems strengthening	To address a significant gap in EPI data quality issues in almost all assessed facilities, MCSP supported all 85 health facilities in five districts to conduct detailed immunization data quality self-assessments. Assessment results revealed that data collection tools were consistently available to health workers but the quality of the EPI data was poor. For example, some health facilities had inconsistencies in data between their various data reporting tools, such as data from tally sheets not conforming to summaries of the same data included in monthly reports. Similar quality issues were observed in district monitoring, reporting, supervision, and data management practices. The MOH, with MCSP support, led more effective supervision visits and mentored

Country Name	Theme	Result
		facility staff in data quality and accuracy improvement activities. MCSP also built capacity of staff at all levels to use data more consistently and regularly for better programmatic decision-making.
Burkina Faso	Workforce strengthened	The MOH in Burkina Faso identified capacity building of facility and community-based health workers in epidemiologic surveillance as a priority, especially for compliance with the country's IDSR system. The MOH had revised IDSR guidelines in the recent past and had already conducted a training of trainers session using the revised guidelines but, due to insufficient resources, was unable to proceed with planned cascade trainings in all districts. In response, MCSP supported the MOH in training 166 district management team members and health facility officers (doctors, pharmacists, nurses, and midwives) from the five MCSP-supported districts. Trainees strengthened their skills in detecting diseases under surveillance (meningitis, dengue fever, yellow fever, measles, etc.), analyzing and interpreting data on disease conditions and priority events, and responding strategically to outbreaks.
Burkina Faso	Resilient Health Systems and system strengthening; Workforce strengthened	MCSP supported the MOH to respond to outbreaks of dengue, measles, and meningitis through the life of the project in Burkina Faso. For example, during the dengue fever outbreak, MCSP supported the MOH's Division for the Protection of Population Health in its response to the outbreak. MCSP's participation in National Epidemic Management Committee meetings and the dengue case management, communication, and epidemiological/surveillance subcommittees helped ensure that the country had a strong and coordinated response and that USAID was kept abreast of important developments. MCSP also supported a household awareness campaign conducted by 2,500 CHWs and training on dengue case management for 1,529 health care providers in seven regions, and provided financial and technical assistance for a workshop to review data collection and reporting tools to improve the quality of dengue response monitoring data.
Burma	Policy	Through MCSP's policy and advocacy work, USAID assisted Burma to build a health system that can deliver a basic package of MNCH services. Advocacy efforts for national antenatal care guidelines resulted in the Ministry of Health and Sports developing the first-ever national antenatal care guidelines with support from MCSP.
Burma	Policy; Scale-up interventions-approaches beyond the zone of implementation	After MCSP introduced and supported a new approach for in-service capacity building for maternal, newborn and child health providers in five states/regions, the national government incorporated this approach into the first National Health Plan Annual Operational Plan for 2018, reflecting a desire to replicate and scale up using its own resources.
Burma	Workforce strengthened	MCSP supported the Ministry of Health and Sports to build the capacity of Ethnic Health Organization providers as government-certified maternal and newborn health trainers in the Burma-Thailand border state of Kayin. This milestone was a key step toward improved collaboration between Ethnic Health Organizations and Ministry of Health and Sports to ensure equitable access to health services for all sectors of the population and allow providers to gain the same set of standardized skills. Certifications recognized in both systems will allow for providers to practice in other geographies and for families to access similar levels of care quality across state/regional borders.
Burma	Policy; Domestic Resource Mobilization	MCSP leveraged a $2 million investment from the pooled-donor 3MDG Fund for strengthening human resources for health to build the organizational capacity of the Myanmar Nurse and Midwife Council and Myanmar Nurse and Midwifery Association. These organizations ensure that midwives who enter the workforce demonstrate essential competencies needed for the profession.

Country Name	Theme	Result
Burma	Resilient Health Systems and system strengthening; Resource Mobilization	MCSP leveraged a $2 million investment from the GE Foundation by adapting and replicating a Ministry of Health and Sports-endorsed approach to facility quality improvement, developed and piloted under that program in five high volume facilities supported by MCSP across the country.
Burma	Workforce strengthened; Scale-up interventions/approaches beyond the zone of implementation	MCSP worked with the child health division of the Ministry of Health and Sports to update and plan for rollout of the national guidelines for IMNCI. The newly revised guidelines promote less costly and more effective training by reducing classroom time, adding hands-on clinical experience during training and introducing post-training assessment using the globally recognized Objective Structured Clinical Examination method. The Ministry of Health and Sports is in the process of rolling out the new IMNCI training and post-training follow-up nationwide.
Burma	Policy; Workforce strengthened; Resilient health systems and system strengthening	Working with the NMCP, MCSP tested an Integrated Community Malaria Volunteer approach that added the management of five other diseases to the job description of existing malaria volunteers —HIV, TB, filariasis, dengue and leprosy. The NMCP and Ministry of Health and Sports have adopted the Integrated Community Malaria Volunteer approach and are currently using MCSP's assessment results and recommendations to inform national community health, human resources and training policies.
Burma	Policy; Workforce strengthened; Resilient health systems and system strengthening	MCSP successfully introduced a quality improvement model in Sittwe General Hospital resulting in a 33% increase in achievement of verification criteria for normal labor and delivery, 55% increase in infection prevention and 25% increase in managing obstetric complication. MCSP extended and expanded the QI model at Sittwe General Hospital to included emergency preparedness for management of obstetric and newborn complications. MCSP worked with hospital leadership to create 11 case scenarios for MNCH emergencies and supported announced and unannounced drill practices on site.
DRC	Policy; Scale-up; domestic and donor resource mobilization	MCSP was a leader in the national scale-up of evidence-based, high-impact interventions for child health, including iCCM, which detects and treats diarrhea, pneumonia, malaria, and malnutrition. MCSP supported DRC to develop a five-year, USD 223 million National Child Health Strategic Plan. The plan calls for 8,000 additional community care sites, which would more than double the country's current 6,968 sites and cover 70% of the country's estimated needs. Estimates are that implementation of the strategic plan could save the lives of over 300,000 children under five during the period covered (2017-2022).
DRC	Scale-up; Workforce strengthened	MCSP led the way in modeling successful scale-up in Tshopo and Bas-Uélé provinces (combined population of an estimated 1.2 million in the 8 MCSP-supported health zones). In 2016- 2017, MCSP trained providers and expanded implementation of the full package of iCCM services (diarrhea, pneumonia, malaria, and nutrition) in 119 community care sites and the IMNCI in 106 health centers that previously provided only malaria services. Preliminary analyses of data from the national health management information system show over four times more cases of child pneumonia and diarrhea treated at the facility level (from 9,927 cases treated in 2016 to 44,923 in 2017) and over nine times more cases treated at community care sites (from 1,553 cases treated in 2016 to 15,702 in 2017). MCSP's comprehensive support to these two provinces started in late 2016.
DRC	Scale-up, Workforce strengthened; Innovations that have increased coverage, quality and scale	With support from MCSP, the National Reproductive Health Program and the Provincial Health Divisions expanded access to FP services in Bas-Uélé and Tshopo provinces by training providers and community health workers and providing commodities to 88 health centers, referral hospitals, and community care sites covering an estimated population of 85,000 women of reproductive age. Thanks to USAID's investment, 2,426 women-initiated family planning during the first quarter of implementation (April-June 2017), compared to only 193 new users registered in the previous quarter, and these results have been sustained in 2018. The proportion of women delivering in facilities who accepted a postpartum family planning (PPFP)

Country Name	Theme	Result
		method also jumped from 5.9% in the April-September 2017 period to 20% in the January-March 2018 period. Through strengthening provincial FP coordinating bodies and multi-sector approaches to family planning, MCSP has contributed to the visibility of family planning in these provinces and sustainability of family planning interventions.
DRC	Innovations	MCSP contributed to innovations in service delivery to improve quality of care. MCSP implemented the CCA in 35 healthcare facilities in Tshopo and Bas- Uélé, which uses incremental, participatory approaches to improving water, sanitation, and hygiene in facilities. MCSP's pilot of the Clean Clinic Approach contributed to DRC's national Water, Sanitation, and Hygiene in healthcare facilities guidelines and WASH pre-service training curriculum.
DRC	Innovations	MCSP conducted a qualitative study with caregivers and family members of children under five years old. The study findings were used to pilot innovative approaches for strengthening the delivery of infant and young child nutrition counselling and prevention services in 25 health centers and 25 community care sites in Tshopo province, as well as in updating the MOH IYCF counseling packages.
DRC	Workforce strengthened	MCSP developed a national model training center at Kintambo Hospital in Kinshasa to serve as a center of excellence for maternal, newborn, and postpartum family planning services. MCSP trained a pool of national trainers to deliver this high-impact, evidence-based package of services and the hospital's care providers. The site serves as a pre-service and in-service training center for students, trainees, and health professionals.
DRC	Scale-up interventions / approaches beyond the zone of implementation	Building on early and marked success from the pilot phase, MCSP, in collaboration with the MOH, expanded the CCA from 10 to 35 sites, covering all health zones supported by MCSP in Tshopo and Bas-Uélé. The CCA is a 10-step process that empowers health care facilities to make water and sanitation improvements and achieve Clean Clinic certification. Through this approach, MCSP has built the knowledge, skills, and motivation of 21 health facility managers, 36 health care providers and 40 cleaners from 35 facilities for a cleaner, healthier healthcare environment for mothers and babies. Equipped with the CCA strategy, training modules, and monitoring and evaluation tools MCSP developed, these clinics are poised to replicate the approach themselves, establishing water safety plans, health care waste management plans, and with planned budget lines dedicated to water, sanitation and hygiene improvements.
Egypt	Workforce strengthened	MCSP strengthened the skills and knowledge of more than 10,000 frontline CHWs in 23 of Egypt's 27 governorates, promoting them as key actors in Egypt's journey to self-reliance by increasing the reach of community-based health service delivery for all Egyptians, including the most vulnerable. Using a hands-on, interactive and team-based approach, MCSP introduced training modules reflective of the national Family Health Package. These CHWs are now better equipped to provide Egyptian households with timely and accurate health information.
Egypt	Strategic transitions to government	MCSP worked closely with Egypt's Ministry of Health and Population to develop and initiate a national CHW strategy for its 14,000 community health workers. The new national strategy outlines explicit strategic goals, objectives and performance management indicators for the CHW program, including an updated training program, to help monitor CHW program implementation – and continued success – into the future.
Egypt	Innovations that have increased coverage, quality and scale	MCSP launched and resourced a digital health management information system (HMIS) to capture program data from more than 1,200 CHWs in five pilot governorates in Egypt. The new system promises to reduce the CHWs' administrative burden by eliminating the need for a paper-based reporting system – giving CHWs more time to serve families in their communities.
Ethiopia CBNC	Workforce Strengthened	In collaboration with Ethiopia's Federal MOH, MCSP trained 10,000 health facility and extension workers in comprehensive, CBNC. This training strengthened health workers' competencies along the pregnancy to postpartum continuum of care, with an emphasis on addressing the country's leading causes of newborn death. Over the life of the project, MCSP supported training, supervision and monitoring of the CBNC package in 730 health centers and 3,605 health posts, reaching an estimated

Country Name	Theme	Result
		1.2 million women and their newborns across nearly one-fifth of Ethiopia's rural districts. In addition to strengthening Ethiopia's workforce to scale up this national initiative, MCSP provided targeted quality improvement efforts in 13 learning health centers. This resulted in an increase in those centers meeting quality standards (from 32% at baseline to 92% after MCSP's intervention). These 13 learning facilities, in turn, organized and hosted quality improvement visits for 593 health workers and staff from 174 health centers and two hospitals, to share their own lessons learned about improving the quality of newborn care services.
Ethiopia CBNC –	Transforming communities – scalable social accountability mechanisms, Data used for action	Despite Ethiopia's progress toward increased and improved health service delivery in recent years, appropriate newborn illness recognition and care seeking has remained low. In 2016 MCSP and partners supported the Federal MOH to develop a *national demand creation strategy* to address barriers to care-seeking and improved newborn care practices at home. To help realize this strategy, MCSP encouraged and supported communities and health care providers to actively participate together through ongoing dialogue, planning, collective action, and monitoring of outcomes. MCSP noted changes in service use and community capacity measures as a result of the project's intervention. These included: a) increase in proportion of pregnant women identified (70.9% before and 82.1% after); b) increase in proportion of pregnant women attending at least four antenatal care visits (54.5% before and 64.7% after); and, c) proportion of mothers who received a home visit by health workers within two days of their baby's birth (48.5% before and 59.4% after). In addition, community capacity measures such as self-efficacy, collective action, effective leadership and participation, improved significantly from start to finish (baseline to endline).
Ethiopia CBNC	Strategic transitions to government	MCSP supported Ethiopia's Federal MOH to deliver on its commitment to end preventable newborn deaths, by scaling up the CBNC program in 136 woredas – or districts – in four of the country's nine regions. To sustain MCSP-supported gains in health worker competence and community demand for quality health services – MCSP conducted sustainability and handover workshops across all levels of the health system, from individual communities to Addis Ababa. In total, MCSP shared its progress, challenges and lessons learned with 2,889 individuals representing public, private, civil society partners and stakeholders. Based on what they saw and learned, participants expressed commitment to replicate and scale-up MCSP's successful approaches. Both FMOH and USAID Ethiopia particularly appreciated MCSP's use of existing government platforms at community and district level, viewing this as key to a) facilitating collaboration for maternal and newborn health, and b) supporting systematic institutionalization of successful approaches to reduce newborn and maternal deaths.
Ghana CHPS	Policy; Scale	MCSP supported the Ghana Health Service to build the capacity of national and regional health level teams to implement a unified, sustainable and standardized community-based health planning and services (CHPS) model throughout the country. Through the development of national CHPS implementation guidelines, standardized Community Health Officer training materials and a CHPS costing tool, regions have been empowered to plan for and raise resources for quality CHPS implementation. These CHPS services reach a population of 28 million people. MCSP has further supported the Government of Ghana's CHPS national scale-up by providing evidence on the cost of scaling-up CHPS and developing tools for mobilizing resources to scale-up CHPS. This evidence and tools have enabled self-reliance critical to helping decision makers at the Ministry of Health develop informed, impactful health programs.
Ghana CHPS	Policy	To assist the government of Ghana to make the health system more efficient, accountable, and responsive, MCSP conducted a costing and actuarial study of the country's CHPS model and mapping CHPS providers. Results of the study provided information on the contents, financing and payment mechanisms, and service delivery system of the National Health Insurance Scheme benefit package, which has allowed the Ghana Health Service to make informed decisions, plan resources and investments appropriately, and prioritize health programming.

Country Name	Theme	Result
Ghana CHPS	Domestic resource mobilization	MCSP built the capacity of regional health management teams in Ghana to receive and manage donor funds. As a result, these teams worked to train CHPS health workers to deliver quality health services and providing medical equipment for the provision of basic and essential services to address the health needs of approximately 900,000 people. Additionally, these funds fostered community ownership of health care for 11,800 CHPS zones by empowering more than 2,800 community health management committees through training and orientation to shape and seek quality primary health care for every household in their community.
Ghana ECD	Strategic transitions to government	MCSP leveraged existing national health, nutrition, and social welfare services to promote early childhood stimulation among caregivers, integrating ECD into existing systems such as the Community-based Health Planning and Services (front-line health posts) and daycare centers. MCSP's close collaboration with the Government of Ghana and UN agencies to create key ECD policy, training and job aid materials and to revitalize cross-sectoral working groups set the pathway for full Government of Ghana ownership. By establishing strong ECD foundations, MCSP catalyzed national level prioritization of ECD activities, especially for children aged 0-3, a group not previously addressed in Ghana's early childhood development policy.
Ghana ECD	Policy	MCSP shaped Ghanaian policy on early childhood development by providing technical input to the National Newborn Strategy, National 0-3 early childhood care and development Standards, and National ECCD Strategy. These efforts will have long lasting positive impact on the developmental support provided to over 15 million children and their caregivers, aiding children to realize their optimum development and thereby supporting Ghana in its journey toward future growth and self-reliance.
Ghana ECD	Innovations that have increased coverage, quality and scale	Building on MCSP investments to strengthen the Ghana Community-based Health Planning and Services platform that brings essential health services to underserved communities, MCSP developed a toolkit on early childhood stimulation and responsive parenting, and collaborated with Ghana Health Services to integrate the package into community health and nutrition services. The comprehensive package was developed to align with the World Health Organization's Nurturing Care Framework and responds to the global call for cross-sectoral collaboration on early childhood development to improve the quality of health services in the pivotal first 1,000 days of life. Utilizing the CHPS platform to provide this integrated programming assures quality and coverage, as CHPS reach a population of over 500,000 children under age five in two MCSP priority regions (Eastern and Upper West).
Ghana ECD	Workforce strengthened	During the first year of implementation, MCSP Ghana ECD strengthened the capacity of 700 health providers at the national, regional, and district levels to integrate early stimulation into health and nutrition activities in over 900 communities, serving a population of over 750,000 women and their families.
Ghana PSE	Workforce strengthened	To improve service delivery capacity in Ghana, MCSP established and equipped comprehensive skills labs for 86% of the nursing and midwifery students across the country. Their newly acquired skills will empower the next generation of nurses and midwives to deliver quality healthcare to over 15 million women and their families in Ghana.
Ghana PSE	Policy	MCSP supported the Ministry of Health, Ghana Health Service, and local professional associations to develop the Midwifery Services Framework for Ghana. The MSF is a comprehensive review of midwifery services and identifies critical gaps in the current delivery of midwifery services. This document led to the development of the Nursing and Midwifery Strategic Plan for Ghana, which will expand upon the nursing and midwifery services for sexual and reproductive, maternal, newborn and adolescent's health, and improve the quality of care at health facilities that serve over 15 million women and their families.

Country Name	Theme	Result
Ghana PSE	Digital health; Workforce strengthened	In partnership with the Government of Ghana, MCSP enabled access to eLearning in 31 nursing and midwifery training schools. A learning management system and eLearning modules were installed in schools across Ghana, which are characterized by overcrowded classrooms of up to 400 students per tutor. These high quality eLearning modules and LMS empower 35,000 nursing and midwifery students to access relevant materials to strengthen and reinforce their knowledge and better prepares them to serve the 15 million women living in Ghana.
Ghana PSE	Workforce strengthened	MCSP strengthened the clinical practices of over 5,000 community health nursing students in twelve schools across Ghana through the well-equipped model CHPS sites for practical experience, which replicates real life situations they will face when they join the nursing profession and serve over two million women and their families in target districts through the CHPS model.
Ghana IPC/Ebola	Scale; Resilient health systems; Workforce strengthened	After the Ebola virus disease outbreak was reported in West Africa, MSCP worked to strengthen the resilience of Ghana's health system through facility preparedness and improved IPC for 99% of clinical and non-clinical staff members in 71 hospitals across five regions. Whole-site, on-site training has led to enhanced competency of health care workers in IPC interventions and the delivery of higher quality services for over 14 million people.
Ghana IPC/Ebola	Policy	At the request of the Government of Ghana, MCSP collaborated with the USAID-funded Systems for Health Program to strengthen and standardize the national IPC policy and guidelines. Together MCSP, Systems for Health, and the government developed an IPC facilitator's manual to serve as a standard reference document for all IPC activities at all levels of care in the Ghanaian Health System.
Guatemala	Resilient Health Systems and system strengthening	MCSP supported the Ministry of Health to implement the CCA, a 10-step approach that empowers health care facilities to make WASH improvements and achieve government certification using primarily local government funding. WASH improvements in the 11 target facilities benefited approximately 10,611 births as a result of improved quality of care and reduced puerperal and neonatal sepsis infections. These are equivalent to 36% of the total expected births (31,773) for the municipalities where these target facilities are located. MCSP's baseline assessment was the country's first known assessment of WASH/Infection Prevention and Control conditions in postnatal care spaces. The presentation of findings to the Ministry of Health and participating departments (Huehuetenango, Quiche, San Marcos, Totonicapán) led to government support of MCSP's WASH activities and commitment to include basic handwashing and hygiene materials in their budgeting and procurement processes. MCSP also assisted the Vice Ministry of Hospitals to distill and prioritize its 283-page Infection Prevention and Control monitoring manual into a simple monitoring and scoring tool to support health facilities' monitoring, evaluation and supportive supervision efforts to improve cleanliness and prevent infections.
Guatemala	Transforming communities – scalable social accountability mechanisms	To improve the quality of health service delivery at the primary care level, MCSP implemented the Partnership Defined Quality methodology in 17 communities across nine prioritized municipalities in the Western Highlands of Guatemala. The Partnership Defined Quality engages community groups, vulnerable groups, and influencers of MCH and nutrition in dialogues to identify gaps in health services and seek solutions jointly with the community and health services. It is estimated that the improvement in the quality of the health services in the 17 communities will benefit approximately 69,455 community members. MCSP trained over 160 health providers, health promotion coordinators and representatives from the Ministry of Health's Health Promotion Department in the Partnership Defined Quality approach, which has led to three health district areas committing to roll out the Partnership Defined Quality in 54 additional communities.

Country Name	Theme	Result
Guatemala	Domestic resource mobilization	In collaboration with the Ministry of Finance, MCSP designed an online course to strengthen the health management capacities of district health managers across 30 municipalities in the Western Highlands of Guatemala, with an estimated population of 1,637,289. This course supports the Ministry of Finance to strengthen competencies of municipal staff in the planning and budgeting processes to increase local municipal investments in health and nutrition activities.
Guatemala	Workforce strengthened; Resilient Health Systems and system strengthening	Mentorship played a central role in MCSP Guatemala's Continuous Service Delivery Improvement Model, which aimed to improve healthcare worker capacity to provide high quality services. MCSP collaborated with Guatemala's Ministry of Health to develop a cadre of 31 multidisciplinary Master Mentors representing district health areas, hospitals, and primary and secondary level care facilities. MCSP built the competencies of the master trainers on the Day of Birth package, which includes clinical skills that have the highest impact on reducing maternal and newborn mortality. Some of these include identification of danger signs in pregnant women, differentiated care for pregnant adolescents under 14 years of age, helping babies breathe during delivery, exclusive and immediate breastfeeding, and post-delivery family planning. These 31 Master Mentors are now responsible for training other cadres of health workers across the 10 prioritized health districts, targeting a total of 100 health providers, who provide care delivery and post-natal care to an estimated population of 10,661 women. MCSP also implemented the QI component of the Model that forms QI teams to support improvements in the 10 quality indicators developed for the clinical Day of Birth content by strengthening core competencies needed by health workers and managers to improve health outcomes of mothers and newborns.
Guatemala	Data Used for Action; Innovations that have increased coverage, quality and scale; Workforce strengthened	MCSP supported the Ministry of Health's efforts to use data to improve health services by developing dashboards that help public hospital staff and district health officials monitor health service implementation and identify areas for improvement. MCSP developed two mobile technology applications to monitor quality of care. One application was used to facilitate the analysis of results from a health facility assessment that evaluated available equipment, infrastructure, human resources, and documentation/registration materials. The other application supports health services monitoring within the 1000-day window to enable action by civil society organizations to hold local government accountable for implementing lifesaving maternal/child health and nutrition interventions. The 1000-day window refers to the period between pregnancy and a child's second birthday, considered the most critical time to meet nutritional needs to positively impact a baby's cognitive and physical development.
Guatemala	Workforce strengthened; Resilient Health Systems and system strengthening	MCSP strengthened the competencies of Ministry of Health facilitators and auxiliary nurses in nutrition, evaluation of pregnant women, promotion of growth monitoring, breastfeeding and complementary feeding in 30 municipalities across Guatemala. MCSP also provided technical assistance to review and adjust the Vitamin A Supplementation Norm based on results of the National Technical Consultation held with national and international experts (USAID, CDC, Harvest Plus, INCAP) who analyzed the current micronutrients situation in Guatemala.
Guinea	Resilient health systems Policy; Workforce strengthened	From 2015 to 2018, MCSP successfully supported three phases of work in Guinea (Ebola response, Restoration of Health Services, and Health System Strengthening), all resulting in a more resilient health system better equipped to withstand future shocks. MCSP trained and supported 221 health facilities and nearly 5,000 health workers on IPC, and built the capacity of supervisors to monitor and reinforce IPC. At the national level, the project provided institutional support for the adoption of national IPC training curricula, development of IPC policy and program documents, setting national IPC standard procedures, and establishing monitoring and evaluation frameworks for the IPC program in Guinea.

Country Name	Theme	Result
Guinea	Resource mobilization	In Guinea, MCSP supported subnational health systems to become more self-reliant by strengthening management capacity to more effectively and proactively plan activities and mobilize resources to address local priority health system challenges. Through the implementation of the Comprehensive Approach to Health System Management, 22 district health management teams in Guinea have integrated corrective actions into their annual workplans to resolve key challenges preventing the achievement of health objectives. With joint mentoring visits conducted by the project team, national Ministry of Health counterparts, and regional health officials, MCSP observed that 77% of districts have successfully implemented at least half of their corrective actions. Further, in response to a demonstrated capacity gap around resource mobilization, MCSP trained 22 district health management teams on stakeholder engagement and resource mobilization which led to the development and submission of 84 funding requests to local donors and partners, 44 of which (52%) were successfully funded over a 6-month period. Guidance for annual work planning developed with MCSP support based on the Comprehensive Approach tools used and experience with these districts has been adopted by the national Ministry of Health to guide 2019 district level planning with funding from the World Bank.
Guinea	Innovation to increase coverage; Workforce strengthened	After Ebola interrupted health service delivery in four of Guinea's regions most heavily impacted by the epidemic, MCSP contributed to the restoration of health services in 97% of facilities in those regions. This included innovative and multi-faceted approaches to capacity building, post-training follow-up visits and supervision of providers, and provision of key medical materials and job-aids. As a result, treatment of cases of severe pre-eclampsia and eclampsia with magnesium sulfate increased from 79% in the first quarter to 97% in the last quarter. The number of assisted deliveries increased by 150% from a monthly average of 2,487 deliveries in the project area (before interventions) to 6,242 per month in the last quarter of 2016. Improved application of active management of third stage labor with oxytocin, which reduces the risk of postpartum hemorrhage, likely contributed to the reduction in cases of postpartum hemorrhage even as the number of deliveries in facilities was increasing. Cases of treated pneumonia increased by 525% from an average of 328 per month in October-December 2015 to 2,052 per month during the same period in 2016. Treatment for diarrhea also increased by 67%, from an average of 114 cases per month in the last quarter of 2015 to 191 cases per month for the last quarter of 2016. 97% of all reported cases of pneumonia and 96% of cases of diarrhea were treated in health facilities.
Haiti SSQH	Resilient Health Systems and system strengthening, coverage, quality and scale; Workforce strengthened	To increase availability and access to high quality family planning services for LARC and permanent methods of family planning for women and men living in rural Haiti, MCSP/SSQH strengthened the capacity of the Ministry of Health Departmental Directorates by creating, organizing, and training members of designated mobile team units to support regular mobile clinics in six out of the ten regions in country.
Haiti SSQH	Innovations to increase coverage, quality and scale; Workforce strengthened	Through a decentralized and innovative approach of classroom trainings at three regional & national training centers, coupled with a low-dose high-frequency mentoring approach, MCSP/SSQH trained and built the capacity of more than 5,000 health care providers to provide high-impact lifesaving interventions focused around the Day of Birth, including HBB, ECEB, and ANC/PNC. These providers work in hard-to-reach communities with the potential to reach over five million people in their regions. In addition, MCSP/SSQH supported key EmONC facilities by evaluating their capacity and offering on-site coaching for providers. Providers at all 41 Emergency Obstetric and Newborn Care (EmONC)-designated sites received trainings at the national training centers. Key EmONC facilities, including K-Soleil, Perches, Raboteau, Maissade, and Cerca Lasource, received ambulatory bags, blood pressure cuffs, scales and delivery tables.

Country Name	Theme	Result
Haiti SSQH	Quality	Timely, high quality postnatal care is crucial to ensuring maternal and newborn survival and health. MCSP/SSQH supported postnatal visits to facilitate healthy practices, newborn growth and overall health status monitoring, and refer the mother and baby for specialized care if necessary. The percentage of newborns receiving postnatal visits within two days of birth exceeded the project's goal by 63% or 8,248 additional newborns receiving postnatal care beyond the target goal.
Haiti SSQH	Innovations to increase coverage, quality and scale; Workforce strengthened	Using the Reaching Every District/Reaching Every Child approach to increase the reach of health services, MCSP/SSQH ensured the availability of routine immunization services in 162 out the 164 sites with regular rally posts supported by community health workers. MCSP's efforts contributed to the immunization of 91% of children under 1 year old in SSQH supported sites by 2017, which covered nearly half of Haiti's population, compared to 72% in 2015.
Haiti SSQH	Quality; Innovations to increase coverage, quality, and scale.	In an effort to reach universal health coverage with high quality primary health care services, MCSP assisted Haiti's Ministry of Health to launch the Result Based Financing strategy in all 33 MSPP- designated Result Based Financing sites within the SSQH network. The Result Based Financing strategy contributed to improved service quality by introducing management systems and business processes to sustain the availability of health care services while motivating and retaining staff.
Haiti SSQH	Transforming communities, innovations	Through a comprehensive, community-based team approach to improve HIV detection and treatment (including the use of community health workers, peer educators, mobile technology and social and behavior change communication messages), MCSP contributed to the monitoring and maintenance of 12,027 clients living with HIV in Haiti actively on ART during a two-year period.
Haiti SSQH	Innovations to increase coverage, quality, and scale	MCSP's CCA empowered health facility staff to identify needs, develop action plans, and work incrementally toward achieving improved water, sanitation, and hygiene practices in facilities. Using the Clean Clinic Approach, district-level Ministry of Health units supported 22 of 69 sites to increase their "cleanliness" scores up to 37% greater than baseline.
India PNC (Child Health funding)	Innovations; Scale-up	To inform the improvement of facility- and home-based PNC in India, MCSP launched an innovative pilot in Nuapada District, Odisha state, that developed novel approaches to ensure health workers provide timely, evidence-based PNC to the most vulnerable mothers and newborns. These innovative approaches include a) triage and case management based on risk stratification of mothers and newborns during the first six weeks after delivery; b) use of a mobile health application that sends text and voice messages reminders to community health workers and families about scheduled home visits; and c) establishment of model postnatal care wards at two district health facilities to improve the quality of facility-based PNC and to serve as learning sites. Between January 2018 and March 2019, the project reached 12,000 mothers and their newborns; trained over 700 health workers; increased the average duration of stay at health facilities after child birth from 15 hours at baseline to 40 hours at endline; provided first PNC examination within one hour of birth to over 90% of high-risk mothers and newborns; and increased the average number of home visits conducted by ASHAs to high-risk mothers and newborns. The Government of India has recognized the MCSP-supported postnatal risk stratification approach as an effective strategy for improving PNC. At the state level, the government will be scaling up the approach to all 15 high priority districts (with the highest MMR/IMR in the state), and at the national level, MCSP's approaches and lessons learned will be incorporated into India's forthcoming national operational guidelines for PNC.
India FP	Policy	MCSP successfully advocated for the inclusion of two newly approved modern contraceptive methods—progestin-only pills and centrchroman—in India's options for contraceptives at public health facilities. In one year, 6,384 clients have voluntarily chosen one of the new methods, contributing to an eight percent increase in women who selected PPFP.

Country Name	Theme	Result
India FP	Scale-up	In India, MCSP supported the national government and 5 state governments to reach approximately 2.9 million eligible couples with expanded family planning options, thus supporting and contributing to India's FP2020 commitment of reaching an additional 48 million FP users.
India FP	Quality	In India, MCSP strengthened provision of quality family planning services for a population of 19.4 million people at 186 facilities in 17 districts across 5 states by integrating a respectful, gender-sensitive and rights-based approach and implementing Quality Improvement and Quality Assurance tools, both through service delivery and Patient Welfare Committees. Under MCSP, supported facilities experienced a 22% improvement in FP performance standards and are routinizing quality control reviews to identify facility-level gaps and strengthen services.
India FP	Quality	To ensure high quality health services are available, MCSP strengthened quality assurance structures throughout India including District Quality Assurance Committees in 14 districts. MCSP also established Quality Circles at 171 facilities in India. With MCSP's advocacy to make quality a pillar of India's health sector, District Quality Assurance Committee and Quality Circle meetings now include quality of FP services as a part of their agenda and discussions.
India FP	Workforce strengthened; Transforming communities	MCSP built the capacity of nearly 40,000 CHWs to mobilize the community and support 9.7 million clients on FP, in addition to counselling on healthy timing and spacing of pregnancies, respectful care, and gender-based issues. The CHWs will expand the reach of FP services through outreach and community-based delivery.
India FP	Strategic transitions to government; building self-reliant health systems.	MCSP supported the Government of India to ensure better inter- and intra-ministerial coordination at all levels for youth-centric and youth-friendly policies reaching all 253 million adolescents in the country. For example, MCSP supported the Adolescent Health Technical Support Unit, which helps to establish the National Technical Working Committee with the ministries of health and education to finalize the school health curriculum. With a scope of reaching half a billion school children with this curriculum by 2025, the Adolescent Health Technical Support Unit enables adolescents to define goals, chart pathways, and take responsibility for their holistic development and well-being. The Adolescent Health Technical Support Unit, supported by MCSP, provides technical support to MOHFW to strengthen existing initiatives and roll out new ones. The technical support unit is supporting the refinement of the operational guidelines for program implementers for the largest national adolescent program, Rashtriya Kishore Swasthya Karyakram, as well as the school health program with an outlay of Indian Rupee 707 million, which will cover 5.2 million in-school children in 100 aspirational districts of India. The Adolescent Health Technical Support Unit, supported by MCSP, provides technical assistance to strengthen 7,650 existing adolescent-friendly health clinics providing services to 10.2 million adolescents.
India FP	Mobilizing domestic resources	After an initial catalytic investment from USAID's MCSP to ensure delivery of comprehensive primary health care services for all age groups in India, national and state governments invested $72.28 million from domestic resources to establish 4,743 Health and Wellness Centers across 11 states impacting the health of over 217 Million people. In a span of 10 months, MCSP leveraged in-country government funds at a ratio of 1:24, ensuring sustainability and paving the way for building resilient health systems.

Country Name	Theme	Result
India TCIHC	Scale up	The Challenge Initiative for Healthy Cities (TCIHC) started fixed-day family planning service provision in 258 urban primary health centers, across 22 cities and 3 states. 2,058 fixed day service events took place in these facilities during the first half of 2018. While fixed day service facilitates the provision of short- and long-term methods at the Urban Primary Health Center level, TCIHC also supported the integration of FP in standing community events, outreach camps, and urban health and nutrition days, where short-term methods are provided. Between April and June 2018, TCIHC reported that 112,899 clients accepted a FP method during fixed day services, outreach camps, and urban health and nutrition days sessions. Activation of urban primary health centers, coaching and mentoring of ASHAs, and working closely with city-level government officials resulted in 140% increase in IUD uptake between January and June 2018, when compared to the same period in 2017.
India TCIHC	Workforce strengthened	TCIHC observed that in Madhya Pradesh (MP) there was a significant lack of FP method-mix. To address this issue the TCIHC team advocated extensively with the government of MP and sought their buy-in and approval to roll-out injectable contraceptives across facilities in all cities. As a result, all urban primary health centers in Indore city added injectable contraception to the FP method package. To ensure quality service provision, TCIHC equipped the healthcare providers in Indore, Jabalpur, and Sagar with the necessary training to provide this method – 80 providers (13 medical officers, 39 staff nurses, and 28 para-medical staff) had been trained through September 2018.
India TCIHC	Workforce strengthened	The Challenge Initiative for Healthy Cities launched a referral mechanism in Indore city (Madhya Pradesh), which includes community level referrals to urban health and nutrition days, outreach camps, urban primary health centers, and city-level facilities. The referral management information system showed an increase, from 6% to 21%, in the referral of high-risk/complicated pregnancies from urban primary health centers to higher level of facilities.
India TCIHC	Workforce strengthened	Newborn screening is a facility-based, preventive public health program that is being initiated by the government of Madhya Pradesh (MP). TCIHC provided support to the district administration to roll-out newborn screening in district hospitals and has assisted the government with the training of 62 doctors and para medical staff over the course of five trainings in eight TCIHC cities.
India TCIHC	Workforce strengthened; resource mobilization	Mahila Arogya Samiti (MAS) – community-based women's groups--work closely with Accredited Social Health Activists and Auxiliary Nurse Midwives and can play a crucial role in influencing FP method choice and adoption of services by women in their communities. The Mahila Arogya Samiti and ASHAS are the backbone of the TCIHC work. TCIHC and the, sensitized around 600 MAS members in Rourkela and Puri (Odisha state) on FP/MNH services. For this exercise, the TCIHC team leveraged 5.74 lakh from the government's program implementation plans (PIP) allocated budget.
Indonesia	Policy; Data used for action	MCSP contributed to the evidence base on maternal and newborn mortality in Indonesia, a country with no national health register, to inform data driven policy decisions to improve health outcomes. A direct outcome of these efforts was the organization of the first ever Indonesia- specific Evidence Summit.
Indonesia	Resilient Health Systems and system strengthening	MCSP built the capacity of two local organizations to design, gather and analyze a vast array of research on maternal and newborn mortality in Indonesia. As a result, evidence-based recommendations have been shared with the Ministry of Health to inform national health policies and programs, and a culture of evidence-based decision making has been established within the national government and research institutions.

Country Name	Theme	Result
Indonesia	Domestic Resource Mobilization; Resilient Health Systems and system strengthening	Through MCSP capacity building support, the technical and administrative skills of two local, national organizations in Indonesia – the University of Indonesia and the Indonesian Academy of Sciences -were strengthened to steward direct donor investment.
Kenya	Coverage, quality, scale	MCSP provided support in Kenya in geographic areas with the highest burden of maternal and child mortality. As a result, the number of facilities providing quality emergency obstetric and newborn care services in the supported areas increased from 23 to 67, 10 of which are now able to offer more comprehensive emergency services.
Kenya	Policy	While adolescents make up 34% of the Kenyan population, there are few initiatives targeting Adolescent and Youth Sexual and Reproductive Health services. MCSP worked with county-level leadership and service providers to raise awareness, improve service delivery, and ensure monitoring and evaluation of reproductive health services targeted to adolescents. As a result, selection of a family planning method among young women and girls aged 10-19 years old increased by 17% percent, from 5,141 in April 2016 to 6,006 in March 2017 in Migori and Kisumu Counties.
Kenya	Coverage, quality, scale	In Kenya, MCSP supported the opening of 14 KMC centers to treat premature newborns. Over three years, 756 preterm or low-birthweight infants received care at these centers, of which 87% survived.
Kenya	Systems strengthening	As a result of MCSP's comprehensive health systems strengthening approach in three sub-counties in Kenya, women who received their first antenatal care visit increased from 48.3% in 2014 to 59.5% in 2016. Delivery with a skilled birth attendant increased by from 18.8% of pregnant women to 24.1% during the same time frame.
Kenya	Coverage, quality, scale	MCSP's support to the Extended Program on Immunization in Kenya contributed to an increase in the number of fully immunized children in Kisumu and Migori Counties from 63,605 in 2014 to 67,844 in 2016. As a result, the proportion of children who received all recommended vaccines increased from 76% to 84%.
Kenya	Community, systems strengthening; Workforce strengthening	As a result of MCSP's intensive efforts building the capacity of community health volunteers and facility-based health staff to recognize and treat childhood illnesses, nearly 100% of children presenting with pneumonia or diarrhea in East Pokot and Igembe North and Central sub-counties of Kenya were treated correctly by September 2016.
Kenya	Community, systems strengthening; Workforce strengthening	In MCSP and UNICEF areas, 685 community leaders were oriented to the Baby-Friendly Community Initiative (BFCI), 475 health providers were trained, 249 support groups were established, and 3,065 children 0–12 months of age were reached. Improvements in infant and young child feeding practices were observed from routine health data, with dramatic declines in prelacteal feeding (19% to 11%) in Kisumu County and (37.6% to 5.1%) in Migori County from 2016 to 2017. Improvements in initiation and exclusive breastfeeding in Migori were also noted over the same time period—from 85.9% to 89.3% and 75.2% to 92.3%, respectively. Large gains in consumption of iron-rich complementary foods were also seen (69.6% to 90.0% in Migori, 78% to 90.9% in Kisumu) as well as introduction of complementary foods (42.0–83.3% in Migori). Coverage for BFCI activities varied across counties, from 20% to 60% throughout implementation and were largely sustained 3 months post-implementation in Migori. MCSP also supported the developed of the first ever complementary feeding recipes for western Kenya.

Country Name	Theme	Result
Kenya	Resource mobilization; Data used for action	MCSP built the capacity of counties and sub-counties in Kenya to resolve many of their most pressing maternal and child health challenges through advocacy, and using data for decision making. For example, advocacy efforts in Kisumu county resulted in facilities being able to procure essential medicines to prevent newborn infection and maternal hemorrhage using funds reimbursed to facilities through the free maternity care program.
Kenya	Coverage, quality, scale	In Kenya, MCSP supported the national immunization program and Kisumu and Migori Counties to prepare for the implementation of the national measles-rubella campaign and a relaunch of efforts to reach children with their second measles vaccine dose. As a result, over 95% of children in Migori and Kisumu counties received the measles-rubella vaccine. Coupled with other efforts to strengthen the Extended Program on Immunization, the campaign led to a massive increase in the number of children vaccinated with measles second dose from 1,956 to 10,018 in Migori and 3,834 to 10,366 in Kisumu between 2014 and 2016.
Laos	Workforce strengthened	MCSP and the Lao MOH established a promising mentorship approach to improve the quality of MNH health services in two northern provinces of the country. Working in 43% of districts (10 of 23) in Luang Prabang and Sayaboury provinces, MCSP and the MOH established 50 mentors who, in turn, strengthen the skills of MNH care providers at provincial, district and health center levels. Together, these facilities serve a catchment area with a population of 813,200, or 12.5% of the national population. Mentoring in MCSP-supported facilities has shown positive results, including: increased provider monitoring of women in labor; increased early initiation of breastfeeding for newborns; and, per self-reports, providers that feel empowered to build their own skills and the skills of their co-workers. Positive reaction by MOH and partners to the mentorship model indicates the potential to scale the approach through the nationally endorsed, MOH-led Early Essential Newborn Care Program as well as through a prestigious local pre-service training institution.
Liberia RHS	Scale up	MCSP played a pivotal role in the development of the national CHX scale up plan that led to the rapid scale up of chlorhexidine cord care gel application across Liberia, a $0.23 gel used to prevent newborn infections. After one year of implementation from October 2017- June 2018, 75.4% of babies born in facilities (8,906 of 11,821 live births) had the lifesaving gel applied at birth.
Liberia RHS	Resilient health systems	In Liberia, MCSP invested in Waste, Water, and Triage infrastructure upgrades through construction of waste pits, triage centers, latrines and wells at health facilities leading to significant improvements in infection prevention and control practices that have positively impacted the quality of services and infection prevention. The median score on Safe & Quality Services for facilities assessed at endline increased to 82% compared to 76% post-Ebola, indicating more robust and resilient facilities prepared to control and prevent emerging infections in the future.
Liberia RHS	Workforce strengthened; Resilient Health Systems and system strengthening	After the Ebola outbreak caused 43% of health facilities in Liberia to close, USAID's investment helped to restore health services and improve infection prevention and control at 100% of MCSP coverage facilities, resulting in the number of health facility deliveries doubling to 4,967 and the immunization coverage for children 0-12 months nearly tripling to 6,400 children over the course of two years from April 2015 – June 2017.
Liberia HRH	Workforce strengthened	Post-Ebola, MCSP's Human Resources for Health project worked with midwifery and medical laboratory technician regulatory bodies to build the capacity of PSE instructors and clinical preceptors and to strengthen the PSE learning environment in order to prepare a stronger, more qualified health workforce to prevent and tackle future epidemics.
Liberia HRH	Workforce strengthened	MCSP introduced the Low Dose High Frequency (LDHF) approach for quality improvement of maternal and newborn care in five (50%) teaching hospitals affiliated with midwifery pre-service education (PSE) institutions. The hospitals showed an average improvement of 40% in meeting Ministry of Health quality improvement in reproductive, maternal, and newborn health clinical standards, and subsequently doubled the number of facility deliveries in one year at these facilities.

Country Name	Theme	Result
Liberia HRH	Workforce strengthened	MCSP supported the Liberian Association of Medical Laboratory Technologists to improve the quality and increase the sustainability of Liberia's lab services through the development of pre-service education quality improvement standards and Liberian Association of Medical Laboratory Technologists licensure and accreditation processes, for the first time ever in Liberia. These standards are now used in all lab schools in the country and are expected to improve the quality of laboratory PSE, producing a better equipped and fit-for-purpose medical laboratory technologist health workforce.
Liberia HRH	Workforce strengthened	MCSP supported the Liberian Board of Nursing and Midwifery (LBNM) to implement a Faculty Development Program (FDP) and Preceptor Performance Improvement Process for the first time ever in Liberia. The LBNM has institutionalized these quality improvement processes as requirements for faculty in all Liberian midwifery and nursing schools. These standards are expected to improve the quality of instruction at midwifery schools producing competent and confident midwifery students, prepared for deployment and able to deliver higher quality services.
Madagascar	Workforce strengthened	MCSP increased the coverage of high impact interventions in maternal and newborn health, adolescent sexual and reproductive health, postpartum family planning, malaria and immunization in 16 of 22 regions of Madagascar. MCSP's training approach – comprised of a blended learning strategy that incorporates self-learning, onsite trainings, mobile mentoring, and onsite supervision –strengthened the capacity of over 1,350 health providers and a pool of 276 regional trainers, thereby reaching 41% of the estimated 3,546 providers in the targeted 16 implementation regions, and strengthening the technical capacity of the regional/district health system. The 816 project-supported facilities facilitated over 130,000 deliveries, provided ANC services to over 679,000 pregnant women, and successfully resuscitated over 12,000 newborns. *In summary,* MCSP built the capacity of over 1,350 healthcare providers working in 816 facilities across 16 regions of Madagascar, resulting in high quality facility-based deliveries for over 130,000 mothers, provision of antenatal care to over 679,000 pregnant women, and successful resuscitation of over 12,000 newborns at birth.
Madagascar	Data used for action	Through greater institutionalization of quality improvement in Madagascar across 816 facilities in 16 regions, significant improvements in key quality of care measures were achieved. In 513 primary health facilities that regularly tracked quality of care indicators via a facility dashboard, newborn resuscitation improved from 71% in October 2015 to 90% in June 2018, blood pressure measurements during antenatal care for early detection of pre-eclampsia/eclampsia increased from 41% to 96% over the same period, and maternal deaths per 100,000 live births decreased from 242 in August 2015 to 20 in June 2018
Madagascar	Policy	To foster a more favorable policy environment, MCSP provided technical expertise to the Ministry of Health for the revision of key reproductive, maternal, newborn, and child health national policy and technical documents, incorporating recent global recommendations into the Reproductive Health Norms and Protocols, the National FP Costed Implementation Plan, and the 2018–2020 Adolescent Sexual Reproductive Health (ASRH) National Strategic Plan, among others. MCSP supported the continued implementation of the 2015–2019 Campaign on Accelerated Reduction of Maternal Mortality in Africa Roadmap, including milestones under the Every Newborn Action Plan (ENAP). MCSP provided technical guidance for the national measles campaign, for which a WHO survey determined that seven of the 10 top performing districts were in the USAID intervention areas; and for two national polio campaigns, helping Madagascar maintain zero reported polio cases.
Madagascar	Data used for action	MCSP supported data use for decision-making and improved accountability through the implementation of a maternal and newborn health quality dashboard at 816 health facilities across all 16 USAID-supported regions, which track key quality of care indicators to help providers and managers identify gaps in facility-level care. As a result, in 513 primary health facilities from October 2015 to June 2018, the percentage of women who received blood pressure measurements during antenatal care as

Country Name	Theme	Result
		part of early detection of pre-eclampsia/eclampsia increased from 41% to 96%; the percentage of women that received an immediate postpartum uterotonic increased from 85% to 98%; the percentage of newborns not breathing at birth who were successfully resuscitated increased from 71% to 90%; and the percentage of women who received the third dose of intermittent preventive treatment in pregnancy (IPTp3) to prevent malaria during pregnancy increased from 14% to 26%.
Madagascar	Data used for action	MCSP introduced a clinical governance and quality improvement (CG/QI) initiative that supports the provision of high-quality reproductive, maternal, newborn, and child health services by institutionalizing the use of data for decision-making at all levels of the health care system and the implementation of QI committees in facilities to assess and inform performance across key indicators. The initiative was implemented in 17 health facilities in seven regions—10 primary health facilities, five regional hospitals, and two district hospitals – resulting in improvements across key indicators. From the start of the QI intervention in December 2015 to March 2018, early breastfeeding increased from 44% to 99% at the district hospitals, and the newborn mortality rate per 1,000 live births (pre-discharge) decreased from 35 deaths to 8 deaths, in line with measured improvements in intrapartum care and postnatal care of the newborn.
Madagascar	Data used for action	MCSP increased access to long-acting family planning methods by building the postpartum family planning capacity of over 1,100 providers, contributing to an increase of postpartum family planning uptake among women after delivery from 8% to 21% over two years at 576 facilities. Additionally, guided by formative research findings, MCSP developed and implemented a First Time Young Parent intervention called *Tanora Mitsinjo Taranaka*, meaning "young people caring for their posterity" in Malagasy, aimed at improving the sexual and reproductive health of young mothers and their husbands/partners in 12 facilities in the Menabe region. During the pilot, MCSP trained over 100 health providers and community health workers to provide adolescent-responsive services and to better understand bias toward young, particularly unmarried patients.
Madagascar	Workforce strengthened	MCSP works to equip healthcare workers with the knowledge and skills necessary to deliver high quality care. In Madagascar, MCSP strengthened the quality of pre-service midwifery education in 6 public and 27 private sector educational institutions by building the capacity of instructors, providing technical leadership in the standardization of the MNH curriculum, establishing skills laboratories with trained preceptors, and improving the coaching skills of clinical placement sites. As a result, 153 teachers/tutors and 500 midwifery students benefited from improved pre-service education and are better prepared to apply their skills in practice.
Madagascar	Strategic Transition	To ensure a durable health system that can progress with reduced donor involvement, MCSP prioritized capacity-building of Ministry of Health district health management teams in Madagascar to plan and implement training and supervision activities independently, beyond the life of project.
Madagascar	Policy; Scale-up	Ensuring a favorable policy environment for the successful scale-up and expansion of the first-time and young parents (FTYP) approach, MCSP provided technical assistance to the Ministry of Health to develop Adolescent Sexual and Reproductive Health (ASRH) strategic documents including a national plan and training curricula.
Madagascar	Policy	In Madagascar, MCSP contributed to a strengthened and self-reliant health system by supporting a favorable environment for improving reproductive, maternal, newborn, and child health quality of care: policies, standards and protocols, data use for decision-making, and developing a pool of national/regional trainers. This approach provided a foundation for sustaining the gains in workforce capacity.

Country Name	Theme	Result
Madagascar	Workforce Strengthened	To ensure that providers consistently practice high impact interventions in Madagascar, MCSP implemented skills laboratories at the district/regional hospitals and Ministry of Health offices to retain the skillsets of current providers and train those new to the workforce.
Madagascar	Resilient Health Systems and system strengthening	To support Madagascar to achieve its goal of universal health coverage and at the request of the Ministry of Health, MCSP provided technical assistance to develop a respectful maternity care training curricula.
Madagascar	Coverage, quality and scale	To improve regional and district immunization coverage, MCSP supported 10 districts in Madagascar to implement the Reaching Every Child (REC) approach. As a result, the number of children vaccinated with DPT3 increased from 60,588 in 2015 to 71,856 in 2016 to 72,785 in 2017 and the average drop-out rate (i.e. number of children who did not receive a full course of the vaccination) in the 10 priority districts decreased from 12 percent in 2015 to 6 percent in 2017.
Madagascar	Resilient Health Systems	Between 2014 and 2015, Madagascar had 11 confirmed cases of vaccine-derived poliovirus (cDVPV), signifying challenges with the routine immunization system performance that urgently needed attention. Through the implementation of the Reaching Every Child (REC) approach, assistance with analysis of polio eradication indicators, preparation of required documentation and strategic insight into country plans post-certification, MCSP helped to facilitate Madagascar's polio-free certification. On June 21, 2018, Madagascar received its Certification of Polio Eradication from the AFRO Regional Certification Commission (RCC).
Malawi	Resilient Health Systems	MCSP supported the government to build a more resilient health system in Malawi. MCSP strengthened the routine immunization system and increased the percentage of fully immunized children from 75% in 2015 to 88% 2017 in Ntchisi and 68% to 91% in Dowa over the same time period, while increasing the number of facilities with no vaccine stock outs from 80% in October 2015 to 97% in September 2017.
Malawi	Transforming communities	In Malawi, MCSP worked to transform and empower communities as an approach to improve health. Over 4,500 community leaders and 4,300 volunteers were empowered to improve their community's immunization coverage by tracking infants' vaccine statuses. As a result, over 90% of villages now actively track their community's infant vaccine statuses.
Malawi	Workforce strengthened	To promote exclusive breastfeeding in the first six months of life, MCSP supported the Ministry of Health to revitalize and expand UNICEF and WHO's Baby Friendly Hospital Initiative (BFHI) in 54 hospitals in all 28 districts across Malawi, helping to ensure conditions in maternity facilities promote and support breastfeeding. As a result, over 80,000 mothers from 54 health facilities received counseling on exclusive breastfeeding following childbirth.
Malawi	Resilient Health Systems; Workforce strengthened	In Malawi, family planning and immunization service integration improved in all 43 health facilities where community leaders took the lead on sensitizing community members on FP and immunization services. With advocacy support from MCSP, the number of health surveillance assistants (HSAs) managing services at outreach sites in Ntchisi and Dowa doubled (from two HSAs to four). With increased workforce, MCSP reached 95,118 family planning clients over two years, 6.45% more than its target.
Mali	Policy; Resilient Health Systems and system strengthening	MCSP supported the MOH to strengthen the community component of its health system through at policy and implementation levels. MCSP finalize and validate the National Strategic Plan for Essential Community Care (SEC), which enabled the development of regional action plans for SEC. The strategy and plans addressed key actions to improve the quality of and access to the SEC, and positioned the work for USAID's follow-on *High Impact Health Services Project* to scale up. MCSP also strengthened supportive supervision, monitoring, equipment, supplies, training and incentive payments for 571 community health workers, thereby enabling the MOH to scale-up the comprehensive community package in 13 districts total.

Country Name	Theme	Result
Mali	Policy; Resilient Health Systems and system strengthening	MCSP provided technical and financial support to the government's National Program against Malaria (PNLP) and the national technical working group for Malaria in Pregnancy (MIP) as well as to the national technical working group for the integrated management of childhood illness to: a) align Mali's national reproductive health policies with the WHO Guidelines for the prevention and treatment of malaria during pregnancy and in children under five years old, and b) harmonize the national malaria policy with the national IMCI protocol, and protocol for the integrated management of malnutrition.
Mali	Scale-up interventions/ approaches beyond the zone of implementation	MCSP scaled up and supported the Malian government's *Integrated Package*, a set of high-impact maternal, newborn, child, family planning, malaria, nutrition, and WASH interventions in seven districts: two in Kayes and five in Sikasso, and reinforced the capacity of targeted facilities to implement the package, including training, post-training follow up, supervision, materials and supplies. In just one year's time, there was an increase in the number of women attending ANC visits (74% up to 80%) and those giving birth in a health facility (47% up to 50%).
Mali	Resilient Health Systems and system strengthening	MCSP supported the Government of Mali at the national and district level to protect a target 103,296 children in the district of Kita from malaria by implementing a seasonal malaria chemoprevention (SMC) intervention at scale through the existing health system. The intervention achieved 100% protection for 54% of its target. A household study was also supported by MCSP that demonstrated SMC distribution and adherence could attain a high enough level of efficacy using the existing health system and reduce incidence of malaria and anemia among infants 3-59 months.
Mali	Innovations that have increased coverage, quality and scale	MCSP organized a total of 667 innovative promotional days for integrated family planning and vaccination ("Jour N'Terini") to strengthen the delivery of postpartum family planning services in community health centers in Bamako, Sikasso and Kayes. As a result, 70,171 women received family planning services, and of those women, 30,451 chose long acting methods.
Mali	Innovations that have increased coverage, quality and scale;	MCSP successfully supported the introduction of Chlorhexidine through advocacy to the Government and direct technical support to the division of newborn health. MCSP helped to establish a national sub-committee, performed formative research, and developed a strategic plan for the introduction and scale-up of Chlorhexidine for newborn umbilical cord care.
Mozambique	Scale-up interventions/ approaches beyond the zone of implementation	After MCSP introduced and supported a new approach for improving reproductive, maternal, newborn, and child health referrals and counter-referrals in eight networks covering all of Nampula Province through the Integrated Care and Referral Networks Initiative (known as RIARes in Mozambique), the national government now plans to replicate and scale up this approach with Global Financing Facility support in the additional 10 provinces in Mozambique.
Mozambique	Domestic resource mobilization	After a $1.4 million USAID investment to develop the *National Strategic Plan for CECAP 2016-2021* with the Government of Mozambique and build the capacity of 460 health providers to provide Cervical Cancer Prevention and Control (CECAP) services to 114,414 women (and immediate cryotherapy for treatment of eligible lesions to 81% of eligible women), the national government invested an additional $417,000 in domestic resources to procure essential CECAP materials and equipment, including 40 cryotherapy units at public health facilities.
Mozambique	Policy; Workforce strengthened; Transforming Communities	MCSP supported the national and provincial government to institutionalize the integration of gender into reproductive, maternal, newborn, and child health through policy changes and strengthening of service delivery approaches. At the national level, MCSP advocated for policy change through support for the development of the *Health Sector Gender Strategy, 2018-2023*. At the service delivery level, health workers at 86 project-supported facilities provided couples with high quality counseling to support male involvement in birth planning and complications readiness, postpartum family planning, and health and nutrition. After 3 years of implementation, 75% (204,533) of male partners of pregnant women had participated in at least one antenatal care visit. At the community level, MCSP built the capacity of 10,597 community health workers in 34 districts on the

Country Name	Theme	Result
		integration of gender into health promotion activities, resulting in 30,982 couples who developed birth plans with the support of project-supported community health workers.
Mozambique	Data used for action	As a recognized leader in strengthening Mozambique's national health information system for rRMNCH and nutrition, MCSP's work resulted in the inclusion of key indicators in national RMNCH registers, the integration of routine child health and nutrition indicators into the national HMIS for the first time, and revision of estimates of target populations at sub-national levels for better program planning and monitoring.
Mozambique	Data used for action	MCSP helped the Ministry of Health to prioritize reaching underserved populations through the adaptation of the RED guidelines and building the capacity of district and facility managers in four districts and eight health facilities in Nampula province and three districts and six health facilities in Sofala province for microplanning for immunization, including the integration of family planning and nutrition services. From July 2017 through March 2018, MCSP supported 242 mobile brigades through improved microplanning, community mobilization, and logistical support in districts with low immunization coverage. During this time period, the Penta 3 vaccine dropout rate declined from 7% to 4% in the eight health facilities implementing the RED approach in Nampula, and from 44% to 21% in the six health facilities implementing the approach in Sofala.
Mozambique	Workforce strengthened	MCSP supported the Nampula and Sofala Provincial Health Directorates to initiate the shift to a less-costly and more effective capacity development model using low-dose, high-frequency on-the-job training and mentoring. MCSP trained 60 district and facility-level trainers in the on-the-job training methodology and in RMNCH technical areas. Using training materials provided by the project (audio-visual equipment, manuals, and anatomical models), the trainers now provide on-site training and mentoring to their colleagues in 88 health facilities in Nampula province and 30 health facilities in Sofala province.
Mozambique	Data used for action	MCSP advocated for further institutionalization of quality improvement as a pillar for health care in Mozambique, resulting in the development of the Government's *National Strategy for Quality and Humanization, 2017-2023* and the creation of a new Directorate of Quality Assurance and Management within the Ministry of Health. 86 health facilities in Nampula and Sofala and 58 health facilities in Zambezia now conduct a continuous quality improvement cycle with quarterly performance measurements using standards for maternal and newborn health, family planning, child health, WASH, malaria, and gender and measurement of key quality indicators and health outcomes. From May 2016 to June 2018, more than 60% of health facilities have reported improvement in quality standards of 50% or more as compared to baseline, and 12 program-supported facilities have been accredited in integrated management of childhood illnesses. MCSP also supported communities and facilities to work together at 82 sites through Co-Management and Humanization Committees using the Partnership Defined Quality approach to address prioritized issues affecting quality of care.
Mozambique	Transforming communities – scalable social accountability mechanisms	MCSP strengthened the capacity of and linkages among community health platforms and health services by engaging community members to promote improved family health practices, and demand for and access to quality health services. MCSP's community capacity building approach strengthened Community Health Committees, mothers support groups, water, sanitation and hygiene demonstration centers, community-based child nutritional support groups, and facility-based Co-Management and Humanization Committees. Stronger community-based groups mean more effective partners for government entities to work with at the community level.
Mozambique	Resilient Health Systems and system strengthening; Transforming communities	MCSP strengthened 78 facility-based Co-Management and Humanization Committees (CMHCs) (49 in Nampula province and 29 in Sofala province). As a result, Co-Management and Humanization Committees were able to investigate, plan, and act together to improve health service quality at health facilities. Through these revitalized Co-Management and Humanization Committees, community-to-facility linkages, provider-client relations, and referral networks were strengthened, and communications improved. Community scorecards were used in 28 facilities in Nampula and in 21 facilities in Sofala, and also in

Country Name	Theme	Result
		communities to increase citizen participation in health service quality improvement. Improvements included tighter controls on the delivery and receipt of medications, and greater acceptance of community health worker referrals to health facilities, which contributed to a reduction in home births.
Namibia	Workforce strengthened; Innovations that have increased coverage, quality and scale	Namibia has one of the world's highest HIV prevalence rates. To accelerate HIV prevention, testing, and treatment among Namibian youth aged 10-24 years old, MCSP partnered with the Namibian Planned Parenthood Association (NAPPA) to strengthen adolescent-friendly services, provide 51,866 HIV tests, link 2,049 positive clients to ART, and initiate PrEP with 151 negative clients at high risk of contracting HIV. Building the capacity of NAPPA providers to offer quality adolescent-friendly HIV testing and counseling and to introduce ART and PrEP services improved linkages to care and expanded access to effective prevention options for an age group that is sexually active and has a higher than average HIV prevalence rate.
Namibia	Workforce strengthened; Scale-up interventions/ approaches beyond the zone of implementation	Leveraging the reach of CHWs through the national Health Extension Program (HEP), MCSP provided catalytic technical support to the Ministry of Health and Social Services to introduce and scale-up community-based HIV testing and counseling (CBHTC) in five northern districts with high HIV prevalence. Between July 2016-March 2018, 138 CHWs conducted 17,589 tests, of which 11,716 (67%) were first time testers and 7,689 (44%) were male. Of the 356 community members who tested positive, 246 (70%) were referred and successfully linked to care, treatment and support. The Standard Operating Procedures developed by MCSP for CBHTC in the HEP will be used by the Ministry to further scale up the approach and accelerate Namibia's progress towards reaching the UNAIDS 90:90:90 targets, which include diagnosing 90% of people with HIV, providing treatment for 90% of those diagnosed, and achieving viral load suppression for 90% of those on treatment by 2020.
Namibia	Workforce strengthened	To mitigate the effects of drought on vulnerable and hard-to-reach Namibian communities and build resilience to future shocks, MCSP supported the Ministry of Health and Social Services' national Health Extension Program to bolster the training of 665 community health workers and 171 facility-based health workers in six drought-affected regions on nutrition assessment, counseling and support interventions and water, sanitation and hygiene practices, including latrine and tippy tap construction. As a result, 264,369 community members were reached with health promotion and education on sanitation and safe drinking water and 309,175 community members were assessed for malnutrition – of which 3,171 were found to be malnourished and referred to health facilities where they received therapeutic food.
Namibia	Resilient Health Systems and system strengthening; Data used for action; Policy; Strategic transitions to government	MCSP provided technical support to the Namibian Ministry of Health and Social Science's Health Information and Research Directorate (HIRD) to develop, test, and refine a core piece of the national health information system architecture known as the Master Facility List (MFL). Facility Registries and Health Worker Registries are examples of reference systems, without which interoperability between systems is not possible and reconciliation of data about services provided by health workers and health facilities cannot be performed. Developing a single reference architecture like the MFL ensured that all data reported by various programs link to the same 584 health facilities. This streamlined the data entry, prevented mistakes and duplication errors, and facilitated accurate reporting and data use for health care decision making by appropriate government personnel and leadership. In addition to a single reference list, the public-facing MFL website provided information on service availability to the general public that is tied to GPS coordinates so that everyone from the community level to the Minister of Health are aware of where to go to obtain specific services. As an indication of its institutionalization and sustainability, the MFL is hosted at the Office of the Prime Minister, maintained by the HIRD, and is available for public use at: http://mfl.mhss.gov.na.
Nepal	Data used for action; Innovations that have the potential to increase coverage, quality and scale	In Nepal, newborn mortality accounts for half of all deaths among children under the age of five, with serious infection being one of the leading causes of death. However, little is known about the quality and appropriateness of the care Nepal's newborns and young infants (age 0 – 2 months) receive from the private medicine shops and clinics most families turn to. MCSP and Nepal's Ministry of Health and Population (MOHP) conducted a nationally representative survey in 2017 – sampling 400 medicine shops and 82 clinics across 25 districts of Nepal – to a) understand the current practices of such providers in

Country Name	Theme	Result
		assessing, treating, referring and following up sick young infants; b) compare these practices with evidence-based recommendations; and c) identify factors that influence provider practice and that could be amenable to improvement. Findings reflected that nearly half of medicine shops were unregistered; a notable proportion of private providers surveyed had not been trained in the latest protocols for caring for sick young infants; and that appropriate referral and follow-up was lacking. MCSP disseminated these data nationally and survey recommendations have formed the basis for MCSP and the MOHP's pilot intervention (2017-2019) to improve the quality of care provided to sick young infants by private medicine shops and clinics. Results from this pilot will enable MOHP, partners and the private sector to better provide life-saving treatment for sick, young infants at the points of care where patient demand is well-established.
Nigeria MNCH	Workforce strengthening	In Nigeria, MCSP empowered 1,800 healthcare workers with lifesaving skills to deliver quality RMNCAH services to 269,460 women and children. MCSP worked to institutionalize integrated supportive supervision and create a pool of state-level master trainers to consolidate and scale up capacity building for health workers in Ebonyi and Kogi states.
Nigeria MNCH	Quality improvement	In Nigeria, MCSP improved service delivery in 321 project-supported health facilities serving a population of 1.6 million women and their children. As a result, more than a quarter (91) of supported health facilities have established quality improvement teams and processes to consistently and sustainably monitor and improve quality of care services. All 91 facilities contribute routine data to a quality dashboard that is regularly monitored and reviewed.
Nigeria MNCH	Scale up, domestic resource mobilization	In Nigeria, MCSP provided 101,731 couples year protection (CYP) to prevent pregnancy, and averted 38,897 disability-adjusted life years (DALYs) and 14,574 unwanted pregnancies following initiation or expansion of postpartum family planning services in 191 health facilities in Ebonyi and Kogi. To achieve even greater impact, MCSP successfully advocated for Kogi State to invest 100,000 USD in domestic resources to train 90 service providers and procure equipment to sustain postpartum family planning services across the state.
Nigeria MNCH	Scale-up	MCSP promoted the lifesaving practice of applying chlorhexidine gel for cord care in Nigeria leading to an increase from 8.5% in 2015 to 91% in 2018 in Ebonyi and Kogi states, and the launch of a national strategy for scaling up chlorhexidine in Nigeria by the federal government. In one of the two states supported by MCSP, all 961 newborns delivered at 109 facilities in December 2017 received their first does of chlorhexidine gel.
Nigeria MNCH	Policy	MCSP supported the Federal Ministry of Health to develop two national newborn health strategy documents: The Essential Newborn Care Curriculum (ENCC) training materials which MCSP used to trained 1,474 healthcare workers across national and state levels, and the Nigeria Every Newborn Action Plan (NiENAP) that is expected to reach over 7 million people.
Nigeria MNCH	Policy	In Nigeria, MCSP supported state governments of Ebonyi and Kogi to develop immediate to long-term plans for improving reproductive, maternal, newborn, child, and adolescent health in the states leading to the current state strategic health development plans (2017 to 2022) and costed child health annual plans that will reach over 5 million people.
Nigeria MNCH	Workforce strengthened	In Nigeria, MCSP enhanced the skills competency of 84 tutors and preceptors in 13 pre-service education institutions in Ebonyi and Kogi states, and improved the learning environment in the clinical skills laboratories of the institutions, which will impact the work of future nurses, midwives, and community health extension workers (CHEWS) in and around the states.
Nigeria MNCH	Innovations that have increased coverage, quality and scale	In Nigeria, MCSP developed age- and life-stage assessment and counseling tools to tailor reproductive health and parenting counseling based on adolescent needs. MCSP developed and piloted trainings on the 'Our First Baby' guide and flipchart in 5 facilities across 2 states, training 60 first time mothers and fathers on parenting, health, timing and spacing of pregnancy, and gender-based violence.

Country Name	Theme	Result
Nigeria HelloMama	Mobilizing resources/scale up	In Nigeria, Cross Rivers State Government leveraged $100,000 from the State Saving One Million Lives (SOML) initiative to scale up HelloMama, a text service designed for mothers. As a result, health messages were sent to an additional 10,000 pregnant women and decision-makers with further commitment from the government for full scale inclusion of a digital health budget line in the 2019 budget.
Nigeria HelloMama	Innovations to increase coverage, quality, and scale	In Nigeria, MCSP reached 24,863 pregnant women with health information on pregnancy care through the HelloMama app. These women receive cell phone-based health information and are encouraged to give birth at one of 81 MCSP-supported facilities in Ebonyi and Cross River State.
Nigeria HelloMama	Domestic resource mobilization	As a result of USAID's $3,320,000 investment in Nigeria's HelloMama program, a nationally recognized toll-free number dedicated to receiving maternal and newborn health messages was approved for the first time by the Nigerian Communications Commission for the Federal Ministry of Health who endorsed its use by HelloMama. This toll-free number has been integrated on the platform of three of Nigeria's major mobile networks operators, thus increasing the opportunities for HelloMama health messages to reach over 5 million people. By reaching more areas nationwide, access to maternal and newborn care messages was greatly expanded.
Nigeria RI	Scale up; Domestic resource mobilization	Through a private public partnership approach where pooled funding from the Bill and Melinda Gates Foundation and the Dangote Foundation was matched by State Governments of Sokoto and Bauchi in Nigeria, domestic resources of approximately $1.1 million and $4.3 million respectively have been mobilized to improve routine immunization coverage and quality of services in their states from 2014-2018.
Nigeria RI	Resilient Health Systems and system strengthening	To build a more resilient health system, MCSP plays a lead technical support role in monitoring and evaluation and in data Quality Improvement at all levels of the state health system. In collaboration with other Routine Immunization Memorandum of Understanding partners, MCSP supported the coaching and mentoring of 512 service providers in Sokoto and 902 in Bauchi to improve the quality and timeliness of their reporting. As a result, timeliness of routine immunization data reporting stood at 96% and 94% for Bauchi and Sokoto, respectively. This is an upward trend from the previous reporting period, with each quarter showing an increase of a several percentage points. MCSP also supported the states in addressing persistent RI data quality issues at the local government authority and health facility levels, including serious discrepancies and inconsistencies in reporting, falsification of data, and transcription errors. Government-led state working groups meet regularly to analyze and discuss the root causes of data quality issues.
Nigeria RI	Workforce strengthened	To build a more skilled and knowledgeable health workforce and ensure high-quality Routine Immunization services at health facilities and outreach sessions, MCSP used a combination of user-centered approaches at various levels and in close collaboration with other Routine Immunization partners in Nigeria. Approaches to build health worker capacity included mentoring, on-the-job training, monthly review meetings, and supportive supervision. During the current project year, 5,724 health workers in Bauchi and 2,425 health workers in Sokoto received training on Routine Immunization-related topics, including data management, Reaching Every Ward microplanning, vaccine distribution, cold chain management and maintenance, direct delivery of vaccines, injection safety, vaccine management, new vaccine introduction, data quality assessment, PSE, data analysis, directly observed data entry, and interpersonal communication skills.
Pakistan	Workforce strengthened	In Pakistan, MCSP strengthened the public sector's health system and delivery of quality care by developing a cohort of more than 430 trainers for provision of client-centered, quality family planning services across three provinces of the country, including expanding competence in provision of long-acting methods and postpartum family planning. This cohort within provinces' Population Welfare and Health departments enhanced the skills of more than 400 providers at over 170 facilities in the three MCSP supported districts of each province. Improved quality of care through post training follow-up and supportive

Country Name	Theme	Result
		supervision, coupled with an expanded method mix led to a 12 percent increase in couple years of protection, which is a measure of protection provided by contraceptive methods, in intervention districts.
Pakistan	Policy ; Workforce strengthened	In an effort to strengthen a critical area that has been overlooked in Pakistan, MCSP worked to institutionalize client-centered, voluntary informed family planning uptake within the government's Population Welfare and Health departments through trainings of some 400 provincial and district level managers, and comprehensive joint monitoring of healthcare facilities across almost 65 districts, with trained public sector officials. Through MCSP's advocacy, family planning compliance indicators have been included in district level Health and Population Welfare departments' monitoring systems to measure patient-centered service provision, and voluntary, informed family planning uptake through strengthened client centered service provision.
Rwanda	Scale up	Recognizing that post-partum family planning services either did not exist or were limited in their availability at health care facilities in Rwanda, MCSP initiated a model in 10 districts which was adopted as national policy and the Ministry of Health is now scaling up in all 30 districts. As a result, 43% of clients who delivered babies in MCSP supported districts received family planning methods before discharge by the end of March 2018. Post-partum family planning services are now available to over 100,000 women delivering annually in MCSP supported districts.
Rwanda	Innovations that have increased coverage, quality and scale	MCSP's integrated approach to capacity-building and quality improvement resulted in 87% of women with preeclampsia/eclampsia being appropriately treated with magnesium sulfate at health centers before referral to hospital (up from a baseline of 0%), accompanied by an associated 71% decrease in deaths due to preeclampsia/eclampsia.
Rwanda	Workforce strengthened	MCSP built the capacity of frontline health workers in Rwanda using existing resources including professional associations members (OBGYNs, Pediatricians, Midwives), and a pool of experienced district hospital-based mentors who have reached 2,726 health providers who in turn provided quality services to 253,044 ANC clients, 239,208 mothers in maternity, 242,696 newborns and 780,626 children under-five.
Rwanda	Workforce strengthened	MCSP built the capacity of the community health program in Rwanda to reduce maternal deaths in the community by improving prevention and management of postpartum hemorrhage among women delivering at home. This was done by equipping 4,144 CHWs with the skills to provide community-based services such as provision of misoprostol and as a result, the proportion of home deliveries receiving misoprostol increased from 14% in FY16 to 52 % in FY17.
Rwanda	Data used for action	To promote a culture of evidence driven program implementation at all levels of the health system in Rwanda, MCSP successfully advocated for inclusion of additional RMNCH quality of care indicators into the national HMIS and developed facility level dashboards for real time tracking of key RMNCH quality indicators at 172 health facilities to allow for timely action.
Rwanda	Transforming communities-scalable social accountability mechanisms	To sustainably address the chronic shortage in skilled providers in Integrated Management of Childhood Illnesses (IMCI), MCSP developed a comprehensive model for capacity-building. The model combines "*Low-Dose-High-Frequency*" sessions, mentorship program and On-The-Job Training that empowers peer-mentors at the service delivery point. After a complete redesign of the IMCI training materials, MCSP established a network of 56 district mentors, and then enrolled 933 care providers in 163 health centers across its 10 supported districts. As a result, the percentage of IMCI trained providers increased from 22% to 42% after two years and to 79% by the end of year three. In year four, MCSP focused its efforts on mentorship and supportive supervision to maintain and reinforce the skills of the trained providers, while supporting the institutionalization of the model. The HMIS report in June 2018 indicated that 85% of sick children in MCSP supported districts were treated according to the national guideline, compared to 53% in January 2016.

Country Name	Theme	Result
South Africa	Workforce strengthened; Strategic transitions to government	MCSP supported the development of nursing capacity at the newly inaugurated Nelson Mandela Children's Hospital (NMCH), a unique pediatric specialty hospital in Southern Africa, to help the sickest children in South Africa receive high quality, state-of-the-art health care. MCSP supported the mentorship of clinical pediatric nurses and nurse managers at NMCH by partnering with a US-based children's hospital. MCSP's comprehensive support and partnership to NMCH helped to establish the hospital as a regional center for learning in the Southern Africa region
Tanzania	Workforce strengthened	To produce a more prepared health workforce in Tanzania, MCSP supported the training of almost 2,000 graduates from 10 Health Training Institutions in 2 regions of Tanzania from 2015-2017. The average performance of graduates graduating from the Nursing and Midwifery Diploma in the midwifery subject final year examinations improved from 68% in 2014 to 78% in 2017. The improved performance among graduates will result in a cohort of nurse-midwives competent to provide quality care for women and children in Tanzania.
Tanzania	Innovations that have increased coverage, quality and scale	In Tanzania, MCSP worked to expand access to cost effective prevention interventions to avert cervical cancer among women of reproductive age. By March 2018, 24,072 women were screened for cervical cancer. Of those, 1,558 tested positive using visual inspection acetic acid and 99% were treated with Cryotherapy on the same day.
Tanzania	Resilient Health Systems and system strengthening	MCSP strengthened the routine immunization system in Tanzania, resulting in 499,623 children out of 503,328 (99%) receiving timely doses of DPT3/Penta3 vaccine and a drop-out rate of less than 10% maintained between 2015-2017 in Kagera, Tabora and Simiyu regions.
Tanzania	Data used for action; Resilient Health Systems and system strengthening	Tanzania's national disease surveillance system was strengthened after MCSP convened stakeholders and conducted an asset mapping analysis to inform a transition plan and roadmap to improve coordination and streamlining of parallel systems. MCSP strengthened the technical capacity of the Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDEC) for information and community technologies to develop, deploy and sustain a national information system to empower managers at the national level to improve decision-making process for addressing reproductive, maternal, newborn, and child health priorities.
Tanzania	Innovations that have increased coverage, quality and scale	MCSP supported community mobilization through demand creation activities by Community Health Workers and improved quality at health care facilities, contributing to an increased number of women attending at least one antenatal care visit from 55,305 (91%) in 2015 to 115,774 (104%) in 2016.
Tanzania	Innovations that have increased coverage, quality and scale	To prevent women from contracting malaria during pregnancy, MCSP contributed to an increased uptake of IPTp4 treatments from 0% in 2015 to 24% and 20% in Kagera and Mara regions respectively by September 2016. This served as a basis to introduce the IPTp4 into the client registers, which helps reduce the morbidity and mortality of both mothers and their newborns.
Tanzania	Innovations that have increased coverage, quality and scale	In Tanzania, MCSP contributed to improved quality of care at 226 health facilities in Mara and Kagera regions where 25 health facilities reached at least 70% of the quality standards on maternal and child reproductive health. Among other factors, institutional deliveries significantly increased from 49% in January 2015 to 60% by September 2016. In Tanzania, MCSP improved access to lifesaving services by establishing and strengthening 24 Comprehensive Emergency Obstetric and Newborn Care (CEmONC) sites. This resulted in a 56% increase in the number of Caesarean Sections from 1,453 in January 2015 to 2,280 in September 2016.

Country Name	Theme	Result
Tanzania	Innovations that have increased coverage, quality and scale	In Tanzania, MCSP introduced 25 Kangaroo Mother Care wards in Mara and Kagera regions where underweight babies' lives were saved from hypothermia. The number of low baby birth weights admitted in KMC wards increased over nine months from 37% in January 2016 to 54% in September 2016.
Uganda Child Health	Policy; Scale up	In Uganda, MCSP supported the national government to revitalize, update, and scale up an integrated newborn and child health strategy, training packages and delivery approaches. The strategy outlines integrated treatment for the five biggest causes of child deaths (pneumonia, malaria, diarrhea, malnutrition and measles) at the facility, community, and household levels. Through MCSP support to USAID's Regional Health Integration to Enhance Services (RHITES) program, 572 health workers were trained in these standards and can now provide evidence-based holistic care to an estimated 212,189 children annually.
Uganda Child Health	Policy; Scale up; Domestic resource utilization	In Uganda, MCSP supported the Ministry of Health (MOH) to develop a national guide for application of catchment area-based micro-mapping and planning (CAPA) to other reproductive, maternal, newborn, child and adolescent health (RMNCAH) interventions, a key milestone in improving prioritization, planning, equitable access, and community participation for RMNCAH services and facilitating implementation of the government of Uganda's Sharpened Plan for RMNCAH services. Implementation of the CAPA Guide will be supported by the World Bank's Global Financing Facility (GFF)-funded RMNCAH program in 75 districts of Uganda, thus leveraging other resources.
Uganda Child Health	Policy; Domestic resource utilization	After a significant investment by USAID to assist WHO with the development and launch of global Pediatric Quality of Care Standards, MCSP worked with the MOH in Uganda to adapt and adopt these standards to the Ugandan context. The adapted standards have been integrated into the recently developed national Maternal and Newborn Standards Assessment Tool, which will be used to assess and launch Maternal, Newborn, and Child Health Quality Improvement (QI) Initiatives in Uganda, starting with 16 learning districts, and leveraging financial and resource support from the World Bank's Global Financing Facility (GFF)-funded RMNCAH program.
Uganda Child Health	Domestic resource mobilization	MCSP conducted a cost analysis estimating the resources needed to roll-out and deliver the essential child health package at public facilities. The cost analysis provides Government of Uganda decision-makers and other key stakeholders with evidence to advocate for the expansion of the life-saving package as well as increased domestic spending that will help strengthen the capacity of public health workers to deliver the essential child health package and improve under-five mortality.
Uganda RI	Workforce strengthened	MCSP built the capacity of staff in over 400 health facilities in 11 districts to carry out detailed, facility-level microplanning to improve access and quality of immunization services. This has helped advance equity and increase the number of children vaccinated, with an additional 644 villages now receiving immunization services and approximately 323,000 children receiving a third dose of pentavalent vaccine.
Uganda RI	Policy; Domestic resource mobilization	After MCSP demonstrated improved equity and increased the number of children vaccinated, the Uganda Ministry of Health adopted MCSP's approach for mapping catchment populations to strengthen reproductive, maternal, newborn, child, and adolescent health (RMNCAH) in 75 out of 112 districts (67%), with support from the World Bank's Global Financing Facility (GFF)-funded RMNCAH program.
Uganda RI	Policy; Scale up; Workforce strengthened	Uganda's Ministry of Health has incorporated MCSP's approaches to improving quality and reach of immunization services into key national immunization reference materials used nationwide. These materials include Uganda's first-ever national immunization policy; national Expanded Program on Immunization (EPI) standards; the Immunization in Practice reference manual for front-line health workers; the in-service training to introduce the Reaching Every Child (REC) approach; and the immunization pre-service curriculum for training institutions.

Country Name	Theme	Result
Uganda RI	Transforming communities-scalable social accountability mechanisms; Domestic resource mobilization	MCSP engaged non-health stakeholders (e.g., civil authorities, political representatives, and community leaders) in all 11 MCSP-supported districts to review immunization performance, problem-solve around key bottlenecks, and commit local government funds and resources to improve services and the resilience of the immunization system. In addition to leveraging local resources to address locally-identified challenges to routine immunization, this work led to the creation of a Ministry of Health-issued national statement raising the priority of immunization in these districts and clarifying the important roles of these non-health stakeholders in addressing immunization-related challenges.
Zambia SMGL	Resilient Health Systems and system strengthening; Innovations that have increased coverage, quality, and scale	Under Saving Mothers, Giving Life (SMGL) in Zambia, MCSP and partners were tasked with an ambitious goal of reducing maternal mortality by 50% in target districts by scaling up evidence-based, high-impact maternal, newborn and child health (MNCH) interventions. SMGL achieved remarkable results with a 55% reduction in maternal mortality in the target districts, 38% increase in facility deliveries and a 44% decrease in stillbirths and newborn deaths in facilities.
Zambia RMNCAH and nutrition	Resilient Health Systems and system strengthening; Innovations that have increased coverage, quality, and scale	USAID through MCSP provided technical assistance to the Government of Zambia to build the capacity of districts to better plan and budget for reproductive, maternal, newborn, child and adolescent health and nutrition programs. MCSP's technical support improved evidence-based program planning in 42 districts across 4 provinces, with the potential to improve the health outcomes of 6.2 million people. Districts and implementing partners of the multi-donor-funded Continuum of Care Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition (CoC-RMNCAHN) program are now better equipped to conduct annual work-planning and budgeting to prioritize high impact health activities that are responsive to the needs of communities. The Ministry of Health's annual work-planning process has been strengthened at all levels of the health system, ensuring the Government of Zambia's ability to plan, fund, and manage their continued progress to achieve their national health priorities.
Zambia RMNCAH and nutrition	Resilient Health Systems	Recognizing the vital role of communities in improving Reproductive, Maternal, Newborn, Child, and Adolescent Health and Nutrition outcomes, MCSP built the capacity of district and provincial health teams to engage communities and develop annual workplans that are responsive to community needs. As a result, 20 priority districts across four provinces planned and budgeted for community engagement and health promotion activities at the community level to increase demand for and quality of health and nutrition services, with the potential to benefit over 3 million people.