Increasing Coverage of Child Health Interventions in Uganda using the Reaching Every District/Child Approach

Key Findings and Results

- The application of RED/REC to other child health interventions beyond immunization was associated with increased uptake of the child health interventions.
- Applying RED/REC practices to other child health interventions helped health managers at the district and health facility levels to appreciate and use their data, recognize and address gaps in coverage, and identify underserved communities and strategies for reaching them.
- The sub-national experience of applying RED/REC informed the drafting of a national guide on using catchment area-based planning and action for reproductive, maternal, newborn, child, and adolescent health (RMNCAH) services.

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INTRODUCTION

From January 2017 to December 2018, the United States Agency for International Development's (USAID) flagship Maternal Child Survival Program (MCSP) worked with the Ugandan Ministry of Health (MOH) and two of USAID's recently awarded Regional Health Integration to Enhance Services (RHITES) projects to identify, demonstrate, cost, and document a package of "essential" low-cost, high-impact child health interventions.

A Village Health Team member encourages mothers with newborns to go to a newly opened health center in East Central Uganda. MCSP / Kate Holt

This brief focuses on MCSP's experience adapting and applying the Reaching Every District/Reaching Every Child (RED/REC) approach, which was first used successfully in immunization, to enhance the population's equitable and sustainable access to a broader package of child health interventions. RED/REC is the most recent iteration of the World Health Organization's (WHO) RED approach, which aims to improve the planning and management of resources, quality and reliability of service delivery, linkages between health facilities and communities, active monitoring and use of data, as well as supervision and mentoring of health workers. RED/REC was adopted in Uganda in 2003 and it has successfully strengthened immunization systems at health districts, sub-districts, and community level across the country.

UGANDA'S CHILD HEALTH SITUATION

Uganda's 2016 National Demographic Health Survey (DHS) showed a marked reduction in childhood mortality between 2000 and 2015 (from 132 to 64 per 1,000 live births); however, this reduction was not enough to reach the Millennium Development Goal (MDG) target that called for a two-thirds reduction in under-five mortality before the end of 2015. Inadequate and inequitable coverage of low-cost, high-impact child health interventions are considered important underlying contributors to the shortfall against the 2015 MDG target. According to the 2016 DHS, only 30% of children under age five who experienced diarrhea in the two weeks preceding the survey received the recommended treatment of oral rehydration salts (ORS) and zinc tablets, and only 55% of children were fully immunized. MCSP's child health baseline assessment in early 2017 also found that the proportion of children with suspected pneumonia who received an appropriate antibiotic was as low as 30% in the program's demonstration districts.

OPERATIONALIZING THE ESSENTIAL CHILD HEALTH PACKAGE

The Government of Uganda's Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH) Sharpened Plan calls for scaling up a robust package of evidence-based child health interventions. Given the limited resources available at the national level, MCSP worked with the MOH Child Health Division at the national level, and the RHITES partners in the East Central and South Western regions, to further prioritize, or "lighten", the child health package. In this process, interventions suggested by the RMNCAH Sharpened Plan were given priority based on their links to the most common childhood illnesses and their impact on under-five mortality. This streamlined essential child health package was introduced in four demonstration districts - Luuka and Kaliro districts in the East Central and Sheema and Ntungamo districts in the South Western regions - and 134 total health facilities. MCSP provided both hands-on and above-site technical support to the RHITES partners and the District Health Management Teams. MCSP closely monitored implementation to determine the uptake of the adapted RED/REC practices, their preliminary results and the lessons learned with the essential child health package itself. Table 1 highlights the elements of the essential child health package that MCSP helped to roll out with RHITES partners, by level of care.

Table 1. Elements of the essential child health package supported by MCSP, the MOH and RHITES at health facility and community levels.

Level	Elements
Health facility (all levels)	• Appropriate antibiotics for pneumonia cases • ORS and zinc for diarrhea • Artemisinin-based combination therapy for malaria cases • Assessment and counseling for nutrition • Assessment and counseling for HIV testing • Assessment and timely initiation of treatment for suspected tuberculosis cases • Assessment and counseling on early childhood responsive caregiving and cognitive stimulation • Assessment and counseling for healthy timing and spacing of births • Basic immunization (including the pentavalent vaccine, the pneumococcal conjugate vaccine, and vaccines for measles and rotavirus)
Community	• Basic immunization (including the pentavalent vaccine, the pneumococcal conjugate vaccine, and vaccines for measles and rotavirus) • Use of insecticide-treated bed nets • Vitamin A supplementation • Deworming treatment • Access to safe and improved sanitation facilities • Access to hand-washing facilities

WHY ADAPT RED/REC TO CHILD HEALTH INTERVENTIONS?

The 2017 WHO publication *Reaching Every District (RED) - A guide to increasing coverage and equity in all communities in the African Region*[1] recommended RED/REC as a platform for improving delivery of other primary healthcare services. This followed an evaluation by WHO and its partners of RED implementation in nine countries, the results of which showed improved coverage in eight of the nine countries, an increase in the number of immunization outreach sessions in all districts visited in the nine countries, and more frequent supervision of immunization providers in seven of the nine countries. MCSP's experience in Uganda also showed that building the capacity of districts and health facilities to apply the RED/REC components improved the use of data for planning and improved service delivery, including the number of immunization outreaches conducted and number of villages reached with immunization services. The standard RED components include:

- **Planning and management of resources** using catchment area information to improve precision in forecasting and targeting of human, material, and financial resources. Detailed information on the location, size, and socio-demographic characteristics of the population determines the services needed and when and where they should be delivered.
- **Reach all eligible populations** to improve access and use of immunization and other health services by all children, adolescents and adults. This component emphasizes identifying and focusing on underserved children and targeting them with appropriate service delivery strategies, while continuously monitoring their access to services and adjusting strategies to ensure that services reach them.
- **Engage communities** to promote and deliver immunization services that meet local needs and expectations.

[1] Available online: https://afro.who.int/sites/default/files/2018-02/Feb%202018_Reaching%20Every%20District%20%28RED%29%20English%20F%20web%20v3.pdf

- **Conduct supportive supervision** for regular on-site mentoring and capacity building, feedback, and follow-up with health workers.
- **Monitoring and use of data for action** at all levels to direct the program by measuring progress, identifying areas needing specific interventions, and making practical revisions to plans.

PROGRAM APPROACHES

MCSP used an iterative process to adapt and continuously learn how best to apply the components of the RED/REC approach to other child health interventions.

National level

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 Immunisation, as well as international and local civil society organizations engaged in promoting child health interventions and applying RED/REC components to other RMNCAH interventions. The process built on lessons learned from using RED/REC for routine immunization and explored which RED/REC tools/components were best suited for adaptation, and how to implement them to improve coverage of additional child health 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.

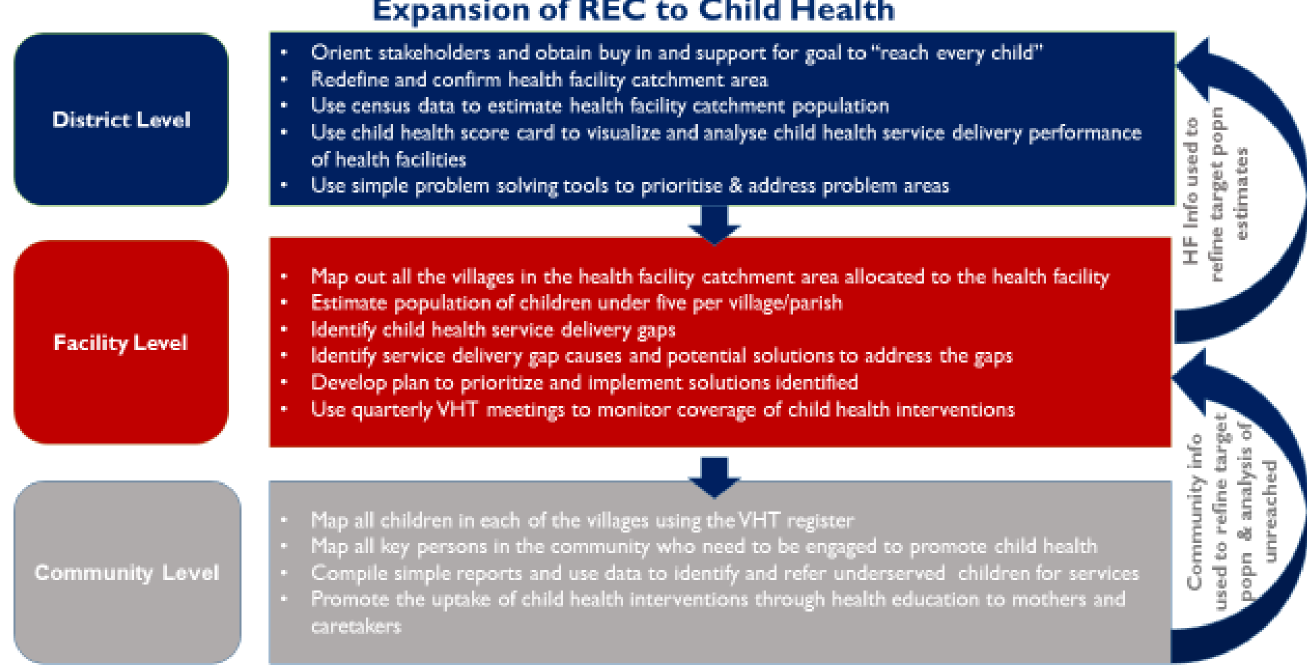
Sub-national level

Figure 1 illustrates the approach that MCSP used to implement RED/REC for child health at the various sub-national levels in the demonstration districts. At the **regional and district level**, MCSP worked with the MOH and RHITES implementing partners to support and build the capacity of District Health Management Teams (DHMTs) and health facility managers through training, mentorship during activity implementation and provision of tools. With MCSP support, the DHMTs and health facility managers applied RED/REC to other child health interventions by:

- Orienting district technical and political leaders about the common goal of increasing the supply and utilization of child health interventions, and creating a common understanding of how RED/REC can help to achieve this goal;
- Supporting the same leaders to review health facility catchment areas and to redefine and reallocate staff where necessary to ensure that the size and population of each area is aligned with facility capacity;
- Using national census data to estimate the total catchment area population for each health facility, and using this information to determine the target numbers of children to be reached with relevant essential child health interventions;
- Using a child health scorecard to visualize the performance of each health facility on selected child health interventions. The child health scorecard (described in a *separate technical brief*) utilizes color-coding to indicate the performance of each health facility across indicators.
- Using simple problem solving tool such as the "why-why" diagram[2] to identify local solutions to the root causes of poor access to services, particularly among underserved communities.

[2] A diagram that helps to visualize a problem or conditions' root causes allowing then to truly diagnose the problem rather than focusing on the symptoms.

Figure 1. Approach to RED/REC Implementation for Child Health



At the **health facility level,** MCSP and RHITES supported staff to work with village health teams (VHTs) to use the adapted RED/REC approach and tools to:

- Map all villages in each health facility's catchment area, and with communities, conduct head counts of all children in each village, together with information on coverage of selected child health interventions using VHT registers;
- Determine target populations for the essential child health package in each village;
- Identify needs and re-organize service delivery, inclusive of health education, to reach underserved villages and children;
- Map all key persons in the community who need to be engaged to promote uptake of the essential child health package;
- Use basic problem-solving tools to develop their own solutions and use resources available to the facility/community to increase coverage;
- Use quarterly meetings with VHTs to update and use community data to monitor the coverage of selected child health interventions.

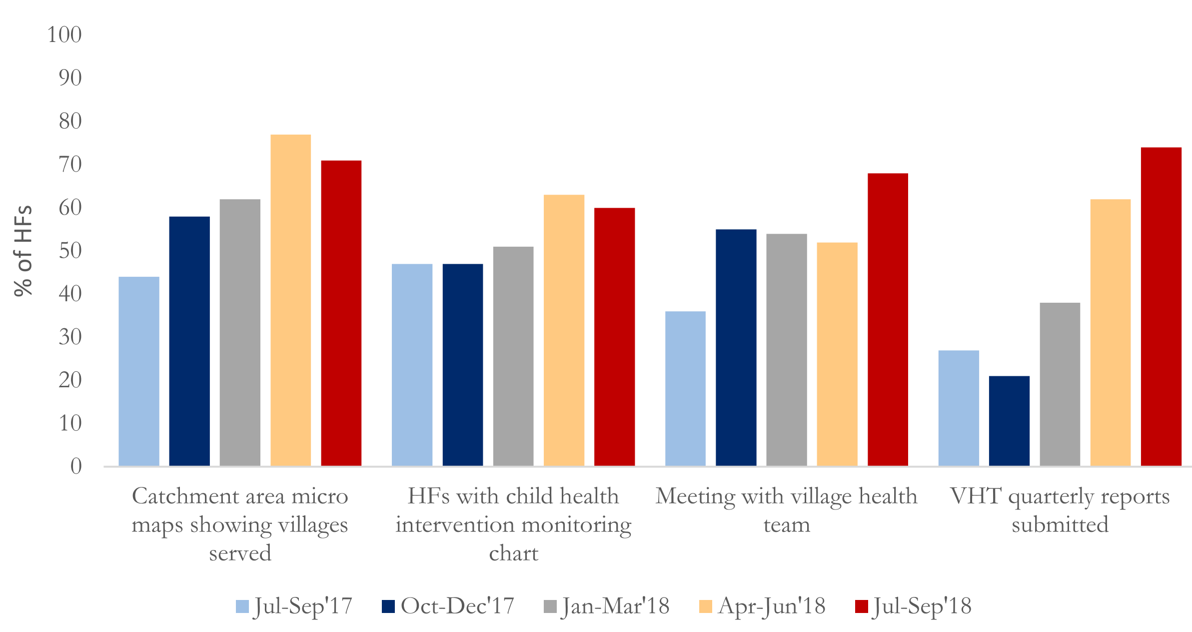
Staff and VHTs from Buyinda Health Center Level II, a MCSP-supported health facility, review their RED/REC micro-map. MCSP / Bryan Tumusiime

RESULTS

RED/REC practices adopted for child health

Between July 2017 and September 2018, the proportion of facilities implementing the RED/REC practices adapted for child health increased. Figure 2 shows the uptake of select RED/REC practices by 137 health facilities supported by MCSP and RHITES in the four demonstration districts. Notably, by June 2018, at least 60% of all health facilities were implementing the RED/REC practices. Over three-quarters of facilities had developed micro-maps of their catchment areas, and over half were conducting VHT quarterly review meetings aimed at using data to improve service targeting and engagement of stakeholders. Health facilities are supposed to update their micro maps and monitoring charts at the start of the government financial year in July using annually generated district population figures. The proportion of facilities with updated catchment area maps and child health monitoring charts displayed declined for the period of July to September 2018 as a result of delays in obtaining the revised population targets from the districts.

Figure 2: Implementation of adapted RED/REC practices in 137 facilities in MCSP demonstration districts (Luuka, Kaliro, Ntungamo and Sheema), July 2017–September 2018.



Source: MCSP Uganda CH routine health facility assessments, 2017/18.

Contribution to improved leadership, management, and decision-making for delivery of essential child health interventions

MCSP, RHITES and the DHMT used orientation on the RED/REC approach as an opportunity to revisit and reinforce the role of health facility managers as leaders responsible for reaching all children, and therefore being accountable for coverage of the essential child health package in their catchment areas. They emphasized the importance of using health facility catchment area information collected in collaboration with community members to identify and prioritize underserved villages for outreach services and other targeted interventions. Applying RED/REC for other additional child health interventions also fostered leadership through recognition and support of high performers.

> *"Our health facilities have been going for outreaches and serving only 1-2 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 MCH, Luuka district, East Central Uganda*

Feedback from stakeholders during quarterly program review and reflection meetings in the four demonstration districts 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. On the basis of this positive sub-national experience, the MCSP team, in collaboration with the MOH Child Health Division and the Uganda National Expanded Programme on Immunisation drafted a national guide on using catchment area-based planning and action to improve RMNCAH results. The MOH has engaged the UNICEF country office to support national dissemination and initial implementation of the guide.

Coverage of select child health interventions during the implementation of RED/REC practices

The intended goal of applying RED/REC was to increase the coverage of essential child health interventions. Figures 3a-b show the number of children reached across the four demonstration districts with two interventions from the essential child health package, namely vitamin A supplementation and deworming. Overall, the number of children reached with the two interventions increased for the period from October 2017 to September 2018 (2017/2018) compared to the prior 12-month period (2016/2017). The additional number of children reached for the two interventions varies with the size of the total population in the district, with Ntungamo district having the highest population of 544,400 seeing the largest increase, and Kaliro district with a population of only about 90,000, seeing many fewer additional children during the intervention period. Districts with better rates of convening VHT meetings and supporting VHT activities, such as Sheema, Luuka and Ntungamo district, realized higher gains. Support for VHT meetings and activities was largely influenced by local leadership and health facility manager support and commitment, as well as the availability of additional resources to support VHT activities from external funders, which was the case for Sheema and Ntungamo districts.

Figure 3a. Number of children that received vitamin A in four "demonstration" districts (2016/2017 vs. 2017/2018)

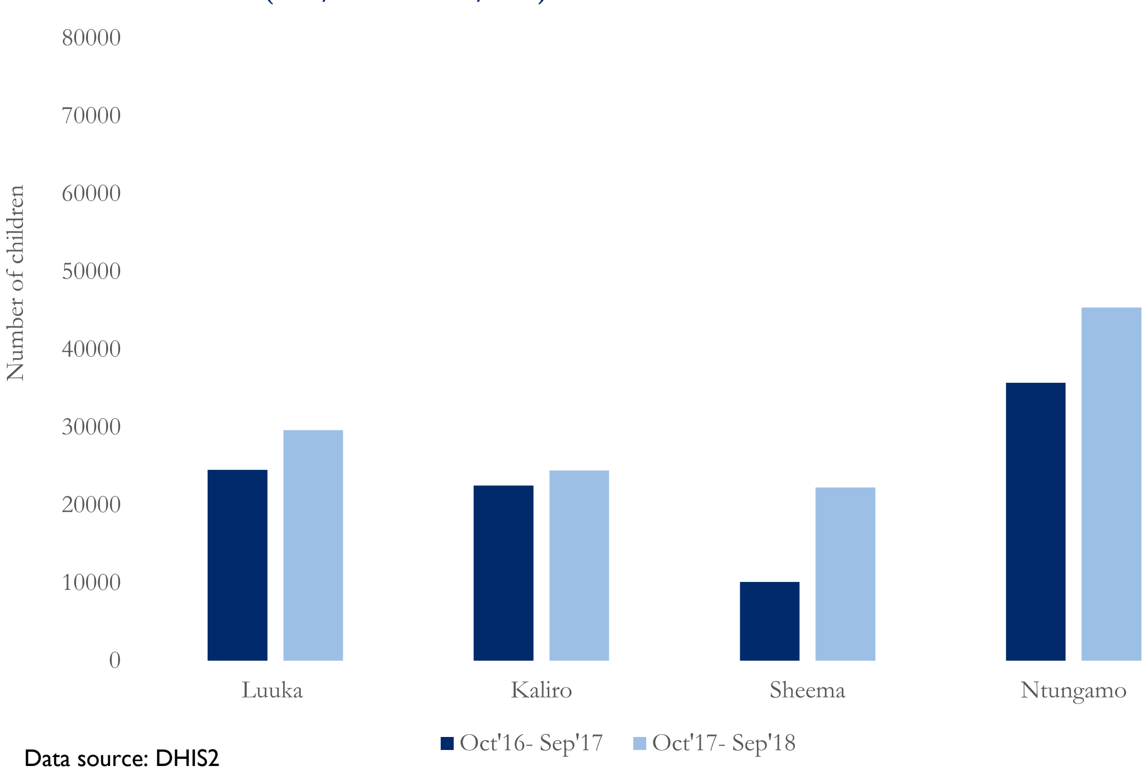
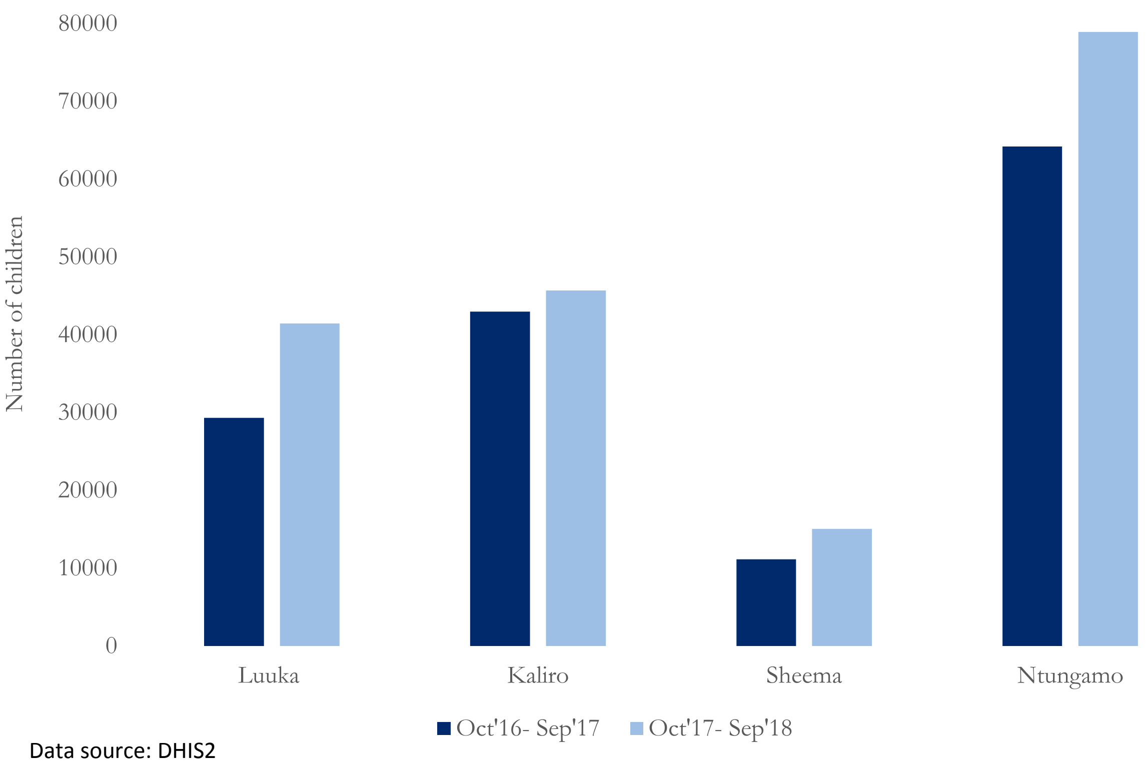


Figure 3b. Number of children that received deworming in four "demonstration" districts (2016/2017 vs. 2017/2018)



Data source: DHIS2

There was significant variation between districts and health facilities with respect to the timing of the introduction of the intervention; the ability of health personnel to understand and apply RED/REC concepts to improve the targeting of communities and services; and the willingness/ability of health facility managers to allocate resources available to them through their primary health care (PHC) grants for community and VHT engagement activities. The variation in timing of the introduction arose from competing activities that affected when each DHMT was available to participate in RED/REC orientation. Districts with strong political and technical leadership were more likely to commit resources for VHT activities.

Some proportion of these improvements in coverage could be attributed to other interventions, including Child Health Day campaigns that take place in April and October of each year. The poor quality of data from the health management information system (HMIS) affected our ability to estimate coverage, in general, as well as the potential contribution of RED/REC for child health to coverage gains. Key challenges facing health facility managers identified during district and health facility site visits and meetings included: understanding and improving the quality and use of HMIS data to better track the children reached; ensuring that data in their registers, reports, and the national District Health Information System 2 (DHIS2) database accurately reflected coverage; and improper use and resistance to using PHC funds to support community work (especially in districts with previous or current donor support for community activities).

LESSONS LEARNED

- **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**: It is feasible to adapt RED/REC processes and tools to improve access to child health interventions. Adapted RED/REC processes and tools improve the coverage of interventions, particularly those linked to the provision of commodities and/or services.
- **A shift in the mindset of health workers is required to successfully introduce RED/REC for child health**: Using RED/REC practices to increase coverage requires a shift in the mindset of health workers from viewing themselves as accountable only to those children 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.
- **Sharing the efforts and successes of early adopters motivates others to try RED/REC practices**: Sharing the successes of early RED/REC adopters motivated other managers to adopt and implement them. These were shared during VHT and district quarterly review meetings.
- **Existence of HMIS data on child health coverage bolsters the feasibility and sustainability of adapting the RED/REC components.** Monitoring and use of data for action, one of the RED/REC components, is more feasible and sustainable for the essential child health interventions that are already tracked in the national HMIS. Parallel tools and processes for data collection are required for those interventions not yet tracked using the HMIS**,** which calls for additional resources and limits the sustainability of these interventions.
- **Adequate allocation of resources for community activities is key for effective implementation**: Conducting headcounts and regular review of data collected at community level by health facilities and community health workers is key for identifying and developing plans to reach all eligible children and underserved populations. Effective implementation of these activities is hampered by use of volunteer community structures and inadequate allocation of resources for these activities by health facility managers. Some health facility managers have been responsive in allocating funds from PHC grants, as recommended in the national PHC guidelines for community engagement activities. Nonetheless, the lack of transparency and improper use of PHC funds remains a major barrier to allocating resources for community engagement activities.
- **External funding to support community activities can create dependency**: External funding for community engagement activities may reduce the incentive to use available local resources, such as the PHC funds, for community activities even though they are intended for this purpose. Thinking through the incentives and disincentives that programs create for local investment is important for all donors and implementing partners.
- **Commitment to a shared goal is positively associated with an increased allocation of local resources to support RED/REC**: Health facility managers and district leaders who understood and committed to the RED/REC goal of "reaching every child" increased their allocation of PHC funds for community activities.
- **RED/REC creates a culture for data use at the source**: RED/REC empowers health facilities and creates 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. Empowering health facilities to create a culture of data use is important and will require time and adequate support.
- **Use of data for tracking coverage is easier with numbers than proportions**: Health facility managers are more comfortable working with raw numbers than with proportions to determine gaps in coverage.

RECOMMENDATIONS

MCSP recommends that the MOH and its implementing partners consider the following recommendations:

- Expand the introduction of RED/REC practices to strengthen other RMNCAH interventions for which population coverage is a goal.
- Use HMIS data to regularly monitor RED/REC practices, where available. Temporarily, a parallel monitoring system will be needed until necessary indicators are available in the HMIS.
- When reviewing data at the health facility level, use simple tools and numbers (as opposed to proportions) to determine gaps in the coverage of child health interventions.
- Allocate sufficient time and support to develop a data use culture that encourages health managers to use catchment area and service delivery data to improve coverage.
- Allocate adequate resources for community engagement activities including head counting, household registration of all children under-five, and regular joint review of service delivery and coverage data to achieve the goal of reaching underserved communities with evidence-based child health interventions.
- Support health facilities and engage other key stakeholders, including local leaders, to promote better transparency and use of PHC funds, especially for community engagement activities. This requires mobilizing health facility managers and key stakeholders and encouraging their commitment to the goal of reaching every child.
- Use external funding for community engagement in a way that enhances, rather than replaces, the proper and effective use of local resources that have been allocated for this purpose.

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