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Maternal and Child Survival Program

Maternal and Child Survival Program (MCSP) Guatemala

October 1, 2016 – June 30, 2019

Photos: Karen Kasmauski/MCSP

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Maternal and Child Survival Program

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.

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Final Report

Maternal and Child Survival Program (MCSP) Guatemala

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Maternal and Child Survival Program

MCSP Guatemala

Country Overview

Maternal and Child Health in Guatemala

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. However, sweeping inequalities in social, economic, and health outcomes still exist between urban and rural populations.

Urban, Ladina Women	Rural, Indigenous Women
25.7 health workers per 10,000 people[1]	**3.0** health workers per 10,000 people[1]
80.5 maternal deaths per 100,000 live births[2]	**138** maternal deaths per 100,000 live births[2]
73%[1] access skilled birth attendants	**36%**[1] access skilled birth attendants

1. Avila, Carlos, Rhea Bright, Jose Gutierrez, Kenneth Hoadley, Coite Manuel, Natalia Romero, and Michael P. Rodriguez. Guatemala Health System Assessment, August 2015. Bethesda, MD: Health Finance & Governance Project, Abt Associates Inc. 2. MSPAS,Informe de País, Situación de la mortalidad materna 2014-2015.Ministerio de Salud Pública y Asistencia Social. Guatemala 2017.

MCSP's Approach to Strengthening the Guatemalan Health System

MSPAS

Institutional strengthening in management to implement model of health care

Strengthening of competencies and implementation of local processes to improve quality of care and provision of RMNCAH and nutrition services

Strengthening of linkages between community and health services to create demand and improve service provision

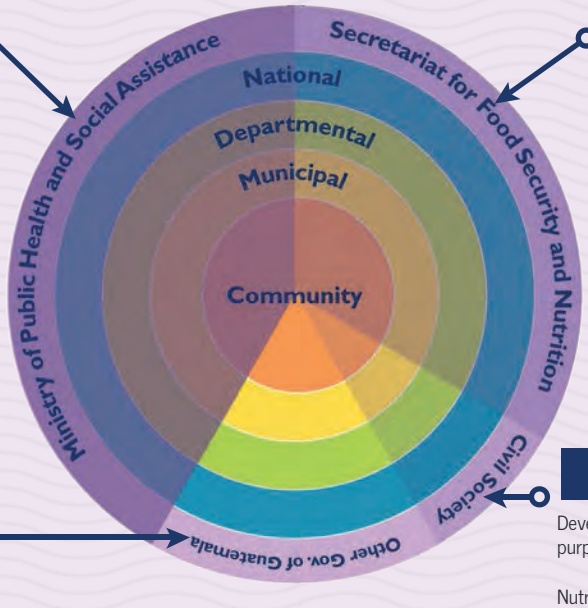
Critical pathways to prevent maternal-neonatal deaths

Other GoG

Ministry of Finance and Directorate of Assistance to Municipal Management and Finances

Online course to increase municipal investment for health and nutrition

Technical assistance to Office of Municipal Planning and Budgeting to increase investment



SESAN

Evaluation of the design of the National Strategy for the Prevention of Stunting

Technical assistance to Municipal Commissions for Food Security and Nutrition to increase investment in health and nutrition

Development of mobile application to monitor food and nutrition security

Civil Society

Development of mobile application for social auditing purposes

Nutrition training of youth leaders

To address poor health and nutrition outcomes in Guatemala, MCSP introduced and implemented quality-centered health and nutrition interventions in 30 priority municipalities of the Western Highlands.

MCSP worked to increase coverage and utilization of evidence-based, sustainable, high-quality, Ministry of Health (MSPAS)-supported reproductive, maternal, newborn, and child health and nutrition interventions at the household, community and health facility levels, improving the nutritional and health status of women of reproductive age and children under five.

OBJECTIVE 1 Provide technical assistance and collaborate with the MOH to improve the provision of services related to reproductive, maternal, neonatal, child, and adolescent health, and nutrition within the context of the primary health care model.

OBJECTIVE 2 Increase the visibility, collaboration, and multi-sectorial efforts in the prevention of chronic malnutrition in the Western Highlands region of Guatemala.

Key Achievements

Strong National and Local Frameworks

With support from MCSP, MSPAS developed and updated national policies, norms, and guidelines to:

- Update the norm for vitamin A supplementation for children between the ages of 12 and 23 months
- Introduce the first national Baby-Friendly Community Initiative guidelines in Guatemala
- Incorporate a new national protocol for perinatal death surveillance and review

MCSP provided technical assistance to MSPAS to review, update, and disseminate its Health Management and Care Model for primary health care service delivery

MCSP led a national-level technical working group to support and expand the utilization of permanent contraceptive methods and LARCs

Effective Inter-Institutional Coordination

MCSP supported the design and implementation of the **1st professional Midwifery Technical Training Program** in Guatemala, to improve women-centered care that is responsive to indigenous peoples of the Western Highlands

With support from MCSP, 8 municipal food security commissions (COMUSAN) planned for and costed health and nutrition interventions for 2019 at nearly:

US$650,000

presenting plans within their annual budget requests to the municipal development councils (COMUDE) for approval

Efficient Facility-Level Operational and Administrative Systems

MCSP certified **36** MSPAS facilitators in the Diplomado program in Maternal and Child Nutrition Within the First 1,000 Days

MCSP designed and implemented an evidence-based Continuous Service Delivery Improvement Model in **15** health facilities

MCSP conducted a formative assessment on perceptions of respectful care and mistreatment, subsequently involving the **6** participating communities and **3** hospitals in the co-design of proposed activities and solutions in response to prioritized issues

MCSP established a national health facility-based WASH program, based on the Clean Clinic Approach, piloted in **11** rural health facilities

MCSP trained **75 health sector managers** in key management skills, including problem identification, planning, resource mobilization, and cross-sector coordination

Meaningful Participation of Civil Society and Communities

Following a successful pilot in **17** communities, MSPAS adopted the Partnership Defined Quality (PDQ) approach for engaging communities and service providers in critical dialogue and expanded its implementation to **67** communities in Quiché and Huehuetenango

Using the MCSP-developed 1,000 Day Window of Opportunity mobile application, a network of civil society organizations conducted collaborative health, nutrition, and FP services monitoring in **253** rural health facilities (195 primary, 58 secondary) in six health areas

MCSP supported **5** critical pathways, engaging **87** communities and **19** health facilities in coordinated life-saving actions along the emergency route

Partners & Health System Alliances

MCSP Guatemala was successfully implemented with the technical, creative, and financial contributions of a number of local and international partner institutions. A consortium of organizations led the implementation of MCSP in-country and convened and coordinated with multiple stakeholders throughout, from public and private-sector institutions to local and international civil society organizations. Below is a comprehensive summary of MCSP Guatemala partner organizations.

MCSP Implementing Partner Consortium

Save the Children
Jhpiego
John Snow, Inc.
Results for Development (R4D)
Population Services International (PSI) / PASMO
PATH

Government of Guatemala (GoG)

Ministry of Health (MSPAS)

Directorate of Integrated Health Care System (SIAS)
Health Promotion and Education Department (PROEDUSA)
Health Area Directorates (DAS) / Municipal Health District (DMS)
General Directorate of Regulation, Surveillance and Control of Health (DGRVCS)
Food Security and Nutrition Program (PROSAN)
National Reproductive Health Program (PNSR)
Vice-Ministry of Hospitals
Health Management Information System (SIGSA)
MSPAS Training Department (DECAP)

Secretary of Food and Nutrition Security (SESAN)

Departmental delegates of SESAN

Ministry of Finance (MINFIN)

Municipal Administrative-Financial Assistance Office (DAAFIM)

Municipal Governments

Municipal Development Councils (COMUDE)
Municipal Food Security and Nutrition Commissions (COMUSAN)

Additional Strategic Alliances

Guatemalan Human Rights Ombudsman (PDH Municipal Governments)

USAID Partners
Health and Education Policy Project (HEP+)

Interagency partners
Nutrition Institute for Central America and Panama (INCAP)
UNFPA, UNICEF, PAHO

NGOs and private sector
Alianza por la Nutrición
GlaxoSmithKline (GSK)
Mestre Family
University of Da Vinci
University of San Martin de Porres

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Acronyms

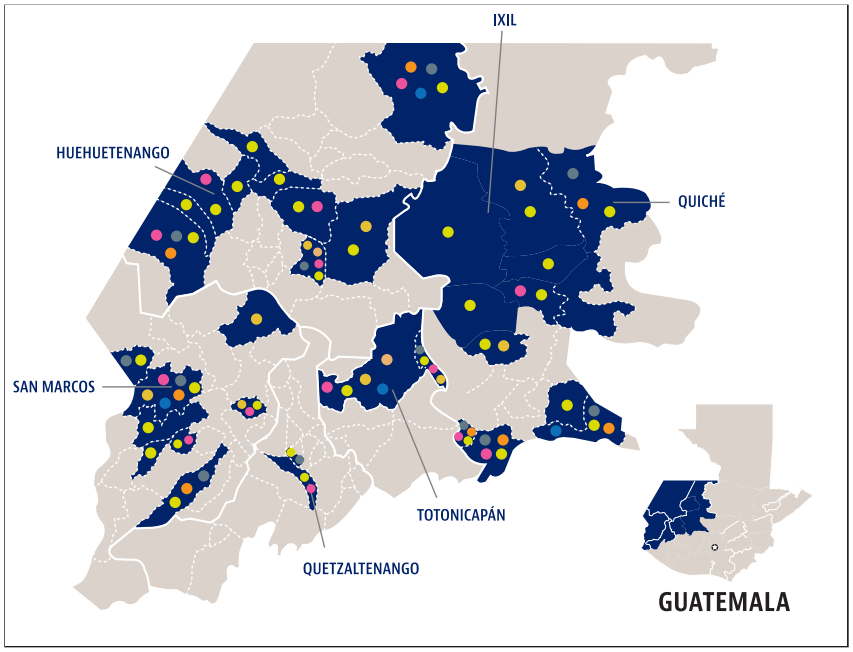
ACIEX	*Aprendizaje Colaborativo e Intercambio de Experiencias* (Collaborative Learning and Experience Sharing)
AMTSL	Active Management of the Third Stage of Labor
ANC	Antenatal Care
APRECIE	*Aprendizaje Colaborativo e Intercambio de Evidencia y Experiencia* (Collaborative Learning and Exchange of Evidence and Experience)
BFCI	Baby-Friendly Community Initiative
CAIMI	*Centro de Atención Integral Materno-Infantil* (Integrated Maternal and Child Health Center)
CAP	*Centro de Atención Permanente* (Permanent Care Center)
CCA	Clean Clinic Approach
CDC	Centers for Disease Control and Prevention
CNAA	*Comisión Nacional de Aseguramiento de Anticonceptivos* (National Commission to Ensure the Use of Contraceptives)
COCODE	*Consejo Comunitario de Desarrollo* (Community Development Council)
CODESAN	*Comisión Departamental de Seguridad Alimentaria y Nutrición* (Departmental Food Security and Nutrition Commission)
COMUDE	*Consejo Municipal de Desarrollo* (Municipal Development Council)
COMUSAN	*Comisión Municipal de Seguridad Alimentaria Nutricional* (Food Security and Nutrition Municipal Commissions)
CSO	Civil Society Organizations
DAAFIM	*Dirección de Asistencia Administrativa-Financiera Municipal* (Municipal Administrative-Financial Assistance Office)
DAS	*Dirección de Area de Salud* (Health Area Directorate)
DECAP	*Departamento de Capacitación* (MSPAS Training Department)
DGRVCS	*Dirección General de Regulación, Vigilancia, y Control de Salud* (Office of Regulation, Control, and Health Monitoring)
DEMI	*Defensoría de la Mujer Indigena* (Defender for the Indigenous Woman)
DRCVA	*Dirección de Regulación, Vigilancia y Control de Alimentos* (Directorate of Regulation, Surveillance, and Control of Foods)
DMS	*Distrito Municipal de Salud* (Municipal Health District)
DOB	Day of Birth
ENPDC	*Estrategia Nacional para la Prevención de la Desnutrición Crónica* (National Strategy for the Prevention of Chronic Malnutrition)
FP	Family Planning
FSN	Food Security and Nutrition
GoG	Government of Guatemala
GSK	Glaxo Smith Kline
HBB	Helping Babies Breathe
HCD	Human Capacity Development
HEP+	Health and Education Policy Plus Project
HPV	Human Papilloma Virus
ICM	International Confederation of Midwives
IFPRI	International Food Policy Research Institute/Harvest Plus
IGSS	*Instituto Guatemalteco de Seguridad Social* (Guatemalan Social Security Institute)
INCAP	*Instituto de Nutrición de Centroamérica y Panamá* (Nutrition Institute of Central America and Panama)
INSP	*Instituto Nacional de Salud Pública* (National Institute of Public Health-INSP) of Mexico
IUD	Intrauterine device
IPC	Infection Prevention and Control Standards

JMP	WHO/UNICEF Joint Monitoring Program for Water Supply, Sanitation, and Hygiene
LARC	Long-Acting Reversible Contraception
MAGA	*Ministerio de Agricultura, Ganadería y Alimentación* (Guatemalan Ministry of Agriculture)
MEC	Medical Eligibility Criteria for contraceptive use
MCSP	Maternal and Child Survival Project
MIDES	*Ministerio de Desarrollo Social* (Ministry of Social Development)
MINFIN	*Ministerio de Finanzas Públicas* (Guatemalan Ministry of Public Finance)
MIS	*Modelo Incluyente de Salud* (Inclusive Health Model)
MMR	Measles, Mumps and Rubella
MSPAS	*Ministerio de Salud Pública y Asistencia Social* (Guatemalan Ministry of Health)
ONSEC	*Oficina Nacional de Servicio Civil* (National Office of Civil Service)
OPV	Oral Polio Vaccine
PAHO	Pan-American Health Organization
PASMO	Pan-American Social Marketing Organization
PDH	*Procuraduría de Derechos Humanos* (Human Rights Ombudsman Office)
PDQ	Partnership Defined Quality
PNSR	*Programa Nacional de Salud Reproductiva* (National Reproductive Health Program)
PPC	Peer Practice Coordinator
PPFP	Postpartum family planning
PPIUD	Postpartum intrauterine device
PPP	Public-private partnership
PROEDUSA	*Departamento de Promoción y Educación en Salud* (Health Promotion and Education Department)
PROSAN	*Programa de Seguridad Alimentaria y Nutricional* (Guatemala's Food Security and Nutrition Program
QI	Quality Improvement
RMNCAH/N	Reproductive, Maternal, Newborn, Child, and Adolescent Health and Nutrition
SDGs	Sustainable Development Goals
SEPREM	*Secretaría Presidencial de la Mujer* (Women´s Presidential Secretariat)
SESAN	*Secretaría de Seguridad Alimentaria y Nutricional* (Secretariate of Food Security and Nutrition)
SIAS	*Dirección General del Sistema Integral de Atención en Salud* (Directorate for the Integrated Health Care System)
SIGSA	*Sistema de Información Gerencial en Salud* (Health Management Information System)
SINASAN	*Sistema Nacional de Seguridad Alimentaria y Nutricional* (National System for Food Security and Nutrition)
SIVESNU	*Sistema de Vigilancia Epidemiológica en Salud y Nutrición* (Epidemiological Health and Nutrition Monitoring System)
SRH	Sexual and Reproductive Health
TBA	Traditional Birth Attendants
TUP	*Técnica Universitaria en Partería* (University Midwifery Technician)
TWG	Technical working group
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAC	University of San Carlos in Guatemala
USMP	University of San Martin de Porres in Peru
WASH	Water, Sanitation, and Hygiene
WFP	World Food Program
WHO	World Health Organization

Country Summary

MCSP Guatemala worked at the national level and in all 30 of the USAID-prioritized municipalities in the departments of Huehuetenango, San Marcos, Quetzaltenango, Totonicapán, and Quiché. Project interventions targeted six health departments (DAS), one for each department, with Quiché comprising two DAS (Ixil and Quiché). Each of the 30 municipalities constitutes one district health area (DMS), with the exception of Chichicastenango in Quiché, divided into Chichicastenango and Chupol.

Figure 1. Geographic Coverage



Huehuetenango:
- Chiantla
- Cuilco
- Jacaltenango
- La Libertad
- La Democracia
- Todos Santos Cuchumatanes
- San Sebastian Huehuetenango
- Concepción Huista
- San Antonio Huista
- Santa Cruz Barillas

San Marcos:
- San Miguel Ixtahuacán
- Sibinal
- Tajumulco
- San Rafael Pie de la Cuesta
- Nuevo Progreso
- San José El Rodeo
- San Pablo
- San Lorenzo

Ixil
- Santa María Nebaj
- San Juan Cotzal
- San Gaspar Chajul

Quiché
- Zacualpa
- Chichicastenango
- Cunén
- Uspantán
- Sacapulas

Quetzaltenango
- San Juan Ostuncalco
- Concepción Chiquirichapa

Totonicapán
- Momostenango
- Santa Lucía La Reforma

	Quality RMNCAH Services: QI Ambulatory Care; Differentiated Care for Adolescents; FP Compliance; Diplomado
	WASH CCA Pilot
	Proof of Concept: Continuous Service Delivery Improvement Model
	Friendly Services Approach
	PDQ
	Critical Pathways

Key Health Indicators	Totonicapán	Quetzaltenango	San Marcos	Huehuetenango	Quiché
Maternal Mortality Ratio (per 100,000 live births)[1]	149	122	98	202	99
Neonatal Mortality Rate (per 1,000 live births)[2]	22	9	16	28	13
Stunting in children under 5 (percent)[2]	70	49	55	68	69
Births attended by skilled birth attendant (percent)[2]	41	69	58	39	36

[1] MSPAS. Informe de País: Situación de la Mortalidad Materna 2014-2015
[2] Encuesta Nacional de Salud Materno Infantil

Program Objectives and Major Accomplishments

- **Project Goal:** To increase coverage and utilization of evidence-based, sustainable, high-quality, MOH-supported RMNCAH/N interventions at the household, community and health facility levels and thereby improve the nutritional and health status of women of reproductive age and children under five in 30 municipalities in the Western Highlands region.
- **Objective 1:** Provide technical assistance and collaborate with the Ministry of Health to improve the provision of services related to reproductive, maternal, neonatal, child, and adolescent health, and nutrition within the context of the primary health care model
- **Objective 2:** Increase the visibility, collaboration, and multi-sectorial efforts in the prevention of chronic malnutrition in the Western Highlands region of Guatemala
- Key Achievements:
  - Developed evidence base to inform and update national policies, norms, and guidelines related to baby-friendly initiatives, perinatal death surveillance, and nutrition
  - Provided technical assistance to MSPAS for the review and dissemination of its updated primary health care service delivery model
  - Led a national technical working group to support and expand the utilization of permanent contraceptive methods and LARCs
  - Supported the design and implementation of the 1st professional midwifery technical training program in Guatemala
  - Facilitated the planning and costing of health and nutrition interventions with 8 municipal food security and nutrition commissions (COMUSAN) which were incorporated into annual municipal budgets, valued at $650,000
  - Designed and implemented an evidence-based continuous service delivery model in 15 health facilities
  - Established a national health facility-based WASH program based on the Clean Clinic Approach in 11 health facilities
  - Supported uptake by MSPAS of the Partnership Defined Quality approach for engaging communities and health service providers in critical dialogues in 67 communities in Quiché, San Marcos and Huehuetenango
  - Developed a 1,000-day window of opportunity mobile application used by a network of civil society organizations to monitor health, nutrition, and family planning services provided by 195 primary and 58 secondary facilities in six health areas

    Supported five critical pathways, engaging 87 communities and 19 health facilities in coordinated life-saving actions along the emergency route to respond to pregnancy and labor-related complications

Program Dates	July 1, 2017 – June 30, 2019		
Funding	**Total Mission Funding**		**Total Core Funding by Area**
	$10,814,419		FP: $3,998,759; MCH: $2,583,203; NUT: $3,879,730; PD&L: $102,727; WASH: $250,000
Geographic Coverage	**No. (%) of departments**	**No. (%) of municipalities**	**No. (%) of facilities or communities**
	5 of 22 (23%)	30 of 340 (8.9%)	245 facilities / 2,061 communities
Technical Interventions	 Child Health; Community Health and Civil Society Engagement; Immunization; Maternal Health; Newborn Health; Nutrition; Reproductive Health; Water, Sanitation, and Hygiene		

Executive Summary

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.

From October 2016 to June 2019, a consortium of partners led by Save the Children implemented MCSP in Guatemala, with the overall objective to increase coverage and utilization of evidence-based, sustainable, high-quality, Ministry of Health (MSPAS)-supported Reproductive, Maternal, Newborn, Child, Adolescent Health and Nutrition (RMNCAH/N) interventions at the household, community and health facility levels. The project provided continuity to previous USAID projects in Guatemala, working in all 30 of the USAID-prioritized municipalities in Huehuetenango, San Marcos, Quetzaltenango, Totonicapán, and Quiché.

MCSP strengthened linkages among key public, private and community stakeholders and institutions at the national, regional, municipal, and local levels to promote collaborative actions to strengthen the quality of health service provision. In addition to MSPAS, the project involved non-health sector actors in health activities, such as the Secretary of Food Security and Nutrition (SESAN), the Ministry of Finance (MINFIN), municipal-level governments, and local indigenous leaders, who supported innovative approaches to addressing longstanding health and nutrition problems.

MCSP worked to strengthen four major pillars

of improved health and nutrition outcomes in Guatemala: (1) Strong National and Local Frameworks; (2) Efficient Facility-Level Operational and Administrative Systems; (3) Effective Inter-Institutional Collaboration; and (4) Meaningful Participation of Civil Society and Communities. These pillars, when integrated and working within the framework of MCSP's continuous service delivery improvement approach, contribute to increased coverage and quality of health services throughout the health system. Through hands-on technical assistance and institutional strengthening activities, MCSP worked in partnership with MSPAS to achieve several key results as described below:

- Supported the development and updating of national policies, norms, and guidelines. For example, assisted MSPAS to update the national vitamin A supplementation norm on children 6-12 months and children with acute malnutrition, and supported the incorporation of a new national protocol for perinatal death surveillance.
- Provided technical assistance to MSPAS to review, update, and disseminate a new national primary health care model.
- Certified a first cohort of 75 health sector personnel who completed the MCSP-developed Health Management Course, which includes 53 hours of training in problem identification, planning, resource mobilization, and cross-sector coordination, and developed health action plans that attracted funding commitments from diverse stakeholders.
- Supported the design and implementation of an evidence-based Continuous Service Delivery Improvement Model in 15 health facilities, that enabled systematic assessment and improvement of quality of care during the day of birth and resulted in improved health outcomes for women and newborns.
- Conducted a formative assessment, disseminated results and facilitated the co-design of strategies to improve respectful care in three districts, involving six communities and three hospitals in participatory analysis and collective problem solving to improve how women are treated during delivery.
- Established a national health-facility-based WASH strategy based on MCSP's Clean Clinic Approach (CCA) and successfully piloted it in 11 health facilities.
- In collaboration with MSPAS and the University of San Martin de Porres in Lima, Peru (USMP), supported the design and implementation of the first professional Midwifery Technical Training Program in Guatemala to improve women-centered care that is responsive to the needs of indigenous peoples of the Western Highlands.
- Certified 36 MSPAS facilitators in the newly adapted eLearning program, Diplomado Maternal and Child Nutrition within the First 1,000 Days. With MSPAS developed a mentorship training curriculum and certified 90 clinical and managerial mentors in all six of the project's health area directorates (DAS).
- Piloted implementation of the Partnership Defined Quality (PDQ) approach in 17 communities, which was later expanded by MSPAS to 67 additional communities in Quiché, San Marcos, and Huehuetenango.
- Completed 174 family planning (FP) compliance visits in 66 health facilities. While no FP compliance risks were found, the project identified gaps and supported facilities to improve the quality of voluntary FP services and ensure access to a full range of contraceptive methods.

The implementation of MCSP in Guatemala provided a number of learning opportunities for MCSP at the global level, including insights into adapting models to the local context and reaching hard-to-reach populations with quality health services. Below are recommendations for key RMNCAH/N stakeholders including Guatemala's MSPAS and USAID.

Recommendations for MSPAS

- **Quality improvements must address both individual health provider and system level gaps.** To create lasting improvements in health care outcomes, a successful quality improvement (QI) model must include a multi-pronged approach to address local needs-based gaps in the health system.
- **On-site capacity building promotes sustained increases in health provider performance.** Capacity building approaches that combine

on-site clinical training with mentorship and supportive supervision could be further tested as an inclusive, practical option for continually improving clinical and managerial competencies and for developing leadership and client-centered care skills.

- **Mainstream person-centered care as a core component of comprehensive RMNCAH/N programs.** While country stakeholders can use results from MCSP's formative assessment on respectful care to address local challenges, it is important to move beyond "stand-alone" interventions and to support the design, implementation, and monitoring of large-scale efforts to strengthen respectful care across clinical areas and RMNCAH/N programs.
- **Digital tools can empower front-line health actors to create accountability from the bottom up.** Incorporating digital tools for front-line health workers that support informed decision-making can contribute to creating a culture of data use for accountability from the bottom up.
- **Community leadership in health is crucial to improving the quality of health services.** Creating space for active dialogue between communities and health facilities can create a shared vision for quality health care and strengthen mutual accountability structures. To promote sustained improvements in the quality of care, communities must be engaged as active leaders in health solutions rather than as passive "beneficiaries" of health services.
- **Youth must be engaged as leaders in health outside of schools and health facilities.** To increase uptake of sexual and reproductive health (SRH) and FP services among youth, programs must go beyond embedding activities in schools and health facilities to reach a broader array of young people where they are—in their communities and in their homes.
- **Innovative multisectoral partnerships are crucial to promoting health systems change.** To generate innovative approaches to longstanding health problems and promote scale and sustainability, it is important to forge collaborative, integrated actions among diverse public institutions, private-sector, and community actors at all levels, from both the health and non-health sectors, and including local indigenous leaders and midwives.

Recommendations for Future RMNCAH/N Project Implementers

- **Plan for an inception phase to study existing strategies.** RMNCAH/N 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 RMNCAH/N outcomes. The transfer of relevant strategies and tools to future projects allows for continuity of best practices and increased impact in the long-term.
- **Plan for political changes in a dynamic social climate.** One of the most common and disruptive challenges for development projects is leadership changes in key governmental institutions. It is important to incorporate an adaptive management approach for balancing fidelity to core project principles and objectives with the flexibility to adjust in response to socio-political and other contextual changes.
- **Strategic public-private partnerships (PPPs) can strengthen systems responses.** The private-sector can play a critical role in boosting the efforts of government and non-governmental organizations (NGOs) to tackle systemic health problems. Opportunities for private-sector involvement are available and stakeholders in health should act on them; however, PPPs should be pursued with thoughtful planning to ensure inclusivity and promote leadership of communityand government stakeholders throughout.

Recommendations for USAID

- **Cross-sectoral collaboration in international health and development projects will optimize resources and improve results.** RMNCAH/N interventions should go beyond traditional public health models and include integrated interventions in sectors such as education, agriculture, economic development, and justice.

This end-of-project report discusses the key strategies, achievements, results, lessons, and

recommendations from implementation of MCSP in Guatemala from October 1, 2016 to June 30, 2019. It is intended to contribute to learning on a wide range of RMNCAH/N interventions and is geared toward implementers of RMNCAH/N programs, local and international decision-makers, funders, and all actors working to improve the lives of women and children around the world.


Photo: Caroline Trutmann|MCSP

Introduction

Maternal and Child Health in Guatemala

Following the end of its 36-year civil war in 1996, 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.[1]

Over half of the Guatemalan population lives in poverty, with sweeping inequalities in social, economic, and health outcomes between urban and rural areas. Guatemala has one of the highest rates of chronic malnutrition—or stunting— in the world, due to factors such as frequent recurring illness, inadequate dietary intake, contaminated water and deficient sanitation. Chronic malnutrition affects 70% of children under five in the Western Highlands.[2] In 2016, the GoG developed the National Strategy for the Prevention of Chronic Malnutrition (ENPDC), with the aim of reducing stunting rates by 10 percentage points among

1. Avila, Carlos, Rhea Bright, Jose Gutierrez, Kenneth Hoadley, Coite Manuel, Natalia Romero, and Michael P. Rodriguez. *Guatemala Health System Assessment*, August 2015. Bethesda, MD: Health Finance & Governance Project, Abt Associates Inc.
2. MSPAS, Instituto Nacional de Estadística, ICF International, 2015. Encuesta Nacional de Salud Materno Infantil 2014–2015. Cuidad de Guatemala, Guatemala.

children under two years of age by 2020.

Guatemala has some of the lowest scores on health and development indicators in Latin America. Although maternal mortality in Guatemala has generally decreased since the early 2000s, it remains high at an average of 108 maternal deaths per 100,000 live births, and each week approximately eight women die from maternity-related complications. The principal causes of maternal deaths are postpartum hemorrhage and hypertension during pregnancy, largely associated with limited access to adequate care at health facilities.[3] For rural, indigenous women, this statistic is worse, at 139 maternal deaths per 100,000 live births.[4]

Newborn mortality accounts for over 60% of infant mortality in Guatemala, and the leading causes of newborn death are asphyxia, preterm birth, and sepsis.[5] Although MSPAS has prioritized neonatal health in the current institutional strategic plan,[6] a lack of specialized personnel at the local level, as well as the lack of skills training and resources, limit healthcare workers' ability to carry out evidence-based interventions such as cord care and interventions for newborns with low birth weight. Historically, health personnel have received training on Helping Babies Breathe (HBB)[7]; however, most staff at the primary or secondary levels do not have the skills to resuscitate and adequately care for newborns. In facilities that *are* equipped to provide adequate postnatal care for newborns, there is need to strengthen monitoring and quality assurance systems for these services.

Despite some improvements over the past two decades, the national unmet need for FP in Guatemala is still high, at 14% among all women of reproductive age and up to 18% in the Western Highlands. By age 19, more than 41% of girls 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.[8] Rates of pregnancy in minors 14 and under are high, at 197 pregnancies per 100,000 people in 2015.[9]

In response, the GoG has developed an array of legal frameworks, health policies, and health facility protocols that stipulate specialized or "differentiated" clinical care for minors, including a specific "Pathway to Care"[10] for pregnant minors 14 and younger.

Although Guatemalan public health policies recognize the importance of multicultural, multilingual, and gender sensitive services, major challenges persist in providing culturally relevant and respectful health care to large swaths of the population, particularly in rural areas. In the five departments known collectively as the Western Highlands,[11] predominantly indigenous Mayan communities lack access to health services and experience major gaps in health coverage and care, particularly in relation to maternal, newborn, and child health and nutrition. As a result, a large majority of indigenous women seek care during pregnancy and childbirth outside of the formal health system through traditional birth attendants (TBAs – *comadronas* in Spanish), whose training and experience vary greatly. In fact, only 36% of indigenous women accessed skilled birth attendants for their last delivery.[12]

Widespread inequalities in coverage between urban and rural areas stem partly from inadequate distribution of health personnel and other resources. For example, while the availability of health workers in urban areas of Guatemala is limited at 25.7 workers per 10,000 people, the situation is significantly worse in rural areas, where it drops to 3.0 health workers per 10,000 people.[13]

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3. Postpartum hemorrhage (PPH) and hypertension are associated with the fourth delay under the four delays model MSPAS uses to analyze maternal deaths in Guatemala.
4. MSPAS, Informe de Pais: Situacion de la Mortalidad Materna 2014-2015, https://www.mspas.gob.gt/index.php/component/jdownloads/category/94-muerte-materna?Itemid=-1.
5. MSPAS, Informe Final, ENSMI 2014-2015.
6. MSPAS, Plan Estratégico Institucional: 2018-2032
7. HBB is an evidence-based educational program on neonatal resuscitation techniques, emphasizing the first minute after birth.
8. MSPAS, Informe Final, ENSMI 2014-2015
9. SIGSA, Situación de embarazos en niñas menores de 14 años, Semana epidemiológica, No. 41, Guatemala, 2015 http://epidemiologia.mspas.gob.gt/files/Publicaciones/Semanas%20Situacional/Situación%20de%20embarazos%20en%20niñas%20menores%20de%2014%20semana%2041%202015.pdf
10. MSPAS' Pathway to Care defines the clinical pathway for minors and includes guidance on notifying Guatemala's Human Rights Ombudsman (PDH) of all pregnancies in girls 14 and under.
11. Huehuetenango, Quetzaltenango, Quiché, San Marcos, and Totonicapán.
12. Avila, Carlos, Rhea Bright, Jose Gutierrez, Kenneth Hoadley, Coite Manuel, Natalia Romero, and Michael P. Rodriguez. Guatemala Health System Assessment, August 2015. Bethesda, MD: Health Finance & Governance Project, Abt Associates Inc.
13. Ibid.

The shortage of health workers coupled with a lack of technical training and incentives results in many health workers being either unable or unwilling to provide consistent, quality care at the health facility or community levels. At the primary level of care, the vast majority of auxiliary nurses do not have the skills needed to deliver babies, identify danger signs, or initiate management of the most common complications for mothers and newborns.

Maternal and Child Survival Program

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 engages governments, policymakers, private sector leaders, health care providers, civil society, faith-based organizations, and communities in adopting and accelerating proven approaches to address the major causes of maternal, newborn and child mortality and improve the quality of health services at community and health facility levels. Through integrated interventions in health system strengthening, community mobilization and inclusion, and innovative approaches to adapting and contextualizing proven global health practices to local needs, MCSP seeks to end preventable child and maternal deaths within a generation.

MCSP in Guatemala

To address poor health outcomes in Guatemala, USAID requested MCSP assistance to support the implementation of quality health and nutrition interventions in 30 priority municipalities of the Guatemalan Western Highlands. From October 2016 to June 2019, a consortium of partners, led by Save the Children in Guatemala, worked to achieve the project goal of supporting the GoG to increase coverage and utilization of evidence-based, sustainable, high-quality RMNCAH/N interventions, to contribute towards improving the nutritional and health status of women of reproductive age and children under five. The project's strategic objectives and intermediate results are presented in Figure 2.

Figure 2. MCSP Results RMNCAH/N

Overall Project Objective: Increase coverage and utilization of evidence-based, sustainable, high-quality, Ministry of Health (MSPAS)-supported RMNCAH/N interventions at the household, community and health facility levels, improving the nutritional and health status of women of reproductive age and children under five
Objective 1: Provide technical assistance and collaborate with MSPAS to improve the provision of services related to reproductive, maternal, neonatal, child, and adolescent health, and nutrition within the context of the primary health care model

R1: Primary health care model revised, adjusted and implemented in prioritized municipalities	R2: Quality RMNCAH/N health services provided by the network of health facilities and workers	R3: Linkages between the municipality and the community strengthened in order to improve community engagement in the co-management and monitoring of health and nutrition services and to create demand of health services	R4: Improved knowledge, competencies, and skills of health workers in the areas of RMNCAH/N

Objective 2: Increase the visibility, collaboration, and multi-sectorial efforts in the prevention of chronic malnutrition in the Western Highlands region of Guatemala
R5: Supported the implementation of the National Strategy for Prevention of Chronic Malnutrition at the national level and in prioritized municipalities

MCSP worked at various levels within and outside the Guatemalan health system, strengthening both horizontal and vertical linkages among actors to facilitate collaborative, mutually-reinforcing actions to improve maternal and child health. As previous USAID-funded RMNCAH/N projects in Guatemala came to an end in 2017, MCSP offered continuity for promising models and best practices and helped maintain their momentum and impact. MCSP also responded to new and evolving gaps by adapting and testing interventions for incorporation into future RMNCAH/N projects. To generate innovative approaches to longstanding health problems, MCSP forged relationships among diverse public institutions, private-sector, and community actors on local, regional, and national levels, including health actors such as MSPAS and the Secretary of Food Security and Nutrition (SESAN) as well as non-health actors, local indigenous leaders and traditional birth attendants.

MCSP used a health systems strengthening and human capacity development approach to sustainably expand service coverage while improving the quality of care. Working in close partnership with MSPAS and SESAN, the project targeted the overall health system by providing ongoing technical assistance at the central, departmental (Health Area Directorate-DAS), municipal (Municipal Health District-DMS), and local levels. The project worked alongside numerous entities within MSPAS and SESAN to strengthen Guatemala's health services network,[14] and engaged subnational government bodies such as the Municipal Development Councils (COMUDE) and the Municipal Food Security and Nutrition Commissions (COMUSAN). MCSP thus strengthened national frameworks, standards and institutions to ensure widespread coverage of quality health care, while supporting the subnational DAS, DMS, municipal governments, and health facilities to operationalize these frameworks and standards at regional and local levels.

Project Timeline

MCSP Guatemala was rolled-out in two project phases: the transition phase (October 2016-July 2017), and the full implementation phase (July 2017-June 2019).

Transition Phase: MCSP followed the work of three USAID-funded RMNCAH/N programs implemented in the Western Highlands: FANTA III, Nutri-Salud, and PlanFam. As these projects came to an end in 2017, MCSP offered an opportunity for continuity of models and best practices. During the transition phase, MCSP worked in collaboration with MSPAS and these programs to identify strategies, products, achievements, and specific activities that MCSP could support to promote lasting impact of successful interventions (Table 1).

Table 1. Models Adapted and/or Expanded Under MCSP

Model	How MCSP Adapted and/or Expanded the Model	Entity who will continue this effort beyond MCSP
Health Facility Gap Analysis Tool	Building on gap analyses at health facilities under Nutri-Salud and PlanFam, MCSP expanded on and improved the data collection tool, adding additional indicators related to quality service delivery under six core categories: equipment, infrastructure, service delivery, documentation, human resources, and technology (page 17).	Viceministry of Hospitals and DAS
Collaborative Learning and Exchange of Evidence and Experience (APRECIE)	MCSP expanded on APRECIE, a Nutri-Salud application for quality of care process monitoring. MCSP's revised version of the tool, ACIEX *(Aprendizaje Colaborative e Intercambio de Experiencias)*, facilitates assessment and action planning based on the previously established indicators for outpatient care, plus new indicators for day of birth, family planning, nutrition, and adolescent care in health facilities (page 32).	Viceministry of Hospitals and DAS

14. The health services network is made up of health providers at the primary, secondary, and tertiary levels of care. The DAS manage the network of services at the departmental level and the DMS manage the network of services within their municipal jurisdiction.

Model	How MCSP Adapted and/or Expanded the Model	Entity who will continue this effort beyond MCSP
Certificate Program in Maternal and Child Nutrition during the first 1000 Days of Life	The distance learning program "*el Diplomado*" was initiated by FANTA III and continued under Nutri-Salud. In partnership with PROSAN and in collaboration with INCAP, MCSP updated the curriculum and supported the training and graduation of a third cohort of Diplomado participants (page 52).	SIAS, DECAP and DAS with support from INCAP
Guide for Elaborating Municipal Investment Plans	MCSP implemented the guide, developed by USAID's Health and Education Policy Plus Project (HEP+) and FANTA III, in eight municipalities of the departments of San Marcos, Quiché, Quetzaltenango and Huehuetenango. MCSP provided technical assistance to municipal COMUSANES to promote increased investment in nutrition-specific and nutrition-sensitive interventions (page 55).	DAAFIM/MINFIN, SESAN with municipalities
Critical Pathways (*Rutas Críticas*)	PlanFam and Nutri-Salud supported health workers and community members to establish critical pathways in Nebaj, Quiche; Momostenango, Totonicapan; and Barillas, Huehuetenango. MCSP completed an assessment of the critical pathways and continued to strengthen them during the project. Additionally, MCSP supported the formation of three new critical pathways, one in Huehuetenango and two in San Marco Ixtata, Huehuetenango and two in Tajumulco, San Marcos (page 62).	MOH

Implementation Phase: Beyond providing continuity with previous projects, MCSP responded to new and evolving gaps by adapting, exploring, and testing interventions for incorporation into future RMNCAH/N programs. MCSP in Guatemala required a high level of coordination, flexibility, and responsiveness, particularly within the dynamic, constantly changing socio-political country context. MCSP had to revise its plans several times during implementation in response to external factors. For instance, in August 2017, Guatemala's Minister of Health and four Vice-Ministers resigned and were replaced with new authorities, prompting a complete revision of Guatemala's primary health care model. In January 2018, changes in SESAN leadership with the resignation of the Secretary and Technical Sub Secretary set the stage for increased coordination between SESAN and MSPAS. From April to August 2018, MCSP Guatemala had to slow down and/or suspend project activities due to delays in the U.S. Government's certification process for Guatemala, which needed to be completed in order to receive the funding allocated to MCSP.

Despite these challenges, MCSP not only made significant progress on its objectives, but was also able to collaborate with a wide range of actors in response to emerging health issues. For example, MCSP assisted MSPAS to respond to a potential measles outbreak with an extensive vaccination campaign, in which 353 health service providers were trained on updated guidelines for increasing vaccination coverage. In collaboration with INCAP, MCSP responded to a request to carry out two annual health and nutrition surveys that are used by USAID to contribute to global indicators tracked by the organization. MCSP also supported an evaluation of the design of Guatemala's National Strategy for Prevention of Chronic Malnutrition (ENPDC), led by SESAN and conducted by the National Institute of Public Health-INSP of Mexico. In addition, during the five-month activity slow-down period, MCSP leveraged private cost-share funding from Glaxo Smith Kline (GSK) for field activities and worked to ensure that relationships with MSPAS, SESAN, mayor's offices, municipalities, and partners at central and local levels remained active until the program could resume. MCSP responded to needs as they arose by maintaining flexibility and adapting strategies along the way, while ensuring that MSPAS and other key stakeholders owned and led processes. Figure 3 illustrates key moments during the life of the project, summarizing contextual factors that slowed or shifted implementation.

Figure 3. Project Timeline

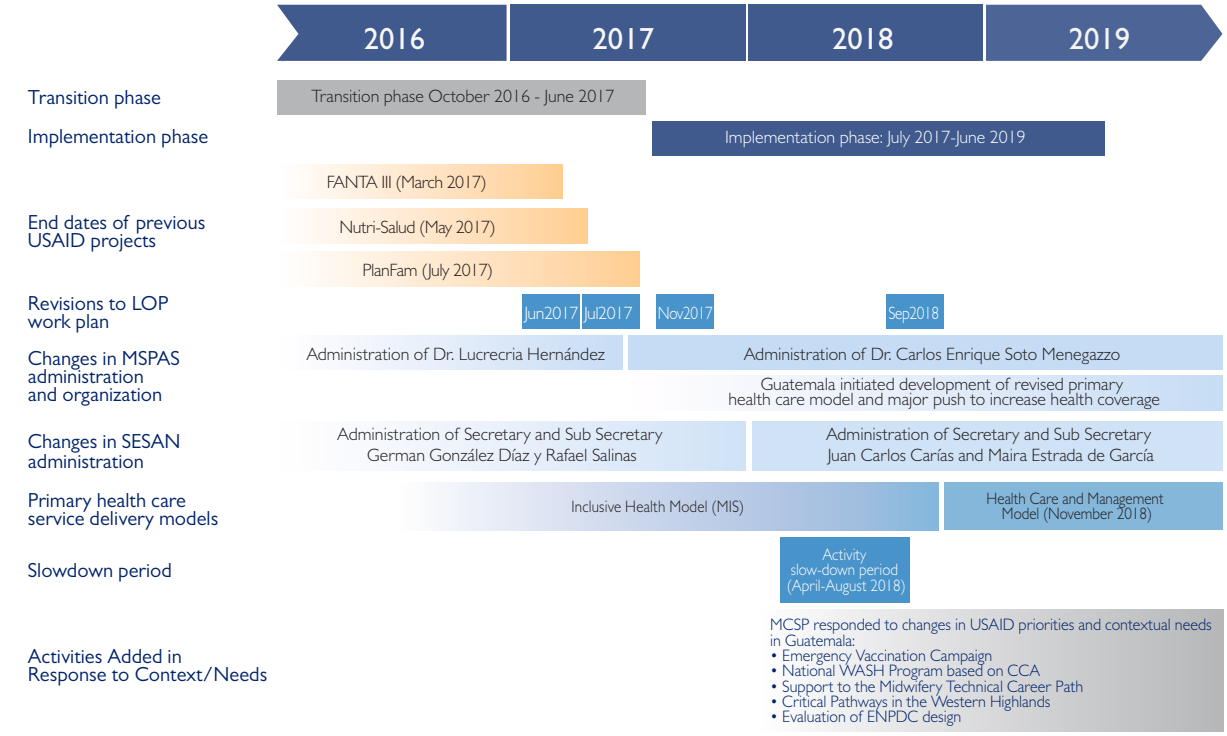



Photo: Karen Kasmauski|MCSP

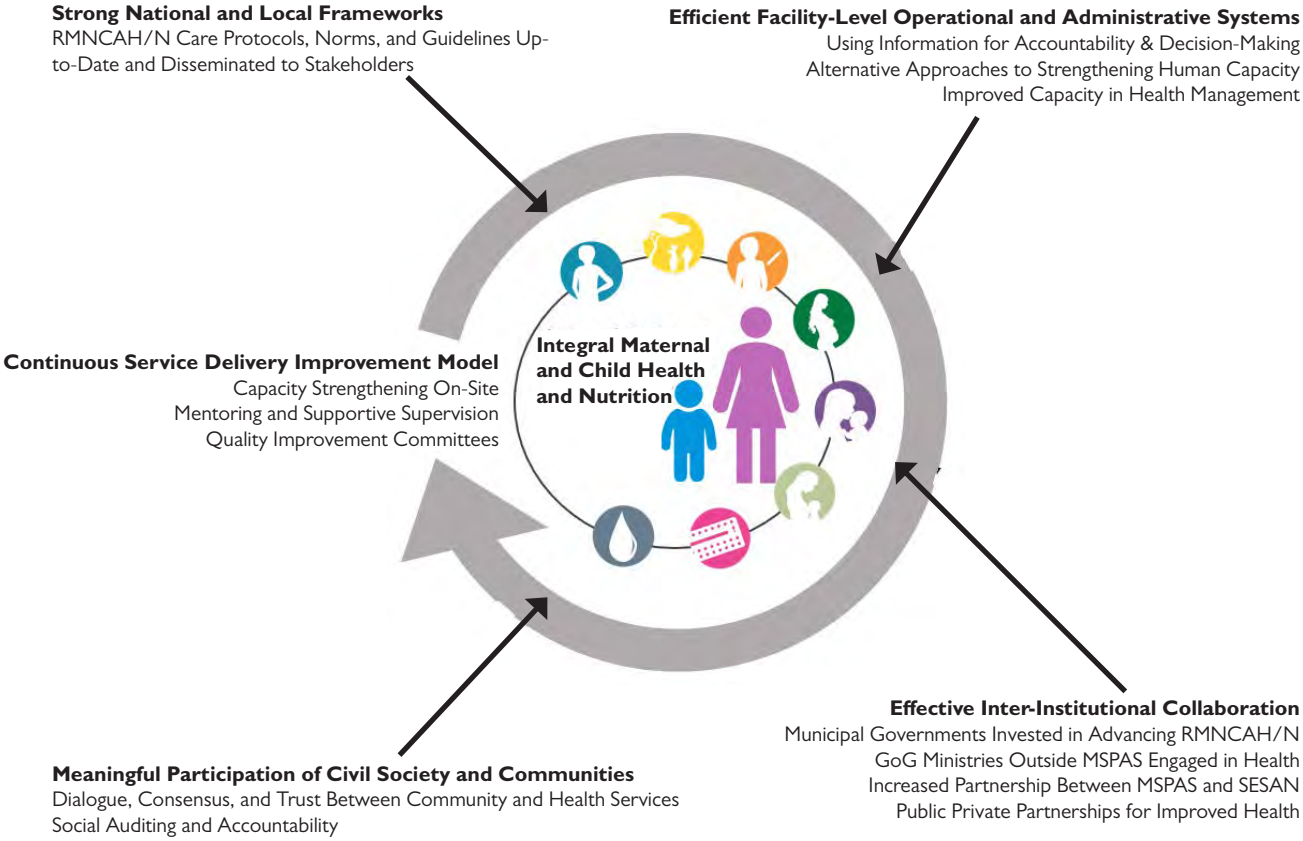
Conceptual Framework

The four MCSP-supported pillars (described in detail below) contribute to quality service delivery and improved health coverage at the national, regional, and local levels:

1. Strong National and Local Frameworks
2. Efficient Facility-Level Operational and Administrative Systems
3. Effective Inter-Institutional Collaboration
4. Meaningful Participation of Civil Society and Communities

A cornerstone of MCSP's work in health facilities was its Continuous Service Delivery Improvement Model (Figures 12 and 13). The model empowered health sector personnel to engage in ongoing Quality Improvement (QI) processes, allowing them to assess current conditions in their area of work, identify gaps preventing quality service delivery, and develop and monitor actionable quality improvement plans to close identified gaps. Figure 4 illustrates how strengthening the four pillars in health, within a continuous service delivery improvement framework, contributes to RMNCAH/N outcomes, improving the lives of women and children.

Figure 4. Integrated Maternal and Child Health and Nutrition: MCSP Guatemala Conceptual Framework



Major Strategies and Results

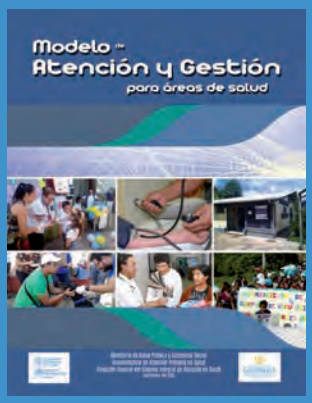
During its two-year implementation phase, MCSP collaborated with MSPAS to develop and/or adapt evidence-based approaches to the Guatemalan context in order to strengthen the health services network and improve service delivery. The following sections detail MCSP's major strategies and results, organized by the four pillars as described above. Due to the short timeframe for implementation and MCSP's strong focus on health system strengthening, there are few client-level results reported, though success stories and anecdotes have been included where appropriate. For each major strategy the narrative explores what was achieved and how it was achieved, and outlines key challenges and lessons learned along the way. Also highlighted are recommended next steps for MSPAS and other GoG institutions, marked with a "next steps" icon.

Strong National and Local Frameworks

In order to increase coverage and improve the quality of RMNCAH/N service provision, robust and up-to-date national and local guiding frameworks are essential. A key strategic focus of MCSP was to support the GoG to review and revise its guidelines on care and attention, particularly following the changes in MSPAS leadership and the re-design of its primary health care model halfway through the project. MCSP supported MSPAS to update, revise, and improve a number of manuals to ensure that health personnel have access to a comprehensive set of tools and guidelines that reflect the new primary health care model. This section describes the collaborative work between MCSP, MSPAS, and SESAN to ensure coherence in policy development and dissemination at the national level.

Supported MSPAS to Review, Update, and Disseminate a New Primary Health Care Model

From the start of the project, MCSP supported the GoG to review the technical and operations manuals related to its then-primary health care service delivery model, entitled MIS (Inclusive Health Model). However, transitions in MSPAS leadership and subsequent changes in priorities for Guatemala's primary health care model stalled initial progress and created challenges in providing continuity to the previous model. In response, MCSP worked closely with the new MSPAS leadership to provide technical assistance to the Vice Ministry for Primary Health Care and the Directorate for the Integrated Health Care System (SIAS) to update, document, and disseminate a revised primary health care model centered on providing comprehensive and integrated health service delivery through strengthened health networks.



Foundational Elements of Guatemala's New Primary Health Care Model

MSPAS' Health Care and Management Model promotes a renewed focus on inclusivity and an integrated health services network which provides quality services throughout the country:

- Promotes adapted territorial distribution of health services network and health sector personnel in order to increase coverage, even in areas where little to no infrastructure exists
- Supports the DAS and DMS to extend differentiated services based on the needs of the population (emphasizes health promotion and community participation)
- Provides macro-level guidelines for continuous quality improvement and stresses the importance of utilizing data and information for decision-making

During the life of the project MCSP organized meetings, workshops, and trainings in which personnel from all six DAS participated, providing a mechanism for coordination and ongoing communication related to the production and finalization of the model. With MCSP support, in November 2018 the MOH presented the final version of the Health Care and Management Model in a dissemination workshop to more than 30 health area directors, financial-administrative managers, health service provision managers and regional personnel.

- MSPAS could continue to hold regular meetings with DAS and DMS leadership, to create space for ongoing communication and to build accountability to ensure implementation gaps are filled
- MSPAS could consider establishing new mechanisms to create continuity in health services coverage and care despite frequent changes in leadership, to avoid loss of progress after changes in administrations

Facilitated a Multi-Sectoral Micronutrient Malnutrition Technical Consultation

While progress has been made in the reduction of vitamin A and iodine deficiency in Guatemala, much work is still needed to prevent and reduce the prevalence of chronic malnutrition in children, rising rates of obesity particularly among women, and poor nutrition among pregnant and lactating women including adolescents. In partnership with PROSAN and the Directorate of Regulation, Surveillance and Control of Foods (DRCVA), MCSP supported MSPAS to conduct a national micronutrient consultation entitled "Review of the State of Micronutrients and Performance of Interventions: Advances and Next Steps in Guatemala." The consultation drew 37 participants from government, including SIAS, as well as international organizations such as USAID, the Centers for Disease Control (CDC), the Institute of Nutrition in Central America and Panama (INCAP), and the International Food Policy Research Institute (IFPRI)/Harvest Plus.


Photo: Caroline Trutmann|MCSP

Using existing evidence and information, participants analyzed the current micronutrient situation in Guatemala and shared experiences with prevention, control, and reduction of deficiencies. The 2-day workshop included the following:

- Current data on nutritional status of Guatemala's population and review of its Epidemiological Health and Nutrition Monitoring System (SIVESNU) as promising vehicle for collecting this data
- Global evidence regarding micronutrient supplementation for pregnant and reproductive age women
- Integral micronutrient interventions: a critical vision
- Toxicity risks: current situation in Guatemala surrounding vitamin A fortification
- Case studies and analysis in small groups and plenary

By the end of the meeting, participants identified the foremost issues related to the micronutrient situation in Guatemala and areas to strengthen for future programming.

Essential considerations for existing micronutrient programming	Essential considerations for future micronutrient programming
• Vitamin A deficiency has been successfully reduced in Guatemala to low levels • Low presence of anemia among women and children • Folic acid deficiency has reduced in children, but remains a concern for women	• Vitamin B12, iron, and zinc deficiencies • Low dietary intake of animal protein (i.e. eggs, poultry/meat) • Micronutrients intake to improve maternal nutrition, including pregnant and lactating women • Lack of sufficient data on calcium and vitamin D

As a result of the consultation, the GoG updated its national policy on vitamin A supplementation within its Comprehensive Health Care Norms for First and Second Level of Attention, eliminating supplementation of Vitamin A for children between the ages of 12 to 23 months and refocusing it on children ages 6 to 12 months and children with acute malnutrition.

• MSPAS could consider creating a multisectoral task force to further refine specific and sensitive nutrition actions in Guatemala (including additional institutions such as the Ministries of Agriculture and Development)

- MSPAS could consider adapting the consultation process to additional technical areas to guide regular, in-depth data analysis and decision-making at the central level

Introduced the First National Baby-Friendly Community Initiative Guidelines

In Guatemala only 53% of babies under six months are exclusively breastfed, and 46% of children under five (>70% in the Western Highlands) suffer from chronic malnutrition. Breastfeeding is one of the key practices identified in the Lancet 2013 Series[15] as a means for promoting child nutrition and preventing chronic malnutrition. To improve infant and young child feeding practices in Guatemala, MCSP contextualized and introduced the first Baby-Friendly Community Initiative (BFCI) Guidelines adapted for the Guatemalan context from the Kenyan BFCI guidelines.[16,17] BFCI is a platform shown to support and promote early and exclusive breastfeeding for children under 6 months, and timely and adequate complementary feeding practices, through intensive community-based support for breastfeeding, including through mother-to-mother support groups. MCSP

15. Executive Summary of The Lancet Maternal and Child Nutrition Series, The Lancet 2013
16. BFCI Implementation Guidelines, https://www.mcsprogram.org/wp-content/uploads/2018/04/BFCI-Implementation-Guidelines.pdf.
17. Kavle, et. al., 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.

facilitated a comprehensive process to adapt the guidelines to the Guatemalan context and held two workshops with local and international actors, including MSPAS, SESAN, UNICEF, World Food Program (WFP) and others, to obtain buy-in from GoG and local stakeholders and to prepare for implementation of BFCI in the country.

• To ensure the full adoption and roll-out of the BFCI platform, MSPAS and SESAN could develop a joint plan for continued buy-in and uptake of the guidelines at the local level, including training and empowering auxiliary nurses and other health staff to implement the methodology in accordance with the national BFCI guidelines

Efficient Health Facility-Level Operational and Administrative Systems

For MCSP, quality improvement in health facilities means that health personnel have the capacity to solve contextual challenges and are responsive to frequent shifts in priorities and demands. MCSP supported the incorporation of systematic assessments of QI indicators related to provision of health services, problem analysis, and action planning to generate improvements. Through the use of new digital health tools coupled with QI processes, MCSP promoted innovative ways to utilize data to improve health outcomes. In addition, MCSP tested evidence-based capacity strengthening methods such as on-site training, mentorship and supportive supervision, which allow for more collective, practical and peer-based approaches to increase core competencies for providing health services.

Designed and Implemented a Health Management Course

In an environment marked by high turnover of personnel and managerial systems weaknesses, strengthening health sector management skills is critical for MSPAS to effectively implement its health care model. MCSP partnered with MSPAS to design and implement a comprehensive Health Management Course[18] to strengthen district health management skills. The 53-hour course utilizes diverse learning methods, including in-person workshops, mentoring and follow-up sessions, webinars, and independent readings and homework. MCSP engaged MSPAS personnel in a design process that included learning visits to assess health management problems in primary and secondary health facilities in Totonicapán and Quetzaltenango, as well as a design workshop with representatives from the six DAS and 30 DMS.

The course was designed for health district and health area managers, including directors, coordinators, and technical or administrative personnel with managerial responsibilities. The course promotes the development of practical skills to identify district-level health system challenges that impede delivery of high-quality RMNCAH/N services and their causes. In response to prioritized challenges, course participants develop corrective action plans, identify potential local resources, and conduct a mapping of key stakeholders. Managers then collaborate with stakeholders to mobilize resources. The course has four modules covering competencies that health sector managers identified as vital to improving their health management processes, as well as three cross-cutting or supporting modules which reinforce learning and promote experience sharing between participants (Table 2).

18. The Health Management Course draws many elements from MCSP's Comprehensive Approach to Health Systems Management work in integrated management planning and practices, https://www.mcsprogram.org/wp-content/uploads/2016/06/ComprehensiveApproachto-HealthSystemsManagement-ResourceCompendium.pdf.

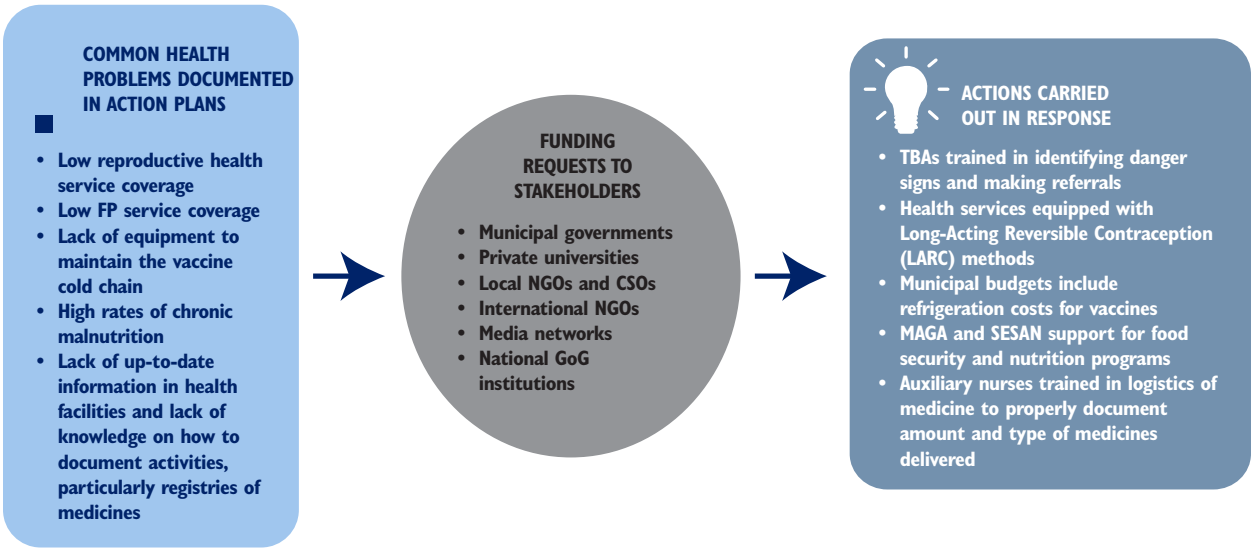
Table 2. Health Management Training Program: Content, Learning Approach, and Competencies

Content	Learning Approach and Competencies
Module 1. Problem Identification and Analysis (6 hours): Participants identify, assess, and prioritize health problems in their district and develop an action plan in response, defining partners and processes for local resource mobilization	• Problem tree: group work (teams organized by DAS/DMS); critical thinking and analysis; • Action plan: collective problem solving; accountability
Module 2. Data Use for Decision-Making (6 hours): Participants analyze district level data in order to make informed and strategic decisions about health-related programming in their area. In addition, participants develop a monitoring and evaluation plan to track progress on their action plan developed in Module 1	• Regular data analysis: recognizing tendencies; data visualization • Monitoring and evaluation plan: using data to identify problems and implement corrective actions • Experience-sharing in pairs: relationship-building; leadership; extension of promising practices
Mentoring and Follow-up Session (6 hours): In at least one meeting outside the regular modules, participants provide progress updates on action plans and give feedback and advice to peers on their progress and plans. Health Area Directors with support of central level MOH provide technical assistance to participants on their action plans and any emerging implementation bottlenecks.	• Progress updates: preparing for and presenting status updates; accountability; collective analysis and problem solving; peer support and feedback
Module 3. Budget Development, Planning, and Resource Mobilization (6 hours): Participants develop realistic budgets that align with annual operating plans and respond to community health needs. Participants learn budget management techniques and apply them in action plans developed in Module 1	• Health program planning: group work (teams organized by DAS/DMS); budget elaboration, execution, and monitoring; resource allocation in accordance with annual work plans
Module 4. Strategic Coordination and Engagement of Stakeholders (6 hours): Participants develop funding requests and learn strategies for engaging with and negotiating contributions from intersectoral partners and stakeholders	• Technical proposals: practice presenting arguments; negotiation; resource mobilization techniques • Stakeholder mapping: shared accountability
Independent Study (20 hours): By completing independent take-home assignments, participants reinforce skills learned with practical exercises.	• Reading and critical thinking • Independent analysis; accountability
Webinars (3 hours): Webinars were focused on developing supervisory skills, staff motivation and strengthening coordination techniques and dialogue between managers and other stakeholders in health. By participating in webinars, participants learn about specific topics in health management, as well as share progress on action plans and applying techniques learned in the workplace	• Supervision and leadership; coordination; continuous dialogue • Critical thinking to apply lessons learned and successes from different districts • Virtual experience-sharing: webinars include opportunities for dialogue between participants throughout

Photo: Caroline Trotmann/MCSP

To institute the course, MCSP worked with MSPAS's Training Department (DECAP) to develop a course implementation framework, which includes facilitation and training guides for each module, guidance on MSPAS roles and responsibilities, identifying and recruiting program participants, and an implementation timeline (12 months is recommended for students to complete the full course). DECAP formally recognized the program, creating a system to grant those who complete the course with professional accreditation, including education credits for medical/nursing school. In March of 2019, MCSP and MSPAS extended completion certificates to the first cohort of 75 managers from 30 municipal health districts and six health areas. By the end of the course, participants had developed 75 action plans for their health areas, in which health problems were prioritized and corrective actions documented. Participants also identified important stakeholders and made funding requests to them in order to finance priority activities. Nearly all funding requests submitted to stakeholders were financed. As a result, 51% of the action plans were financed by local stakeholders (MAGA, SESAN, municipalities, local NGOs and CSOs) and 49% by MOH (Figure 5).

Figure 5. Health Management Course: Illustrative Results



- MSPAS could dedicate resources to certifying a cadre of Health Management Course Facilitators who will be able to expand implementation of the course nationally, and provide ongoing accompaniment to district health managers to ensure follow through on action plans
- MSPAS could require course participation as a personnel training prerequisite within their management guidelines; this would further institutionalize the course and motivate managers to participate
- MSPAS could incorporate the course materials in its permanent online learning platform and include it as part of the DECAP annual training

Developed a Mobile Tool for Gap Analysis in Health Facilities

At the health facility level, there is limited capacity to carry out regular assessments, including data collection and analysis for decision-making. Building on gap analyses completed at health facilities under USAID's Nutri-Salud and PlanFam projects, MCSP automated the previous data collection tool, which assesses health facility readiness in categories of equipment, infrastructure, service delivery, documentation, human resources, and technology. MCSP adapted the tool to an Open Source mobile application in KoboToolbox, and provided technical assistance to multidisciplinary teams in the six DAS to implement assessments in 56 health facilities (17 primary and 39 secondary level). Additionally, MCSP provided technical assistance to health facility teams to conduct a participatory analysis of initial gap assessment data, identify root causes, and develop intervention plans in response. MCSP supported processes to close identified gaps in health facilities, creating an environment that is more conducive for health services to carry out quality service delivery (Figure 6).

Figure 6. Closing the Gaps: Illustrative Examples

Gap identified	Action taken
• Health services lacked clinical records on adolescent pregnancies, as well as written protocols outlining clinical guidelines, treatment, and management of pregnant adolescents in accordance with GoG national frameworks.	• MCSP facilitated the establishment of a triage system for pregnant adolescents' comprehensive health care.
• Health services lacked equipment for immediate newborn and postpartum care, including incubators, neonatal reanimation bags, and oxygen.	• MCSP provided technical assistance to health facilities to systematically inventory equipment and increase access to and availability of essential tools for immediate newborn and postpartum care.
• Primary level services did not have clinical files to document maternal and newborn care.	• MCSP provided technical assistance to health services to develop and implement intake forms, partograms, and clinical records for maternal and newborn care.

Additionally, a dashboard of indicators was designed in a Web environment to facilitate the visualization and analysis of the results in the different categories for monitoring the enabling environment. The information can be seen in a consolidated form or individually by the health service level.

With the support of the Vice-ministry of hospitals, MCSP added a module to monitor the enabling environment of blood banks at the level of hospitals and of transfusion centers at the CAP and CAIMI level.

MCSP trained personnel from the Department of Statistics of the General Coordination of Hospitals of the MSPAS to enable the adoption and use of the application at the national level.

• The Vice-ministry of hospitals will hire three engineers in systems for administration of the adapted modules to monitor new variables, such is the case of the module to monitor the enabling environment of the milk bank at the hospital level

- For health facilities; continue with the analysis to close the gaps identified through the follow-up of the improvement plans
- The MSPAS could consider partnering with and empowering the CSOs to harmonize the different gap analysis tools used and take advantage of the work that the CSOs perform in the monitoring of health facilities

Strengthened National Efforts to Expand Access to High-Quality Voluntary FP Services

Though it is one of the few technical areas that has seen improvement over the past two decades, the national unmet need for FP in Guatemala is still high at 14% and up to 18% in the Western Highlands region. Still higher is the national unmet need for adolescents 15-19 years old at 21.9%. While most women in Guatemala do not receive the recommended levels of pre-natal care and post-natal follow up, over 90% of women do visit a health care provider at least once during pregnancy. This visit represents a crucial window of opportunity to engage women in discussions about FP and provide them with comprehensive, post partum quality FP services. Previous USAID programs such as PlanFam made progress in updating GoG guidelines, developing educational materials, and improving internal referrals to FP services. However, many facilities cannot meet the existing demand, especially for permanent methods, where gaps in service provision are often supplemented by local and international organizations. To expand access to voluntary, high-quality FP services, MCSP worked at national and local levels to: ensure the GoG's national FP guidelines align with WHO's 2015 FP guidance (including on Long-Acting Reversible Contraceptives-LARCs) and

promote their widespread dissemination; and to ensure compliance with USG standards around availability of contraceptives and supportive training materials for health workers, volunteerism, balanced and appropriate counseling, and informed choice in health facilities.

At the central level, MCSP provided technical support to the National Commission for Ensuring Contraceptives (CNAA). The CNAA is a multisectoral body dedicated to ensuring the availability of contraceptives and access to FP services. According to law, the CNAA comprises representation by: MSPAS; Guatemalan Social Security Institute (IGSS); Ministry of Public Finance; Aprofam; Presidential Secretary of Women (SEPREM); Guatemalan Association of Medical Women; Instance of Political Actions for the Health and Development of Women; and Defender of the Indigenous Woman (DEMI).

MCSP worked with MSPAS and the CNAA to update Guatemala's national FP guidance in accordance with the WHO's Medical Eligibility Criteria for contraceptive use (MEC), incorporating guidance on the use of hormonal implants and intrauterine devices (IUDs) in the immediate postpartum period. MCSP and partners also prompted the GoG to approve an update to the national norm on postpartum family planning (PPFP), allowing health facilities to offer contraceptive implants immediately following childbirth. In addition, MCSP supported MSPAS to incorporate MEC updates on immediate postpartum provision of implants into national training materials which cover FP counseling during antenatal care (ANC), delivery, and postpartum.

In close collaboration with MSPAS and USAID, MCSP led a "Technical Consultation Regarding Utilization of Long Acting Reversible Contraceptives and Permanent Methods in the Postpartum Period," in order to operationalize the provision of postpartum implants and IUDs nationally. MSPAS, Aprofam and WINGS, PSI and others participated in the consultation, which resulted in consensus on the need to advance high-quality provision of LARCs and permanent methods (PM). Participants agreed to form a national technical working group (TWG) to develop a collective work plan, including drafting a consensus statement on PPLARCs and PMs. MSPAS agreed to call the TWG's first meeting, however major staffing turnovers took place within MSPAS just a month following the consultation (August 2017), grinding the initiative to a halt. MCSP continued its advocacy and MSPAS' National Reproductive Health Program (PNSR) is aware of the need to develop a platform to better coordinate work across actors and sectors.

Over the life of the project, MCSP responded to several gaps in FP, working at the central level to strengthen the capacity of MSPAS to improve and monitor quality FP service provision at health facilities.

PPFP Quality Monitoring: MSPAS lacks mechanisms for adequately documenting PPFP counseling at health facilities, either during ANC visits or in the immediate postpartum period. Moreover, the national tools for measuring quality during the time of birth exclude quality standards for PPFP. As a result, the number of women receiving PPFP is not reported in SIGSA and is not tracked nationally as part of quality monitoring processes. To begin to document PPFP at health facilities, MCSP developed an ANC FP Counseling Card which registers PPFP counseling and selection of methods, as well as a PPFP Stamp for patient files which notes what method the patient selected and can easily be spotted during admissions at the labor unit.

In collaboration with the UN, MCSP promoted the inclusion of two corresponding PPFP indicators in the Manual for Quality of Care During Labor and Delivery, data on which can be tracked and monitored using the ANC FP Counseling Card and PPFP Stamp. MSPAS endorsed the approach, adopting and incorporating the following indicators in the manual: number of women counseled on PPFP; and number of women who were discharged with a PPFP method. Toward the end of 2018, MSPAS authorities approved use of the ANC FP Counseling Card and PPFP Stamp, which MCSP reproduced and distributed in health facilities within the project's regions of coverage. Starting in January 2019, MCSP trained health facility staff, who began incorporating the use of the tools in patient case files.

FP Service Delivery: Access to permanent methods is challenging in Guatemala, and women are often on long wait lists as the high demand cannot be met by the limited reach of mobile service provision on which Guatemala's health system relies. Through

its participation in several TWGs (CNAA, PNSR, Comisión multisectorial para la maternidad saludable-Multisectoral commission for healthy maternity), MCSP advocated for strengthening MSPAS' capacity to provide direct PM services at health facilities, including availing the operating theater as needed on set days for voluntary female sterilization services. Though discussions on MSPAS' role are ongoing, this work did result in Aprofam and WINGS expanding their areas of coverage. In addition, at the request of MSPAS, MCSP trained four national-level PNSR facilitators in vasectomy, who have replicated the training with two additional providers.

Photo: Karen Kasmauski|MCSP

National Partnership to Improve FP Service Provision Reaches Beyond MCSP Intervention Zones

Guatemala's Social Security Institution (IGSS) is one of the principal providers of FP services in the country; however, outdated FP service provision norms limit the capacity of IGSS to offer the full range of FP services based on the needs and demands in country, including implants (postpartum or interval periods) or IUDs (postpartum).

With support from USAID, MCSP provided technical assistance to IGSS to begin to review and update their internal FP policy in accordance with national and international standards. In addition, IGSS expressed interest in adopting MCSP's mentorship and clinical package on FP, requesting support to train staff and plan for roll-out through the following activities:

- ✓ **Train and certify IGSS FP staff in mentorship principles and FP clinical package:** MCSP trained and certified nine IGSS FP providers from various regions of the country, including Quetzaltenango *(Occidente)*, Mazatenango and Escuintla *(Sur)*, Pamplona and Zona 6 *(Central)*, and Izabal *(Nor-oriente)*. All actively provide FP services and three of them supervise teams of three to four additional FP service providers. As a result of their training, the FP providers identified gaps limiting access to FP at their sites and developed site-specific action plans for improvement. IGSS central-level management committed to monitoring and supporting implementation of the plans.

- ✓ **Certify two model clinics for FP:** IGSS selected two clinics within the largest hospitals in its coverage areas (Zona 6 and Pamplona) to serve as model clinics, exemplifying best practices in high-quality voluntary FP services. The sites were selected as they are the largest providers of FP services in the IGSS network and are also where the institution's two teaching hospitals are located. IGSS will conduct an initial evaluation of the sites and address any critical gaps prior to certifying them as model clinics.

- ✓ **Establish two training and practice centers for insertion of contraceptive methods:** The IGSS training and practice centers will be set up in conference rooms (capacity for 10-20 people) in the same hospitals in which the FP model clinics will be located. Each hospital has approximately 25 OBGYN residents per year and provides an excellent opportunity to teach FP, including PPFP, to a large cadre of providers who will be working all over the country.

Through its advocacy work and relationship cultivation at the central level, MCSP helped to put PPFP and high-quality voluntary FP service provision on the national agenda. Though just a first step, the project's work to develop and test the PPFP monitoring tools in health facilities, and incorporate corresponding indicators in the national quality of care manual, was a key achievement within a short project implementation period.

- Since MCSP rolled out the ANC FP Counseling Card and PPFP Stamp in select health facilities just before the end of the project (early 2019), PNSR could ensure their full adoption at the health facility level, supporting follow-on trainings, verifying their adequate use and supporting data collection, analysis, and reporting. PNSR could carry out an evaluation of the tools to determine their effectiveness for documenting PPFP, make revisions as needed, and plan for scale-up
- To facilitate and streamline PPFP data collection, SIGSA could add the PPFP monitoring indicators to its official instruments and track within the national health information management system
- In select health facilities documenting PPFP in their internal processes, facilities could prioritize reporting out on PPFP data as it is collected and support continued advocacy for inclusion of the indicator in SIGSA. Similarly, stakeholders at the national level (UN and others) could continue to advocate centrally for adoption of the indicators in SIGSA
- PNSR can follow up on the TWG and consultation regarding PMs and LARCs, in order to maintain the momentum and ensure these topics are front and center on the GoG's agenda

- USAID and MSPAS can support IGSS to ensure that activities in FP mentorship and the model clinics and training centers are carried out as planned

Strengthened Local Capacity to Provide High-Quality Voluntary FP Services

At the health facility level, MCSP implemented a comprehensive set of FP interventions in accordance with its Five Phases for Closing Gaps in FP. MCSP carried out FP activities in 64 health establishments, reaching all 30 prioritized municipalities in the six DAS.

MCSP's Five Phases for Closing Gaps in FP

1. Identification of gaps in FP service delivery (assessments)
2. Analysis of information and development of action plans with DAS/DMS and hospitals
3. Training on comprehensive FP, including LARCs, MEC, and FP counseling
4. Post training supervision, quality audits, and compliance visits
5. Advocacy to ensure access to contraceptives

In partnership with MSPAS, MCSP conducted gap assessments in health facilities to gauge capacity to implement quality FP services. Key findings which informed MCSP's capacity strengthening and FP quality interventions throughout are described below.

Key Findings – Gap Assessment	MCSP Response
• Health facilities did not consistently, and in some cases, accurately, document FP service delivery • Health facilities lacked informational posters, visual aids, and healthcare worker training tools to carry out quality FP service delivery • Health facilities did not carry out balanced and regular FP counseling and delivery of methods • Health facilities experienced frequent stock outs of at least one contraceptive method (71% of all facilities at baseline)	• MCSP developed a broad array of FP-related training and informational tools and supported health facilities to develop a clinical records system that included official forms for informed consent • MCSP facilitated trainings and refresher workshops on family planning based on the specific needs identified at each health facility, including information on use of new methods (especially LARCs) • MCSP supported logistics teams, CNAA subcommittees, and PNSR at the local level to improve FP logistics systems

Capacity Building in FP: MCSP provided a series of trainings and refresher workshops on FP to strengthen service providers' capacity to offer voluntary FP services based on quality standards. Over the life of the project, MCSP reached 262 service providers with capacity strengthening activities. Of these, 50% were nurses, 34% auxiliary nurses, 13% medical doctors, and 3% were social workers, secretaries, technicians, directors and DAS staff. (A detailed table of trainings, locations, and number of participants is included in Appendix C.) MCSP tailored the content of FP capacity building activities to identified needs at each facility in order to close specific gaps. Every training also included content on USG family planning requirements such as volunteerism and informed choice, as well as updates on MEC for all methods, best practices in infection prevention, and provision of job aids and materials outlining key quality standards.

Additionally, MCSP trained 156 providers in PPFP counseling and selected 62 of these directly from ANC, delivery, and postnatal wards to receive additional training in PPFP, emphasizing competencies based on their unique roles. For ANC providers, this included ensuring no missed opportunities for PFPP counseling during ANC visits. For delivery and postnatal care providers, this included ensuring that women who already chose a method in ANC have their choice confirmed and the method of choice provided, and for women who were not counseled during ANC, ensuring they are provided an opportunity for counseling to decide if and when she would like to use a method.

Mentorship in FP: MCSP designed a clinical package in FP which provides personnel with clinical training and follow-up tools on quality standards in FP counseling, PPIUD, and PP Implant counseling and insertion. (For detailed information on clinical packages and MCSP's mentorship approach, see MCSP's Continuous Service Delivery Improvement Model, page 27.) Once mentors are certified, they serve as leaders and champions of FP, and apply the clinical package with mentees on-site at health facilities. MCSP trained and certified 26 mentors in PPFP counseling and PPIUD, who now conduct step-down trainings within their districts and, by the end of the project, reached an additional 32 service providers with training and supportive supervision. MCSP provided PPFP mentors and trainees with a comprehensive set of tools, which included FP counseling visual aids, client handouts specific to PPFP methods, a copy of the National FP Guidelines, and MEC wheels. Each site that had a trained mentor also received: anatomical models (Mama-U, Sister-U, and arm models; PPIUD insertion video covering interval and PP insertions as well as Infection Prevention and Control (IPC); follow up tools and checklist for use during stepdown trainings (for observation and certification with both anatomical models and clients); informed consent forms; and handouts of post-insertion advice for clients. MCSP also trained three service providers from the hospitals in Quetzaltenango, Huehuetenango and Quiché as master trainers in both male and female PMs. The providers are OBGYNs based in the hospitals and will ensure service provision as well as begin to step the training down to additional service providers.

Guatemala's National Reproductive Health Program Adopts and Replicates MCSP's Mentorship Model

Several GoG institutions have expressed interest in or have already adopted MCSP's clinical packages and mentorship approach, including MSPAS's PNSR. After hearing about MCSP's work in mentorship, Dr. Heydi Caal, FP Technical Lead at PNSR, personally requested to be trained and certified as an FP mentor. Dr. Caal is responsible for verifying FP norms at the national level and is a key stakeholder and champion for MCSP's evidence-based high-impact approach. Dr. Caal supervises 14 PNSR facilitators and has committed to stepping down the training to all 14 members of her team.

Photo: Caroline Trutmann|MCSP

FP Quality Audits: Following the capacity strengthening activities detailed above, MCSP carried out quality audits for provision of LARC services, ensuring providers are complying with quality standards, including use of correct clinical techniques for insertion of IUDs and Implants. MCSP conducted 31 quality audits for LARC services at 31 different sites. (A detailed table of audits, locations, and dates is included in Appendix C.) During the audits, MCSP facilitated refresher trainings on FP counseling and method provision according to the MEC and equipped service providers with MEC wheels for use during service provision. Of the 31 providers audited, 87% (27) met the minimum quality standards and the remaining were provided with refresher trainings and on-site follow up.

At the request of MSPAS, MCSP provided 59 service delivery sites and six DAS with the following packet of FP tools and materials: updated National FP Guide (updated MEC included re: PPFP); the National Logistics Manual for Contraceptive Methods for Rural Areas and Hospitals; FP Counseling Flip Books; and the Logistics Manual for Contraceptives (health areas and hospitals).

FP Compliance: MCSP strengthened mechanisms for monitoring compliance with USG FP and abortion-related legislative and policy requirements and implemented robust FP compliance monitoring activities. MCSP completed 174 FP compliance visits in 66 health facilities that fall within the MCSP intervention zones, 42 of which represented the totality of MSPAS sites providing care at the second and third levels; the remaining 24 were first level sites selected by USAID. During these visits, MCSP technical staff interviewed 167 service providers and 248 users of FP services (Table 3).

Table 3. Compliance Interviews Conducted in Health Facilities

Type of Service	Number of visits	Provider interviews	User Interviews
First level	77	70	88
Second level	70	65	121
Hospital	27	32	39
TOTAL	**174**	**167**	**248**

MCSP found no FP compliance risks, however the project used the data gathered to identify gaps and improve the quality of voluntary FP services, ensuring access to a full range of contraceptive methods. All MCSP-supported FP trainings included content on national and international legal frameworks on FP and abortion compliance. At the level of the DAS and hospitals, MCSP facilitated legal frameworks trainings for new hires and refresher trainings for personnel already familiar with the frameworks. In total, MCSP reached 303 providers with key information related to FP and abortion compliance (Table 4), and MCSP teams from the central and local offices completed the courses on Protecting Life in Global Health Assistance and US Abortion and FP Requirements. MCSP also trained FP supervisors from each of the six DAS as FP Compliance Mentors. These mentors will adapt the compliance tools and methodology and develop a plan for each facility to verify compliance with national and international legal frameworks, ensuring local ownership and sustainability of the compliance verification process.

Table 4. Location and Cadre Receiving Training on National and International Legal Frameworks Related to FP and Abortion Compliance

DAS	Physicians	Auxiliary Nurses	Nurses	Other	Total
Huehuetenango	9	20	20		49
Quetzaltenango	6	11	2	14	33
San Marcos	25	50	16		91
Ixil		22	6	1	29
Quiché	2	80	19		101
TOTAL	**42**	**183**	**63**	**15**	**303**

Addressing FP Commodity Stockouts in Health Facilities

In April 2019, MCSP participated in a meeting convened by MSPAS' Technical Vice Minister to analyze stockout challenges, project future stock needs, and present possible options for responding to contraceptive shortages. In partnership with USAID and MSPAS, MCSP presented the meeting outcomes to the CNAA, resulting in the initial stages of an agreement to procure additional FP commodities from UNFPA for 2020. At the local level, MCSP engaged in strategic meetings with the CNAA subcommittees in Huehuetenango and Quiché to support actions to address stock challenges. MCSP assisted the Ixil CNAA sub-committee to implement a stockout analysis and review their tracking and reporting system. The Ixil DAS identified stock gaps and learned to use daily stock tools, including the national inventory control forms. The DAS then identified districts with overstock in contraceptive methods and others that were understocked in the same methods, moving commodities between districts to both address the stockouts and avoid commodity expirations. While frequency of stockouts decreased slightly from 71% at baseline (Q4 FY17) to 66% at endline (Q1 2019), the level of stockouts was still critically high for most contraceptive methods, particularly for IUDs, Implants, and injectables.

- MSPAS and PNSR can provide follow up training and support for established FP mentors and can evaluate the effectiveness of the mentorship approach for improving the quality of FP services, making adjustments as needed and scaling the approach to additional facilities
- PNSR can follow up on the transfer of the compliance verification process, evaluating the feasibility of wider use of the model to ensure ongoing FP compliance processes at health facilities
- Future projects can support stock initiatives as a priority in Guatemala moving forward

Implemented a Comprehensive Approach to SRH for Adolescents in Rural Guatemala

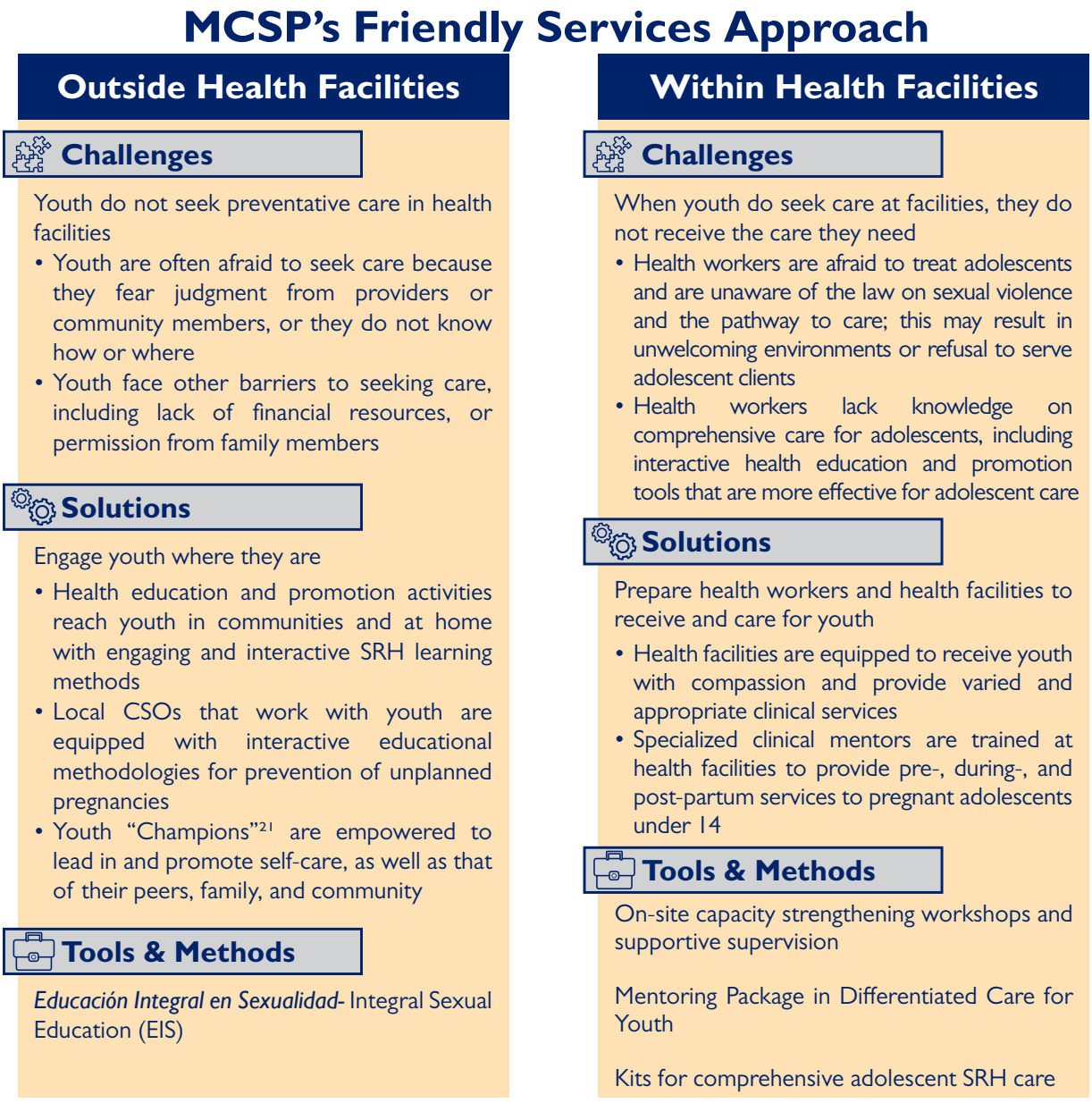
According to the Observatory of Sexual and Reproductive Health in Guatemala (OSAR), in 2018 there were 4,629 cases of pregnancy in minors 14 and under, the large majority occurring within rural populations.[19] Though GoG legal frameworks do not prohibit health workers from providing education and promotion of contraceptive methods to minors, findings from MCSP's baseline studies at health facilities indicated that health workers largely lacked understanding of these frameworks and did not offer contraceptive methods to adolescents 14 and under for fear of retribution. Additionally, health services did not have up-to-date and accurate clinical records for adolescents, did not target youth with priority actions in accordance with Guatemala's Friendly Services framework, and did not provide comprehensive health services to youth, which includes family planning, as well as nutrition and other counseling services.

To address these challenges, MCSP involved stakeholders at the national, municipal, and local levels, including adolescents themselves, in finding creative solutions. At the central level, MCSP supported MSPAS to revise its strategy for engaging adolescents at health facilities. The resulting MCSP-adapted Friendly Services approach (Figure 7),

19. Observatorio de Salud Sexual y Reproductiva (OSAR), 2018, https://osarguatemala.org/embarazos-y-partos-de-madres-entre-10-y-19-2018/.

based on the WHO's five dimensions of youth-friendly services[20], is a two-pronged strategy to increase access to and use of integrated SRH services among adolescents. The approach both encourages adolescents to seek health services and prepares health workers to provide adolescents with quality services once they do.

Figure 7. MCSP's Friendly Services Approach



20. The WHO's five dimensions of youth-friendly services are: equitable, accessible, acceptable, appropriate, effective
21. Prior to MCSP, the Youth Champions methodology was implemented in Guatemala by the Pan-American Social Marketing Organization (PASMO), who provided technical direction on MCSP's work with youth and adolescents

In order to support health facilities to interpret and operationalize the GoGs frameworks on differentiated care for adolescents, MCSP partnered with HEP+ to assess and apply its Compendium of Legislation for Action on Reproductive Health in Guatemala.[22] MCSP in coordination with HEP+ provided training for health care personnel which increased their knowledge of adolescent health care processes including the legal framework, national protocols and requirements. As a result of the training, one health facility in Huehuetenango even developed and posted its own "pathway to care" *(ruta de notificación)*, and trained staff on specific actions to take when a pregnant minor requests health care at their facility.

MCSP certified 30 health facilities using the Friendly Services Approach, training 457 health service providers on-site and delivering "differentiated care kits" to all 30 facilities. Kits included interactive educational and health promotion materials adapted to youth's specialized needs and ways of learning. MCSP also trained and certified 22 health facility-based mentors in its clinical package on differentiated care for adolescents 14 and under, who lead ongoing capacity strengthening activities on-site. (For more information on MCSP's mentorship approach please see Continuous Service Delivery Improvement Model, page 29.)

At the community level, MCSP facilitated a bi-ministerial pilot youth Champions initiative, led by MSPAS and Guatemala's Ministry of Education (MINEDUC) in Cunen, Quiché. MSPAS and MINEDUC identified and trained a group of 20 adolescent Champions, who have since reached 400 additional youth and adolescents with key information on SRH and contraceptive methods. MCSP also transferred an interactive adolescent pregnancy prevention methodology, which aligns with Guatemala's legal frameworks for adolescent minors, to eight local partner CSOs[23] and trained 80 teachers in Quiché on SRH health education and promotion for adolescents. By the end of the project, MSPAS endorsed the updated Friendly Services approach and published its first guidelines on contraceptive methods for adolescents, targeted to health service providers.[24]


Photo: Karen Kasmauski/MCSP

22. Compendio de leyes para la acción en salud reproductiva en Guatemala," http://www.alianmisar.org/userfiles/Compendio%20de%20leyes%20alta%20resolucion.pdf
23. CSOs include Proyecto de Desarrollo de Santiago (PRODESSA), Defensoría de la Mujer Indígena (DEMI), Care, Observatorio de Salud Reproductiva (OSAR) Juvenil, Pies de Occidente, Peace Corps, GoJoven, as well as the Ministry of Education.
24. Guía Nacional de Anticoncepción para Adolescentes, https://www.mspas.gob.gt/index.php/noticias/temas-de-salud/send/72-documentos-sobre-la-salud/1873-guia-nacional-de-anticoncepcion-para-adolescentes.

Photo: Karen Kasmauski|MCSP

Youth Champions: A Partnership between MSPAS and MINEDUC

Health service providers from the Permanent Care Center (CAP) in Cunen approached local representatives of MINEDUC with the idea of forming youth leaders, or champions, to educate adolescents on SRH and contraceptive methods and help prevent unplanned pregnancies. MCSP trained and certified the CAP's auxiliary nurse on its Friendly Services Approach, the clinical package on differentiated care for adolescents, and the adolescent champions methodology. Who then mobilized a group of 20 adolescents in Cunen and replicated the trainings. At the end of the training, 20 adolescents were certified as champions of SRH. The auxiliary nurse then developed a joint plan with the technical-administrative coordinators and directors of schools in Cunen, who agreed to support the youth champions within the framework of MSPAS and MINEDUC's preventative education agreement, which promotes inter-institutional cooperation to strengthen SRH education in schools.

The adolescent SRH champions now replicate health education activities with their peers in school, utilizing interactive methodologies and tools such as the plan de vida (life plan) for healthy development and positive choices. The champions are committed to continually improving their SRH knowledge and competencies. Within the schools, students and school coordinators alike recognize the adolescent champions as leaders in sexual and reproductive health, and appreciate their work to prevent unplanned pregnancies and STIs through preventative education.

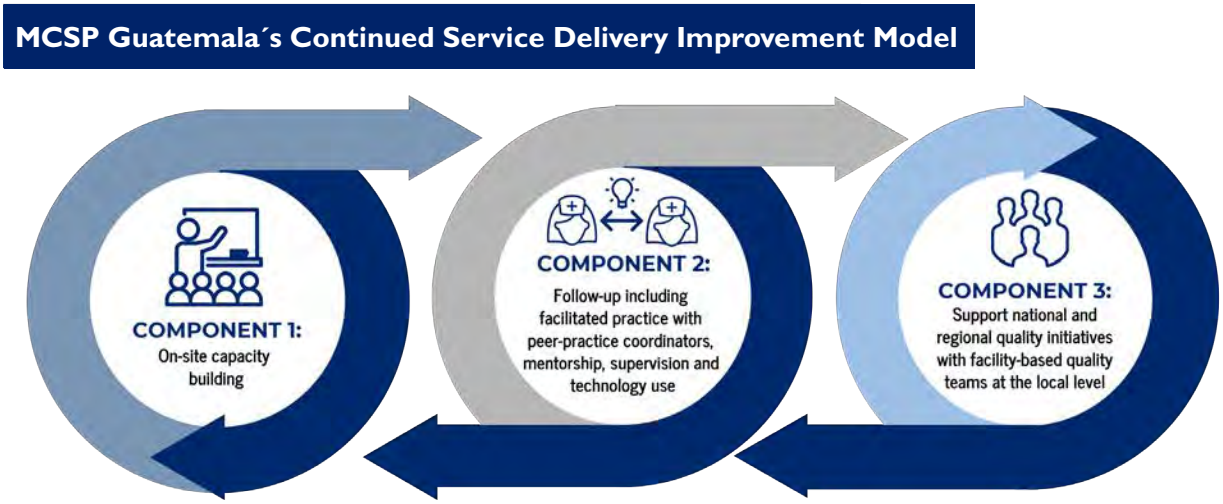
- MSPAS, specifically the DAS in Quiché, could ensure follow up on bi-ministerial partnerships and garner institutional support for health facilities and CSOs to continually strengthen their capacities to respond to adolescent healthcare needs, within the legal parameters of GoG frameworks for adolescent care
- The Quiché DAS could continue to apply, learn from, and improve the clinical package in differentiated care for adolescents, as a way to sustainably increase health worker capacity to respond to adolescents' needs
- MSPAS could identify ways to involve families in learning about and building awareness on differentiated SRH and nutrition interventions for youth and adolescents
- Young leaders from civil society, with support from the Ministry of Education, can continue the replication of the youth champion model in Cunen and beyond

Designed and Implemented a Model to Address Service Delivery Gaps at the Individual and Systems Levels

Guatemala's health sector is highly fragmented, and health personnel often do not receive the support needed to strengthen capacities and improve service delivery in a meaningful way. To identify new, sustainable ways of addressing these gaps, MCSP used global evidence on effective in-service training[25] and human capacity development (HCD) to design a Continuous Service Delivery Improvement Model.

Recognizing that any successful program design must address gaps at both the individual and systems levels, the Continuous Service Delivery Improvement Model comprises three components, which promote a cyclical, ongoing, and inclusive process of learning, analysis, and quality improvement at several levels (Figure 8).

Figure 8. Continuous Service Delivery Improvement Model



25. Rowe, Alexander K, et al., Effectiveness of strategies to improve health-care provider practices in low-income and middle-income countries: a systematic review, 2018, https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(18)30398-X/fulltext.

The model drives collective and continual processes to collect, report on, and utilize data, as well as to increase accountability, improve staff morale, collaboration and leadership, and build clinical competencies in order to increase the quality of services provided.

Component 1. On-site capacity building

Guided practice, training, and assessment activities implemented on-site support more effective and long-term skills-building than off-site large group workshops. MCSP's model shifts the paradigm from capacity strengthening in traditional classroom settings outside health facilities to emphasize practical training and supportive supervision on-site that is linked to specific goals related to the tasks at hand. In contexts of low staff morale and high staff rotation, strategies for continuous, on-site capacity strengthening provide innovative ways to engage staff in "learning while doing" and to ensure quality of care is maintained despite turnover.

Component 2. Ongoing support through facilitated practice with peer practice coordinators (PPCs), mentorship, supervision, and technology use

This is done through various channels, including facilitated practice and/or working with PPCs on site, as well as through mentorship and supportive supervision (both internal and external). Mentorship involves training and certifying skilled clinicians who can provide capacity strengthening to mentees on-site, and who model behaviors such as problem-solving, empathy, and constructive feedback. Mentors are identified from across clinical and managerial areas, and ideally form part of local QI committees (Component 3). The participatory, peer-to-peer approach works to break down communication and decision-making barriers across the health facility hierarchy, creating an environment of trust and teamwork among health facility staff.

Component 3. Support national and regional quality initiatives with facility-based quality teams

This third component of the model supports the formation of QI committees, established locally and operating within health facilities with support from DAS leadership. QI committees conduct situational analyses of compliance with established quality care standards. Information is collected on a regular basis and fed into an MCSP-developed quality care assessment digital tool/database called ACIEX (Collaborative Learning and Experience Sharing), then analyzed collectively to facilitate a feedback loop that provokes changes in the quality of care at the health facility. Based on trends and gaps identified, QI committees generate improvement plans in ACIEX and can easily print, distribute, and monitor the implementation of follow-up actions. The QI component encourages staff to utilize data for decision-making and supports ongoing experience-sharing among staff from diverse responsibility areas and backgrounds.

Proof of Concept: Implementing a Continuous Service Delivery Improvement Model

At the national level, MSPAS (PNSR and the Technical Vice Minister) vetted and approved the proposed Continuous Service Delivery Improvement Model for implementation as a proof of concept in 15 priority sites in the Western Highlands region. MCSP designed the proof of concept with a technical focus on strengthening competencies related to critical day-of-birth (DOB) services in health facilities. While implementation of the proof of concept focused on a discrete set of DOB interventions, the model can be applied more broadly to any clinical area, as it provides a flexible framework and tools for health facilities to systematically assess and improve healthcare worker performance and quality outcomes.

To inform selection of intervention areas, clinical standards, and measurement criteria, MCSP and MSPAS selected 15 health facilities (eight tertiary hospitals and seven secondary-level services) in 10 of the prioritized DMS in Quiché, Quetzaltenango, Huehuetenango, and San Marcos, Totonicapán.[26] Multi-disciplinary teams comprising MSPAS and MCSP technical staff conducted baseline assessments, which included a review of clinical records and service delivery data from prenatal, delivery and postnatal care for both mothers and newborn, and family planning, as well as direct observation of clinical care when possible. MCSP facilitated an in-depth analysis of findings from baseline gaps assessments, in which health facility staff and DAS leadership participated.

26. These included health facilities in the municipalities as follow: Totonicapan: Hospital of Totonicapan and CAIMI of Momostenango. Quiché: Hospital of Santa Cruz, District Hospital of Nebaj, District Hospital of Uspantan, CAP Chichicastenango, CAP Sacapulas. Huehuetenango: Huehuetenango Hospital, CAIMI of Cuilco, CAIMI of Barillas, CAP Sebastian Huehuetenango. San Marcos: Hospital of San Marcos, CAP Tajumulco, CAP Nuevo Progreso. Quezaltenango: Regional Hospital of Quezaltenango.

Some of the main findings include:

- **Triage of danger signs:** Staff generally lacked knowledge on identifying danger signs and classifying risks in obstetric emergencies (only 3% of records were in compliance with critical standards). There were also major gaps in clinical records documentation.
- **Use of the partogram (including differentiated care for adolescents[27]):** Health facilities largely failed to meet the three critical standards under use of the partogram (registering vital signs, recording dilation on admission and throughout labor, and recording fetal heart rate every half hour). Staff were also largely unaware of standards for adequate care of adolescents 14 and under (per MSPAS protocols). In fact, 43% of adolescent records showed that the birth was not attended by an obstetrician as required but was attended by medical students or nursing staff, and only 17% of adolescent records documented psycho-social support from either a psychologist or social worker, as required.
- **Active Management of the Third Stage of Labor (AMTSL):** Only 42% of records met all clinical standards under this category, with 59% of records meeting the critical standard of applying oxytocin within the first minute. Health facility staff generally did not perform abdominal uterine massages postpartum or register vital signs of the mother.
- **Essential Newborn Care:** While 65% of records met critical standards under this category, only 36% met all standards, which included cleaning the airways of newborns when necessary (less than 50% of records met this criterion).
- **Routine Newborn Care:** 66% of records met critical standards under this category, but only 8% of records met all standards. Major gaps existed in standards such as administration of the Bacillus Calmette-Guérin (BCG) vaccine for tuberculosis and registering the identification of newborns and their mothers.
- **Post-Partum Family Planning (PPFP):** Overall in health facilities, there was a lack of documentation of counseling services and delivery of family planning methods, particularly for key standards such as offering three or more methods of family planning and ruling out pregnancy for new users.

MCSP used these baseline assessment findings to inform the selection of 18 DOB clinical standards that would be most significant for addressing gaps in health personnel competencies. These standards were then paired with 10 key indicators to measure results of progress (Table 5).

Table 5. Selected DOB Intervention Areas, Clinical Standards, and Indicators for MCSP's Proof of Concept

6 DOB Intervention Areas	18 Clinical Standards	10 Indicators
INTAKE		
1. Triage of danger signs (including differentiated care for adolescents)	• Classification of risks • Decision-making • Knowledge of danger signs and clinical pathway for pregnant adolescents 14 and under according to MSPAS protocols	• Number of pregnant women classified according to risk • % of pregnant women who were referred to a higher resolution service (disaggregated by reference cause and by age: under 14 and over 14)
LABOR MANAGEMENT		
2. Labor management for adolescent minors 14 and under[28]	• Implementation of the protocol for care of pregnant adolescents 14 and younger	• % of adolescents under 12 delivering in hospitals via cesarean according to protocol • % of adolescents 12 to 14 delivering vaginally with analgesia in hospitals

27. In 2016, the GoG developed its "Pathway to Care" for pregnant adolescents under 14, which reflects an interinstitutional effort between MSPAS, the Ministries of Education and Development, and the Secretariat on Sexual Violence, Exploitation, and Trafficking in Persons, to improve the standards of care for minors by providing an integral package of care and protection. For additional information, see: http://www.svet.gob.gt/temasdetrabajo/ruta-de-abordaje-de-atención-integral-de-embarazos-en-niñ-y-adolescentes-menores-de.
28. Due to widespread fear and lack of knowledge in health facilities on the legal frameworks for providing care to pregnant adolescents, in most cases MCSP was not permitted to collect data on adolescent clinical case files to conduct its QI work. MCSP thus added a general module on "Use of the Partogram," covering the clinical standards assessed at baseline under that area.

6 DOB Intervention Areas	18 Clinical Standards	10 Indicators
LABOR MANAGEMENT		
3. Use of Partogram	• Registered vital signs • Dilation recorded on admission and throughout labor (plotted against alert line) • Recorded fetal heart rate every half hour	• % of births in which personnel correctly use the partogram
BIRTH		
4. Active Management of the Third Stage of Labor (AMTSL) and Immediate Post-Partum	• Implementation of the protocol for care of pregnant adolescents 14 and younger	• % of adolescents under 12 delivering in hospitals via cesarean according to protocol • % of adolescents 12 to 14 delivering vaginally with analgesia in hospitals
5. Helping Babies Breathe (HBB) and Essential Care for the Newborn	• Clean airways as needed • Immediate skin to skin contact • Cord clamp • Breastfeeding within the first hour after birth	• % of newborns who receive immediate essential care according to standards • % of newborns who initiate breastfeeding within the first hour
POST PARTUM		
6. Post-Partum Family Planning (PPFP)[29]	• Balanced FP counseling according medical eligibility criteria • Postpartum intrauterine device (PPIUD) counseling & insertion • PP Implant counseling & insertion	• % of women who receive counseling in PFPP (disaggregated by age: 14 to 19 years and total women) • % of women who received a postpartum method before discharge (disaggregated by method and by age: 14 to 19 years and total women)

Results: Improvements in Quality of Care as Measured through the Proof of Concept

Table 6 presents results on overall improvements in clinical standards from baseline to the most recent quality care assessments completed during the first quarter of 2019 using the ACIEX tool. (Detailed compliance scores for all critical standards under each intervention area are included in Appendix D.) For reporting purposes, health facilities are grouped by type of facility: secondary-level services (CAP or CAIMI, n=8), district hospitals (n=2), and regional hospitals (n=5). During assessments, MCSP supported health facility teams to review a sample of randomly chosen records and, for each DOB intervention area, analyze the criteria to provide compliance ratios, with higher percentage scores signaling a higher level of compliance with criteria under that area. Scores are highlighted using the "stoplight" method, with 0-59% as red, 60-79% as yellow, and 80-100% as green.

Photo: Karen Kasmauski|MCSP

29. At the start of the project, MSPAS lacked mechanisms to document PPFP activities (see pg 18) and thus focused its efforts under a limited time frame on (1) working at the national level to advocate for PPFP documentation processes and (2) developing and applying its clinical training package in FP in order close gaps service provision. MCSP therefore did not track and report on PPFP standards within the QI component of the Continuous Service Delivery Improvement Model.

Table 6. Compliance with Clinical Standards under DOB Intervention Areas

DOB Interventions	Baseline (January - June 2018)				Final Assessment (February – March 2019)			
	Total Facilities	CAP, CAIMI	District Hospitals	Regional Hospitals	Total Facilities	CAP, CAIMI	District Hospitals	Regional Hospitals
	n=15	n=8	n=2	n=5	n=15	n=8	n=2	n=5
Triage of Danger Signs								
# Records reviewed	216	116	40	60	248	120	40	88
% Records meeting all standards	3%	4%	0%	2%	42%	22%	85%	50%
% Records meeting critical standards	3%	4%	0%	2%	42%	23%	85%	50%
Use of the Partogram								
# Records reviewed	212	115	40	57	245	117	40	88
% Records meeting all standards	25%	26%	13%	30%	53%	57%	48%	51%
% Records meeting critical standards	44%	48%	25%	49%	68%	74%	65%	61%
AMTSL								
# Records reviewed	216	116	40	60	248	120	40	88
% Records meeting all standards	40%	50%	0%	48%	69%	73%	68%	64%
% Records meeting critical standards	57%	63%	40%	57%	83%	80%	93%	83%
Immediate Postpartum								
# Records reviewed	216	116	40	60	248	120	40	88
% Records meeting all standards	44%	46%	8%	65%	59%	62%	60%	56%
% Records meeting critical standards	61%	66%	30%	70%	89%	92%	95%	83%
Essential Newborn Care								
# Records reviewed	198	98	40	60	248	120	40	88
% Records meeting all standards	32%	35%	8%	45%	46%	49%	30%	48%
% Records meeting critical standards	67%	74%	30%	80%	71%	76%	60%	68%
Routine Newborn Care								
# Records reviewed	200	100	40	60	248	120	40	88
% Records meeting all standards	6%	0%	3%	18%	9%	3%	8%	18%
% Records meeting critical standards	59%	57%	60%	62%	65%	58%	70%	73%

Key: Red = low (0 to 59), Yellow = midrange (60 to 79), Green = high (80 to 100)

MCSP observed improvements in the quality of services provided, demonstrated by increases in rates of compliance with clinical standards from baseline to endline. For example, baseline scores for standards under the Triage were very low across health facilities. At district hospitals, 0% of records analyzed complied with standards such as checking for vaginal fluids and hemorrhaging or checking for fever and headache. Though many scores in overall compliance for the Triage remained below the 60% threshold, there was a 39% increase overall, with district hospitals demonstrating a significant jump, with 85% of records meeting criteria under that category. Health facilities demonstrated a wide range of Triage performance levels, even between health facilities at the same level of service. The CAPs of Sacapulas and San Sebastian H., for example, achieved compliance of above 70% at endline; other secondary level services improved, but not nearly at that rate.

At endline, compliance scores for use of the Partogram had increased by 28 % overall. Health facilities achieved a compliance rate of 81% of cases in which fetal heart rate was recorded every half hour, up from 60% for all facilities at baseline. The percent of records meeting all standards under AMTSL increased from 40% to 69%. At baseline, only 57% of mothers giving birth received uterotonics in the third stage of labor, compared to 83% at final assessment. (Detailed progress on this indicator is included in Appendix B.) For ensuring abdominal uterine massage every 15 minutes for 2 hours postpartum, district hospitals once again saw a significant increase in compliance scores from baseline to endline (30% to 95%).

For Essential Newborn Care, the percent of records meeting all standards remained fairly low (32% to 46%), though there were improvements across health facilities for critical standards such as cleaning the airways of the newborn in cases where it was required (50% to 72%) and immediate skin to skin contact (70% to 81%). In district hospitals, there were noteworthy changes in scores for critical standards such as breastfeeding within the first hour after birth (50% to 82%). Lastly, compliance with all standards under Routine Newborn Care remained very low from baseline to endline (6% to 9%); however, health facilities did show an increase in compliance with critical standards from 59% to 65%.

Operationalizing the Continuous Service Delivery Improvement Model in Guatemala.

MCSP developed and applied five clinical packages (two for DOB and one each for family planning, nutrition, and differentiated care for adolescents). Clinical packages cover key competencies in each intervention area and include theoretical evidence to support clinical approaches as well as practical field tools to monitor learning and conduct skills testing (i.e. pre- and post-tests). MCSP used the clinical packages to train and certify clinical mentors, who then applied the packages for capacity-building with peers and mentees on-site.

DOB
- Pre- and post-test
- Clinical skills training: AMTSL, HBB, Essential Care for the Newborn
- Competencies checklist: AMTSL, HBB, Essential Care for the Newborn
- Supporting documents; theoretical evidence base

Family Planning
- Pre- and post-test
- Clinical skills training: Balanced FP counseling, PPIUD, PP Implant counseling and insertion
- Competencies checklist: Balanced FP counseling, PPIUD, PP Implant counseling and insertion
- Supporting documents; theoretical evidence base

Nutrition
- Pre- and post-test
- Clinical skills training: Immediate breastfeeding
- Competencies checklist: Immediate breastfeeding, positioning, and attachment
- Supporting documents; theoretical evidence base

Differentiated Care for Adolescents
- Pre- and post-test
- Clinical skills training: Differentiated care for pregnant adolescents 14 and under
- Competencies checklist: Differentiated care for pregnant adolescents 14 and under
- Supporting documents; theoretical evidence base

Mentoring has been shown to be an effective approach for improving quality health service delivery.[30] To support mentorship activities in Guatemala, MCSP translated and adapted a mentorship training curriculum from the American College of Nurse-Midwives and Abt Associates for the Guatemala context. The curriculum includes a facilitator guide and participant manual which provide trainers and participants with the knowledge, skills and attitudes they need to become effective mentors. The mentorship training is comprehensive, including topics such as relationships in mentoring, the mentoring process, mentoring and clinical teaching principles, and roles and responsibilities of mentors, mentees, and supporting management teams. Mentorship trainings are participatory and test mentors by asking them to demonstrate coaching skills, participate in role-plays, and conduct mentorship meetings with their peers.

The mentorship approach developed with MCSP support for Guatemala is unique in that it addresses service delivery at multiple levels, seeking to form both managerial and clinical mentors. Working closely with MSPAS, MCSP trained and certified 90 managerial and clinical mentors who represent all six DAS (San Marcos, Quetzaltenango, Totonicapán, Quiché, Ixil, and Huehuetenango). The cadre includes seven Master Mentors who lead mentoring at their site. Throughout the proof of concept period, mentors led supportive supervision processes and facilitated peer-to-peer goal-setting, monitoring, and coaching activities in the 15 health facilities (Table 7). MCSP also trained and supported 35 "training specialists"; these are clinical staff who did not complete all requirements for certification as mentors under the model, but are trained on key clinical packages and participate in ongoing QI processes to close gaps at health facilities. Across the six DAS and 10 DMS, clinical and managerial mentors now provide capacity building to an additional cadre of 79 health providers, who provide delivery and post-natal care to an estimated population of 10,661 women.

Table 7. Number and Types of Mentors Certified (n=90)

Profile	Overview of Responsibilities and Qualifications	# Mentors Trained and Certified	Health Providers Supported by Mentors per Clinical Area (n=79)
Master Mentor (Clinical)	Leads training and orientation of clinical mentors and provides technical assistance in development of monitoring plans; must be an active and proficient service provider in reproductive, maternal and newborn health	7	• DOB: 65 • Family Planning: 3 • Nutrition: 7 • Differentiated Care for Adolescents: 4
Managerial Mentor	Oversees mentoring at health facilities and ensures an enabling environment (i.e. administration, logistics, supplies); must be a decision-maker (managers, directors, other leadership); not clinical professionals, but have been trained and certified in mentoring principles	27	
Clinical Mentor	Conducts training needs assessments, trains, and mentors PPCs and apprentices; must be an active and proficient service provider in reproductive, maternal and newborn health	44	
Peer Practice Coordinator (PPC)	Holds practice sessions and provides ongoing mentorship to apprentices, and records results on monitoring plans; must be respected by and willing to support peer learners	12	

30. MCSP, Mentoring for Human Capacity Development: Implementation Principles and Guidance, https://www.mcsprogram.org/resource/mentoring-human-capacity-development-implementation-principles-guidance/.

At the inception of the project, the national Quality of Care TWG was no longer functioning in Guatemala. In close partnership with MSPAS' PNSR, MCSP helped to reestablish the TWG, convening representatives from PNSR, hospital directorates, UNFPA, and the Pan-American Health Organization (PAHO) to review the manual and ensure harmonization among QI approaches in maternal and newborn care. Basing its work on three components of the WHO's 2016 framework (quality improvement, human capacity strengthening, and experience of care), the TWG supported MSPAS to revise and strengthen its guiding manual on quality care and improvement, entitled "Monitoring and Evaluation of Quality in Maternal and Newborn Care." The manual outlines a comprehensive approach to data-driven decision-making and quality processes and is directed toward multidisciplinary clinical teams and managers who play a role in quality service provision.

MCSP also collaborated with district and facility officials to initiate and support QI processes within health facilities as part of the Continuous Service Delivery Improvement Model. The 15 health facilities within the proof of concept catchment area formed 15 QI committees that, by the end of the project, were actively collecting and reviewing data and using ACIEX as part of regular quality assurance processes. The QI committees comprise 69 doctors, nurses, administrative, and operations staff – including mentors – who participate in ongoing team monitoring of quality care and improvements in service provision. The process changed the way facilities operate, as data analysis for decision-making was a task widely reserved for administrative personnel, hospital leadership, and physicians. The QI committees have promoted inclusive analyses, drawing on and valuing the perspectives and inputs of all personnel, including nurses and lower level administrative or operations staff.

Dr. Hannaly Ruiz – Departmental Hospital in Totonicapán

"Mentoring is a nice way to teach others, to work with small groups, to transmit knowledge interactively, we learn by doing. We are carrying it out with both undergraduate and post graduate students."

Mentorship: A Promising Approach for Guatemala's Health Sector

Health providers and other MSPAS staff, including the Coordinator of Hospitals and two Vice-ministers (Hospitals and Technical), expressed motivation and enthusiasm around mentorship, particularly its effectiveness in supporting health workers to teach the skills needed to directly address gaps identified within their own facilities. The approach has been recognized at the highest levels of the organization, including within Guatemala's PNSR, which has officially endorsed the approach and adopted the mentorship training and clinical packages for use with health providers, showing promising steps toward sustainability in the long-term.

The Continuous Service Delivery Improvement Model provides a flexible approach to addressing individual and systemic health system gaps. It empowers people to evaluate barriers to quality service delivery and create meaningful responses that strengthen individual care providers and the health system as a whole. The evidence produced by MCSP's proof of concept in Guatemala demonstrates that capacity building and supportive follow-up – including mentorship – when combined with quality improvement processes, can improve the quality of care, making it a viable model for developing clinical competencies and soft-skills in client-centered care.

Some challenges persist, however, and must be overcome if MSPAS is to continue to apply the model in the future:

- While the model's data verification tools and ACIEX database improve capacity to capture data, Guatemala's health system generally lacks an embedded "culture" of inclusive experience-sharing and data-use for collective decision-making to improve the quality of service delivery.
- High staff turnover, including some turnover of staff certified as mentors, impacts progress, but also underscores the need for a model that provides ongoing follow-up and capacity strengthening.
- The lack of one national, standardized model and tools for implementing quality of care improvement processes is a challenge. As models and/or standards vary over time or between health facilities, it is difficult to achieve sustained progress in quality improvement and to assess needs across the entire health system.
- A lack of resources and equipment can present significant challenges to improving quality of care for primary and secondary level services. Since hospitals, particularly regional hospitals, generally have more resources, they generally showed higher improvement in compliance from baseline to endline.
- The lack of resources and equipment underscores the importance of the Managerial Mentor, whose role it is to track, advocate for, and manage supplies, equipment, and other logistical and administrative issues at the health facility. In addition, it is important to strengthen DAS leadership as the principal finance managers of the health services within the network under their jurisdiction.
- Finally, there is continued need for advocacy at the national level to improve engagement on certain reproductive health topics such as family planning and adolescent pregnancy, particularly for hard-to-reach, rural and indigenous populations.

• MSPAS could encourage a culture of team-based data-driven decision-making for quality

• Greater motivation is needed within SIAS and SIGSA to strengthen accountability and data-driven decision-making. MSPAS should intensify training at the level of SIAS on utilizing, interpreting, and analyzing data to make key leadership decisions. Quality is everyone's business!

- Based on the proof of concept work under MCSP, MSPAS could conduct a formal evaluation of the mentoring tools, clinical packages and QI processes, revising and adopting them to then create a localized and context-specific framework for expanding implementation of the model in Guatemala
- MSPAS could link capacity-building, mentorship, and quality improvement processes to professional development and growth, performance review, incentive schemes for staff. This could also include advocating with DECAP to formally endorse the model and allocate resources to improving and expanding it
- MSPAS could establish a specific unit which would be responsible for ensuring continuous quality improvement and promoting the Continuous Service Delivery Improvement Model and use of its tools and strategies

Conducted a Formative Assessment and Facilitated a Co-Design Process on Respectful Care

Over the last decade, with the conclusion of the Sustainable Development Goals (SDGs) and a sobering evaluation of the unmet goals of decreasing maternal morbidity and mortality, the global focus on quality of care has grown to encompass the experience of care. Bowser and Hill's (2010) seminal landscape analysis of disrespect and abuse documented the reality of mistreatment and shed a spotlight on this phenomenon which inhibits utilization of services. Guatemala's Western Highlands have a long history of violence, social conflict, gender inequity, and racism. Thus, a deeper understanding of mistreatment and promotion of culturally appropriate respectful care is essential to improving the quality of care, increasing the percentage of births attended at health facilities by skilled birth attendants, and decreasing maternal and newborn mortality.

To explore the health care experiences and perceptions of rural women, as well as provider's experience of providing care, and to identify barriers to quality, respectful care in health institutions, MCSP completed a formative, mixed-methods assessment and facilitated co-design processes on respectful care within three Quiché hospitals and six surrounding communities. To carry out the assessment, MCSP conducted more than 250 surveys and interviews with patients, hospital personnel, mothers who had given birth in a health institution, pregnant mothers, and community members. MCSP documented details of indigenous mothers' experiences in and perceptions of hospitals and health facilities, as well as their recommendations for health facility supervisors. Table 8 highlights some of the types and frequency of mistreatment women experienced. The most common type of disrespect mentioned was verbal abuse, characterized by harsh words, shouting, humiliations, and offensive comments about sexual activities.

Table 8. Type of Mistreatment Women Experienced

Variables of Mistreatment or Disrespect	Nebaj (N=36)	Santa Cruz (N=69)	Uspantán (N=36)	Total (N=141)
Physical abuse	2.8%	1.5%	0.0%	1.4%
Verbal abuse	11.1%	30.9%	13.9%	21.4%
• Scolding	8.3%	30.9%	8.3%	19.3%
• Shouting	0.0%	0.0%	2.8%	0.7%
• Threats	5.6%	5.9%	5.6%	5.7%
• Ridicule	2.8%	0.0%	2.8%	1.4%
• Being blamed	5.6%	2.9%	0.0%	2.9%
• Comments about sex life	2.8%	1.5%	0.0%	1.4%
Gave birth unassisted	2.8%	1.5%	5.6%	2.9%
Was restrained	2.8%	0.0%	0.0%	0.7%
Pressure placed on abdomen (before baby was born)	22.2%	2.9%	33.3%	15.7%

In addition, MCSP interviewed *comadronas,* who spoke of their experiences providing maternal health care in rural homes, as well as assessed healthcare provider attitudes, observations, and experience surrounding mistreatment (Table 9). Notably, provider's observations of women being yelled at are consistent with women's own experience of verbal abuse.

Table 9. Selected Preliminary Provider Results (Quantitative)

Provider attitudes, observations, experience of mistreatment	(N=31)
Providers reporting ever witnessing mistreatment of clients	
Clients being yelled at, screamed at	45%
Clients being hit, pinched, punched	3%
Providers reporting mistreatment (themselves or a colleague)	
Being screamed at by patients/families	58%
Being screamed at or threatened by a supervisor or colleague	36%
Being slapped, pinched or punched by patients/families	13%
Being slapped, pinched or punched by a supervisor or colleague	10%
Providers who agree with statement	
"Women without education may create more problems in childbirth"	42%
"Sometimes is it necessary to physically restrain patients during labor/childbirth"	23%
"It is not always necessary to obtain consent before examinations"	26%
"Speaking harshly with a woman in labor may help make her cooperate"	7%

MCSP found that a large majority of health personnel understand respectful care protocols and can identify signs of respectful care (addressing patients in their language, informing patients of options, seeking consent to treatment). However, still common are verbal abuse (yelling, making offensive jokes, humiliating patients) and other types of mistreatment (lack of empathy, ignoring patients, multiple people performing sometimes painful vaginal examinations). As a result, half of mothers who had given birth in a formal health institution reported that, based on their experience, they would only seek care at a health facility during a subsequent pregnancy if there were complications.

Overall study recommendations included: augment the number of health personnel in all maternity services, prioritizing bilingual competencies; strengthen on-site supervision and mentoring of personnel, stressing the importance of a positive attitude, effective communications, and respectful care; and, improve working conditions for staff as low wages, long shifts, and lack of required tools and equipment lowers staff morale, inhibiting the development of an environment that is conducive to respectful care. Following completion of the respectful care assessment, a team comprised of U.S. and Guatemala-based MCSP technical staff, as well as the local research team that implemented the formative assessment, held seven results dissemination meetings with personnel from the three participating hospitals (maternity units, administration, and client services) and representatives of the six communities (community members, community leaders, and civil society). A total of 92 people participated in the process.

Co-Design Workshop to Address Findings and Map out Next Steps

MCSP led a collaborative process to begin to address findings from the respectful care formative assessment, convening actors from national, municipal, and community levels for a one-day co-design workshop in Quiché in March 2019. The workshop was attended by 58 people and included representatives from all three hospitals and six communities, as well as national MSPAS leadership and USAID. The goal of the workshop was to establish a shared vision between communities and healthcare workers about respectful care and to begin to develop and document action plans and strategies in response.

During the workshop, facilitators grouped community members and healthcare personnel by geographic region and asked each group to complete a series of planning and analysis activities, including voting for the issues that were most feasible to address in the medium-term, developing problem trees and identifying root causes of issues, and developing workplans which outlined actionable solutions to reduce mistreatment and promote respectful care, assigning persons responsible and timelines for implementation (Table 10). In some cases, participants have already begun to work toward achieving the outcomes specified in actions plans.

Table 10. Respectful Care Co-Design Workshop Outputs

Problems Identified During Brainstorming	Proposed Solutions in Action Plans
Uspantán	
• Hospital staff/providers that are not familiar with the concept of respectful care • Failure to obtain informed consent from the client and her family • The presence of a companion during childbirth is not allowed	• Develop a policy about what constitutes respectful care, with input from civil society, the community, and hospitals • In this policy, include the need to obtain informed consent as well as clients' right to a companion. • Raise awareness and train hospital and facility staff on this policy through the use of training mentors; evaluate and monitor the adoption of this policy with exit surveys
Nebaj	
• Inadequate education of health personnel in the health post and representatives of health commission of Nebaj • Poor attitudes among hospital staff and clients (Change in attitude of staff and clients) • Not meeting standards (Knowledge of clinical protocols and standards)	• Improve health education at both the health facility and community level • Conduct health fairs and health education circles where providers interface with the community regarding health education • Through these education activities, raise awareness among both providers and clients about the importance of good attitudes, improved communication, and quality, respectful care • Provide regular mentoring of providers to increase their skills and knowledge
Santa Cruz	
• Poor attitudes among staff (Improve the attitude of the staff) • Lack of resources, equipment (Acquire material, equipment and human resources) • Lack of communication (Improve communication)	• Conduct workshops on human relations and respectful treatment for all hospital staff • Carry out a review of salaries to ensure they are adequate • Monitor and evaluate these activities

The event created a unique opportunity and a safe space for dialogue between communities and hospital staff around concepts related to respectful care and the critical barriers to achieving it. Ideally, with more time remaining on the project, MCSP would provide support to the communities and facilities as they move forward with activities, ongoing evaluation, and refinement. The respectful care activities were well-received; MSPAS and hospital personnel, as well as community members, found the process to be innovative and inclusive of their needs and contributions. In addition, MSPAS' Head of Hospitals mentioned that the activity aligns with the institution's needs for work-planning at the national level. MCSP laid the groundwork for successive programs to continue to address barriers to quality of care and actively encourage dialogue between parties, as well as action and accountability at several levels of the health system.

MCSP is developing a manuscript on the results of this early learning in-country to augment current global evidence and contribute to advancing the integration of respectful care interventions into comprehensive maternal and child health programs. MSPAS and other stakeholders may use assessment findings and action plans to design and implement a comprehensive intervention package to strengthen culturally sensitive, person-centered maternal care.

- Hospital leadership could provide technical assistance and accompaniment to participating hospital personnel and communities to ensure that actions identified are carried out in accordance with plans developed
- The DAS of Quiche and Ixil should take lead in following up on the implementation plans to reduce gaps with the communities with support from the Vice-Ministry of Hospitals to guide this leadership
- MSPAS could learn from MCSP's experience in Quiché in order to implement similar processes in other regions, as well as consider critical lessons for national policy decisions and frameworks

Established a National Health Facility-Based WASH Program Based on the Clean Clinic Approach

Water, sanitation, hygiene (WASH) and environmental conditions in rural health facilities at the primary, secondary and tertiary levels of care are often neglected, despite the increased risk of maternal and neonatal death due to bacterial infections and sepsis. The importance of improved WASH in health facilities cannot be understated: small improvements in managing common infections can help prevent maternal and newborn mortality. MCSP in Guatemala sought to improve WASH-related practices in health facilities and promote the development of national WASH and infection prevention and control (IPC) standards and practices. The project collaborated with MSPAS to adapt MCSP's Clean Clinic Approach (CCA) and pilot a health facility-based WASH program in 11 health facilities providing labor, delivery and newborn services, located in four departments with high rates of maternal and newborn mortality (Table 11).

Table 11. WASH Program Pilot Health Facilities

Department / Municipalities	Category of Health Facility
Quiché	
1. Nebaj	District Hospital
2. Uspantán	District Hospital
3. Sacapulas	Permanent Care Center (CAP)
4. Chichicastenango	Permanent Care Center (CAP)
Huehuetenango	
5. Barillas	District Hospital
6. San Sebastián	Permanent Care Center (CAP)
7. Cuilco	Integral Maternal and Child Care Center (CAIMI)
San Marcos	
8. Tajumulco	Permanent Care Center (CAP)
9. Nuevo Progreso	Permanent Care Center (CAP)
10. San Marcos	Regional Hospital
Totonicapán	
11. Momostenango	Integral Maternal and Child Care Center (CAIMI)

Photo: Karen Kasmauski/MCSP

In its initial planning phase, MCSP convened a national WASH Commission with participation of representatives from SIAS, the Office of Regulation, Control, and Health Monitoring (DGRVCS), the Health Promotion and Education Department (PROEDUSA), DAS supervisors, and hospital management. Participants learned about CCA, a successful global strategy developed by MCSP that provides a framework for health facilities to define and carry out practical WASH improvements that, even if implemented incrementally, can make a vast difference in health outcomes for mothers, newborns, and children. CCA consists of 10 steps in which national health leaders, such as MSPAS, conduct baseline assessments, develop national minimum WASH standards, and train health facility personnel to complete cyclical evaluations and improvement plans based on the standards defined. Health facilities regularly assess their WASH status and establish improvement targets with the aim of obtaining locally-defined "Clean Clinic" certification.

MCSP supported the implementation of a baseline assessment of 11 health facilities providing childbirth and newborn services. The assessment revealed several WASH deficiencies in the facilities. For instance, while 10 of 11 facilities had an improved water supply, and only two had access to water. Only two of the 11 had functional handwashing stations at points of care, and only five had a satisfactory score for disposal of hospital waste. Based on these results, the MCSP-facilitated national WASH commission led the adaptation of the CCA to the Guatemalan context, defining an implementation and measurement plan and instruments to measure eight WASH standards encompassing 79 quality criteria (Table 12).

Table 12. WASH CCA in Guatemala: Standards and Number of Criteria

Water (9)	Ensures the establishment has a permanent, functioning water supply on-site, including potable water
Water CRP (11) (*caliente, residual y pluvial* - hot, residual and pluvial)	Ensures the establishment provides both hot and cold water and that drainage systems and treatment for rainwater are in place and functioning according to standards
Hygiene (13)	Ensures all environments in the establishment (restrooms, waiting rooms, patient areas, etc.) meet standard criteria for hygiene
Sterilization (7)	Ensures sterilized tools and materials are available in the establishment at appropriate levels
Restrooms (5)	Ensures the establishment's restrooms are accessible, in good state, and properly functioning
Waste Management (11)	Ensures the establishment has waste management tools available and processes put in place for appropriate waste management, including potentially hazardous waste
Cleanliness (9)	Ensures the establishment has the tools, materials, and processes in place to maintain cleanliness and regular
Administration (14)	Ensures the establishment has proper protocols in place for water, food, and waste management, and that staff are regularly trained on WASH standards

To roll-out CCA in health facilities, MCSP provided essential "starter-kits" that included basic cleaning supplies and personal protective equipment, and trained and provided technical assistance to clinical, administrative, maintenance, and janitorial staff to carry out monitoring assessments. As assessments were completed, local, in-house WASH committees at each facility identified gaps for each standard and developed a quality improvement plan prioritizing actions based on a checklist weighing their magnitude, significance, efficacy, and cost. Each standard was scored on a scale of 0-100, with 100 denoting a model Clean Clinic that has successfully met all 79 criteria under the eight standards. Facilities used the CCA scoring system to work towards "Silver" (70-80), "Gold" (81-90), or "Diamond" (91-100) status, creating a sense of friendly competition and motivating facilities to continue to improve.

In the initial assessment period, only three health facilities scored above 50 points. By the third round of assessments, health facilities showed remarkable improvements across all facilities and indicators. WASH improvements in the 11 target facilities are expected to benefit approximately 10,611 births annually as a result of improved quality of care and reduced risk of postpartum and newborn sepsis infections. These expected births represent 36% of the total expected births (31,773) for the municipalities where these facilities are located.

Photo: Karen Kasmauski|MCSP

MCSP Guatemala

Water, Sanitation, and Hygiene (WASH)

To design a WASH program based on the Clean Clinic Approach (CCA), MCSP:

Established a national WASH commission made up of representatives from across Guatemala's health sector

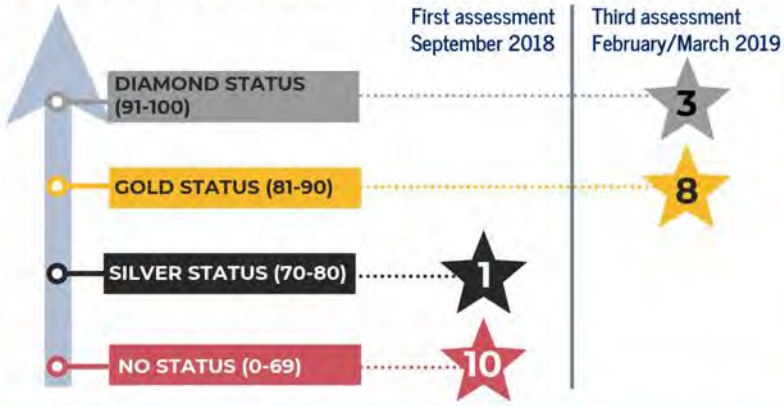
Carried out an initial baseline assessment in 11 health facilities providing childbirth and newborn services in departments with high risk of maternal and neonatal mortality

Used baseline information and global CCA standards to develop Guatemala-specific guidelines and tools, defining 8 WASH standards and 79 quality criteria with scoring mechanism for each indicator (score of 0-100)

Trained health facility staff on use of tools and empowered facility-based WASH committees to ensure measurements are carried out and improvement plans are implemented

WASH Achievements in 11 MCSP-supported health facilities

Status reached across 8 WASH standards



Between first and third assessments, health facilities increased their average scores from:

WATER: 59 to 99

indicating sweeping changes in the source, location, quality, and availability of water across facilities

WASTE: 37 to 95

indicating major improvements in the way health facilities store, transport, and handle waste

ADMIN: 7 to 78

indicating that while most health facilities had few WASH management protocols in place at the start, they quickly established and documented standard procedures on a variety of issues, including water, food and waste management, sanitation procedures, and others

By the third assessment:

- 7 facilities gained access to potable water
- 4 facilities ensured birthing and neonate rooms had access to water for multiple uses
- 7 facilities obtained new or additional closed containers for hazardous waste
- 9 facilities' staff began using protective equipment when disposing of solid waste
- 7 facilities established a written system for documenting cleaning schedules that is regularly used and updated

Success factors: what contributed to improvements?

In-house WASH committees drive health facility staff to action.

Because the committees are local, they can provide ongoing accompaniment to staff to ensure criteria are met.

Small, achievable changes make a big difference.

Health facilities without access to specialized containers for waste called on the community to donate hard plastic containers from regular household items.

Friendly competition.

Once nearby facilities heard about a framework for quick WASH fixes, they expressed confidence in being able to obtain "Diamond" status before their neighboring municipality.

Rapid score improvements for most standards suggest health facility personnel gained an increased understanding of the importance of WASH and were highly motivated to implement actions in accordance with WASH quality improvement plans put forward by committees. Health facility staff expressed great satisfaction with the model and the ease with which the measurement tools were applied. Involving all staff in the process, including janitorial, cleaning, and maintenance staff, makes it a highly motivating process which encourages all to participate in change. Due to the success of the initial planning commission in designing and rolling out the pilot project, GoG institutions bought into the model from the beginning and were committed to its successful implementation.

• MSPAS could update and refine the WASH assessment tool based on pilot results and expand its use to include health posts. The tool also serves as a starting point for defining Guatemala's advanced service level indicators of the WHO/ UNICEF Joint Monitoring Program for Water Supply, Sanitation, and Hygiene (JMP)

- DGRVCS could automate measurement, analysis, and scoring using the WASH assessment tool with a mobile application. This would allow for real-time analysis and development of information for sharing and decision-making
- MSPAS could evaluate the feasibility of scaling the program to additional facilities. DGRVCS and the national WASH commission could lead in conducting initial assessments, holding dissemination workshops, forming WASH committees, and following up on their progress
- MSPAS could recruit municipal governments as key supporters of CCA: they are local, third party actors who can conduct WASH assessments and provide long-term accompaniment during improvement processes at health facilities
- Municipal governments could work with health facilities who are now receiving clean water to extend water availability to nearby communities by developing joint water supply systems

Adapted the "Maternal and Child Nutrition Within the First 1,000 Days" Certificate Program

MCSP facilitated the design of an adapted set of nutrition modules based on the successful *Diplomado* program—"Maternal and Child Nutrition Within the First 1,000 Days," initiated by FANTA III and continued under Nutri-Salud, in collaboration with INCAP. The Diplomado strengthened competencies of MSPAS facilitators and auxiliary nurses in nutrition, evaluation of pregnant women, promotion of growth monitoring, breastfeeding and complementary feeding, targeted to the 30 prioritized municipalities in the Western Highlands.

MCSP worked with partners at SIAS and PROSAN to expand and update the Diplomado´s eight original modules following a detailed analysis of the previous cohorts' results, as well as a competencies survey provided to MSPAS auxiliary nurses. The updated program promoted the formation of "study circles" in which trained MSPAS facilitators regularly visited municipalities and met in small groups with auxiliary nurses to reinforce skills and share experiences and challenges. MCSP combined the redesigned modules into an easy-to-use field pocket guide. MSPAS enrolled a third cohort of 49 MSPAS facilitators, of which 36 completed the course and were formally certified. The MSPAS facilitators formed 37 community nutrition study circles, supporting 458 auxiliary nurses in the six DAS. By the end of the project, 409 auxiliary nurses demonstrated their knowledge in the area of maternal and child nutrition by passing the course and receiving a certificate.

• As a next step, PROSAN could evaluate the feasibility of expanding implementation of the *Diplomado* to additional regions of the Western Highlands

- Training of facilitators in other DAS, thru an online program
- Supporting the reproduction of additional materials for the development of future diplomados
- Supporting the development of study circles in accordance with programming of the DAS
- Periodically reviewing the need to add or adapt the existing modules in accordance to the existing MOH norms (ie nutrition for adolescents, nutrition and WASH)

"[Participation in the Diplomado] is something that helps us at work, because there are some things we have done but we do not do it well. It is excellent, because we can practice it in the health service."
– Auxiliary nurse from Chajul, Quiché.

Effective Inter-Institutional Collaboration

MCSP fostered new and interesting partnerships to address long-standing barriers to collaboration and information sharing, introducing strategies for engaging different actors in health and nutrition related activities. The project convened private-sector stakeholders and promoted collaboration with other relevant ministries such as MINFIN, municipal governments and civil society groups. Examples of collaboration are presented in the following sections.

Support to Local Municipal Planning to Increase Investment in Health and Nutrition

At the municipal level, limited resources, competing priorities, and lack of information prevent municipalities from investing in appropriate health and nutrition interventions and programs in their territory. To increase awareness of chronic malnutrition in the Western Highlands and support implementation of the ENPDC, MCSP provided technical assistance for the incorporation of health and nutrition interventions in the 2019 municipal annual operational plans. Basing activities on the Guide for Elaborating Municipal Investment Plans oriented toward food and nutrition security, that was developed by HEP+ and FANTA III, MCSP engaged municipal-level COMUSANES in planning activities to prevent and address chronic malnutrition. MCSP provided technical assistance to eight municipal COMUSANES to develop and present annual operating plans with specific interventions for health, food security and nutrition for 2019. MCSP helped COMUSANES to first analyze the current municipal health and food security situation using existing information, then define and develop the annual operating plan, present the plan to the COMUDE for approval, and advocate for the allocation of funds to enable the implementation of proposed interventions in the plan.

The process empowered COMUSANES to assess health and nutrition problems in their municipality and present thoughtful food security, nutrition, and health (FSN/H) activity plans to the municipal-level Development Councils (COMUDE), who ultimately approve the plans and recommend that resources be assigned from the Municipal Council. Ultimately, the COMUSANES prioritized key interventions, that included providing staffing, equipment and other support to health facilities to carry out safe drinking water programs and activities to address chronic malnutrition. With support from MCSP, the eight COMUSANES costed FSN/H interventions at nearly US$650,000, presenting plans in 2019 annual budget requests to the municipal COMUDES for approval. Due to time constraints, MCSP could only ensure that resources for health and nutrition activities were assigned in municipal budgets not track the actual spending, nor whether they impacted the nutrition situation in communities. Additional time is required to create ownership of the process, and to train and motivate municipal leadership to continue to use the tool beyond the project.

Steps to Implement the Guide for Elaborating Municipal Investment Plans

Step 1: MCSP introduced the Guide to municipal authorities and COMUSANES and developed a joint implementation plan

Step 2: MCSP supported COMUSANES to complete a diagnostic of the health and nutrition situation in the area and analyze the information to identify major challenges

Step 3: MCSP supported COMUSANES to prioritize health and nutrition challenges and select key interventions from the catalogue of essential interventions in the Guide

Step 4: MCSP supported COMUSANES to plan for the implementation of the interventions, including writing the interventions into their 2019 Annual FSN/H Operating Plans

Step 5: MCSP supported COMUSANES to present Annual FSN/H Operating Plans to COMUDES and request resources to implement interventions

NEXT STEPS

- SESAN leadership could consider expanding the use of the Guide for Elaborating Municipal Investment Plans to other municipalities beyond the eight pilot municipalities
- SESAN could support COMUSANES to ensure planned nutrition interventions are implemented, and monitor their progress in accordance with 2019 annual budgets and operating plans
- Because it is an easy-to-use tool, future programs could adapt and replicate the Guide for Municipal Investment Plans, applying its principles and processes to additional intervention areas (i.e. emergency transport, health outreach services, health information communication, etc.)

Developed an Online Municipal Finance Training Course on Health and Nutrition

To reinforce the work done with municipal COMUSANES, MCSP established an innovative partnership with a non-traditional actor in health, Guatemala's MINFIN and its Directorate for Administrative-Financial Assistance to Municipalities (DAAFIM). MCSP supported DAAFIM to develop an online course housed on its own virtual platform, which is designed to sensitize finance staff of the municipal Planning and Budgeting Units on the prevalence of chronic malnutrition in their territory, its causes and implications, and how they can contribute solutions. The course also provides staff with practical tools and strategies for prioritizing FSN/H interventions, including how to integrate them into annual operations plans, and how to allocate resources in municipal budgets for nutrition activities. The course consists of four units:

- Unit 1: Increase in municipal investment for the prevention of chronic malnutrition
- Unit 2: Strategic interventions for the prevention of chronic malnutrition
- Unit 3: Route for the incorporation of health and nutrition interventions in operational plans
- Unit 4: Role and competencies of municipalities in the prevention of chronic malnutrition

The course was created on DAAFIM's existing virtual platform and mirrors training activities already carried out by the department. MINFIN provided the virtual platform and convened the representatives of the planning and financing units of the municipalities to participate in the course. In the first quarter of 2019, DAAFIM enrolled its first cohort of 83 course participants, of which 40 participants from all 30 MCSP-prioritized municipalities completed the course and obtained a diploma. DAAFIM has expressed commitment to scaling the course nationally and can do so at a relatively low cost. MSPAS (or other entity) could provide TA to help DAAFIM/MINFIM follow through on its commitement to maintain the course.

- Evaluate the effectiveness of the course by measuring increases in municipal budget amounts assigned for food security and nutrition activities
- DAAFIM/MINFIN should follow through on its commitment to maintain the course on its virtual platform, including carrying out another round

Established a Significant Public-Private Partnership

MCSP promoted a significant public-private partnership (PPP) in Guatemala, bolstering MSPAS and the GoG's efforts to engage with and strengthen civil society, as well as to tap into the private sector as a critical actor in contributing to creative solutions to Guatemala's health problems. MCSP partnered with Save UK and GSK to develop a mobile application to support HEP+ and civil society's efforts to conduct social audits of public health and nutrition service delivery within the first 1,000 days of life (for more detail, see Meaningful Participation of Civil Society and Communitues below, pg 51). Through complementary GSK financing, MCSP was able to engage additional partners and communities in activities during the project's slow down period in 2018, allowing it to maintain critical relationships and momentum developed prior to that period (Figure 9).

Figure 9. Illustrative Activities: GSK Support to MCSP

Established a Midwifery Technical Training Program

In rural areas of Guatemala, widespread gaps in health coverage and trained health personnel make it difficult for women to access qualified birth attendants who operate locally. Financial, cultural, and geographical barriers often prevent women from getting to health facilities for delivery. A significant barrier revolves around perceptions of care that is unresponsive to socio-cultural concerns. Many women do not want to or are afraid to deliver in health facilities due to previous negative experiences. Midwives thus bring welcome and meaningful cultural context to the experience of pregnancy and childbirth and are sought out eagerly by women and their families. By creating and supporting a professional cadre of midwives who are from the communities, speak the local languages, and understand the context of Mayan cosmology, MSPAS sought to marry the advantages of both worlds.

To complement its strategies to increase the percentage of facility-based deliveries attended by qualified and competent providers, MSPAS prioritized the development of a Midwifery Technical Training Program (or career path) to train and certify the first professional midwifery cadre of Técnicas Universitarias en Partería—University Midwifery Technicians (TUPs)— in Guatemala. The Midwifery Technical Training Program is an innovative strategy to strengthen the competencies of locally-based midwives to provide quality, client-centered health services to rural women who either are unwilling or unable to seek care in a health facility. MSPAS partnered with the University of San Martin de Porres in Peru (USMP), who provided technical assistance throughout and supported MSPAS in the development of the curriculum, selection of universities under which to house the program, and the design of a master plan to guide program implementation.

The Midwifery Technical Training Program encompasses a comprehensive curriculum, which is based on the International Confederation of Midwives' (ICM) core competencies. The curriculum covers practices for reducing maternal and neonatal deaths, including birthing practices, responding to complications during pregnancy and labor, ethics issues, nutrition, and other topics. Each module places emphasis on respecting and incorporating local perspectives and cultural practices, as they pertain to the context in rural Guatemala.

MCSP supported MSPAS to develop the career path in several areas, playing an integral role in the process as detailed below:

MCSP's role in initial planning and preparation	MCSP's role in implementation and sustainability
• Supported development of the master plan and coordination with USMP for programmatic and academic development of the TUP • Provided technical assistance to validate curriculum content, based on ICM competencies, and the methodological approach of the career path • Conducted a field diagnostic of health facilities to serve as practice centers for TUP students and provided practice centers with necessary equipment • Developed a proposal for the professional profile of the TUP	• Supported university faculty to develop theoretical and practical training sessions, including simulation strategies, a Training of Teachers in Basic Sciences, and a Workshop for Development of Clinical Skills, directed at clinical teachers • Provided assistance in the student recruitment process for the career path • Provided assistance in the development of official scholarship contracts for TUP students • Engaged in discussions with MSPAS to establish sanctioned posts within the ministry with a well-defined salary package, benefits, and career ladder • Facilitated discussions between stakeholders on mechanisms for long-term sustainability of the career path, including support from USMP, technical and logistical support from MSPAS, and financial support from international stakeholders such as USAID

In December 2017, MSPAS signed an initial ministerial agreement between the Da Vinci and Pan-American Universities to implement the program and provide training and support to new TUPs. MSPAS also allocated 150 scholarships (Q2.800/each or approximately $365 USD) to support 50 women in the career path per year for the three years. The first cohort of TUP students initiated the career path in April 2018, with 50 of them receiving scholarships from MSPAS for their first year of study. MCSP supported MSPAS to conduct an evaluation of the two universities in the last quarter of 2018, which assessed a series of academic and administrative criteria required to successfully implement the curriculum. Pan-American University did not meet the required criteria for success. Da Vinci University in Huehuetenango absorbed the students from Pan-American University in early 2019.

Figure 10. Required Profile of Midwifery Students

- Woman
- 18 to 35 years of age
- Graduated from diversified level
- Is not trained as a Nurse or Auxiliary Nurse
- Speaks local indigenous language, as well as Spanish
- Willing to return to home community to work as a Midwife following training

Photo: Caroline Trutmann|MCSP

Presently there are three cohorts (89 students in total) of TUP students actively enrolled in the three year (six semester) program. Students come from eight different departments in Guatemala, the majority from Huehuetenango, and their ages range from 18 to 38 years. Among them, the TUP students speak nine local languages in addition to Spanish. At the end of MCSP, all 89 students completed classes and clinical practice hours in Huehuetenango. If sustained, the career path could not only contribute to reducing maternal and neonatal mortality rates, it could provide new training and employment opportunities to thousands of rural women who are interested in Midwifery as a career and want to provide quality services, in their home communities. As part of its work to ensure sustainability of the career path, MCSP facilitated discussions with MSPAS and other stakeholders on the importance of creating a formal career ladder and sanctioned posts for TUPs within MSPAS, as well as committing to hiring them following their graduation from the career path.

- MSPAS could standardize implementation processes in order to ensure adequate monitoring and supervision of practice centers and capacity strengthening of universities and their faculty
- MSPAS could evaluate the feasibility and create a plan to expand the career path, in partnership with additional public and private universities in Guatemala
- MSPAS could permanently dedicate resources in its annual budget for the career path, including for scholarships, equipment, and TUP staff salaries

Meaningful Participation of Civil Society and Communities

During the life of the project, MCSP specifically targeted indigenous women and communities, empowering them to contribute their knowledge and skills to generating evidence for new, adapted, and innovative health interventions in Guatemala. MCSP also engaged with other community-level actors, strengthening the capacity of several CSOs through the HEP+ civil society network.

Automated a Civil Society Social Auditing Tool

In Guatemala, civil society plays a role in holding health services accountable for implementing health and nutrition interventions during the 1,000-day window[31] through its social monitoring activities. However, civil society organizations often lack the necessary tools, resources, and technical capacities to carry out effective monitoring, evaluation, and collaborative action planning in partnership with health facilities. In addition, health facilities express a lack of trust in information collected or are slow to respond to resulting recommendations for improvement. In partnership with GSK and the civil society networks of HEP+, MCSP improved the tools and processes CSOs utilize for monitoring health service provision related to the 1,000-day window. With financial support from GSK, MCSP designed the "1,000 Days Window" mobile application, which digitized an existing monitoring process, decreasing the amount of time spent per monitoring visit. In 2018, CSOs completed a total of 253 monitoring visits (195 primary-level and 58 secondary-level facilities) using the mobile app.

MCSP trained and accompanied youth CSO members on the use of the mobile application and

31. The 1,000-day window of opportunity refers to the period between conception and a child's second birthday. It is considered the most critical period for long lasting impacts on a child's cognitive and physical development.

strategies for conducting collaborative monitoring that emphasized supportive rather than punitive processes. For both the CSOs and health facilities that participated in the process, the tool and supplementary training produced key changes in the way they receive and respond to data, and helped standardize monitoring and reporting processes among participating CSOs. Youth from the CSOs were invigorated by the mobile tool, even utilizing their personal cell phones and air time to conduct monitoring activities and establishing a WhatsApp group to engage in collective technical assistance and troubleshooting. Prior to implementing the 1,000 Days Application, communities and health facilities lacked trust in CSO's data collection processes, often viewing their monitoring activities as inconsequential. Following implementation of the tool and posting of the results online, this perception changed: health staff more readily accepted the data as valid and were willing to partner with CSOs on improvement processes. And finally, the participating CSOs and health facilities no longer viewed monitoring as a punitive process to point out deficiencies, but rather as a collaborative learning process where everyone benefits from improvements made.

Figure 11. Sample Data Points Collected Using the 1,000 Days Window Mobile Application

Training gaps

CSOs found that while nearly 80% of staff in secondary care facilities are trained on the ENPDC strategy, this number drops to only 64% in primary care facilities. Youth representatives can communicate this gap to SESAN and advocate for wider reach of training initiatives.

Availability of equipment

CSOs found that only 44.6% of primary care facilities have access to a full set of anthropometric tools. Youth representatives can work directly with the DMS to generate plans for increasing the availability of critical equipment in select health facilities.

Immunization coverage

CSOs found that 37% of children under five lacked the basic immunizations to complete the required scheme for that age group. Youth representatives can leverage this information to develop specific community programs and campaigns targeted to mothers who have not fully vaccinated their children. They can also provide coverage information to MSPAS, in order to inform future vaccination campaigns.

- MCSP developed a plan to transfer capacities to PDH and worked with SESAN on adapting the tool for its institutional monitoring processes in food security and nutrition. Future programs should leverage this momentum to provide continued support to these institutions in short to medium-term
- Future programs should strengthen the complementary training component for CSOs, building from workshops implemented by MCSP, including workshops on supportive monitoring processes, developing public speaking skills and leveraging media communication tools
- PROEDUSA, in coordination with DAS, can play a leadership role in supporting communities to organize themselves in focused regions to address high community maternal mortality and stunting. PROEDUSA could take the lead in strengthening linkages between communities and health services to provide quality maternal,child health and nutrition services while creating demand for those services. Likewise, PROEDUSA can promote safe water and sanitation practices to reduce childhood diarrhea

Supported the Formation and Strengthening of Critical Pathways

Families in rural areas of the Western Highlands face significant barriers to seeking care during emergencies. First, they may not recognize signs of obstetric complications or have the capacity to make adequate and timely decisions to get to a health facility. Second, they may not be able to afford transportation for the woman out of the community, which often requires several hours of travel to the nearest health facility. Additionally, families may face socio-cultural barriers to seeking care at health facilities, including or bad experiences with health personnel. The "Critical Pathway," a model based on the "four delays,"[32] is widely used to counter maternal deaths in this context. The strategy strengthens the emergency referral network at the community level and improves management and transfer of obstetric emergency cases between different levels of care. The pathway consists of linking families, community members, and service providers along an "emergency route" in response to complications during pregnancy or labor, and encourages mobilization of community leadership to prevent maternal and neonatal mortality.

The Four Delays

Delay 1:	Families' poor understanding of complications and the urgency of seeking medical help	**Delay 3:**	Even if the family decides to seek care, logistical barriers can be daunting
Delay 2:	Even if families learn the danger signs, they face cultural and financial barriers to seeking care	**Delay 4:**	Even if the family is able to overcome the logistical barriers, health facilities are often not ready to provide the emergency care required

Source: Nutri-Salud Final Report

Prior to MCSP, USAID's Nutri-Salud and PlanFam projects formed critical pathways in the Western Highlands (Quiché, Totonicapán, and Huehuetenango). MCSP assessed these pathways, analyzing progress and documenting challenges. Findings included:

- **Progress:** Though critical pathways were still in the early stages (<18 months of implementation), they made progress in several areas. For example, health commissions of the pathways had planned for transportation out of communities, determined the cost of transfers, and developed community savings plans to cover costs or provide "loans" to families when needed. In addition, health posts carried out a census of pregnant women in areas of coverage and employed checklists to identify and monitor high-risk pregnancies. Health posts displayed posters on managing complications, implemented trainings on maternal and newborn care, and availed critical equipment to manage newborn complications such as asphyxia.

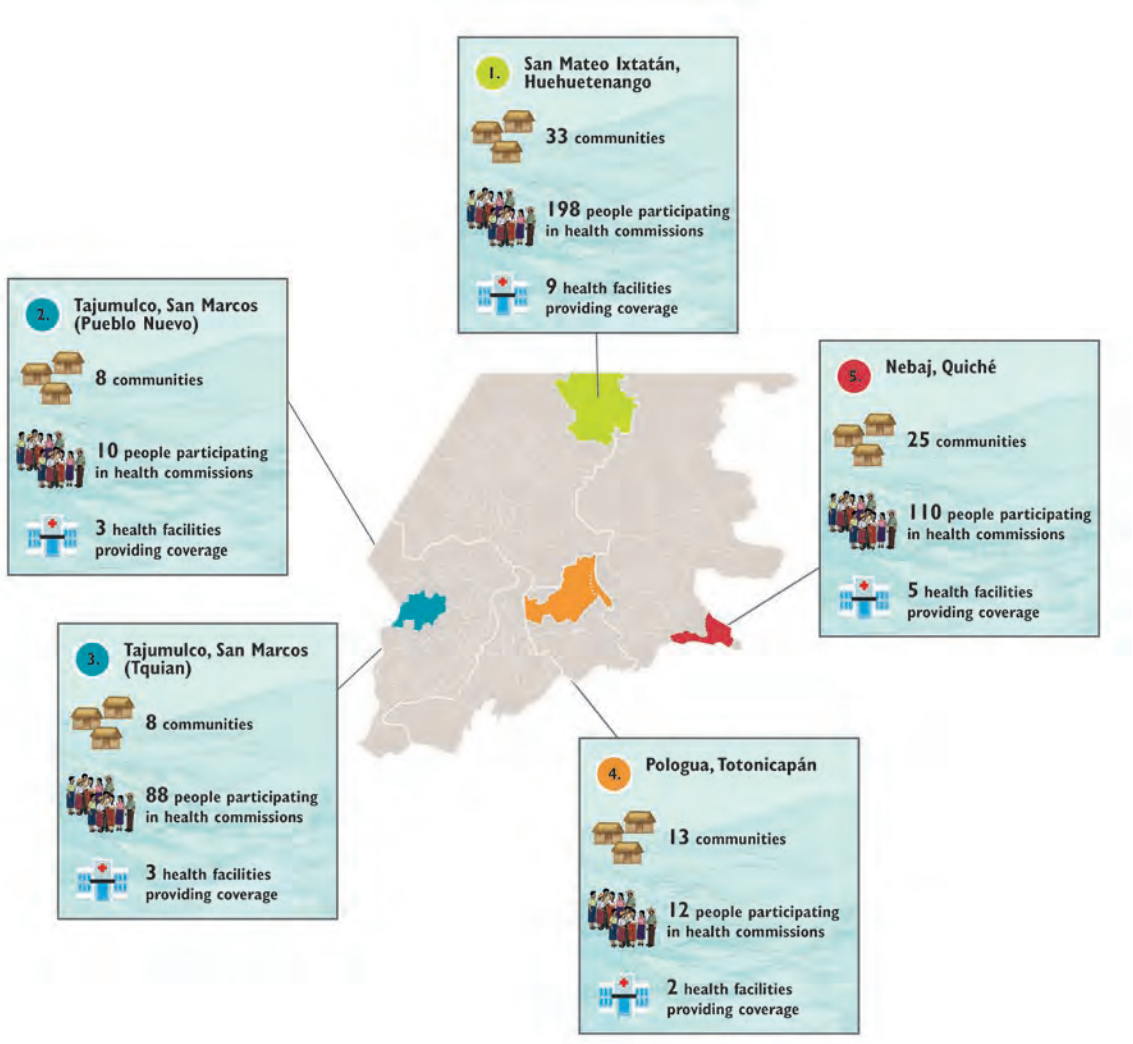
- **Challenges:** The critical pathways lacked widespread recognition and support within communities, as information had not been disseminated to all families. In addition, midwives were not systematically included in relevant processes; they were not perceived as vital actors who could identify complications and activate the critical pathway. Though health posts were emergency-ready, there was limited documentation of their actual use of emergency kits and no referrals had been made using the anti-shock suit. Finally, structural changes in Guatemala's health system, particularly the process of transitioning

32. The global three delay model was adapted to a "four delay model" for Guatemala by the National Reproductive Health Program of MSPAS in the early 2000's to address maternal mortality, and was defined as part of the analysis for the maternal mortality surveillance.. The model includes a fourth (initial) delay related to a lack of understand or recognition of danger signs early on.

to the new primary health care model, had the potential to hinder progress of the three pathways.

MCSP shared assessment findings with MSPAS and the leadership of five DAS (Huehuetenango, Quiché, Ixil, Totonicapán, and San Marcos). During ongoing coordination and analysis meetings, the central-level maternal and neonatal death analysis committees and the DAS presented information on maternal deaths, including on the direct causes, linked to each of the four delays. MCSP supported meeting participants to validate the tools currently used to monitor performance of the committees and document information on deaths. The process resulted in development of an intervention plan to address challenges, including a proposal to expand critical pathways in the Western Highlands. Following this, and in response to an uptick in maternal deaths in key regions, MCSP supported the development of three new critical pathways: one in San Mateo Ixtatán, Huehuetenango and two in Tajumulco, San Marcos (Pueblo Nuevo and Tquian). MCSP involved DAS leadership and the maternal and neonatal death analysis committees in the process and continued to work with them to support and monitor existing pathways (Figure 12).

Figure 12. MCSP-Supported Critical Pathways



MCSP technical assistance to the five critical pathways included:

- Coordination with local Community Development Councils (COCODE) to secure their support for the intervention
- Dissemination of information on emergency-ready centers to key community stakeholders and health personnel
- Skills training for health workers, including on AMTSL, HBB and immediate care of newborns, manual placenta removal, management of eclampsia, use of the anti-shock suit, and other topics
- Coordination between hospitals and local health posts to continue strengthening staff competencies and carrying out exchange visits and simulations
- Donation of equipment, medicine, and supplies for treatment and response in emergencies, including informational posters and flip charts on the Helping Mothers Survive (HMS) methodology

MSPAS authorities recognize the critical pathway as an important strategy to strengthen coordination between community organizations and the health services network, and the DAS of participating districts continue to actively monitor the progress of pathways in their regions. During the first quarter of 2019, MSPAS requested technical assistance from MCSP to expand the strategy to two districts in Izabal and Alta Verapaz. MCSP supported the formation of an inter-institutional commission and shared the critical pathways model. Subsequently, as part of its larger strategic planning, the PNSR incorporated activities for the formation and strengthening of critical pathways in communities with high rates of maternal and neonatal mortality.

- MSPAS, PNSR, and the DAS could develop a joint plan to provide ongoing technical training and support to staff of the emergency-ready centers, who must be clinically competent in addressing obstetric complications in order to stabilize patients and support safe transfer
- Though some have done this already, it is important that critical pathways include midwives in health commissions in order to extend the reach of the pathway and ultimately contribute to decreasing maternal and neonatal deaths in more isolated communities
- MSPAS could evaluate the feasibility of scaling the methodology by linking it directly to its revised Health Care and Management Model, which explicitly focuses on reorganizing the health services network for improved health services coverage throughout the country

Photo: Caroline Trutmann/MCSP

Lives Saved Along the Emergency Route: Pologuá Critical Pathway

MCSP worked with community members and the health commissions of Pologuá in the Momostenango health district of Totonicapán to strengthen the capacities of key actors within the critical pathway to respond quickly and effectively to obstetric emergencies within its coverage area.

In May 2018, their skills were put to the test. In the community of Xetrubala, Maria Ramos gave birth to her second child at home, accompanied by her husband and mother-in-law. When the family noticed complications following the birth, time was of upmost importance.

13:00 hours – Maria successfully gave birth, but her mother-in-law could not stop her from bleeding. Maria's husband activated the family emergency plan and called a community midwife to the family's home.

14:30 hours The midwife evaluated Maria's status and determined her bleeding was not normal. She then activated the community emergency plan and communicated with the representative of the nearest health commission and the auxiliary nurse at the community health post.

15:30 hours The auxiliary nurse determined that Maria was hemorrhaging and had retained her placenta. She immediately activated the health commission, whose members transported Maria to the health post in the community ambulance. At the health post, Maria received the treatment she needed: health personnel removed her placenta and followed the protocols for immediate postpartum care, later determining that Maria was no longer in danger. Health personnel also evaluated her newborn and placed him on Maria's chest for breastfeeding and skin-to-skin contact.

Within a matter of hours, the health commission and health personnel of the Pologuá critical pathway had stabilized Maria, giving her the care she needed to save her life. From 2017 to April of 2019, 89 other women like Maria were referred to health services by activating community emergency plans the critical pathway. As a result, during that period, there have been zero maternal and newborn deaths in communities covered by the critical pathway.

Photo: Haydée Lemus/MCSP

Contextualized and Implemented the Partnership Defined Quality Approach

Throughout rural communities of the Western Highlands, major gaps in health access, resources, quality care, and gender equity affect health outcomes. Health workers often lack awareness of and sensitivity to indigenous health practices or are unable to communicate in local indigenous languages. Thus, heath services and personnel fail to establish positive rapport in communities, limiting community use of formal health services. To promote increased dialogue and coordination between health services and community leaders, civil society, and families, MCSP adapted and applied the Partnership Defined Quality (PDQ) methodology in 17 pilot communities of nine[33] prioritized health districts. PDQ consists of four phases described in Table 13 below. By engaging communities and health service providers in leadership development and increasing collaboration and teamwork between the two parties, the methodology aims to create demand for health services, improve the quality of those services, and facilitate information-based social auditing and decision-making processes.

33. Chiantla, Jacaltenango, Nebaj, Chajul, San Lorenzo, Tajumulco, San Miguel Ixtahuacán, Momostenango, San Juan Ostuncalco

Table 13. Phases of PDQ: Detail of Actions and Outcomes

Phases of PDQ	What did MCSP do?	Outcome
Phase 1: Building support *(Creación de apoyo)*	MCSP mobilized key stakeholders from the community (community and indigenous leaders, organized community groups, health workers in the community and at the local health facility, families) and presented the PDQ process, timeline, and roles of all involved.	Stakeholders from the community and health facility commit to participating in the PDQ process.
Phase 2: Exploring quality *(Explorando calidad)*	MCSP facilitated separate meetings with community members and health workers to create the space for open, participatory dialogue on what quality in the community and the health system means to each group. MCSP also explored the benefits of a community-health worker partnership with each group.	MCSP documented two sets of findings and perspectives on what is quality in health (one from the community and one from health workers).
Phase 3: Bridging the gap *(Acortando las brechas)*	MCSP brought community members and health workers together to share their ideas and perspectives in a large group and identify and prioritize barriers and constraints to achieving quality health services.	The groups developed a shared vision of quality and identified the major facilitators and barriers to achieving that vision. A quality improvement (QI) team made up of both community members and health workers is formed.
Phase 4: Working in partnership *(Trabajando juntos)*	MCSP provided ongoing technical assistance and accompaniment to QI teams, who are responsible for leading PDQ processes in their community. The QI team completes a cyclical process of analyzing root problems to barriers identified and creating specific action plans (with resources and persons responsible) to solve them.	The QI team has an action plan and is responsible for following up. The team has also developed indicators to monitor progress and determine when a given problem has been adequately addressed.

Partnership Defined Quality (PDQ)

Stakeholders Mobilizing for Improved Health: Two Community Examples

Pologuá, Momostenango, Tononicapán

1 Community mobilization participants: 57

- 13 mothers with children under 5 years of age and/or pregnant women
- 5 traditional birth attendants and mothers-in-law
- 16 husbands, community and religious leaders
- 23 health providers

2 Collective analysis of health challenges in the community

- Lack of resources to transport people to health facilities in cases of obstetric emergency
- Lack of resources to supply the Health Post with equipment and medicines and ensure its staff are trained and qualified
- Midwives are not formally registered with the Health Post and therefore do not receive necessary training nor do they report births according to established procedures

3 Actions carried out in response

- Creation of emergency fund for transporting people to nearest health facility (Q1,000.00/~130USD)
- Transferred the title of the Health Post to MSPAS, a requirement in order to change its designation from Health Post to Health Center and receive additional resources from MSPAS for personnel and equipment
- 40 midwives formally registered with health services and assigned credentials

Nueva Esperanza, San Lorenzo, San Marcos

1 Community mobilization participants: 67

- 19 mothers with children under 5 years of age and/or pregnant women
- 19 traditional birth attendants and mothers-in-law
- 15 husbands, community and religious leaders
- 14 health providers

2 Collective analysis of health challenges in the community

- Lack of a functioning latrine at the community health center
- Lack of access to water at the community health center
- Lack of demand for health services and low attendance at the community health center

3 Actions carried out in response

- Reconstructed and restored the latrine outside the community health center
- Installed a cistern, providing water to the community health center
- Carried out a sensitization campaign to inform community members on key maternal and child health issues and the importance of timely careseeking at the local health facility

"We work together to improve the health of our community."

- Chexap community member, San Sebastian H., Huehuetenango

The PDQ approach is highly participatory and quickly gained traction in communities. To date, 1,064 people participated in PDQ processes in the 17 pilot communities, including 340 pregnant women and women with children under age five, 238 *comadronas* and mothers-in-law, 330 husbands, fathers and community leaders, and 156 health sector personnel. The model was well-received and has ignited positive change led by community members and health workers themselves. The new or newly reactivated community health commissions and QI teams formed under PDQ have organized to develop and implement improvement plans encompassing a wide range of topics, including water and infrastructure, supplies and medicine, systems and documentation, competencies of health providers and TBAs, and culture or maintaining traditional practices. An estimated 69,455 community members in the 17 pilot communities will benefit from improved quality of health services.

PDQ allowed for coordination between MCSP and MSPAS institutions with a strong field presence, such as SIAS and PROEDUSA. PROEDUSA health promotion field staff participated in MCSP trainings and contributed to the monitoring and implementation of PDQ, often serving as neutral parties who could facilitate the methodology with communities and health services in their assigned region of coverage. As a result of the pilot's initial success, MCSP and PROEDUSA were able to create buy-in at national level for PDQ implementation, facilitating SIAS's official endorsement of MCSP's contextualized Operational Community Mobilization Guide for Facilitators of the PDQ Methodology in Guatemala. In addition, as a result of the PROEDUSA's leadership, MSPAS adopted the approach locally, engaging an additional 67 communities in an expansion phase fully facilitated with MSPAS and community resources, and supported by the health districts of Ixil, San Marcos, and Huehuetenango.

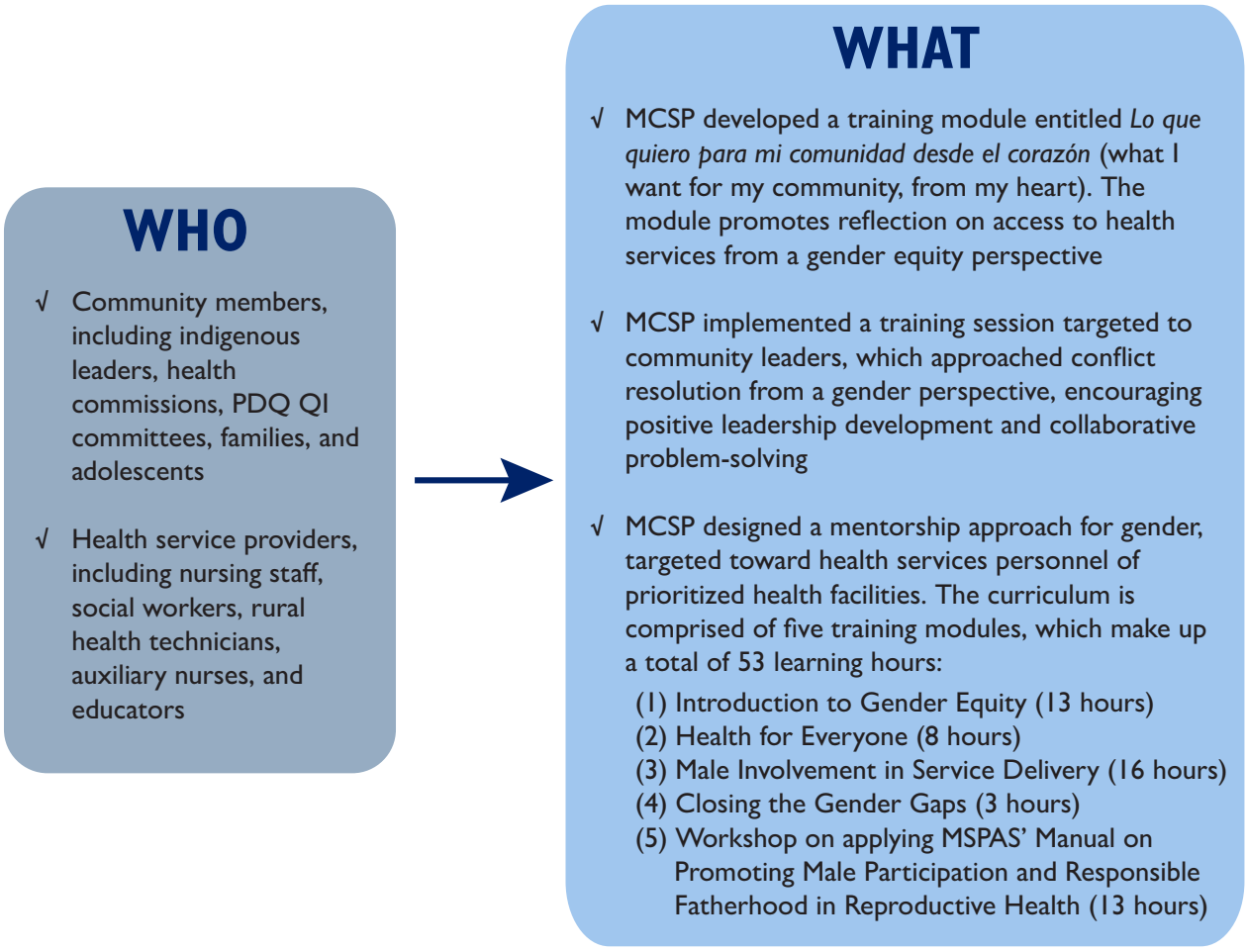
PDQ is a natural fit for PROEDUSA and SIAS field technicians (health promotion technicians and rural health technicians, respectively). These health actors work in communities, are familiar with cultural perspectives and social conflicts, resource limitations, and organizational community structures and can facilitate and provide technical support for PDQ implementation, particularly if the community's leadership is willing to lead the way. Moreover, PDQ provides an effective mobilization framework for field technicians to engage communities in helping them reach their institutional goals for improved health outcomes. Though some resource barriers to expanding the model exist, PDQ is low-cost and high impact and has the potential for scale on a national level.

- SIAS and PROEDUSA could share the results of PDQ at all levels of MSPAS, and motivate MSPAS leadership to develop a plan for continuing to scale it, including developing an incentives program for field staff who agree to pilot PDQ in new communities
- SIAS and PROEDUSA could advocate with DECAP to lead in facilitating training on PDQ with interested field technicians
- MSPAS should conduct a formal assessment to determine the viability of including PDQ within its new Health Management and Care Model as a potential community engagement strategy

Facilitated Training on Gender Perspectives as a Vehicle for Inclusive Health

MCSP facilitated participatory capacity strengthening on a range of gender topics, reaching a total of 370 people with key messages and training activities related to gender paradigms and stereotypes, sexuality and sexual diversity, and masculinities. MCSP targeted community members, community leaders, social workers, rural health technicians, among others. In addition, MCSP's gender activities brought male engagement in health to the forefront at both community and health facility levels; it is the first known project to apply MSPAS' Manual on Promoting Male Participation and Responsible Fatherhood in Reproductive Health.

Figure 13. Gender Activities and Target Audiences



Recognizing that gender is inextricably linked to inclusive health and serves as a vehicle for talking about equality and equal access to quality health services, MCSP targeted community- and facility-based health personnel who provide direct services to youth through the Friendly Services approach and who work with women and families on a regular basis. MCSP also trained 108 auxiliary nurses and educators from the three Ixil DMS on the "What I want for my community, from my heart" gender methodology; these staff committed to replicate the methodology in the health posts of their coverage areas. In addition, the DAS of Totonicapán and San Marcos replicated gender workshops with health personnel in several regions. Many health workers targeted for gender training form part of MSPAS' Gender Network, a national body organized to bring gender issues to the forefront of the health system. As a result of MCSP's work, healthcare personnel are working to reactivate this network and its activities at MSPAS.

- Health personnel must to be trained on gender issues, both at the point of care and at the level of management (DAS, DMS and others). MSPAS could mainstream gender into its operations, considering not just staff sensitization but integrating gender into organizational aspects such as internal communications, work plans, policies, administration, finance, etc.
- The MSPAS Gender Network has great potential to drive mainstreaming processes forward. MSPAS could support this group during the reactivation period and ensure it has a clear vision, objectives, and action plans for moving gender issues to the forefront of the institution and its work

- A renewed focus on masculinities is needed and men are interested in participating in activities on this topic. Future projects could consider prioritizing masculinities as a key issue for gender integration at MSPAS, in health facilities, and in communities
- For greater impact, future projects could seek to mainstream gender into additional community activities, such as WASH, nutrition, and community mobilization

Photo: Haydée Lemus|MCSP

Cross-Cutting and Global Learning Themes

MCSP's learning agenda contributes to the global evidence base on effective approaches to improve RMNCAH/N outcomes, and provides a framework to understand and document cross-cutting strategies that ensure the most vulnerable populations are reached and effective program strategies are sustained and scaled.

Over the life of the project, MCSP Guatemala contributed to valuable global learning by supporting the implementation of special studies and assessments, adapting and applying proven models for improving RMNCAH/N service delivery and health outcomes, seeking institutionalization of effective strategies with key stakeholders at the national, regional, and local levels from the start, and innovating in digital health, human capacity development, and partnerships. Below are key learning outcomes under each cross-cutting theme.

Health System Strengthening and Human Capacity Development

- Integrated quality improvement approaches open the door to immense possibilities to change the way health systems operate. Inclusive QI processes motivate health personnel to meet standards while feeling supported by their peers and supervisors.
- The process promotes leadership development of all personnel involved and has even greater impact when combined with mentoring and supportive supervision. MCSP saw this not only with its Continuous Service Delivery Improvement Model, but with WASH CCA, where previously marginalized janitorial staff contributed to significant change in a short timeframe.
- Quality of care is inextricably linked to experience of care, particularly in Guatemala, where rural, indigenous women experience mistreatment in facilities and often opt to give birth at home. As increasing the number of births in health facilities remains a major challenge in Guatemala, respectful care must be included as an indispensable and integral component of quality RMNCAH/N care in the country.
- Promoting lasting change in the way health systems operate is possible; however, strategies to achieve this must be reviewed against local institutions' operational, technical, organizational goals and plans, and developed with these institutions. Similarly, it is critical to take time, from the start, to clearly define and agree on mechanisms for capacity transfer of methodologies.
- Cross-sector collaboration between MSPAS and MINFIN bridged an important gap in financing health interventions and sensitizing non-health personnel on health issues. Engaging non-traditional actors in health such as MINFIN is a great way to close health system gaps. Moreover, multi-sectoral (health, finance, private sector, etc.) and multi-level (DAS, DMS, local government, community) – i.e. vertical and horizontal – negotiation and involvement in policy development is crucial for creating local ownership and ensuring long-term success. For example, municipalities' governments have access to and can apply untapped resources for infrastructure, health, nutrition, and WASH improvements in communities.
- District health managers are an important link between health facilities and national MSPAS institutions and policies. It is imperative and impactful to work directly to strengthen district managers' skills and capacities and to apply mentorship principles and train and certify managerial mentors.

Institutionalization and Scale-up

- For WASH CCA, creating buy-in and ownership during planning and design is essential, as is ensuring broader interest by aligning WASH system improvements with existing health agendas (i.e. quality of care, health systems strengthening, community health). Additionally, results that showed immediate improvements motivated participation in and support for CCA at the national, regional, and local levels.
- Promotion and implementation of FP initiatives in Guatemala is still largely led by international organizations and thus remains donor dependent. In order for MSPAS to increase its leadership in FP policy development and advocacy, more needs to be done to empower key organizations such as PNSR. Moreover, the involvement of local actors outside MSPAS (i.e. CNAA, IGSS, private sector) remains critical to ensuring widespread access to high-quality voluntary FP services.
- To scale an intervention, local actors must have the opportunity to develop leadership skills and exercise self-determination. MCSP observed this in relation to several of its project strategies:
  - ◊ In PDQ, where rural education and health personnel and community leaders partnered to expand the methodology, using their own resources, in just a few months' time.
  - ◊ In the adolescent Champions approach, where 20 empowered youth leaders reached 400 of their peers with critical health education and messaging.
  - ◊ In the Health Management Course, where district health managers made immense progress in the short term by creating action plans and negotiating with key stakeholders.
- Many health facilities fear or lack understanding of national laws on reproductive health services for underage pregnant teens. Local solutions, such as the *ruta de notificación*, are promising and scalable strategies.

Community and CSO Engagement

- Mobile tools that decrease time spent collecting data and produce more rapid, detailed analyses can improve the "profile" of CSOs conducting social audits, earning them respect and trust in communities and facilities, as well as increased opportunities to demonstrate leadership in supporting improved health outcomes.
- Community mobilization requires significant trust-building and more time is needed to effectively implement approaches like PDQ. In addition, lapses or delays in project implementation create setbacks in project-community relationships, which are difficult to overcome in the short-term.
- PDQ is a very promising approach for creating change from the community up. It not only mends community-health facility relations, which can be conflictive in rural Guatemala, but develops leadership competencies in both parties as QI teams create solutions to problems they themselves have identified.

Gender Equity

- PDQ is a natural platform for promoting gender equity and integrating gender-focused trainings jointly with community members and health services personnel.
- Gender training promotes inclusive health – *Salud Para Todas Las Personas* – and is thus a critical cross-cutting theme of focus for any RMNCAH/N program. Additionally, community and religious leaders are key change agents for gender and should be specifically targeted to lead change processes in their areas.
- While gender trainings were effective at the community level, widespread change will not occur without meaningful and ongoing gender training, planning, and sensitization as part of institutional strengthening within MSPAS and other GoG institutions.

- Specific and purposeful gender activities must be targeted at the entire health system: GoG institutions, the health services network, and additional health actors. MSPAS' *Red de Genero* (Gender Network) is currently being reactivated; if it becomes operational, it could help mainstream gender within the organization.

Innovation

- Digital health tools such as mobile and web-based applications and dashboards were widely accepted among GoG, CSO, and health facility partners; these tools facilitate collective learning and experience-sharing locally, which is critical for continuous quality improvement.
- Engaging new and non-traditional actors in health is vital for producing change in the long-term and can propel sustainable changes in the short-term.
- Mentorship promotes leadership development and skills-building of both mentors and mentees; applying a "mentorship lens" to capacity strengthening in any health activity could increase training effectiveness, including in work with youth and adolescents, family planning, WASH, communities, etc.

Data Use for Action and Accountability

- While data is widely collected by MSPAS, SESAN, and other GoG actors, its use and application fall short. Barriers to data use for accountability include lack of capacities, but also lack of political will at all levels.
- There are vertical data flow challenges from the top down and the bottom up. De-centralizing national data collection tools and information can build awareness among regional and local actors who are closest to the problems. This can empower them to innovate solutions without the express support of national-level institutions, which often do not readily provide information and analysis for decision-making.
- Technical consultation is an effective strategy to create high-level policy and norm changes in the short term. It provides a clear and structured framework for collective analysis of information for stakeholders to make timely decisions and create ongoing, collective action plans to solve problems.


Photo: Karen Kasmauski|MCSP

Photo: Caroline Trutmann|MCSP

Recommendations and Way Forward

Recommendations for MSPAS and other government sectors

Quality improvements must address both individual health provider and system level gaps. To create lasting improvements in health outcomes, a successful model must take a multi-pronged approach to address localized, needs-based gaps in the health system and individual human capacity. MCSP's Continuous Service Delivery Improvement Model provides a framework to address long-standing challenges to improving the quality and experience of care. On-site capacity-building – coupled with follow up and supportive supervision, mentoring, and quality improvement processes – effectively creates individual level and systemic change. By working to change the way health actors across the spectrum interact with and learn from each other, the model both increases healthcare worker competencies and has the potential to improve staff motivation, commitment, and retention over time. Future programs should link effective in-service training to quality improvement efforts, combined with evidence-based mentoring and supportive supervision approaches.

On-site capacity-building promotes sustained increases in health provider performance. Traditional training approaches using off-site, large group workshops are not effective in improving and maintaining health worker performance. Evidence increasingly suggests that learning within the workplace in short segments with frequent practice is more effective at changing performance in the long term.

MCSP's on-site clinical capacity-building approach, coupled with mentorship and supportive supervision, improved health worker capacity to meet quality of care standards in the short-term. The approach could be expanded as a practical option to continually improve clinical and managerial competencies and to develop soft-skills in leadership and client-centered care.

Mainstream person-centered care as a core component of comprehensive RMNCAH/N programs. Only half of interviewees (n=54) in MCSP's respectful care assessment reported willingness to return to the hospital in the case of another pregnancy, citing having experienced personally or hearing of mistreatment by health personnel. If hospitals are sincerely interested in increasing institutional births and reducing maternal mortality, women must have positive experiences of care. Country stakeholders can use results from MCSP's formative assessment to address local challenges, however it is important to move beyond "stand-alone" interventions and support the design, implementation, and monitoring of large-scale efforts to strengthen respectful care across clinical areas and RMNCAH/N programs. In addition, experience of care cannot be de-linked from capacity-building, mentoring, and quality improvement processes at health facilities. It is essential to work toward integrated solutions that seek more respectful care for women throughout the health system.

Digital tools can empower front-line health actors to create accountability from the bottom up. Government health workers and CSOs often rely on old data or time-consuming hand-written documentation, compromising the quality and efficiency of their work and hindering their ability to affect change. Digital tools can support front-line workers to make informed decisions and assert leadership, and can contribute to creating a culture of data use for accountability from the bottom up. There are also opportunities for MSPAS to partner with CSOs to use digital technology to harmonize various gap analyses tools and build on the work CSOs carry out in health facility monitoring. Open Source technology provides low-cost options to governments and CSOs, allowing them increased flexibility and autonomy.

Community leadership in health is crucial to improving the quality of health services. Creating space for active dialogue 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.

Youth must be engaged in health outside of schools and health facilities. Embedding youth-responsive SRH activities in schools and health facilities is an important step in addressing gaps in access to high quality services for youth and adolescents. However, it is not sufficient to address the complexity of young people's healthy development, particularly in the Western Highlands where adolescent rates of school attendance and use of facility-based health services are low. As global evidence has shown, it is essential to engage youth where they are—in community spaces and at home—and to engage youth as leaders in health education and promotion activities in order to increase reach and uptake of services.

Innovative multisectoral partnerships are crucial to promoting health systems change. The development of collaborative partnerships to strengthen Guatemala's health services network at all levels of care was a cornerstone of MCSP Guatemala. To innovate approaches to longstanding health problems, it is important to forge and strengthen relationships among diverse public institutions, private-sector, and community actors at all levels, including traditional health actors like MSPAS and SESAN and actors in ancestral health, such as local indigenous leaders and midwives. MCSP brought together MSPAS and SESAN on both national and local levels for ongoing collaborative work on health and nutrition issues, fundamentally changing the way these institutions work together. Historically working in silos, now each has contributed to joint-interventions and understands the significance of each of their roles in achieving a shared goal: to implement effective and far-reaching programs for improved health and nutrition outcomes. The GoG should seek to bring together traditionally isolated institutions at the central level,

as well as promote collaborative, supportive, and integrated actions between decentralized regional and local bodies within those same institutions.

Recommendations for future RMNCAH/N project implementers

Plan for an inception phase to study existing strategies. RMNCAH/N 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 RMNCAH/N 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 roll-out was dedicated to exploring and identifying key strategies from other major RMNCAH/N projects that demonstrated evidence to justify their continued use. Relevant strategies and tools were identified in this process and highly qualified key staff from previous projects were contracted to join MCSP, allowing for continuation of learning and best practices from previous projects.

Plan for political changes in a dynamic social climate. One of the most common and disruptive challenges for development projects is leadership changes in key governmental institutions on which the project relies. Frequent changes in MSPAS at all levels (national, hospital leadership, etc.) has become the norm rather than an unexpected difficulty. In two years MCSP worked under two health ministers, two secretariats from SESAN, and several other leadership changes, to which MCSP responded by adjusting project strategies and its implementation plan. Responsiveness to political change was required and important; however, a change-management strategy built into the project from the start would help balance fidelity to core project principles and objectives with the flexibility to adjust in response. Given the upcoming election year in Guatemala, future projects would benefit from integrating a change-management strategy that includes periodic analysis of the sociopolitical environment to guide actions to maintain progress on core project strategies and objectives.

Strategic PPPs can strengthen systems responses. The private-sector can play a important role in boosting the efforts of government and NGOs to tackle widespread and systemic health problems. MSCP garnered valuable resources from GSK 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. Throughout the process, MCSP ensured GoG and CSO stakeholders had unfettered access to and ownership over the GSK-funded mobile application and acted autonomously in their monitoring activities. MCSP also offered technical support to ensure the initiative was effective and grounded in evidence. Opportunities for private-sector support are available and health stakeholders should act on them; however, PPPs should be pursued thoughtfully to ensure inclusive involvement and leadership of community and government stakeholders throughout. Future projects should look to engage non-traditional, private-sector actors in RMNCAH/N actions that are locally designed, driven, and implemented.

Recommendations for USAID

Cross-sectoral collaboration in international health and development projects will optimize resources and improve results. RMNCH/N interventions need to go beyond traditional public health models and include integrated interventions in sectors such as education, agriculture, economic, and justice. For example, future projects should coordinate with FAS/USDA to launch collaborative initiatives within the Food for Education and Food for Progress projects related to nutrition in community and school environments where FFE/FFPr are implemented. Given USAID's influence on the design and implementation of myriad development projects, requiring cross-sectoral collaboration will ensure entities work together to optimize resources and achieve higher outcomes.

Appendices

Appendix A: Results Framework

PROJECT GOAL: To increase coverage and utilization of evidence-based, sustainable, high-quality, MOH-supported RMNCH/N interventions at the household, community and health facility levels and thereby improve the nutritional and health status of women of reproductive age and children under five in 30 municipalities in the Western Highlands region.
OBJECTIVE 1: Provide technical assistance and collaborate with the Ministry of Health to improve the provision of services related to reproductive, maternal, neonatal, child, and adolescent health, and nutrition within the context of the primary health care model
Result 1: Primary health care model revised, adjusted and implemented in prioritized municipalities of MCSP
Activity 1: Technically support development of management skills at the national level in effective coordination with the MOH to support implementation of the new health care model
Activity 2: Provide technical assistance for organizational adaptation of the DAS to respond to the model of care so that implementation at the regional level is facilitated
Activity 3: Provide support to national, regional and local levels of MOH to develop dashboards to monitor implementation of services by MOH
Result 2: Quality RMNCH/N health services provided by the network of health facilities and workers
Activity 4: Establish and test a national WASH in HCF program using its tested CCA in 11 priority facilities in four departments (Quiche: Nebaj, Uspantan, Chichicastenago, Sacapulas; San Marcos: Tajumulco, El Nuevo Progreso; Totonicipan: Momostenango; Huehuetenango: Barillas, San Sebastian Huehuetenango, Cuilco)
Activity 5: Identify and prioritize gaps and barriers in the service delivery network in the prioritized municipalities
Activity 6: Design the model for improving the quality of service delivery
Activity 7: Coordinate with partners to facilitate processes to close gaps in logistics/supply
Activity 8: Support and monitor compliance with USG FP and abortion-related legislative and policy requirements
Activity 9: Design and support the use of dashboards to monitor and follow up quality improvement processes that address performance gaps and barriers to access to care *(The same dashboard For Result 1 and 4)
Result 3: Strengthened linkages between the municipality and the community to improve community engagement in the co-management and monitoring of health and nutrition services and to create demand of health services
Activity 10: Support the MOH to develop linkages between health services and communities to create demand for quality services and to carry out social auditing processes based on information, taking into account the operational tactics of the PHC model
Activity 11: Actions to promote and support governance from civil society and community
Activity 12: Strengthen response capacity and community resilience to disasters and health and nutrition emergencies
Activity 13: Develop strategy for respectful care in RMNACH/N

Result 4: Improved knowledge, competencies, and skills of health workers in the areas of RMNCH/N
Activity 14: Design a strategy for continuous in-service learning and capacity building for health providers
Activity 15: Organize and provide technical assistance to training centers in Quetzaltenango, San Marcos and Quiche) and local mentor teams on clinical capacities, continuous quality improvement and mentorship in at least six DAS and six DMS
Activity 16: Support clinical, mentoring and peer-to-peer capacity building, including the use of dashboards and quality improvement approaches by mentor teams in the regional hospital of Quetzaltenango and in departmental hospitals, DAS, DMS and CS –10, CAP and CAIMI
Activity 17: Ensure continuous quality improvement of competency-based performance for RMNCAH/N providers in training centers, hospitals, DAS, DMS, CAP and CAIMI
Activity 18: Technical assistance to the MOH to implement Helping Babies Breathe (HBB) Strategy to health care providers in the Western Highlands area (Selected Health Services)
Activity 19: Support initiation of Midwifery training program to develop New Cadres of Skilled Health providers
OBJECTIVE 2: Increase the visibility, collaboration, and multi-sectorial efforts in the prevention of chronic malnutrition in the Western Highlands region of Guatemala
Result 1: Support the implementation of the National Strategy for Prevention of Chronic Malnutrition implemented at the national level and in prioritized municipalities
Activity 1: Intersectoral Coordination (national, local): municipalities, SESAN, CONASAN
Activity 2: Actions for strengthening the service network in promotion, incorporation and accomplishment of specific, critical actions (that correspond to the MOH) to reduce malnutrition
Activity 3: Strengthen participation of community through civil society engagement for nutrition service demand and monitoring

Appendix B: Performance Indicators

The following tables capture progress made against contract indicators over the life of the project. Several annual indicators are reported on a quarterly basis at Mission request (noted).

Table 1: Project Impact indicators

	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Data Collection Frequency	FY. 17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
PROGRAM GOAL: To contribute to increased coverage and utilization of evidence-based, sustainable, high-quality, MOH-supported reproductive, maternal, newborn and child health, family planning and nutrition (RMNCH/N) interventions at the household, community and health facility levels to improve the nutritional and health status of women of reproductive age and children under five in the 30 municipalities in the WHIP region														
1	FP	Modern method contraceptive prevalence rate (CPR)	**Numerator:** Number of mothers with a child 0-59 months who use a modern contraceptive method (pills, injections, condoms, IUDs, implants or surgery) **Denominator:** Total number of mothers surveyed	None	Annual Survey (INCAP)	Annual		**38%**			34%			NA
2	MAT	Maternal Mortality Ratio (MMR)	**Numerator**: Number of maternal deaths during pregnancy, labor and delivery and postpartum (up to 42 days post-delivery).	Department (see Tables 2 and 3)	DAS level Maternal mortality surveillance committees	Annual			178 / 100,000 live births*				163 / 100,000 live births*	155/100,000 live births
			Denominator: Number of live births in the same period and geographic area per 100,000	Numerator		*Quarterly*			143 Jan.-Dec. 2017	50 Jan.-Jun. 2018	85 Jan.-Sept. 2018		159 Jan.-Dec. 2018*	
				Denominator					80,492 live births				97,727 live births	

* January-December 2018 report is considered preliminary as there are reports from 12 deaths in Quiché and 19 deaths in Huehuetenango.

Table 2: Confirmed maternal deaths by health area, 2017 and 2018

	Number of maternal deaths		Live births		Maternal Mortality Ratio (MMR) x 100000 live births		Deaths analyzed by Districts		Deaths analyzed by Health Area		Has an improvement plan implemented		Deaths reported in SIGSA 2	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Quetzaltenango	23	13	19,441	13,792	118	94	23	13	23	13	23	13	23	13
San Marcos	27	42	10,710	23,672	252	177	27	42	27	42	27	42	24	42
Toto	19	23	9,696	12,733	196	181	19	23	19	23	19	23	19	23
Ixil	4	4	4,272	3,493	94	115	4	4	4	4	4	4	4	4
Quiché	15	13	14,227	14,573	105	89	15	13	15	13	15	13	15	13
Huehuetenango	55	64	22,146	29,464	248	217	55	64	55	64	55	64	55	64

Table 3: Confirmed maternal deaths by health area and municipalities, Jan – Dec 2017. Last updated September 2018

	Municipality where maternal death occurred	Number of maternal deaths in the municipality	Live births Population, by municipality	Maternal Mortality Ratio (MMR) x 100000 live births	Deaths analyzed by Districts	Deaths analyzed by Health Area	Has an improvement plan implemented	Death reported in SIGSA 2
Quetzaltenango		23	19,441	118	23	23	23	23
	Palestina	1	367	272	Y	Y	Y	Y
	Salcajá	1	554	181	Y	Y	Y	Y
	Colomba	2	1,133	177	Y	Y	Y	Y
	Cantel	2	1,324	151	Y	Y	Y	Y
	Sija	1	1,061	94	Y	Y	Y	Y
	Huitán	1	464	216	Y	Y	Y	Y
	San Juan Ostuncalco	4	1,574	254	Y	Y	Y	Y
	Quetzaltenango	4	4,457	90	Y	Y	Y	Y
	Concepción Chiquirichapa	1	518	193	Y	Y	Y	Y
	Flores Costa Cuca	1	875	114	Y	Y	Y	Y
	Génova Costa Cuca	1	1,254	80	Y	Y	Y	Y
	Coatepeque	2	4,115	49	Y	Y	Y	Y
	Cabrican	1	786	127	Y	Y	Y	Y
	La Esperanza	1	959	104	Y	Y	Y	Y
San Marcos		27	10,710	252	27	27	27	24
	San Rafael Pie de la Cuesta	1	178	562	Y	Y	Y	Y
	Ayutla	1	231	433	Y	Y	Y	Y
	Concepción Tutuapa	5	1,840	272	Y	Y	Y	Y
	San José Ojetenám	1	482	207	Y	Y	Y	Y
	Malacatán	3	1,585	189	Y	Y	Y	Y
	San Miguel Ixtahuacán	4	1,225	327	Y	Y	Y	Y
	Comitancillo	4	1,698	236	Y	Y	Y	Y
	La Blanca	1	97	1,031	Y	Y	Y	Y
	San Marcos	1	879	114	Y	Y	Y	Y
	Tumbador	2	475	421	Y	Y	Y	Y
	Pajapita	1	307	326	Y	Y	Y	N
	San Pablo	1	519	193	Y	Y	Y	Y
	San Antonio	1	256	391	Y	Y	Y	N
	Tacaná	1	938	107	Y	Y	Y	N

	Municipality where maternal death occurred	Number of maternal deaths in the municipality	Live births Population, by municipality	Maternal Mortality Ratio (MMR) x 100000 live births	Deaths analyzed by Districts	Deaths analyzed by Health Area	Has an improvement plan implemented	Death reported in SIGSA 2
Totonicapán		**19**	**9,696**	**196**	**19**	**19**	**19**	**19**
	Momostenango*	5	3329	150	Y	Y	Y	Y
	San Bartolo	1	372	269	Y	Y	Y	Y
	San Francisco	2	1,594	125	Y	Y	Y	Y
	San Vicente Buenabaj	1	151	662	Y	Y	Y	Y
	Santa María Chiquimula	7	1,745	401	Y	Y	Y	Y
	Totonicapán	3	2,505	120	Y	Y	Y	Y
Ixil		**4**	**4,272**	**94**	**4**	**4**	**4**	**4**
	Nebaj*	2	1,956	102	Y	Y	Y	Y
	Chajul	1	1,356	74	Y	Y	Y	Y
	Cotzal	1	960	104	Y	Y	Y	Y
Quiché		**15**	**14,227**	**105**	**15**	**15**	**15**	**15**
	San Pedro Jocopilas	1	1,097	91	Y	Y	Y	Y
	Santa Cruz del Quiché	3	2,360	127	Y	Y	Y	Y
	Chicamán	1	1,145	87	Y	Y	Y	Y
	Joyabaj	2	3,122	64	Y	Y	Y	Y
	Cunén	2	1,467	136	Y	Y	Y	Y
	Uspantán	3	2,045	147	Y	Y	Y	Y
	Sacapulas	1	1,574	64	Y	Y	Y	Y
	Chiché	1	944	106	Y	Y	Y	Y
	San Bartolomé Jocotenango	1	473	211	Y	Y	Y	Y
Huehuetenango		**55**	**22,146**	**248**	**55**	**55**	**55**	**55**
	Santa Eulalia	10	1,440	694	Y	Y	Y	Y
	Santa Cruz Barillas	10	1,919	521	Y	Y	Y	Y
	San Mateo Ixtatan*	5	1,026	487	Y	Y	Y	Y
	Huehuetenango	3	2,297	131	Y	Y	Y	Y
	Cuilco	3	1,150	261	Y	Y	Y	Y
	Nenton	3	1,124	267	Y	Y	Y	Y
	Ixtahuacan	3	1,477	203	Y	Y	Y	Y
	San Pedro Necta	2	1,010	198	Y	Y	Y	Y
	San Miguel Acatan	2	809	247	Y	Y	Y	Y
	San Sebastian Huehuetenango	2	960	208	Y	Y	Y	Y
	Aguacatan	2	1,021	196	Y	Y	Y	Y
	Jacaltenango	1	723	138	Y	Y	Y	Y
	Soloma	1	1,397	72	Y	Y	Y	Y
	Santa Barbra	1	994	101	Y	Y	Y	Y
	La Democracia	1	1,540	65	Y	Y	Y	Y
	San Rafael La Independencia	1	476	210	Y	Y	Y	Y
	San Juan Atatan	1	690	145	Y	Y	Y	Y
	Tectitan	1	305	328	Y	Y	Y	Y
	San Juan Ixcoy	1	881	114	Y	Y	Y	Y
	San Antonio Huista	1	339	295	Y	Y	Y	Y
	San Sebastian Coatan	1	568	176	Y	Y	Y	Y

Y=Yes; N=No; NA=No data

Source: SIGSA 2 Report and Maternal mortality surveillance committees Report. January to December 2017. Preliminary Data. Last Updated: September 2018

Communities where MCSP established or strengthened rutas críticas as identified with an * -- there were two communities in Tajumulco

Table 4: Confirmed maternal deaths by health area and municipalities, Jan – Dec 2018. Last updated March 2019

	Municipality where maternal death occurred	Number of maternal deaths in the municipality	Live births Population, by municipality	Maternal Mortality Ratio (MMR) x 100000 live births	Deaths analyzed by Districts	Deaths analyzed by Health Area	Has an improvement plan implemented	Death reported in SIGSA 2
Quetzaltenango		13	13792	94	13	13	13	13
	San Carlos Sija	1	771	130	Y	Y	Y	Y
	Quetzaltenango	2	4490	45	Y	Y	Y	Y
	San Juan Ostuncalco	1	1743	57	Y	Y	Y	Y
	Olintepeque	1	768	130	Y	Y	Y	Y
	La Esperanza	1	561	178	Y	Y	Y	Y
	Cabrican	1	655	153	Y	Y	Y	Y
	Coatepeque	2	2832	71	Y	Y	Y	Y
	Concepción Chiquirichapa	1	523	191	Y	Y	Y	Y
	San Francisco La Unión	1	198	504	Y	Y	Y	Y
	Huitán	1	443	226	Y	Y	Y	Y
	El Palmar	1	808	124	Y	Y	Y	Y
San Marcos		42	23672	177	42	42	42	42
	San Lorenzo	1	404	247	Y	Y	Y	Y
	Concepción Tutuapa	9	2508	359	Y	Y	Y	Y
	Tajumulco*	3	1853	162	Y	Y	Y	Y
	Tacaná	5	2452	204	Y	Y	Y	Y
	Catarina	1	862	116	Y	Y	Y	Y
	Sibinal	1	481	208	Y	Y	Y	Y
	San Miguel Ixtahuacán	4	1656	242	Y	Y	Y	Y
	San Pablo	1	1377	73	Y	Y	Y	Y
	Malacatán	4	3377	118	Y	Y	Y	Y
	Rio Blanco	1	154	647	Y	Y	Y	Y
	La Blanca	2	784	255	Y	Y	Y	Y
	Comitancillo	2	2545	79	Y	Y	Y	Y
	Sipacapa	3	794	378	Y	Y	Y	Y
	San Rafael Pie de la Cuesta	1	407	246	Y	Y	Y	Y
	San Pedro Sacatepequez	1	1878	53	Y	Y	Y	Y
	La Reforma	1	563	178	Y	Y	Y	Y
	San Marcos	1	1139	88	Y	Y	Y	Y
	San José El Rodeo	1	438	228	Y	Y	Y	Y

	Municipality where maternal death occurred	Number of maternal deaths in the municipality	Live births Population, by municipality	Maternal Mortality Ratio (MMR) x 100000 live births	Deaths analyzed by Districts	Deaths analyzed by Health Area	Has an improvement plan implemented	Death reported in SIGSA 2
Totonicapán		**23**	**12733**	**181**	**23**	**23**	**23**	**23**
	Momostenango*	6	4043	148	Y	Y	Y	Y
	Santa María Chiquimula	4	1795	223	Y	Y	Y	Y
	San Cristobal	1	1003	100	Y	Y	Y	Y
	Totonicapán	5	2720	184	Y	Y	Y	Y
	San Bartolo	2	350	572	Y	Y	Y	Y
	Santa Lucía La Reforma	3	846	355	Y	Y	Y	Y
	San Vicente Buenabaj	1	154	647	Y	Y	Y	Y
	San Francisco	1	1822	55	Y	Y	Y	Y
Ixil		**4**	**3493**	**115**	**4**	**4**	**4**	**4**
	Nebaj*	2	2061	97	Y	Y	Y	Y
	Chajul	2	1432	140	Y	Y	Y	Y
Quiché		**13**	**14573**	**89**	**13**	**13**	**13**	**13**
	Santa Cruz del Quiché	1	2648	38	Y	Y	NA	Y
	Joyabaj	2	3165	63	Y	Y	NA	Y
	Uspantán	2	2114	95	Y	Y	NA	Y
	Chichicastenango	3	4080	74	Y	Y	NA	Y
	Chiché	1	991	101	Y	Y	NA	Y
	Sacapulas	4	1575	254	Y	Y	NA	Y
Huehuetenango		**64**	**29464**	**217**	**64**	**64**	**64**	**64**
	Colotenango	2	1403	143	Y	Y	Y	Y
	Chiantla	2	2747	73	Y	Y	Y	Y
	Soloma	5	1791	279	Y	Y	Y	Y
	San Ildelfonso Ixtahuacan	7	1626	431	Y	Y	Y	Y
	Santa Cruz Barillas	9	3811	236	Y	Y	Y	Y
	Cuilco	2	1886	106	Y	Y	Y	Y
	San Antonio Huista	1	395	253	Y	Y	Y	Y
	San Juan Ixcoy	4	890	449	Y	Y	Y	Y
	Santa Eulalia	5	1523	328	Y	Y	Y	Y
	San Mateo Ixtatan*	6	2012	298	Y	Y	Y	Y
	Aguacatan	2	1546	129	Y	Y	Y	Y
	San Sebastian Huehuetenango	2	1173	170	Y	Y	Y	Y
	San Juan Atitán	1	791	126	Y	Y	Y	Y
	Nentón	6	1269	473	Y	Y	Y	Y
	Santiago Chimaltenango	2	286	698	Y	Y	Y	Y
	San Pedro Necta	2	1163	172	Y	Y	Y	Y
	Santa Barbara	1	1317	76	Y	Y	Y	Y
	Huehuetenango	2	2586	77	Y	Y	Y	Y
	Malacatancito	1	554	180	Y	Y	Y	Y
	Concepción Huista	2	695	288	Y	Y	Y	Y

Source: SIGSA 2 Report and Maternal mortality surveillance committees Report. January to December 2018. Preliminary Data, Missing reports from 12 deaths in Quiché and 19 deaths in Huehuetenango. Last Updated: March 2019.
Y=Yes; N=No; NA=No data
Communities where MCSP established or strengthened rutas críticas as identified with an * -- there were two communities in Tajumulco

OBJECTIVE 1: Provide technical assistance and collaboration to MOH to improve the provision of quality services related to maternal, neonatal, infant, family planning and adolescent health and nutrition within the Primary Health Care Model framework of the Ministry of Health.

RESULT 1: Primary Health Care Model revised, adjusted and being implemented in prioritized municipalities for USAID/MCSP.

Table 5: Indicators related to Primary Health Care Model implementation and supply of FP methods

	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Data Collection Frequency	FY. 17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
3	HSS	Percentage of DMS supported by MCSP trained for MOH Primary Health Care Model implementation	**Numerator:** Number of DMS supported by MCSP where at least 5 individuals were trained in the modules of MOH Primary Health Care Model implementation **Denominator:** Number of MCSP-supported DMS expected to provide FP services	None	Training records	Semester				0				80% (24)
	HSS REVISED*	Percentage of DMS supported by MCSP trained in Management course	**Numerator:** Number of DMS supported by MCSP where at least one individual trained on Management course modules. **Denominator:** Number of MCSP-supported DMS expected to provide MNCH and FP services								88% (n=34)			80% (24)
4	FP	Percentage of USG-assisted service delivery points (SDPs) that experience a stock out at any time during reporting period of a contraceptive method that the SDP is expected to provide **	**Numerator:** Family planning service delivery points (health posts, minimal units, health centers, etc.) stocked out of at least one contraceptive method during the reporting period **Denominator:** Total number of service delivery points monitored	DMS, contraceptive method	BRES	Quarterly	71% (n=174)	64% (n=138)	66% (n=163)	64% (n=163)	59% (n=159)	66% (n=137) ***	66% (n=129) ***	20%

*: This indicator was revised in the updated PMP (August 2018) to reflect actual work being carried out. The revision results in changes in how MIS was conceptualized and then rolled out. The management course in place focuses on decision makers and targets 1-2 individuals per district. In the current reporting period, all districts except la Taña, Chupol (Quiché) and La Libertad (Huehuetenango) participated in trainings.
**For this indicator, only the services that comply with reporting data on consumed and months available for all monitored methods are included; this varies by reporting period.
***Missing all DAS Ixil service reports for December 2018 and March 2019.

Table 6: FP supply by contraceptive method: Percentage of USG-assisted service delivery points (SDPs) that experience a stock out at any time during reporting period (disaggregated by FP method)

Ref No.	Indicator	Data source	FY17 Q4 Sep.17	FY.18 Q1 Dec.17	FY.18 Q2 March.18	FY.18 Q3 Jun.18	FY.18 Q4 Sep.18	FY.19 Q1 Dec.18*	FY.19 Q2 Mar.19*
FP	...Condoms	BRES	43% (n=174)	33% (n=138)	21% (n=163)	21% (n=163)	29% (n=159)	26% (n=137)	22% (n=129)
FP	...Oral Contraceptives	BRES	26% (n= 174)	28% (n=138)	26% (n=163)	29% (n=163)	23% (n=159)	31% (n=137)	27% (n=129)
FP	...Injectable Contraceptives	BRES	28% (n=174)	30% (n=138).	35% (n= 163)	33% (n=163)	29% (n=159)	39% (n=137)	33% (n=129)
FP	…IUDs	BRES	33% (n=21)	27% (n=15)	14% (n=22)	37% (n=19)	33% (n=27)	50% (n=18)	6% (n=18)
FP	…Implant Methods	BRES	38% (n=21)	33% (n=15)	32% (n= 22)	47% (n=19)	37% (n=27)	44% (n=18)	28% (n=18)

*Note: Missing all DAS Ixil service reports for December 2018 and March 2019.

RESULT 2: Quality RMNCH+N health services provided by the network of health facilities and workers

Table 7: Indicators related to service delivery

#	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Data Collection Frequency	FY.17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
5	FP HL.7.1-2	Percentage of USG-assisted service delivery sites providing family planning (FP) counseling and/or services.	**Numerator:** Number of services providing family planning services according to their level of care **Denominator:** Number of health services sampled during period	DMS, facility level, counseling or counseling & FP	Project monitoring tool	Semester *Quarterly*		100% (43 services sampled)	100% (17 services sampled)	100% (43 services sampled)	100% (11 services sampled)	100% (20 services sampled)	100% (47 services sampled)	95% *Achieved*
6	FP HL.7.1-1 MCSP-1	Couple Years Protection (CYP) Couple Years Protection by methods [See Note 1]	Number of methods/services delivered (condom, oral, injection, IUD, implant, cycle beads, surgical)	DMS	BRES, SIGSA 6	Annual *Quarterly*		13,249	14,901	20,223	14,187	8,616	9,381	48,749 *Achieved: 80,557*
								Oct.17-Sep.18: 62,560				Oct.18-Mar.19: 17,997		
								Oct. 17 – Mar.19: 80,557						
				VSC (Female and Male)		Annual *Quarterly*		390	3,740	7,150	610	190	170	
								Oct.17-Sep.18: 11,890				Oct.18-Mar.19: 360		
								Oct. 17 – Mar.19: 12,250						
				LAM and SDM		Annual *Quarterly*		94	60	123	248	165	189	
								Oct.17-Sep.18: 440				Oct.18-Mar.19: 354		
								Oct. 17 – Mar.19: 794						
				Condoms		Annual *Quarterly*		368	237	106	193	86	90	
								Oct.17-Sep.18: 904				Oct.18-Mar.19: 176		
								Oct. 17 – Mar.19: 1,080						
				Injectables		Annual *Quarterly*		9,336	8,232	9,010	9,553	6,193	6,708	
								Oct.17-Sep.18: 36,131				Oct.18-Mar.19: 12,901		
								Oct. 17 – Mar.19: 49,032						
				Oral		Annual *Quarterly*		510	418	389	377	209	215	
								Oct.17-Sep.18: 1,694				Oct.18-Mar.19: 424		
								Oct. 17 – Mar.19: 2,118						
				Implant		Annual *Quarterly*		1,801	1,611	2,120	2,162	1,253	1,286	
								Oct.17-Sep.18: 7,694				Oct.18-Mar.19: 2,539		
								Oct. 17 – Mar.19: 10,233						
				IUD		Annual *Quarterly*		750	603	1,325	1,044	520	723	
								Oct.17-Sep.18: 3,722				Oct.18-Mar.19: 1,243		
								Oct. 17 – Mar.19: 4,965						
7	MAT	Percentage of births attended by a skilled attendant [See Note 2]	**Numerator:** Number of births attended by professional personnel (doctors and nurses) in the services **Denominator:** Total births reported in the area	DMS	SIGSA 1**	Annual *Quarterly*		39% Jan-Dec.17	40.6% Jan.-Mar.18	42.1% Apr-Jun.18	39.3% Jul.-Sep.18	44% Oct.-Dec.18	41% Jan.-Mar.19	43.6% *Not achieved*
								Oct.17-Sep.18: 41.4%				Oct 18 – Mar 19: 42.5%		
								Oct 17 – Mar 19: 41.8%						
					Numerator	Quarterly		7,764				2,878	2,470	
					Denominator	Quarterly		18,767				6,522	6,062	
8	MAT HL.6.2-1 MCSP-10	Percentage of women giving birth who received uterotonics in the third stage of labor	**%** of women receiving a prophylactic uterotonic (immediately after birth) at MCSP-supported facilities with labor and delivery services, in the 13 prioritized municipalities.	DMS	Clinical records	Annual *Quarterly*			61%	58%	79%	85%	83%	80% *Achieved*
					Numerator	Quarterly			111	127	97	167	206	
					Denominator	Quarterly			182	218	123	196	248	
9	NBH HL.6.3-1 MCSP-12 DROPPED	Percentage of newborns not breathing at birth who were successfully resuscitated. Revised PMP approved September 2018	Number of babies not breathing/crying at birth born that were successfully resuscitated in MCSP-supported facilities with labor and delivery services (include CAPs, CAIMIs, hospitals)	DMS	HBB monitoring tool Clinical records	Annual			See Annex 3					TBD

	Indicator		Definition	Disaggregation	Data source	Data Collection Frequency	FY. 17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
10	MAT MCSP-S3	Percentage of mothers who had 4 or more antenatal care visits in their last pregnancy	**Numerator:** Number of mothers of children 0-59 months who had 4 or more antenatal care visits during their last pregnancy **Denominator:** Total number of mothers of children 0-59 months interviewed	None	Annual Survey (INCAP)	Annual		70%			75%			78% *Not achieved*
11	CHILD	Percentage of children who received DPT3 vaccine by 12 months of age [See Note 3]	**Numerator:** number of children younger than 1 year of age vaccinated with a third dose of DPT or Pentavalent 3 **Denominator:** total number of born alive during the previous year *(period)*	DMS	MOH/ SIGSA	Annual *Quarterly*		17%	18%	19%	19%	17%	13%	88% *Not achieved*
					Numerator	Quarterly		7,661	7,623	7,758	7,931	7,240	5,594	
					Denominator	Quarterly		46,129	41,897	41,897	41,897	41,897	42,861	
					Cumulative			75%	35% (70% of expected coverage)	54% (72% of expected coverage)	73% (73% of expected coverage)	30% (60% of expected coverage) Oct.18.-Mar.19		
12	CHILD	Percentage of children who received Pneumococcal vaccine by 12 months of age [See Note 3]	**Numerator:** number of children younger than 1 year of age vaccinated with a third dose of Pneumococcal conjugate **Denominator:** total number of born alive during the previous year	DMS	MOH/ SIGSA	Annual		15%	15%	19%	21%	18%	15%	FY18: *Achieved*
					Numerator	Quarterly		6,730	6,295	8,043	8,931	7,484	6,237	
					Denominator	Calendar year		46,129	41,897	41,897	41,897	41,897	42,861	
					Cumulative			53% Jan-Dec.17	30% of expected coverage	49% of expected coverage)	70% of expected coverage	33% Oct.18.-Mar.19		LOP:50% *Not achieved*
									Oct.17-Sept 18	Oct. 17-Sept 18	Oct.17.-Sep.18			
13	NUT FTF 3.1.9-1	Number of children under five reached by USG-supported nutrition programs [See Note 4]	Number of children under five years of age reached by NGOs of the Extension Coverage Program (PEC) and health posts within MCSP's catchment area, during the reporting year.	DMS	MOH/ SIGSA	Annual		59,130 Oct.-Dec.17	121,645 Oct.17-Mar 18	194,008 Oct. 17-Jun18	267,888 Oct.17-Sep.18	70,668 Oct.-Dec.18	162,632 Oct.18-Mar.19	190,000 *Achieved*
								175,629 Jan-Dec.17						
14	NUT	Number of children under five who received Vitamin A from USG-supported programs [See Note 5]	Number of children age 6 to 59 months that have received vitamin A.	None	MOH/ SIGSA	Quarterly		16,049 Oct.-Dec.17	26,285 Oct.17-Mar18	33,293 Oct.17-Jun18	39,150 Oct.17-Sep.18	5,801 Oct.-Dec.18	5,986 Jan.-Mar.19	70,000 *Not achieved*
								59,703 Jan-Dec.17	10,236 Jan.-Mar.18	7,008 Apr-Jun18	5,857 Jul.-Sep.18	11,787 Oct.18-Mar.19		
15	CHILD MCSP-19	Percentage of children under five years old with diarrhea treated with Oral Rehydration Therapy (ORT) (3.1.6-43)	**Numerator:** Total number of children 0-59 months who were ill with diarrhea in the last two weeks and were treated with Oral Rehydration Therapy by a CHW. **Denominator:** Total number of children 0-59 months that had diarrhea in the past 15 days	ORT, Zinc, ORS plus zinc	Annual Survey (INCAP)	Annual		ORS: 28%			ORS: 27%			40%
								Zinc: 7%			Zinc: 7%			
								ORS plus Zinc: 5%			ORS plus Zinc: 4%			*Not achieved*
16	CHILD	Percentage of children 0-59 months who had an episode of ARI in the past 15 days who received adequate treatment * *: Mild cases without antibiotics; moderate and severe cases with antibiotic and zinc	**Numerator:** Number of children 0-59 months who had an episode of ARI in the past 15 days that received adequate treatment **Denominator:** Total number of children 0 to 59 months with an episode of ARI in the past 15 days	None	Annual Survey (INCAP)	Annual		qualified staff: 65%			qualified staff: 65%			33% *Achieved*
								any provider: 76%			any provider: 76%			
17	WASH MCSP-20	Percentage of target health facilities in MCSP-supported areas with hand-washing stations and appropriate handwashing supplies (soap and water or hand sanitizer) available of the maternity and/or surgery wards or units (both if they exist).	**Numerator:** Number of target health facilities in MCSP-supported areas with hand-washing stations and appropriate handwashing supplies (soap and water or hand sanitizer) of the maternity and/or surgery wards or units (both if they exist) on day of monitoring visit.	Surgery, Maternity by DMS, DAS	MCSP facility assessment tool	Annual *Semester*			9.1% (1/11)			9.1% (1/11)	100% (11/11)	11 *Achieved*

#	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Data Collection Frequency	FY. 17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
		[See Note 6]	**Denominator:** Number of target health facilities in MCSP-supported areas											
		• Handwashing stations exists, but does not have soap and water		Target health facilities with delivery room	MCSP facility assessment tool	Semester			27.3% (3/11)			18.2% (2/11)	0% (0/11)	
		• Handwashing station exists, but only has soap or water							63.6% (7/11)			72.7% (8/11)	0% (0/11)	
		• Handwashing station is functional (soap and water are present)							9.1% (1/11)			9.1% (1/11)	100% (11/11)	
18	WASH MCSP-35	Percentage of target health facilities in MCSP-supported areas that make at least one WASH improvement that was identified in their action plan.	Priority services that perform measurements of care processes that include in their improvement plans any intervention related to WASH	Surgery, Maternity by DMS, DAS	MCSP facility assessment tool	Annual *Quarterly*					0	72.7% (8/11)	100% (11/11)	100% (11/11) *Achieved*

Note 1, Indicator :6
- BRES report at the district level. 21 Prioritized Municipalities. January 2018 – June 2018. Between July and September there are no reports available for La Taña and San Vicente Buenabaj.
- SIGSA 6 Monthly Report. 26 Prioritized Municipalities: municipality. January 2018 – June 2018.
- SIGSA 6 Monthly Report. 30 Prioritized Municipalities: **Missing reports** from 6 hospital services. July 2018 – September 2018.
- October 2018 – December 2018: Updated May 2019 to reflect actual statistics reported from all facilities.
- January-March 2019: SIGSA 6 Monthly Report. 30 Prioritized Municipalities.
- January-March 2019: BRES report at the district level. 30 Prioritized Municipalities.

Note 2, Indicator 7:
- October – December 2017. Preliminary Data. SIGSA I Report. 29 Prioritized Municipalities: There **is no report for Tajumulco** municipality. January 2017 – December 2017. For the 10 municipalities of Huehuetenango and 1 municipalities of Quetzaltenango, there is a projection from November to December 2017, based on the January – October 2017 report. **In the rest of the municipalities, December 2017 was projected.**
- January 2018 – March 2018 and April—June 2018. SIGSA I Report. 30 Prioritized Municipalities. **There are no reports from Todos Santos Cuchumatan, La Parroquia y Tajumulco.**
- July—September 2018 reports: SIGSA I Report. 30 Prioritized Municipalities from: There are no reports for Jacaltenango, San Lorenzo, San Miguel Ixtahuacán y Tajumulco.
- October—December 2018: Updated May 2019 to reflect actual statistics reported from all facilities.
- January-March 2019: SIGSA I Report. 30 Prioritized Municipalities

Note 3, Indicators 11 and 12
- DPT: SIGSA 5 C Consolidate Vaccination Report. 30 Prioritized Municipalities. January 2017 – December 2017. For the 10 municipalities of Huehuetenango and 1 municipalities of Quetzaltenango, there is a projection from November to December 2017, based on the January – October 2017 report. In the rest of the municipalities, the month of December was projected.
- Pneumococcal: SIGSA 5 C Consolidate Vaccination Report. 30 Prioritized Municipalities. January 2017 – December 2017. For the 10 municipalities of Huehuetenango and 1 municipalities of Quetzaltenango, there is a projection from November to December 2017, based on the January – October 2017 report. **In the rest of the municipalities, the month of December was projected. There is no report for 5 municipalities of Quiche and 1 of Totonicapan.**
- DPT and Pneumococcal: SIGSA 5 C Consolidate Vaccination Report. 30 Prioritized Municipalities. January 2018 – September 2018.
- DPT and Pneumococcal: SIGSA 5 C Consolidate Vaccination Report. 22 Prioritized Municipalities. October 2018 – December 2018: Updated May 2019 to reflect actual statistics reported from all facilities.
- January-March 2019: 22 Prioritized Municipalities.
- For indicator 12, the target was achieved for FY18, but is was not achieved for LOP, which was the period for which targets were set.

Note 4, Indicator 13
- Data reported actually represent number of growth monitoring visits for children under 5 – this is an **overestimation** of the number of children seen in US-supported nutrition programs as a child may have more than one growth monitoring visit per year. We have not done any assessments to determine how much of an overcount this represents.
- SIGSA 5 C Consolidate Food Safety Report. January 2017 – December 2017. For the 10 municipalities of Huehuetenango and 1 municipalities of Quetzaltenango, there is a projection from November to December 2017, based on the January – October 2017 report. In the rest of the municipalities, the month of December was projected. There is no report 2 municipalities of San Marcos and ten of Huehuetenango.
- SIGSA 5 C Consolidate Food Safety Report. 30 Prioritized Municipalities. January 2018 – September 2018.
- SIGSA 5 C Consolidate Food Safety Report. 22 Prioritized Municipalities. October 2018 – December 2018. Updated May 2019 to reflect actual statistics reported from Ixil & Quiché.
- SIGSA 5 C Consolidate Food Safety Report. 26 Prioritized Municipalities. January 2019 – March 2019.

Note 5, Indicator 14
- As of June 2018, national guidelines for Vitamin A supplementation only recommend supplementation for children 6-12 months of age. The target was set based on prior guidelines.
- SIGSA 5C Consolidated Report, Vitamin A supplement. 29 Prioritized Municipalities: There is no report Tajumulco municipality. January 2017 – December 2017. For the 10 municipalities of Huehuetenango and 1 municipalities of Quetzaltenango, there is a projection from November to December 2017, based on the January – October 2017 report. In the rest of the municipalities, the month of December was projected.
- SIGSA 5C Consolidated Report, Vitamin A supplement. 30 Prioritized Municipalities. January 2018 – September 2018.
- SIGSA 5C Consolidated Report, Vitamin A supplement. 30 Prioritized Municipalities. October 2018 – December 2018. Updated May 2019 to reflect actual statistics reported from Ixil & Quiché.
- SIGSA 5C Consolidated Report, Vitamin A supplement. 30 Prioritized Municipalities. January 2019 – March 2019.

Note 6: Indicator 17: First assessments carried out March 2018, second assessments carried out October – December 2018.

RESULT 3: Strengthened linkages between the municipality and the community to improve community engagement in the co-management and monitoring of health and nutrition services and to create demand of health services.

Table 8: Indicators related to Partnership Defined Quality (PDQ) methodology

#	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Data Collection Frequency	FY. 17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
19	COMM	Number of community tools/guides/manuals developed or adapted with MCSP support	Number of tools/guides/manuals developed or adapted that are related to community (Tools/guides/manuals on topics such as: community situational analysis, social auditing, civic participation, respectful care, adolescent health)	None	Program records	Annual *Quarterly*		2		3	5	5	5	At least 5 *Achieved*
20	COMM	Number of new critical routes for prevention of maternal and neonatal mortality	Number of new critical transportation routes established for prevention of maternal and neonatal mortality	Region	Program records	Annual *Quarterly*					0	0*	3	3 *Achieved*
21	GENDER MCSP-S10	Percentage of women with a companion present during labor or birth in MCSP-supported areas	**Numerator:** Number of women reporting a companion present during labor or birth at last pregnancy **Denominator:** Number of women interviewed	place of delivery (level of service)	Annual Survey (INCAP)	Annual					13%			15%
22	GENDER MCSP-37	Number of people completing an intervention pertaining to gender norms that meets minimum criteria*	Number of adults and children completing an intervention in the reporting period that had: 1) a component that support participants to understand and question existing gender norms and reflect on the impact of those norms on their lives and communities 2) a clear link between the gender norms being discussed and RMNCH	DMS, male/female	Program records	Annual *Quarterly*				0*				
	GENDER REVISED	Number of communities that complete a relevant intervention addressing gender norms PMP approved September 2018	Number of communities in intervention areas that complete an intervention that explore gender norms and that helps to reflect on the impact that norms have on their lives and communities and, in particular, on RMNCH (cumulative)								7**	11**	17**	5 *Achieved*
23	COMM MCSP-60	Percentage of active community groups in MCSP target districts implementing RMNCAH activities according to their Community Action Plans	**Numerator:** Number of active community groups in MCSP target districts implementing RMNCAH activities according to their Community Action Plans **Denominator:** Total number of active community groups in MCSP target districts	DMS	Program records	Quarterly					64.5% (11/17)	94.11% (16/17)	100% (17/17)	100% (n=17) *Achieved*
24	COMM	Proportion of targeted communities (n=17) with community action groups trained	**Numerator**: Number of community action groups trained **Denominator:** Number of community action groups formed	by type of training (PDQ, gender, SBCC)	Program records	Quarterly		64.7% (11/17)	82.4% (14/17)	100% (17/17)	100% (17/17)	100% (17/17)	100% (17/17)	100% 17 *Achieved*
25	COMM	Proportion of targeted communities (n=17) with community action groups with at least 1 participant of key stakeholder group identified	**Numerator**: Number of community action groups with all key stakeholders represented **Denominator:** Number of community action groups formed	NONE	Program records	Quarterly			52.9% (9/17)	82% (14/17)	88% (15/17)	100% (17/17)	100% (17/17)	100% *Achieved*
26	COMM	Proportion of communities with mass media activities, by content area (8)	**Numerator**: Number of targeted communities with mass media activities **Denominator:** Number of targeted communities	NONE	Program records	Quarterly			0	0	0	0	0	90% *Not achieved* SEE NOTE

NOTE: All 17 communities had implemented SBC campaigns by the end of the project, but did not use mass media. FY18Q3 and Q4: 7/17 (41%), FY19Q1: 9/17 (53%).

RESULT 4: Improved knowledge, competencies and skills of health workers in the areas of RMNCH/N

Table 9: Indicators improved knowledge, competencies and skills

#	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Data Collection Frequency	FY. 17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
27	HSS	Percentage of District staff members trained as trainers of continuous quality improvement and supervision processes REVISED: Number of personnel in prioritized districts (13) trained as mentors (PMP approved September 2018)	Numerator: Number of –District staff member in the 13 prioritized municipalities that have been trained* ~~to carry out training on~~ as mentors in continuous quality improvement strategies and supervision processes	DAS, gender	Training records	Semester				0	0	0	85	NA
			Denominator: Total number of District staff members in the 13 prioritized DMS											
28	HRH FTF 3.1.9-1	Number of people trained in child health and nutrition through USG-supported programs	Number of participants (Health professionals, primary health care workers, community health workers, volunteers, mothers/caregivers, policy-makers, researchers, and other non-health personnel) in child care and nutrition training provided through MCSP during the reporting period.	DMS and gender	Project Data	Quarterly		1,761	404	956	644	463	1,106	3,850 *Achieved 139% (5,354)*
				Female				1,047	264	616	435	287	758	
				Male				714	140	340	209	176	348	
29	HRH HL.9-5 (nutrition)	Number of personnel receiving training through MCSP	Number of health facility personnel receiving training through MCSP (Technical and cross-cutting areas include MNH, CH, RH/FP, Respectful Care, Adolescent Health, Nutrition, CQI, M&E, planning and budgeting, logistics)		Training records	Quarterly		326	1,120	2,122	2,817	2,458	2,626	NA
				Female				193	729	1,312	1,755	1,508	1,650	
				Male				133	391	810	1,062	950	976	
30	HSS	Number of MCSP target districts that have a systematic approach for continuous quality improvement based on RMNCAH/N indicators	Number of MCSP target districts that have a systematic approach to track and display a priority set of RMNCAH/N and quality indicators. This includes district dashboards.	DMS	Program records	Quarterly		6	11	11	16	24	24	24 *Achieved*
31	HSS	Number of MCSP target DMS that use the dashboard to generate reports or plans, or to address performance gaps	Number of MCSP target districts that use the dashboard to generate reports or plans, or to address performance gaps	DMS	Program records	Quarterly		6	11	11	16	24	24	24 *Achieved*

* Indicator 27: reporting on those who have completed training and are certified as mentors, not those enrolled.

OBJECTIVE 2: Increase the visibility, collaboration and multi-sector attention for prevention of chronic malnutrition

RESULT 1: Support SESAN and MOH in implementation of the National Strategy for Prevention of Chronic Malnutrition

Table 10: Indicators related with prevention of stunting

	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Data Collection Frequency	FY. 17	FY.18				FY.19		Target
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	
32	NUTR	Number of municipal plans that include nutrition interventions for prevention of chronic malnutrition	Number of municipal plans that include nutrition intervention for prevention of chronic malnutrition	DMS With budgets, with no budgets	Municipal Plan	Annual			4		*	8	8	8 *Achieved*
33	NUTR	Number of personnel trained in maternal and child nutrition	Number of personnel trained in maternal and child nutrition through the Diploma in maternal and child nutrition, with emphasis on growth monitoring	DMS, Personnel type (health, municipal)	Training records	Semester		36	29	72	362	458	0	475 *Achieved 76% (458)*
				Female				7	13	45	245	334	0	
				Male				29	16	27	117	124	0	
34	HSS	Number of local personnel trained in investment planning	Number of local staff trained in use of the municipal investment planning guide for SAN.	DMS	Training records	Semester						38	75	none
35	HSS DROPPED	Number of webinars developed **Note:** *an online course was developed in lieu of webinars*	Number of webinars developed on A) water, sanitation and nutrition; B) Tools for municipal investment planning in health and nutrition	DMS	Training records	Semester								
36	HSS	Number of municipal staff trained in municipal investment in health and nutrition	Number of municipal staff participating in webinar on municipal investment in health and nutrition **REVISED:** Personnel of prioritized municipalities that have completed 4 modules of the online municipal investment course designed in coordination with DAAFIM/ MINFIN.	DMS	Training records	Semester					0	0	83	none
37	HSS	Number of municipal staff trained in municipal investment in water and sanitation	Number of municipal staff participating in the webinar on water and sanitation, as part of ENPDC.	DMS	Training records	Annual				30	37	51	59	150 *Achieved 118% (177)*
38	NUTR DROPPED	Number of individuals trained in use of "Growth Banner "	Number of individuals who are members of municipal promotion teams (female promoters) trained in use of "Growth Banner "	DMS	Training records	Annual		41						325
				Female				27						
				Male				14						

*Note: In April 2018, we were providing technical assistance to 8 municipalities to elaborate their municipal Health and Nutrition plans, but no plans had been finalized.

Additional non-program related indicators: collected in the Annual Household Survey (INCAP)

Table 11: Other Indicators

#	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Collection Frequency	2017	2018	Target
A1 44	MCSP-S16	Percentage of children breastfed in the first hour of birth	**Numerator:** Number of children breastfed in the first hour of birth **Denominator:** Total number of children 0-23 months	None	Annual Survey (INCAP)	Annual	72%	78%	NA
A2 45	FTF 3.1.9-4 (MCSP-S23)	Prevalence of exclusive breastfeeding of children under 6 months of age	**Numerator:** Total number of children 0-5 months exclusively breastfed (fed only breastmilk and no other food or liquid) on the day and night preceding the survey. **Denominator:** Total number of children 0-5 months	None	Annual Survey (INCAP)	Annual	73%	70%	70%
A3 46		Percentage of children 6-8 months who were introduced soft, semi-solid or solid foods the day before the interview	**Numerator:** Number of children 6-8 months who were introduced soft, semi-solid or solid foods the day before the interview **Denominator:** Total number of children 6-8 months	None	Annual Survey (INCAP)	Annual	78%	81%	NA
A4 47		Percentage of children 12-15 months who continue to be fed breast milk (continued breastfeeding)	**Numerator:** Number of children 12-15 months who are fed breast milk **Denominator:** Total number of children 12-15 months	None	Annual Survey (INCAP)	Annual	89%	91%	NA
A5 48		Percentage of children 20-23 months who continue to be fed breast milk (continued breastfeeding)	**Numerator:** Number of children 20-23 months who are fed breast milk **Denominator:** Total number of children 20-23 months	None	Annual Survey (INCAP)	Annual			NA
A6 49		Percentage of children 6-8 months with 2 or more meals (Minimum Meal Frequency, MMF) for breastfed children	**Numerator:** Number of breastfed children 6-8 months, with 2 or more meals **Denominator:** Total number of breastfed children 6-8 months	None	Annual Survey (INCAP)	Annual	75%	77%	NA
A7 50		Percentage of children 9-23 months with Minimum Meal Frequency, MMF) for breastfed children	**Numerator:** Number of breastfed children 9-23 months with 3 or more meals **Denominator:** Total number of breastfed children 9-23 months	None	Annual Survey (INCAP)	Annual			NA
A8 51		Percentage of non-breastfed children 6-23 months with (Minimum Meal Frequency, MMF)	**Numerator:** Number of NON-breastfed children 6-23 months with minimum meal frequency **Denominator:** Total number of children 6-23 months	None	Annual Survey (INCAP)	Annual	48%	32%	NA
A9 52		Percentage of breastfed children 6-23 months with consumption of 4 or more food groups per day. (Minimum Dietary Diversity, MDD)	**Numerator:** Number of children 6-23 months with consumption of 4 or more food groups per day **Denominator:** Total number of children 6-23 months	None	Annual Survey (INCAP)	Annual	87%	84%	NA
A10 53	FTF 3.1.9.1-1 MCSP-S24	Percentage of children 6-23 months Receiving a Minimum Acceptable Diet	**Numerator:** Number of children 6-23 months of age with MMF and MAD **Denominator:** Total number of children 6-23 months	None	Annual Survey (INCAP)	Annual	41%	32%	45.10%
A11	CHILD	Percentage of children 0-59 months with an episode of diarrhea in the past 15 days	**Numerator:** Number of children 0-59 months with an episode of diarrhea in the past 15 days **Denominator:** Total number of children 0-59 months	None	Annual Survey (INCAP)	Annual	19%	18%	NA
A12	CHILD	Percentage of children 0-59 months who had an Acute Respiratory Infection (ARI) episode in the past 15 days	**Numerator:** Number of children 0-59 months with an ARI episode in the past 15 days **Denominator:** Total number of children 0-59 months	None	Annual Survey (INCAP)	Annual	41%	45%	NA
A13	CHILD	Percentage of children 0-59 months with complete vaccination schedule	**Numerator:** Number of children 0-59 months with complete vaccination schedule for age **Denominator:** Total number of children 0-59 months	None	Annual Survey (INCAP)	Annual	37%	42%	NA
A14 54	NUTR FTF 3.1.9-12	Prevalence of Wasted Children Under 5 years of age	**Numerator:** Total number of children 0-59 months with a weight for height Z score < -2. **Denominator:** Total number of children 0-59 months with weight for height Z score data.	None	Annual Survey (INCAP)	Annual	1%	1%	1.30%

	Indicator		Definition	Disaggregation	Data source	Collection Frequency	2017	2018	Target
A15 55	NUTR FTF 3.1.9-11	Prevalence of stunted children under 5 years of age	**Numerator:** Total number of children 0-59 months with a height for age Z score < -2. **Denominator:** Total number of children 0-59 months with height for age Z score data.	None	Annual Survey (INCAP)	Annual	62.3%	59.3%	59.50%
A16 56	NUTR FTF 3.1.9-16	Prevalence of underweight children under 5 years of age	**Numerator:** total number of children 0-59 months in the sample with a weight for age Z score < -2. **Denominator:** total number of children 0-59 months with weight for age Z score data.	None	Annual Survey (INCAP)	Annual	20%	16%	15.00%
A17 57	FTF 3.1.9-14	Prevalence of Anemia in Children 6-59 months	**Numerator:** Number of children 6-59 months with some degree of anemia **Denominator:** Total number of children 6-59 months	None	Annual Survey (INCAP)	Annual	16.8%	16.0%	21.40%
A18 58		Percentage of children 0-59 months with adequate growth monitoring	**Numerator:** Number of children 0-59 months with adequate growth monitoring **Denominator:** Total number of children 0-59 months	None	Annual Survey (INCAP)	Annual	66%	69%	NA
A19 59		Percentage of children 6-59 months who have been adequately supplemented in the last 12 months	**Numerator:** Number of children 6-59 months who have been adequately supplemented according to their age **Denominator:** Total number of children 6-59 months	None	Annual Survey (INCAP)	Annual	10%	10%	NA
A20 60		Percentage of mothers who recognize danger signs in newborns	**Numerator:** Number of mothers who recognized 4 or more danger signs in newborns **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	9%	13%	NA
A21 61		Percentage of mothers who recognize danger signs in children under 24 months	**Numerator:** Number of mothers who recognize 4 or more danger signs in children under 24 months **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	31%	28%	NA
A22 62		Percentage of children 0-59 months fed the same or greater amount of food during an episode of diarrhea	**Numerator:** Number of children 6-59 months who, during the diarrhea episode, were fed the same or greater amount of food **Denominator:** Total number of children 6-59 months who had diarrhea	None	Annual Survey (INCAP)	Annual	28%	32%	NA
A23 63	MAT	First birth under 18	**Numerator:** Number of mothers with a child 0-59 months who had their first pregnancy before age 18 **Denominator:** Total number of mothers surveyed	None	Annual Survey (INCAP)	Annual	36%	34%	20%
A24 64		Percentage of mothers who ate better during their pregnancy	**Numerator:** Number of mothers who ate 3 or more times a day during their last pregnancy **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	97%	98%	NA
A25 65		Percentage of mothers who recognize danger signs during pregnancy	**Numerator:** Number of mothers who recognize 3 or more danger signs during pregnancy **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	54%	58%	NA
A26 66		Percentage of pregnant women who report that they were helped with heavy labor during pregnancy by family members	**Numerator:** Number of pregnant women who report that they were helped with heavy labor during pregnancy by family members **Denominator:** Total number of pregnant women	None	Annual Survey (INCAP)	Annual	81%	72%	NA
A27 67		Percentage of pregnant women who say they had a delivery and emergency plan	**Numerator:** Number of pregnant women reporting they have a delivery and emergency plan in their home **Denominator:** Total number of pregnant women	None	Annual Survey (INCAP)	Annual	58%	58%	NA
A28 68		Percentage of households with mothers who participate in organized community groups	**Numerator:** Number of mothers who participate in organized community groups **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	7%	11%	NA
A29 69		Mothers who indicated that they saw or heard messages about Family Planning in the last quarter	**Numerator:** Mothers reporting they saw or heard messages about Family Planning in the last quarter **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	41%	*	NA
A30 70		Prevalence of Underweight Women	**Numerator:** Total number of mothers with low weight for height. **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	1%		2.50%
A31 71	FTF 3.1.9-6	Prevalence of anemia among women of reproductive age	**Numerator:** Number of mothers with some degree of anemia **Denominator:** Total number of mothers	None	Annual Survey (INCAP)	Annual	12.5%	8.4%	10.00%

#	Code / Ref No.	Indicator	Definition	Disaggregation	Data source	Collection Frequency	2017	2018	Target
A32 72		Percentage of households that use some method to purify their water for consumption	**Numerator:** Number of households that use some method to purify their water for consumption (chlorine, boiling, filtering, solar disinfection) **Denominator:** Total number of households	None	Annual Survey (INCAP)	Annual	91%	91%	NA
A33 73		Percentage of households where children and their mothers are kept away from smoke from cooking area	**Numerator:** Number of households that have a space outside the sleeping area used as a separate cooking area, and that have a stove or fire with a chimney or that use propane or electricity for cooking **Denominator:** Total number of households with non-pregnant mothers	None	Annual Survey (INCAP)	Annual	66%	71%	NA
A34 74		Percentage of households where pregnant women are kept away from smoke from cooking area	**Numerator:** Number of households that have a space outside the sleeping area used as a separate cooking area, and that have a stove or fire with a chimney or that use propane or electricity for cooking **Denominator:** Total number of households with pregnant women	None	Annual Survey (INCAP)	Annual	64%	70%	NA

* Note: Indicator A29 69: This indicator was not measured in 2018 because campaigns were not being implemented.

Appendix C: Family Planning Activities Detail

Training and Refresher Workshops Conducted on Family Planning (through April 2019)

Family Planning Trainings by Site	No. Participants
Ixil	
Contraceptive methodology DAS (Ixil and three Ixil Districts)	29
PPFP facilitator training (DAS Ixil and Hospital of Nebaj)	10
Refresher training on contraceptive methodology, emphasis on LARCs (DAS Ixil)	11
Family Planning counseling on all methods, including how to reasonably rule out pregnancy, and provision of LARC services (Salquil Grande health post, referral center in the Critical Pathway of Nebaj)*	8
Quiche	
PPFP (Hospital Santa Cruz and DAS Quiche)	10
Workshop on FP Counseling (CAP Zacualpa)	10
Workshop on FP Counseling (CAP of Cunen)	8
Refresher workshop on contraceptive methodology, including LARCs (DAS Quiché)	33
Training and certification in male and female voluntary sterilization (Hospital of Quiché)	4
FP counseling and promotion (DAS Quiche)	23
Quetzaltenango	
Counseling on PPFP in the antenatal period & provision of PPFP services, including LARCs (DAS Quetzaltenango, San Juan Ostuncalco and Concepción Chiquirichapa)	32
Certification male and female voluntary sterilization (Hospital of Quetzaltenango)	2
San Marcos	
PPFP counseling, including LARCs (Hospital Nacional of San Marcos)	12
Strengthening LARCs and contraceptive methodology (DAS San Marcos; eight prioritized districts)	22
Training and certification in male and female voluntary sterilization (Hospital of San Marcos)	2
Huehuetenango	
Refresher training on Contraceptive methodology (medical eligibility and mechanisms of action), including LARCs (health center Santa Cruz Barillas Huehuetenango)	15
Refresher training on FP, including LARCs (health post of San Ramón, health center and Hospital of Barillas Huehuetenango and reproductive health facilitator DAS)	29
Training and certification in male and female voluntary sterilization (Hospital of Barillas)	2
TOTAL	**262 Service Providers**

*This activity supported the goal of strengthening FP counseling, supply and informed choice for patients along the Critical Pathway and was targeted to providers in Salquil Grande in Nebaj.

Quality Audits for Provision of LARC services

No.	Health Facility	Status	Audit Date
1	Health Center Concepción Huista	Completed	15/01/2019
2	CAP Jacaltenango	Completed	16/01/2019
3	Health Post Petatan	Completed	17/01/2019
4	Health Center San Antonio Huista	Completed	16/01/2019
5	CAP San Sebastián	Completed	18/01/2019
6	CAP Todos Santos Cuchumatan	Completed	13/02/2019
7	CAP La Libertad	Completed	14/02/2019
8	CAP La Democracia	Incomplete	0
9	Health Center Chiantla	Completed	06/11/2018
10	CAIMI Cuilco	Completed	21/02/2019
11	Health Center Santa Cruz Barillas	Completed	06/02/2019

Quetzaltenango, San Marcos, Totonicapán			
No.	Health Facility	Status	Audit Date
1	CS. San Rafael Pie de la Cuesta	Completed	10/10/2018
2	CS. San Pablo	Completed	11/10/2018
3	CAP Nuevo Progreso	Completed	23/10/2018
4	CAP San Lorenzo	Completed	24/10/2018
5	CAP Sibinal	Completed	21/01/2019
6	CAP San Miguel Ixtahuacan	Completed	24/01/2019
7	CAP Tajumulco	Completed	13/02/2019
8	CAP San Jose el Rodeo	Completed	09/04/2019
9	CS San Juan Ostuncalco	Completed	31/10/2018
10	CS Concepción Chiquirichapa	Completed	31/10/2018
11	CAIMI Momostenango	Completed	20/11/2018
12	CENAPA San Vicente buenabaj	Completed	25/01/2019
13	CAP Santa Lucia la Reforma	Completed	31/01/2019

Quiché			
No.	Health Facility	Status	Audit Date
1	CAP COTZAL	Completed	13/03/2018
2	CAP Chichicastenango	Completed	18/08/2018
3	CAP Chajul	Completed	05/09/2018
4	CAP Sacapulas	Completed	06/09/2018
5	DMS Nebaj	Completed	20/09/2018
6	CAP Cunén	Completed	28/09/2018
7	Cap Zacualpa	Completed	10/12/2018
8	Hospital Uspantán	Completed	08/02/2019

Appendix D: Detailed Breakdown of Compliance Scores for DOB Critical Standards

	Baseline Assessment (January - June 2018)				Final Assessment (February – March 2019)			
	Total Facilities	CAP, CAIMI	District Hospitals	Regional Hospitals	Total Facilities	CAP, CAIMI	District Hospitals	Regional Hospitals
	n=15	n=8	n=2	n=5	n=15	n=8	n=2	n=5
Triage of Danger Signs								
# Records reviewed	216	116	40	60	248	120	40	88
Checked for vaginal hemmorhage	4%	5%	0%	5%	43%	24%	85%	50%
Checked for headache	4%	4%	0%	5%	44%	23%	85%	52%
Checked for vaginal fluid	10%	10%	0%	17%	49%	30%	85%	59%
Checked for fever	9%	12%	0%	8%	48%	33%	85%	53%
Decrease in absence of fetal movements	6%	9%	0%	3%	44%	25%	85%	52%
Edema in the face and hands	4%	4%	0%	7%	44%	24%	85%	51%
Use of Partogram								
# Records reviewed	212	115	40	57	245	117	40	88
Fetal heart rate recorded every half hour	60%	55%	53%	75%	81%	83%	80%	80%
Dilation recorded on admission and throughout labor (plotted against alert line)	78%	79%	59%	89%	82%	86%	85%	75%
Registered vital signs	63%	71%	44%	60%	83%	85%	75%	74%
AMTSL and Immediate Postpartum								
# Records reviewed	216	116	40	60	248	120	40	88
10 units of oxytocin IM administered within the first minute	57%	63%	40%	57%	83%	80%	93%	83%
Controlled cord traction and uterine massage	78%	86%	40%	88%	91%	97%	85%	85%
Abdominal uterine massage every 15 minutes for 2 hours postpartum	73%	80%	30%	88%	94%	94%	95%	94%
Registered vital signs of mother every 15 minutes for 2 hours postpartum	73%	78%	45%	83%	93%	95%	98%	89%
Essential Care for the Newborn								
# Records reviewed	198	98	40	60	248	120	40	88
Cleaned the airways as needed	50%	56%	35%	51%	72%	78%	65%	68%
Immediate skin to skin contact	70%	79%	48%	72%	81%	90%	63%	76%
Cord Clamp	75%	78%	53%	88%	80%	89%	75%	81%
Breastfeeding within the first hour after birth	82%	94%	50%	85%	85%	92%	82%	77%
Routine Care for the Newborn								
# Records reviewed	200	100	40	60	248	120	40	88
Gestational age by Capurro method evaluated and scored	84%	83%	85%	69%	94%	97%	85%	93%
Determined weight at birth, classified according to the intrauterine growth curves	79%	69%	90%	88%	82%	69%	100%	91%

Key: Red = low (0 to 59), Yellow = midrange (60 to 79), Green = high (80 to 100)

Appendix E: List of Presentations

#	Month, Year	Name of Conference	Presenter(s)	Presentation/Poster
1	October 2017	International Congress of Nutrition (ICN), Buenos Aires, Argentina	Maggie Fischer Mireya Palmieri	"Assessment of a cascade training approach for nutrition: lessons learnt for e-learning in Guatemala"
2	October 2018	FIGO World Congress of Gynecology and Obstetrics	Leonel Gómez Miguel Angel Marroquín Suzanne Stalls	Integration of processes for the continuous improvement of maternal and newborn health service provision: proof of concept in Guatemala
3	November 2018	Sociedad Latinoamericana of Nutrition (SLAN) Conference, Guadalajara, México	Gabriela Mejicano Ericka López Gladys Miranda Mauda Tzapin	1. Increasing health and nutrition investment in four municipalities in the Western Highlands in Guatemala; 2. Adaptation and implementation of the Baby Friendly Community Initiative within the Guatemalan context; 3. Increasing the visibility, awareness and commitment for the prevention of chronic malnutrition – an invisible problem in Guatemala
4	December 2018	Global Digital Health Forum, Washington DC.	Ana Maria Rodas Axel Moscoso	Presented MCSP's digital health work, specifically on how it is used to conduct social audits of government health services

Appendix F: List of Materials and Tools Developed by the Program

Technical Documents - Policy and Program Briefs, National-Level Guidelines

Material or Tool Name	Technical Area
National Protocol for Perinatal Death Surveillance and Review	Newborn – Infant Care
Formative Assessment on Respectful Care During Birth: Experiences from three Hospitals in Quiché, Guatemala	Health System Strengthening
Mentoring for Human Capacity Development: Implementation Principles and Guidance	Health System Strengthening
Integration of Quality Improvement Processes in Maternal and Newborn Health Services	Health System Strengthening
Increasing Health and Nutrition Investment in Four Municipalities of the Western Highlands of Guatemala	Food Security and Nutrition
Adaptation of the Baby-Friendly Community Guidelines to the Guatemalan Context	Food Security and Nutrition
Increasing Visibility, Awareness, and Commitment to Prevent Chronic Malnutrition, an Invisible Problem in Guatemala	Food Security and Nutrition

Technical Documents – Field Training Manuals and Guides

Material or Tool Name	Technical Area
Community Mobilization Approach - Operational Guide for the Facilitator	Community Mobilization
Pocket Manual – *Diplomado* Maternal and Child Health within the First 1,000 Days	Food Security and Nutrition
Guide for Continuous Quality Improvement: Clean Clinic Approach in 11 Health Facilities in the Western Highlands of Guatemala	WASH
Guide to Integral and Differentiated Care for Pregnant Women Under 14 (Clinical Package)	Adolescents
Guide to Family Planning (Clinical Package)	Family Planning
Guide to Maternal Health (Clinical Package)	Maternal and Newborn Health
Guide to Newborn Health (Clinical Package)	Maternal and Newborn Health
Guide to Nutrition (Clinical Package)	Maternal and Newborn Health
Mentorship Principles (Facilitator and Participant Guides)	Health System Strengthening
Poster- Pathway to Clinical Care for Adolescents	Adolescents

Success Stories

Material or Tool Name	Technical Area
Vitamin A deficiency is no longer a public health problem among young Guatemalan children – revisions to the MOH Vitamin A supplementation guidelines	Food Security and Nutrition
Promotion of municipal investment in health and nutrition as a strategy for prevention of chronic malnutrition	Food Security and Nutrition
Local Governance: Alternatives to Strengthen the Capacities of MSPAS Health Personnel in Totonicapán	Food Security and Nutrition
The Growth Mat: Contributing to Monitoring of Growth and Development of the Children of My Community	Food Security and Nutrition
Redirecting priorities at the Departmental Level: From Acute Malnutrition to Chronic Malnutrition	Food Security and Nutrition
Chlorinated water reduces pollution and the risk of Gastrointestinal diseases, in the community of Xix, Chajul, Department of Quiché	WASH
Weekly monitoring of water quality contributes to decreasing maternal and neonatal deaths at the CAIMI in Momostenango, Totonicapán	WASH
Correct Management of Solid Waste and Improved Water Supply and Management in the Permanent Care Center of San Sebastian Huehuetenango	WASH
Management and Mobilization of Resources to Achieve Health Goals in the Municipalities of Nebaj, Chajul and Cotzal, Ixil Health Area	Health System Strengthening
Totonicapán Hospital Establishes a Postpartum Transition Room, Designed Specifically for Monitoring Mothers and Newborns Using Quality Care Standards	Health System Strengthening
Zero Maternal Deaths in 2018, thanks to the Work of the Health Commissions of the Critical Route of Pueblo Nuevo, in Tajumulco, San Marcos	Community Mobilization
Improving communication between community leaders and service providers in the Paquix Village, Municipality of Chiantla, Huehuetenango	Community Mobilization
Linking hands to save lives: community agreement sets precedent and cultural changes to improve maternal health in Pologuá, Momostenango, department of Totonicapán	Community Mobilization
Decide Based on Intuition and Bet on the Participation of Men to Support the Reduction of Maternal Deaths in the Western Highlands	Gender
Training Program for University Technicians in Midwifery: Door of Opportunities for Huehuetecan Women	Maternal and Newborn Health

Appendix G. Detail of Interventions by Municipality

Huehuetenango															
	Jacaltenango														
	Todos Santos Cuchumatan														
	Cuilco														
	Santa Cruz Barillas														
	Concepcion Huista														
	San Antonio Huista														
	La Democracia														

		Ambulatory care	Day of birth: delivery and newborn care	Mentorship, proof of concept	Adolescents: integrated and differentiated care	Adolescents: friendly spaces	PF Compliance, supervision and TA	Génder	PDQ	WASH-CCA	CRITICAL PATHWAYS	Course: Strengthening of management	Nutrition Diplomado	Curso virtual DAAFIM
Quiche	Chichicastenango													
	Cunen													
	Zacualpa													
	Sacapulas													
	Nebaj													
	Chajul													
	San Juan Cotzal													
	Uspantan													
	San Jose El Rodeo													
	San Rafael Pie de la Cuesta													
San Marcos	San Lorenzo													
	San Pablo													
	Nuevo Progreso													
	Tajumulco													
Totonicapan	Sibinal													
	San Miguel Ixtahuacan													
	Santa Lucia la Reforma													
Quetzaltenango	San Juan Ostuncalco													
	Concepcion Chiquirichapa													

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