

Lessons learned in immunizing remote populations on the move

Mid-program review of the Universal Immunization through Improving Family Health Services (UI-FHS) project

KEbele	Sub Kib	TP	SI	PW
H/shelle	01	8641	254	273
	02	8641	254	273
Kebihanno	Guluc	4500	132	142
	500		14	16
Jingod		4300	126	135
	Wabakann	1300	38	41
Dibile		2850	21	251
	Dawid		4520	132

NAME OF Sub-Kebele	Estimated Popn
Dibile	7950
Dawid	4520
Dulad	3500
Jingod	4300
Kebihanno	5000
H/shelle	17292

POPULATION PROFILE IN 2010				
H/shelle	01	9505	271	DW
	02	1500	2171	120
Kebihanno		4500	132	1028
	Wabakann	1300	38	41
Jingoda		4300	126	136
	Dawid	1300	42	327
Dibile		2850	21	251
	Dawid	4520	132	142

2010
POP of PW and SI < 1 year of PHCU BY KEBELE
and sub kebele

HEIK=TPN=17732 DW=500 SI=521

TPN=8741

ANFEN T

AD T

GADA

dhed



UI-FHS
Universal Immunization
through Improving Family
Health Services

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Acknowledgements

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Background

Ethiopia has made impressive progress in reducing infant and child mortality rates since 2000. As of 2016, infant mortality has dropped from 97 to 48 deaths per 1,000 live births and under-5 mortality has decreased from 166 to 67 deaths per 1,000 live births.¹ Ethiopia's achievements are a result of using complementary strategies to educate and reach more people with a skilled workforce supported by health system managers who have strong management and technical capacity. Specifically, the Reaching Every District (RED) strategy to strengthen routine immunization and the roll out of Ethiopia's Health Extension Program (HEP) were pivotal to the efforts of the Federal Ministry of Health (FMOH).

Despite gains at the national level, Ethiopia continues to address significant regional disparities in immunization coverage. According to the latest Ethiopian Demographic Health Survey (2016), immunization coverage for the third dose of pentavalent vaccine was 20.1 percent in Afar Region and 36.3 percent in Somali Region, well below the national average of 53.2 percent.

The populations of Afar and Somali regions are largely pastoralist (nomadic) and move locations frequently. This exacerbates the challenge of reaching children with immunization services five times in the first year of life, as per the national schedule.

In 2011, the Bill & Melinda Gates Foundation awarded JSI Research & Training Institute, Inc. (JSI) the Universal Immunization through Improving Family Health Services (UI-FHS) grant to help the Ethiopian FMOH: 1) develop an evidence-based approach to universal immunization, integrated with family health service delivery; and 2) identify the determinants of effective, affordable, and sustainable universal immunization programs in three districts ("woredas"). Based on learning from the original three woredas, UI-FHS designed the Reaching Every District using Quality Improvement (RED-QI) approach to strengthen the routine immunization (RI) system in various contexts within Ethiopia.

RED-QI:

- Builds capacity of health staff to strengthen the RI program.
- Links the community with health staff to plan and manage resources to reach all eligible populations.
- Provides technical assistance for supportive supervision and monitoring and using data for action.
- Uses QI tools to help health personnel identify problems in immunization services and create local solutions.

¹ The 2016 Ethiopia Demographic and Health Survey (EDHS); <https://dhsprogram.com/pubs/pdf/SR241/SR241.pdf>; accessed 6.25.18.

In 2017, UI-FHS conducted a mid-program review (MPR) in Afar and Somali Regions. The purpose of the review was to help the UI-FHS project improve operationalization of the RED-QI approach in the Afar and Somali contexts. The review also provided an opportunity for learning that could benefit people working to improve RI service delivery among similar populations elsewhere.

Specifically, the MPR sought to:

- Assess the effect of implementation of RED-QI in the Afar and Somali regions of Ethiopia
- Examine contextual factors that influenced implementation
- Assess the sustainability of the interventions in one woreda, Assaieta,² and the factors that might hinder or facilitate sustainability

Methodology

The MPR used a mixed-methods design. Key informant interviews (KIIs) and focus group discussions (FGDs) were the qualitative methods used to gather perspectives from health staff at woreda, health center, and health post levels on RED-QI approaches to strengthening RI service delivery. Program data, mostly quantitative, were analyzed to corroborate findings from the KIIs and FGDs. Data sources included supportive supervision checklist scores and situational analysis reports conducted at the outset of UI-FHS activities in each woreda. The MPR was determined exempt by the JSI Institutional Review Board (OHRP IRB00009069 John Snow, Inc.).

In Afar, four woredas were selected for data collection: Gulina, Erebti, Assaieta and Mille. Assaieta and Mille were selected to examine sustainability because RED-QI implementation ended three years prior to the MPR in Assaieta and six months prior in Mille. In Somali Region, data were collected in Harshin and Gode Woredas. Woredas selected for the review had at least 20 percent of the population as pastoralist. Facilities in each woreda were selected based on the performance scores from supportive supervision performance checklists to ensure that a mix of high and low performing facilities was represented.

KII and FGD participants included selected regional health bureau (RHB) staff members, health facility staff including EPI focal persons, vaccinators, clinical nurses, heads of health centers, health posts, supervisors, woreda health office (WoHO) managers, and quality improvement team (QIT) members. UI-FHS program staff were interviewed to provide historical background on the project and regional context. The team conducted a total of 36 KIIs and 11 FGDs.

A thematic analysis approach was used to analyze the qualitative data. Analysis was a two-stage process: 1) daily in-country analysis of interviews and FGDs from hand-written notes taken during data collection; and 2) structured analysis of transcripts. The research team used NVivo 11³ to review the

² Project implementation in Assaieta closed in December 2015. Assaieta was one of the three original learning woredas of UI-FHS project where the RED-QI approach was developed and refined. Implementation in Assaieta differed in duration and intensity than in subsequent woredas.

³ Software that facilitates qualitative data management and analysis.

data in detailed progressive stages, labeling and sorting it using codes. Additionally, qualitative findings were triangulated with data from program documents.

Findings

Analysis of the qualitative and quantitative data indicates that the systematic introduction of RED-QI brought positive changes to the RI system in the following ways:

Increased availability and use of services. Micro-planning increased availability of services through improved knowledge of and ability to reach target populations by mapping each health facility's catchment area, estimating the target population, planning vaccination sessions, and tracing defaulters. During the review, health workers and WoHO staff discussed challenges with monitoring the movement of the pastoralist communities and reaching remote communities. They acknowledged the involvement of kebele and community leaders in micro-planning and communication before conducting mobile and outreach services improved service utilization.

Respondents reported an increase in the number of outreach and mobile sessions conducted as a result of micro-planning. For example, Erebti Woreda in Afar Region conducted 28 mobile and outreach sessions between May and October 2017, through which 213 infants were vaccinated with a first dose of pentavalent vaccine (Penta1); 198 with Penta3; and 196 with measles vaccine. The project does not have data on the number of outreach and mobile sessions conducted at baseline to verify the respondent reports, however we assume an increase aligned with respondent report because prior to UI-FHS support, the woreda had only four fixed immunization sites and limited technical capacity, as well as funding, for delivery of mobile and outreach services.

Improved use of data. Data use by health personnel at facility and woreda levels, as evidenced by self-reports, emerged as a strong theme resulting in more evidence-based planning and decision-making. Regular collection, review, and use of data was increasingly integrated into the management and delivery of RI services. Health workers examined data across a range of sources including the health management information system, tally sheets, micro-plans, and session plans. The regular review of data prompted actions by health staff such as tracking defaulters or identifying new mobile sites to reach remote populations.

“Nobody used to count. We had no idea what the [dropout] rate was... Two years ago children were just immunized without a plan and if they defaulted nobody traced them.”

–HC, Harshin

Greater proficiency of health personnel.

UI-FHS took a multi-faceted approach to capacity building using a variety of strategies. UI-FHS used classroom trainings to introduce key concepts for RED-QI; this included developing plans to cascade trainings in each woreda. Because limited technical capacity and resources made the cascade of trainings difficult, UI-FHS used additional mechanisms for on-the-job training, primarily during supportive supervision visits. These visits were occasions for health staff to raise concerns, clarify concepts, and develop and test solutions in collaboration with their supervisors. In addition, UI-FHS revitalized and promoted mechanisms such as review meetings and exchange visits, which facilitated learning between health staff and provided opportunities for health staff to discuss challenges and progress with woreda administrators. The involvement of woreda administrators and kebele (community) leaders was critical, leading to local resource mobilization for health services in some woredas.

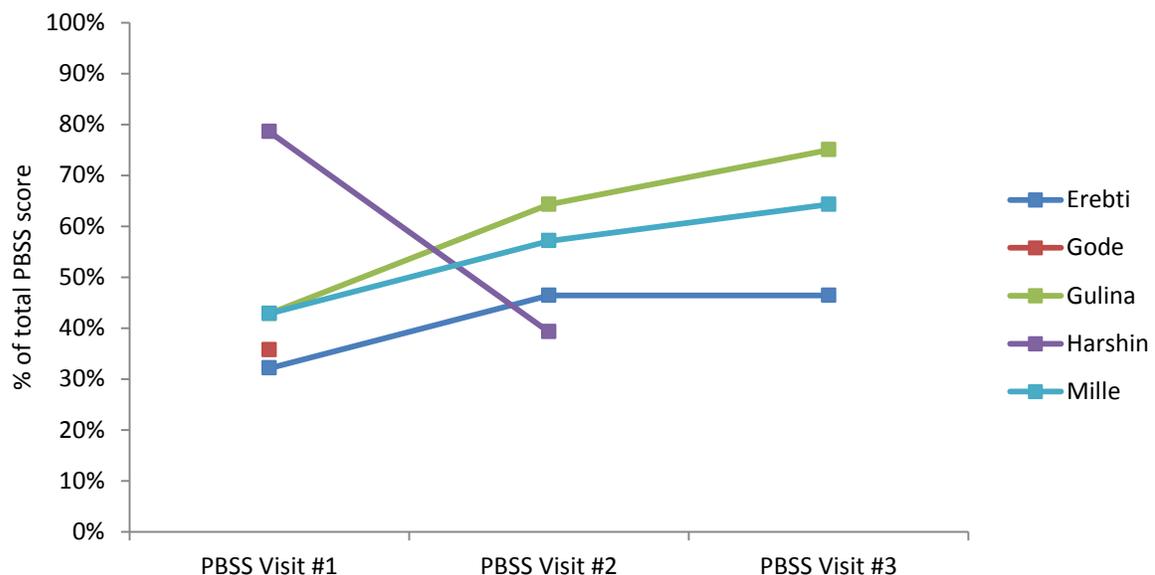
“[Review meetings] are important because we are able to present our achievement and gaps in front of woreda administrators who are key decision makers. If facilities present an RI budget shortage, it is better that they see the challenges, rather than hearing our requests all the time.”

–Gulina WoHO

As seen in Figure 1 below, woredas showed an improvement in performance scores on their checklists for immunization supportive supervision. This suggests that on-the-job coaching and other supportive supervision activities improved the quality of immunization services. Harshin’s scores, however, do not show improvement. This woreda had to respond to an acute watery diarrhea outbreak between January and September 2017 that likely diverted resources and attention away from RI services.

The package of RED-QI tools introduced and supported by UI-FHS improved the ability of health staff to identify and prioritize service delivery challenges and test ways to mitigate them in a data driven

Figure 1. Woreda-Level PBSS Scores for successive PBSS Visits



manner. Some RED-QI tools (plan-do-study-act cycles, Pareto charts to prioritize problems) were used inconsistently because respondents found them abstract, forgot concepts after training, or had heavy workloads that limited their ability to use all the tools regularly. In addition, high levels of staff turnover meant less institutional knowledge of the concepts in health facilities.

The MPR identified factors that enable and hinder health staff to sustain activities introduced and advanced by UI-FHS. Regular supportive supervision, the development and use of session plans, and strengthened health system to community linkages were listed as the three most critical elements for helping health personnel improve RI services. In Assaieta, where UI-FHS activities ended in 2014, supportive supervision, QITs that met regularly, and regular review meetings continued after the project ended. Respondents emphasized, however, that these activities relied on the ongoing technical and financial support from other implementing partners.

Finally, we examined contextual factors that directly or indirectly influenced the provision and use of RI services. External support for mobile and outreach sessions, particularly the provision of per diem or vehicles, was identified as critical to the continued provision of those service delivery strategies. The challenging desert topography in Afar and disease outbreaks like acute watery diarrhea also slow down or disrupt the provision of RI services. Frequent electricity outages resulted in vaccines not being maintained at proper temperatures, but solar refrigerators were being introduced to mitigate this challenge.

Human resource shortages were endemic; this was reported in each of the study woredas. Due to low education levels in Afar and Somali, health workers are recruited from other regions and often do not speak the same languages as community members. This creates an additional barrier to developing linkages between the health system and the community. This disconnect, coupled with the remoteness of the regions, also contributes to high staff turnover that strains an already overburdened and under-resourced system.

Conclusions and Recommendations

UI-FHS has made many strides in strengthening the RI system in Afar and Somali. Key recommendations from the MPR are outlined below.

I. A multi-faceted approach is needed to build health worker capacity

A combination of strategies is required to build and sustain health staff RI capacity in Afar and Somali regions. Interactive in-service trainings combined with supportive supervision, exchange visits, and review meetings reinforced critical concepts and were opportunities for staff to discuss RI system performance and develop solutions to challenges. The involvement of woreda administrators and kebele (community) leaders strengthened accountability and responsibility for providing resources to health staff as needed.

Recommendations:

- Ministry of Health and other partners should continue to use and support a multi-faceted approach to capacity building, supplementing classroom trainings with on-the-job training through supportive supervision, peer learning opportunities, and job aids.
- Training resource materials should be translated into local languages and systematically disseminated to all facilities to enable health workers to refer to them.
- As exchange visits across different woredas can be cost-prohibitive and difficult to organize, focus on exchange visits among health workers within a woreda, linking strong health workers with peers who need additional support.
- Use opportunities, such as review meetings, to review, analyze, and report program data. This encourages staff to use data for decision-making.
- As per the new national guidelines on quality improvement, UI-FHS encourages the establishment of QITs at all levels and supports efforts to strengthen the quality of health services using a variety of QI tools and approaches.

2. EPI micro-planning involving a broad network of stakeholders is critical to RI service delivery

Prior to UI-FHS support, most project woredas in Afar and Somali regions did not have EPI micro-plans. Planning for routine immunization services is a learned skill. Health workers need resources and technical capacity to be able to plan and implement a microplan and deliver mobile and outreach services, which includes reliable cold chain and logistics. EPI micro-planning was found to be essential for improving RI service delivery, helping to develop a better knowledge of and greater ability to reach target populations through catchment mapping, target population estimating, session planning, and resource estimation. The engagement of community leaders in micro-planning was critical to improving the reach of immunization services in remote communities.

Recommendations:

- Provide annual support to woredas to develop a bottom-up micro-plan and to plan and implement mobile and outreach services.
- Strengthen linkages between the health system and community by involving non-traditional stakeholders such as kebele and community leaders in micro-planning and communications for mobile and outreach services.
- Work with RHBs to adapt national strategies to their regional context; this includes budgeting for mobile and outreach services as part of the RI system.

3. Strong RI systems require continuous investment of resources

UI-FHS supports implementation of activities for approximately 20 months in each woreda, and helps each WoHO design a plan to continue to implement activities post-UI-FHS support. To sustain the achievements made during those 20 months, the RHB and the woredas must commit to continued funding of RI activities such as supportive supervision, micro-planning, and review meetings.

Recommendation:

- The FMOH should partner with RHBs, donor, and partner organizations to identify opportunities to strengthen resource mobilization, planning, and budgeting for routine immunization services.

In conclusion, implementation of the RED-QI approach in Afar and Somali Regions has strengthened various facets of the RI system, but requires continued support and engagement from the RHB to build upon and sustain achievements. Over the next three years, UI-FHS intends to work with the FMOH and Afar and Somali RHBs to mitigate ongoing challenges and to strengthen the reach and quality of immunization services.

NAME OF Sub-Estate	Estimated Pop.	Location of Service	Distance from HF	Type of Service (Static Mobile Quickchain)	Session Frequency (Per Week)	Responsible Person	Total People per Session	Schedule	Remark
Dibile	7950	Dibile HP	14KM	Static Mobile Quickchain	1	ALERTHOON	12	2nd Tuesday every Month	
Da, Mulu	4520	Da, Mulu	13KM	Mobile	1	JAMPL	20	3rd Wednesday every M	
Dulad	3500	Dulad	10KM	MOBILE	1	Algalum and Nam	20		
Jingad	4300	Jingad	10KM	OR MOBILE	1	NAM			
Kebbi Hamant	5000	Kebbi Hamant	15KM	Mobile	1	JAMAL			
H. S. K. H.	17292	H. S. K. H. C	0	Static	4	NAMVA + ALUSA			

1 = DROP out Rate KA 00 SAREEYA

#/Sheet

Kabele	Sub: Kabele	Total

