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Maternal and Child Survival Program

Exploring the Adaptation of the RED/REC Approach to Other RMNCH Areas in Haiti, Kenya, and Uganda

Kate Holt/MCSP and Jhpiego

INTRODUCTION

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,[1] as well as other countries. MCSP is focused on ensuring that all women, newborns and children most in need have equitable access to quality health care services to save lives. MCSP supports programming in maternal, newborn and child health, immunization, family planning (FP) and reproductive health, nutrition, health systems strengthening, water/sanitation/hygiene, malaria, prevention of mother-to-child transmission of HIV, and pediatric HIV care and treatment.

In all countries where MCSP supported immunization programs, MCSP provided technical support to countries to implement Reaching Every District/Reaching Every Community/Reaching Every Child (RED/REC).[2] The RED/REC approach is a management approach with five interrelated components aimed at improving immunization services, maximizing the use of available resources, and guaranteeing sustainable and equitable immunization coverage for every eligible person.

ADAPTING THE RED/REC APPROACH TO OTHER HEALTH AREAS

RED/REC has proven effective for improving immunization coverage and reaching eligible populations, and there is potential to use these same strategies to strengthen other reproductive, maternal, newborn, and child health (RMNCH) areas. In recognition of this potential, MCSP country programs in Haiti, Kenya, Uganda, and Mozambique supported the ministries of health (MOHs) to adapt some or all of the five components of the approach at district and facility levels to improve management of other RMNCH interventions or particular elements of them. Adaptation of the RED/REC strategy consisted of applying some or all of the five core components to another health intervention area, which differed across the countries. MCSP country adaptation of the

1 USAID's 25 high-priority countries are Afghanistan, Bangladesh, Burma, Democratic Republic of Congo, Ethiopia, Ghana, Haiti, India, Indonesia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Nigeria, Pakistan, Rwanda, Senegal, South Sudan, Tanzania, Uganda, Yemen, and Zambia.

2 The World Health Organization's Regional Office for Africa defines this approach as Reaching Every District. However, as countries have adapted the approach to their contexts, some have renamed the approach Reaching Every Community, Reaching Every Child, or Reaching Every Ward, depending on the country.

RED/REC approach to other RMNCH areas was country-driven and occurred in a variety of ways, ranging from deliberate testing of the approach to initial exploration, to see if it would improve the coverage, quality, and equity of another technical area within MCSP-supported geographic areas. Table 1 summarizes, by country, the technical areas to which the RED/REC approach was applied and the level of intention behind this adaptation.

Table 1. MCSP country adaptation of the RED/REC approach

Country	Technical Area(s)	Type of Intervention
Haiti	Maternal health, family planning, child health, and community health	Initial exploration/ scoping
Kenya	Child health	Initial exploration/ scoping
Uganda	Child health	Initial, systematic testing
Mozambique	Nutrition	Documentation

Past experience applying the RED/REC approach to strengthen other RMNCH interventions suggests that RED can improve health outcomes when applied to other intervention areas. For example, in Bondo District, Kenya, the Maternal and Child Health Integrated Program (MCHIP) piloted the application of RED to the prevention of mother-to-child transmission of HIV (PMTCT) from July 2010 to June 2012. The pilot resulted in increased coverage, access, and utilization of care for HIV-positive pregnant women and their children. However, despite these results, defaulter tracing, stock-outs, competing priorities faced by community health workers (CHWs) and facility-based health workers and a sustainable capacity-building plan, and sustainable community engagement were cited as challenges.[3]

To build on this MCHIP pilot and to better understand the successes, lessons, and challenges countries faced in adapting the RED/REC approach to support other RMNCH interventions, MCSP conducted a two-stage exercise, consisting of an online survey followed by in-depth interviews with its country teams. The type of intervention implemented in each country (Table 1) was decided by the country and, in several cases, did not include a structured intervention or data collection, which influenced the availability and specificity of results. However, despite the fact that in most countries, the study of adapting and applying the RED/REC approach to other RMNCH areas was not systematic, efforts to do so across these four countries revealed key learning around what worked (i.e., fostering buy-in and commitment at all levels, and building capacity to implement RED/REC through supportive supervision and on-the-job mentoring) and what did not (i.e., suboptimal resources allocated to community engagement and multiple reporting structures). MCSP believes this initial learning provides valuable lessons, sets the stage for future testing of the adaptation of the RED/REC approach to other RMNCH areas, and builds on MCHIP's pilot of adapting RED to PMTCT in Bondo District, Kenya. As such, this brief intends to summarize country experiences applying the approach, highlight key enablers and challenges to adaptation, and present recommendations that could be helpful for countries considering adaptation of the approach in the future.

MCSP is sharing this experience with a view toward leveraging an existing approach to increase efficiencies among programs, reduce missed opportunities, and increase coverage of RMNCH interventions. It believes that understanding the opportunities and limitations of applying this approach will benefit country MOHs and, by extension, children and families.

A BACKGROUND ON THE RED/REC APPROACH

The RED/REC approach aims to strengthen immunization systems by improving planning, management of available resources, and service delivery and monitoring to sustainably and equitably increase access to and use of vaccination services.[4] Developed by the World Health Organization (WHO) and UNICEF—with input from USAID, John Snow Inc., and other partners in 2002, and revised in 2008—it has since been adopted by national immunization programs throughout the world. An assessment of the RED approach in 2007 identified some challenges, including attaching the RED approach with external funding and projects, an overwhelming focus on outreach sessions for service delivery, insufficient capturing of hard-to-reach populations in microplans, underutilization of monthly district review meetings for training, and pervasive poor data quality.[5] The 2008 revision of the RED guide aimed to address these challenges, but many persisted, including issues related to data quality, identification of hard-to-reach populations in microplans, and overreliance on external funding for the implementation of the RED approach. In 2017, WHO's Regional Office for Africa and partners revised the RED guide for a second time to further refine the approaches to address these remaining challenges as a way to attend to global stagnation in immunization rates. The updated guide emphasized community engagement, equity, and integration with other sectors and programs to reduce missed opportunities for immunization and the delivery of other health services.

RED/REC is a flexible approach that is intended to be tailored to country, district, and facility contexts. It comprises of five core reinforcing management components that are interrelated and often overlap (Figure 1). The intensity of implementing the different components varies according to each country's, region's, district's, and facility's context.

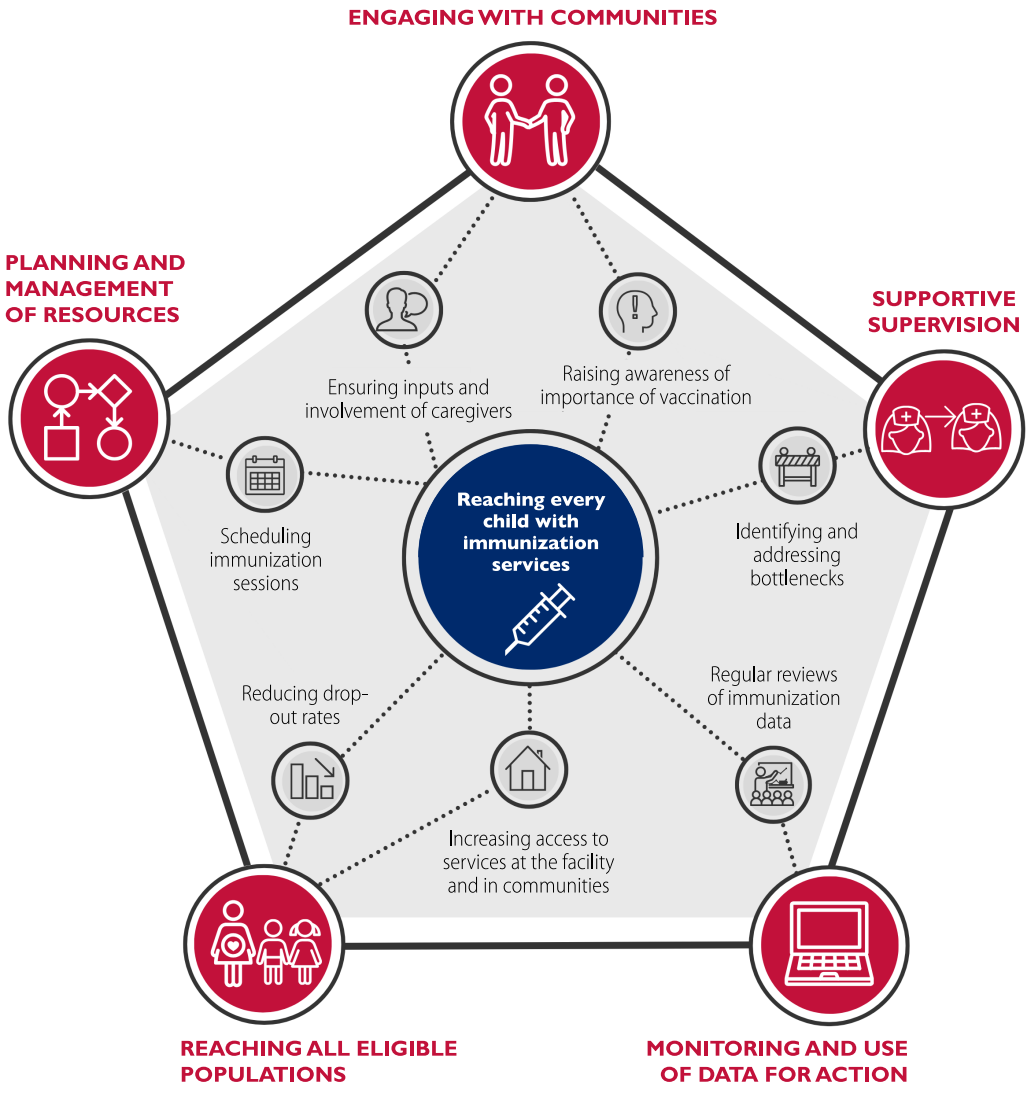
3 Kanyuuru L, Kabue M, Ashengo TA, Ruparelia C, Mokaya E, Malonza I. 2015. RED for PMTCT: an adaptation of immunization's Reaching Every District approach increases coverage, access, and utilization of PMTCT care in Bondo District, Kenya. *Int J Gynaecol Obstet.* 130 Suppl 2:S68-73. doi: 10.1016/j.ijgo.2015.04.002.
4 WHO. 2017. *Reaching Every District (RED): A Guide to Increasing Coverage and Equity in All Communities in the African Region*. Geneva: WHO.
5 WHO Regional Office for Africa (AFRO). 2007. *In-Depth Evaluation of the Reaching Every District Approach in the African Region*. Brazzaville, Congo: AFRO.

Box 1. Five Core Components of RED/REC

- Planning and management of resources: Using information on the location, size, and sociodemographic characteristics of a facility's catchment population to better manage human and financial resources. This information is used to develop detailed, facility-level microplans that help facilities find their clients, determine how to get services to them, and plan the resources to do so.
- Reaching all eligible populations: Improving access to immunization services by identifying and focusing on underserved children and targeting them with appropriate service delivery strategies.
- Engaging with communities: Partnering with communities to promote and deliver services.
- Supportive supervision: Regular, onsite teaching, feedback, and follow-up with health staff.
- Monitoring and use of data for action: Using tools and providing feedback for continuous self-assessment and improvement.

Figure 1. The Five RED Components

(Adapted from the WHO RED components diagram)



HAITI

In Haiti, the MCSP Services de Santé de Qualité pour Haiti (SSQH) project supported service delivery in hard-to-reach communities for a range of RMNCH interventions. SSQH was designed as an integrated project, with outreach for nutrition and FP services often delivered alongside immunization activities. Given Haiti's mountainous terrain with remote populations and outdated census data, identification of target groups for health services remained difficult. MCSP successfully supported the implementation of RED/REC to increase immunization coverage and found the same barriers to accessing immunization services were affecting coverage of other vital reproductive, maternal, newborn, child, and adolescent health (RMNCAH) services. Moreover, some aspects of the RED/REC strategy were already being applied to other health areas—for example, immunization catchment area maps were used to identify pregnant women to plan targeted antenatal care (ANC) mobile clinics and provide anti-tetanus vaccination. Stakeholders thus saw value in applying RED/REC to other health areas to leverage scarce resources by reaching the same beneficiaries with a wider range of health services (for example, a mother of a child receiving immunizations could also receive FP services). As such, SSQH and relevant stakeholders decided to explore the application of RED/REC to maternal health, FP, child health, and community health.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Applying RED/REC to Maternal Health, FP, Child Health, and Community Health

SSQH applied some components of the RED/REC approach to non-immunization health areas, including maternal health, FP, child health, and community health services. Through application of the principles of the RED/REC approach to the Ministry of Public Health and Population's essential package of health services in facilities, SSQH ensured a comprehensive approach to the continuum of RMNCAH care within defined catchment areas that are linked together at facility, community, and household levels. SSQH prioritized sites that had the poorest performance and low vaccination rates, often located in zones difficult to access. With assistance from SSQH staff, service providers adapted the RED/REC approach to maternal health, FP, child health, and community health, as outlined in Table 2.

Key Stakeholders

MCSP worked with the Departmental Health Directorate (DDS) to sensitize departmental heads (such as the director of maternal health and community health) on the benefits of the RED/REC approach. During regular quarterly meetings with the DDS, SSQH presented RED/REC as a strategy to improve interventions with local health departments and eventually included it as part of project activities in certain areas. To ensure linkages between communities and facilities, MCSP trained CHWs to refer pregnant women for ANC services to nearby facilities and motivated traditional birth attendants to do the same.

Outcomes

MCSP implemented RED/REC as part of a broader package of technical support to the Ministry of Public Health and Population to improve access to and quality of RMNCAH services. Stakeholders reported that applying the RED/REC approach to non-immunization health areas in Haiti resulted in the following improvements:

Planning and management of resources:

- More accurately mapped target populations and tracked clients.
- Capitalized on better planning and availability of supplies and service delivery.
- Prioritized more efficient use of scarce resources. For example, instead of making multiple trips to communities for each technical area, transport costs were used more efficiently by conducting joint visits. In addition, commodities for multiple technical areas were transported together when they were available.

Reaching all eligible populations:

- Identified and tracked unreached children and pregnant women to provide services through the same channels planned for immunization, including rallies, outreach services, and mobile clinics.
- Equipped CHWs better able to identify, support, and promote facility deliveries among pregnant women.

Table 2. RED/REC components applied to maternal health, family planning, child health, and community health in MCSP-supported regions in Haiti

RED/REC Component	Activity
Planning and management of resources	• Conducted microplanning by mapping catchment areas and estimating target populations, resulting in a common microplan and map for all technical intervention areas. • Identified resource management and planning issues common to both child health and nutrition services. • Organized localized censuses (conducted by community health workers) to determine the number of pregnant women and their delivery dates to link and track them to facilities.
Reaching all eligible populations	• Mapped locations of pregnant women to plan targeted antenatal care mobile clinics for maternal health.
Engaging with communities	• Engaged health committees and used integrated community engagement and mobilization strategies (rally posts, door-to-door campaigns, and mobile clinics) to improve demand for and availability of services for populations in remote areas.
Supportive supervision	• Instituted RED/REC supportive supervision visits to improve child health services, which involved intensive onsite mentoring and coaching to address issues found during supervision, and utilized a joint supportive supervision tool for family planning, immunization, maternal health, and Zika.
Monitoring and use of data for action	• Conducted performance review workshops to introduce RED/REC to maternal and newborn health providers and community health workers. • Applied monitoring data from immunization records to support family planning counseling and uptake.

Engaging with communities:
- Strengthened community engagement and encouraged service uptake.

Monitoring and use of data for action:
- Identified and prioritized poor-performing districts.
- Improved completion and accuracy of some key service data.

Overall, from 2016 to 2017 (October–September timeframe), the average monthly number of ANC visits increased from 936 to 1,196, and the rate of institutional delivery increased by 19% following the adaptation of approaches to maternal health.

Key Lessons Learned

Based on experiences adapting RED/REC to maternal health, FP, child health, and community health, the SSQH team identified key lessons learned that may be useful for future adaptation. The identified lessons learned center on fostering buy-in and commitment at all levels, and building capacity to implement RED/REC through supportive supervision and on-the-job mentoring. For example, engaging these stakeholders, such as the DDS and departmental heads from other technical areas, in regular discussions built consensus around the utilization of the approach and interest in monitoring its implementation and results. To support implementation of the approach, SSQH highlighted supportive supervision and on-the-job training with supervisors, CHWs, and volunteers as useful approaches to improving capacity to implement RED/REC for technical areas beyond immunization. It was also noted that while community engagement in the development of microplans helps to better capture the needs of the target population and community-level needs, there is a need to develop one common health facility microplan that includes all technical areas and incorporates all of these community-level needs to better guide interventions.

KENYA

Kenya has one of the highest burdens of diarrheal disease globally, with diarrhea as the leading cause of death among children under 5. Care seeking for diarrhea is suboptimal, with 58% of caretakers bringing their child to see a health care provider.[6] To address this issue, MCSP decided to pilot an adaptation of the RED/REC approach to improve the coverage of oral rehydration solution (ORS) and zinc in treatment of child diarrhea in high-burden catchment areas in focus subcounties.


Allan Gichigi/MCSP

Applying RED/REC to Child Health

MCSP applied the RED/REC approach to diarrheal disease case management in Kenya with the goal of increasing the number of cases of diarrhea managed using ORS and zinc. To support this effort, MCSP helped modify existing tools (e.g., RED microplanning tool, community referral tool, facility RED/REC planning and monitoring tool, community unit diarrhea tool, and facility registers) to incorporate and monitor diarrheal disease case management and trained facility in-charges, community health assistants (CHAs), and community health volunteers (CHVs) on RED/REC for diarrhea case management. From January–August 2017, MCSP supported the county and subcounty health management teams (CHMTs and SCHMTs) to apply the following components of the RED/REC strategy to diarrheal disease case management in Kenya (Table 3).

Key Stakeholders

MCSP collaborated with Migori's CHMT and SCHMTs to apply the components of the REC strategy to diarrhea case management in subcounties with the highest disease burden and in hard-to-reach areas of the county. MCSP piloted the adaptation of the RED/REC approach in selected facilities and their community health units (CHUs) using the following criteria: high workloads in maternal and child health clinics; high burden of child diarrheal disease at linked facilities, as reported in health management information system (HMIS) reports; presence of facility staff and CHVs previously trained by MCSP on the REC approach; and presence of CHVs previously trained by MCSP in integrated community case management for childhood illness. MCSP first supported the MOH to conduct a 1-day orientation on the RED/REC approach for diarrhea with health facility in-charges and CHAs from the selected facilities. This orientation was followed by a 1-day orientation—facilitated by the MOH with support from MCSP—with CHVs from participating CHUs on the use of the RED/REC approach for diarrhea case management. Upon implementation of the approach, CHVs conducted scheduled home visits; documented cases treated and cases referred, taking special note of timely referrals; provided household members with diarrhea prevention and treatment messages; and participated in integrated outreaches for cases treatment and referral. The CHAs played a pivotal role in coordinating activities—including community engagement, implementation of integrated outreach for diarrhea case treatment or referral to link facilities, and data collection—between the CHVs and facility in-charges.

Outcomes

CHMTs monitored implementation during supervision visits to determine if the six visited facilities and their communities were implementing the process as planned and observed the following:

Planning and management of resources:

- All six facility/community unit pairs conducted joint planning meetings for RED/REC for diarrheal disease case management.
- Four facility/community unit pairs completed the modified RED/REC microplan for diarrheal disease case management.[7]

Reaching all eligible populations:

- Sixty-eight percent of children received correct treatment (ORS and zinc) at one community unit.[8]

Monitoring and use of data for action:

- Identified and prioritized poor-performing districts.
- Improved completion and accuracy of some key service data.
- One facility/community unit pair collected data in a timely manner.[9]

6 Kenya National Bureau of Statistics (NBS), MOH, National AIDS Control Council (NACC), Kenya Medical Research Institute (KMRI), National Council for Population and Development (NCPD), ICF International. 2015. Kenya Demographic and Health Survey 2014. Rockville, Maryland, USA: NBS, MOH, NACC, KMRI, NCPD, ICF International.

7 During implementation, Kenya experienced a prolonged clinician and nurse strike, which resulted in closing of some link facilities included in the intervention.

8 These data are from the Kituka link health facility dispensary in the Karapolo community unit. Data from other community units were not obtained before program closure.

9 A protracted clinicians' and nurses' strike resulted in the closing of some link facilities, reduced interaction between CHAs and CHVs during implementation, and stock-out of commodities for treating diarrheal disease.

Table 3. RED/REC components applied to diarrheal disease case management in Migori County, Kenya

RED/REC Component	Activity
Planning and management of resources	• Facility in-charges conducted joint planning with community units from their respective link facilities to plan for completion of microplans for diarrheal disease case management.[10] • MCSP supported joint planning meetings for facilities and communities to collect data and create a plan for reaching the target population of children under 5 years old.
Reaching all eligible populations	• Link facility and community units compiled demographic information for the catchment population (including the under-5 population, listing of all the villages in the catchment area, and child diarrhea cases treated in and referred from the community) and mapped villages in each community health unit. • Link facility and community units drew maps of the catchment area with villages and located cases of diarrhea in each village for the previous year on these maps. • CHVs conducted scheduled visits in homes, documented cases treated and cases referred, provided household members with diarrhea prevention and treatment messages, and participated in integrated outreach for case treatment and referral. • The CHAs worked with CHVs to look for diarrhea cases and treat or refer to the link facilities.
Engaging with communities	• CHVs engaged communities and linked facility services to communities. Link facility service providers and the community connected mainly through monthly meetings during data consolidation and community dialogue meetings. • MCSP updated CHV training materials to include components of the RED approach. CHAs played a pivotal role in coordinating activities among the CHVs, community members, and facility in-charges. • MCSP facilitated dialogue days with the community, an important component to ensure high-quality implementation.
Supportive supervision	• MCSP ensured that the CHMTs and SCHMTs conducted monthly supportive supervision to check for progress of implementation.
Monitoring and use of data for action	• MCSP mentored CHAs on the data consolidation process and supervised them in collaboration with the CHMT/SCHMT teams. • The health facility in-charge, CHA, and the CHVs organized monthly meetings to consolidate diarrhea data from the village.

Abbreviations: CHA = community health assistants; CHMT = county health management team; CHV = community health volunteer; SCHMT = subcounty health management team

Key Lessons Learned

Exploring the adaptation of RED/REC to diarrheal disease management occurred over the period of 8 months, with the first 4 months spent on planning and gaining consensus among key stakeholders. Despite this short implementation period, the team remarked that the use of RED/REC for child diarrhea interventions is particularly effective in an environment where there exists already a strong community services platform where CHVs conduct frequent home visits. When CHVs were distracted from conducting home visits by competing priorities, as they were due to an ongoing malaria indoor residual spraying program, engagement at the community level was not as strong. A longer implementation period to test the adaptation concept more adequately was advised to allow for concrete results and conclusions to be observed.

10 In Kenya, each community health unit is "linked" to a specific health facility—called a link facility—which offers services to the community health unit. A community health unit is a health service delivery structure within a defined geographical area that is assigned five community health extension workers and CHVs who offer promotive, preventive, and basic curative health services. For more information, see the website, Kenya Health Facility Master List.

UGANDA

Despite progress in Uganda toward reducing childhood mortality, the country still suffers from high rates of under-5 mortality. Inadequate and inequitable coverage of lifesaving child health interventions contribute to low rates of health seeking and treatment coverage. Only 30% of children who experienced diarrhea received the recommend treatment of ORS or zinc tablets, and 55% of all children ages 12–24 months were fully immunized at the time of the 2016 Demographic and Health Survey.[11] A 2017 assessment by MCSP found that only 30% of children with suspected pneumonia received an appropriate antibiotic. With support from MCSP, the MOH Child Health Division and two of USAID's recently awarded Regional Health Integration to Enhance Services (RHITES) project partners in East Central and South Western regions revised and implemented the essential child health package to include interventions with the greatest potential to lower rates of child mortality. Applying lessons learned from the successful implementation of RED/REC to strengthen routine immunization in Uganda, MCSP supported the MOH to apply the approach to other child health interventions.

Bryan Tumusiime/MCSP

Applying RED/REC to Child Health

At the national level, MCSP collaborated with the MOH and RHITES implementing partners to adapt existing RED/REC practices and tools for application to other areas of child health. MCSP, with partners, adapted existing immunization tools, including tools for mapping the health facility catchment area; sketching the health facility catchment area map; and planning, scheduling, and allocating resources for service delivery. At regional and district levels, MCSP

Table 4. RED/REC components applied to child health at the district level in four MCSP-supported target districts in Uganda

RED/REC Component	Activity
Planning and management of resources	• MCSP provided support to district technical and political leaders to review health facility catchment areas and to redefine and reallocate staff where necessary to ensure that the size and population of each catchment area are aligned with facility capacity. • MCSP helped these same leaders to use national census data to estimate the total catchment area population for each health facility and use this information to determine the target numbers of children to be reached with relevant essential child health interventions.
Monitoringand using data for action	• District leaders used a child health scorecard to visualize the performance of each health facility on selected child health interventions. The child health scorecard utilizes color-coding to indicate the performance of each health facility across indicators. • They also used simple problem-solving tools, such as the "why why" diagram, to identify the root causes of poor access to services, particularly among underserved communities, and develop locally appropriate solutions.

11 Uganda Bureau of Statistics (UBOS), ICF. 2018. Uganda Demographic and Health Survey 2016. Kampala, Uganda, and Rockville, Maryland, USA: UBOS and ICF.

supported capacity-building for district health management teams (DHMTs) and health facility managers through training, mentorship, and provision of tools to apply RED/REC to other child health interventions. MCSP oriented district technical and political leaders to the common goals of increasing the provision and utilization of child health interventions and creating a common understanding of how RED/REC can help to achieve this goal. In particular, with MCSP support, the DHMTs and health facility managers applied RED/REC to other child health interventions (Table 4).

MCSP and RHITES supported staff at the health facility level to work with village health teams (VHTs) in the community to use the adapted RED/REC approach and tools. Specific actions taken are outlined below in Table 5.

Key Stakeholders

At the national level, MCSP collaborated with the MOH Child Health Division and RHITES implementing partners to facilitate adaptation of existing RED/REC practices and tools for application to other child health interventions. The adaptation process involved consultative meetings with key stakeholders, including technical staff from the Uganda National Expanded Programme on Immunization, as well as international and local civil society organizations engaged in promoting child health interventions and applying RED/REC components to other RMNCAH interventions. All RED/REC components and some of the existing RED/REC immunization tools were adapted, including the tools for mapping the health facility catchment area; sketching the health facility catchment area map; and planning, scheduling, and allocating resources for service delivery. At regional and district levels, MCSP worked with the MOH and RHITES implementing partners to support and build the capacity of DHMTs and health facility managers through training, mentorship during activity implementation, and provision of tools.

Outcomes

MCSP worked with the MOH to apply the RED/REC approach from January 2017 through December 2018 in 134 of 151 health facilities in four demonstration districts (Luuka, Kaliro, Sheema, and Ntungamo). During that period, the application of RED/REC to other child health interventions beyond immunization was associated with the following:

Planning and management of resources:

- Over 60% of target facilities developed micromaps of their catchment areas.
- Improved decision-making on priorities and allocation of resources for health facility- and community-based service delivery. Feedback from stakeholders during quarterly program review and reflection meetings indicated that applying the RED/REC approach to other child health interventions was well received by managers at the health facility and district levels. According to participants in those meetings, RED/REC improved the guidance provided to and decision-making by health facility staff who support child health outreach services and VHTs, particularly in the allocation of resources for both health facility and community service delivery. The participants in those meetings also shared that RED/REC made the priority interventions that should be promoted and offered to all children clearer to the district and health facility managers.

Table 5. RED/REC components applied to child health at the health facility level in four MCSP-supported target districts in Uganda

RED/REC Component	Activity
Planning and management of resources	• Mapped all villages in each health facility's catchment area, and with communities, conducted head counts of all children in each village, together with information on coverage of selected child health interventions using VHT registers.
Reaching all eligible populations	• Determined target populations for the essential child health package in each village, identified needs, and reorganized service delivery, inclusive of health education, to reach underserved villages and children.
Engaging with communities	• Mapped all key people in the community who need to be engaged to promote uptake of the essential child health package.
Monitoringand use of data for action	• Used quarterly meetings with VHTs to update and use community data to monitor the coverage of selected child health interventions. • Used basic problem-solving tools to develop their own solutions and use resources available to the facility/community to increase coverage.

Abbreviation: VHT = village health team

> "Our health facilities have been going for outreaches and serving only one to two children. Using my knowledge of the REC, I instructed the health facility in-charges to move their outreaches to villages, which are farther away from the health facility and where communities have to travel longer. ….The health facilities who followed through with this instruction are now getting more than 50 children when they go for an outreach visit. REC helps us to appreciate and understand where the underserved communities are likely to be and how to target our outreach activities to reach them."
>
> –Ruth Nafuula, assistant district health officer, maternal and child health, Luuka District, East Central Uganda

- The positive subnational experience applying RED/REC to other child health areas informed the drafting of a national guide on using catchment area mapping, planning, and action for RMNCAH services. Furthermore, the MOH has engaged UNICEF for support to use this approach to improve the reach and expected outputs of Family Connect, a mobile technology platform used for registering and sending targeted health education messages to pregnant women and lactating mothers.[12] A final draft of the guide, which integrates Family Connect into the existing draft, was not available at the time of developing this documentation. The final guide is expected in September 2019.

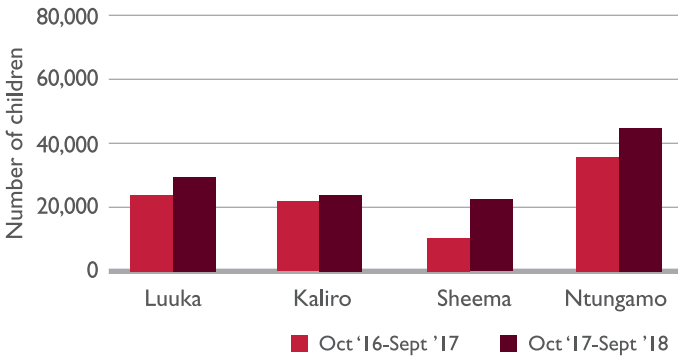
Reaching all eligible populations:

- Increased uptake of child health interventions. For example, the number of children reached with vitamin A supplementation and deworming increased across four demonstration districts, with the largest gains in districts that held more VHT meetings and supported more VHT activities. For example, adaptation of the approach to child health in Uganda increased the number of children reached with vitamin A supplementation across four demonstration districts from 92,878 in October 2016–September 2017 to 121,736 in October 2017–September 2018 (Figure 2). The adaptation of the approach also resulted in an increase of the number of children who received deworming across four demonstration districts from 147,753 in October 2016–September 2017 to 181,176 in October 2017–September 2018 (Figure 3). Support for VHT meetings and activities was influenced by local leadership, health facility manager support and commitment, and availability of additional resources to support VHT activities from external funders.

Monitoring and use of data for action:

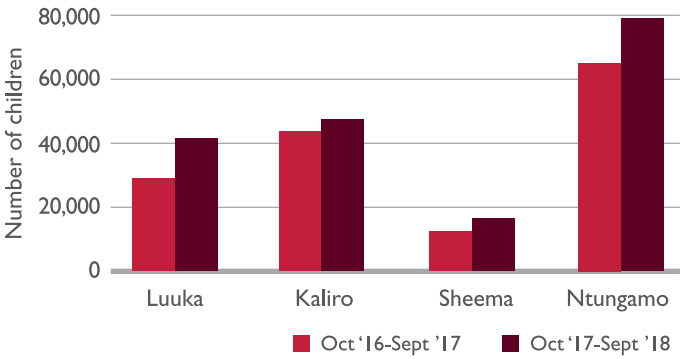
- Half of the target facilities were conducting VHT quarterly review meetings aimed at using data to improve service targeting and engagement of stakeholders.
- Applying RED/REC practices to other child health interventions helped health managers at district and health facility levels to appreciate and use their data, recognize and address gaps in coverage, and identify underserved communities and strategies for reaching them.

Figure 2. Number of children who received vitamin A in four "demonstration" districts in Uganda (2016/2017 versus 2017/2018)



Data source: DHIS2

Figure 3. Number of children who received deworming in four "demonstration" districts in Uganda (2016/2017 versus 2017/2018)



Data source: DHIS2

12 UNICEF has approved and allocated funding for implementation of the approach to roll out Family Connect during the financial year 2019/2020 in six districts of Karamoja region—Napak, Nakapiripirit, Moroto, Kotido, Amudat,, and Nabilatuk; Bugiri District in East Central region; and Nwoya District in North Acholi Region. UNICEF will support the finalization of the guide.

Key Lessons Learned

The systematic testing of applying the RED/REC approach to child health in Uganda yielded lessons around the feasibility of adaptation. Overall, the team in Uganda found that adaptation of RED/REC to other child health interventions is feasible, and experience in the demonstration sites indicates that it has the potential to increase coverage. Shifting the mindset of health workers to introduce and implement RED/REC for child health took time, but sharing the efforts and successes of early adopters of the approach motivated others to try it out. The team also noted that while RED/REC creates a culture of data use from the point of generation, the existence of HMIS data on child health coverage bolsters the feasibility and sustainability of adapting the RED/REC components. Finally, it was noted that adequate allocation of local resources for community activities is key for effective implementation, particularly because conducting headcounts and regular review of data collected at community level by health facilities and CHWs is key for identifying and developing plans to reach all eligible children and underserved populations. It was observed that health facility managers and district leaders who understood and committed to the RED/REC goal of "reaching every child" increased their allocation of funds for community activities.

For more details and results on this experience in Uganda, please read the technical brief Increasing Coverage of Child Health Interventions in Uganda Using the Reaching Every District/Child Approach.

Box 2. A short illustration of how microplanning can increase the coverage and equity of other health services in Mozambique[13]

- In Mozambique, MCSP supported the MOH to transition from vitamin A supplementation (VAS) campaigns to routine child health services in 2016. The majority of the population (approximately 60% of the total population) resides in rural areas, with mobile brigades delivering VAS, deworming, immunization, FP, and other interventions to communities—especially to hard-to-reach populations. To increase the coverage and equity of VAS in these areas, MCSP helped the MOH to train 146 health care workers to apply the RED/REC microplanning approach to extend outreach services and target hard-to-reach populations with VAS, using the MOH RED/REC guide in Nampula and Sofala provinces.
- Stakeholders reported that detailed microplanning by health care workers—in collaboration with community nutrition activists and volunteers—helped to identify and map target populations, estimate qualities of VAS supplies needed, and plan mobile outreaches effectively. Community nutrition activists and volunteers played a key role in mobilizing community members to attend mobile brigades and benefit from the mobile services offered, including VAS. Furthermore, during the national measles and immunization campaign, which took place in quarter 3 (Q3) project year 2 (PY2), nutrition activists administered VAS to eligible children. Applying microplanning to VAS—in addition to strengthened nutrition implementation in Mozambique—resulted in the supplementation of 1,007,569 children with vitamin A in the second half of PY2. These results reflect routine health facility and community data in both integrated and intensive support sites, as well as VAS data from the national measles and rubella immunization campaign that was carried out in PY2 Q3.
- While the adaptation of RED/REC in Mozambique was not a systematic effort and documentation, MCSP noted the following as some promising lessons that may be useful for future adaptation. For example, the team highlighted that adopting microplanning helped to identify hard-to-reach areas for VAS, resulting in improved planning for VAS service delivery through integrated mobile brigades. Linked to this, teams were better able to plan their vaccine and VAS supply needs; adequate supplies of both commodities at service delivery sites at the same time increased uptake and resulted in greater convenience for caregivers. Furthermore, community engagement was noted as a key component for VAS uptake. Within the Mozambique context specifically, the involvement of community nutrition activists and volunteers played a critical role in mobilizing for VAS uptake alongside other community-based nutrition interventions (i.e., infant and young child feeding counseling, cooking demonstration, and referral and counterreferral for acute malnutrition).

13 Picolo M, Barros I, Joyeux M, et al. 2019. Rethinking integrated nutrition-health strategies to address micronutrient deficiencies in children under five in Mozambique. Matern Child Nutr. 15 Suppl 1:e12721. doi: 10.1111/mcn.12721.

ENABLING FACTORS FOR APPLYING THE RED/REC APPROACH

Fostering Buy-In at All Levels of the Health System

Fostering buy-in and commitment from stakeholders at all levels of the health system supported adaptation and application of the RED/REC approach to areas beyond immunization. To build high-level commitment, relevant stakeholders should be engaged in participation, consensus building, and regular monitoring meetings. In Uganda, commitment to a common goal by health facility managers and district leaders resulted in increased allocation of local resources to support RED/REC and community activities.

In Haiti, MCSP and other partners advocated for the DDS to adapt RED/REC to other health areas. MCSP sensitized various departmental heads (such as the director of maternal health and community health) on the benefits of RED/REC through workshops that were convened by the head of the DDS.

Supporting Health Care Providers

For the RED/REC strategy to be successfully applied to non-immunization health areas, frequent, one-on-one coaching, mentorship, and supportive supervision for facility providers and CHWs are vital. Providers already trained in RED/REC for immunization were able to easily apply the strategy to other health areas, like in Kenya and Haiti. Providers who work in technical domains beyond immunization must be encouraged to adopt and take ownership of this strategy if they are to apply it to other health areas. For example, in Uganda, sharing the successes of early RED/REC adopters in district quarterly review meetings motivated other managers to adopt and implement the RED/REC approach. According to participants in those meetings, RED/REC improved the guidance provided to and decision-making by health facility staff who support child health outreach services and VHTs, particularly in the allocation of resources for both health facility and community service delivery. The participants in those meetings also shared that RED/REC made the priority interventions that should be promoted and offered to all children clearer to the district and health facility managers. Also in Uganda, continuous support and mentoring of health facility managers' use of service data to track and improve child health coverage highlighted the results implementation of this strategy could have in addressing their longtime challenges. The associated improvements supported a shift in the mindset of health workers to view themselves as accountable for every child in the catchment area.

Engaging Communities

In Haiti, Kenya, and Uganda, as shown above, greater community involvement meant improved quality of implementation, service coverage, and equity (reaching the population that was previ-

ously unreached). Furthermore, community engagement is a critical enabler for successfully adapting the RED/REC approach to any health area. Engaging communities can result in collection of more accurate mapping and beneficiary data, increased care seeking for health services, and strengthened linkages between communities and facilities. As described above, community engagement in Haiti resulted in better identification of target groups, and subsequently better coverage of target groups and improved planning and availability of supplies and service delivery. In addition, CHWs brought long-term FP options to women where they live, resulting in increased client uptake. To strengthen linkages between services and communities, MCSP encouraged Haitian CHWs to refer pregnant women for ANC services at nearby facilities and motivate traditional birth attendants to do the same. In Kenya, CHVs and CHAs facilitated community engagement and linkages with the community, resulting in improved quality of implementation. In Uganda, districts with greater VHT engagement saw the greatest improvements in outcome indicators because conducting headcounts and regular review of data collected at community level by health facilities and CHWs were key for identifying and developing plans to reach all eligible children and underserved populations.

Using Data to Improve Planning and Targeting of Beneficiaries

- Across all country experiences, the use of accurate population data to develop local, context-specific microplans was crucial to planning resources and providing equitable services for hard-to-reach populations. For example, in Haiti, MCSP conducted performance review workshops to introduce the RED/REC strategy to maternal and newborn health providers and community health teams, using data to identify and prioritize poorer-performing facilities.
- Training district-, facility-, and community-level staff on the RED/REC approach created a culture of data use at the source of generation, which stands in contrast to the usual practice of collecting data solely for the purpose of submission to the district and national levels. In Haiti, adaptation of the RED/REC approach improved the use and completion of health registers. In Uganda, health managers at district and health facility levels learned to appreciate and use their data, recognize and address gaps in coverage, and identify underserved communities and strategies for reaching them.
- It requires time and adequate technical support to create a culture of data use in which health facility staff become comfortable with and value the tracking of data, and feel empowered to use it in making decisions about how to improve services.

CHALLENGES TO IMPLEMENTATION

Reporting Timeliness and Accuracy

In Haiti, MCSP found that while immunization data were largely available, data for other service areas were not always available or up to date during the monthly monitoring and evaluation review meetings. Kenya also reported poor data quality and timeliness of reporting as implementation challenges, despite use of adapted data tools. Uganda noted that the existence of HMIS data on child health coverage bolstered the feasibility and sustainability of adapting the RED/REC components. Parallel tools and processes for data collection are required for those interventions not yet tracked in the HMIS.

Community Engagement

The community engagement component of the RED/REC approach is vital. For example, conducting headcounts and regular review of data collected at community level by health facilities and CHWs help to identify and develop plans to reach all eligible children and underserved populations. However, in Kenya, the reliance on a volunteer cadre of health workers was found to be a challenge because CHVs had competing priorities (e.g., malaria indoor residual spraying) that took them away from regular household visits, and they were not supervised. In Uganda, effective implementation of these community-based activities was hampered by use of volunteer community structures and inadequate allocation of resources for their activities by health facility managers. Some health facility managers in the intervention districts have proactively allocated primary health care grant funds for community engagement activities, as recommended in the national primary health care grant guidelines. However, the lack of transparency in the use of primary health care funds remained a major barrier to allocating resources for community engagement activities.

RECOMMENDATIONS

MCSP suggests that MOHs and their implementing partners consider the following recommendations:

- Getting buy-in across sectors and levels in the health system takes time and effort. To ensure the support for adapting and applying the tools and approaches, targeted orientation of stakeholders must be undertaken in advance. Stakeholders must have the opportunity to explore and identify what may be applicable or useful to their context.
- Using RED/REC practices to improve the management and delivery of other health services requires a shift in the mindset of health workers from viewing themselves as accountable only to those children and their caregivers who come for facility- and outreach-based services to being accountable for every child in the catchment area. This shift takes time and requires continuous support and monitoring of health facility managers' use of service data to track and improve child health coverage in the whole catchment area.
- CHWs should be engaged to capture community-level needs and identify the target population. In addition, adequate resources should be allocated for community engagement activities, including head counting, household registration of all children under 5, and regular joint review of service delivery and coverage data to achieve the goal of reaching underserved communities with evidence-based child health interventions.
- If external funding for community engagement is to be used, it should be structured in a way that enhances, rather than replaces, the proper and effective use of local resources allocated for this purpose.

- Sufficient time and support should be allocated to develop a data use culture that encourages health managers to use catchment area and service delivery data to improve coverage.
- Long-term planning and forecasting will help, but broader health systems issues, such as lack of commodities, lack of or failure to allocate resources, and frequent health worker strikes, need to be addressed at a sectorwide management level.

CONCLUSION

The documentation of the various countries experiences in adapting the RED/REC approach to other health areas is an important step in exploring and learning how this approach can be used to achieve high uptake of RMNCH services. Further systematic study is needed to determine the adaptation processes, enablers, tools, and pathways for decision-making about what to use the RED/REC approach for and where it may be applied. What has been learned to date from implementation by MCSP country programs gives rise to questions that could be systematically explored in the future. Examples of areas for further learning include:

- Implications for financial management at peripheral levels and how to achieve efficiencies that benefit multiple health in ter-ventions.
- Systematic measurement—including the identification of indicators that are appropriate for monitoring processes related to adaptation—recording, and reporting of outcomes for the different interventions; as well as how to both share and interpret data across programs involved in the adaptation of RED/REC.
- Clarification of revised responsibilities for members of district health teams and health facility managers.
- Streamlining the supply chain to ensure the availability of all commodities.

Overall, the experiences documented in MCSP-supported areas highlight the potential use of the RED/REC approach to strengthen district management planning for RMNCH, identify and reach underserved populations, and reduce missed opportunities for accessing RMNCH services and information.

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