Sustaining Immunization Gains for All Communities
Lessons from Implementation of the RED-QI Approach

The RED-QI approach, implemented in Ethiopia by JSI Research & Training Institute, Inc. (JSI) beginning in 2011, worked to improve the performance of the immunization system in 103 woredas (districts)—about two-thirds of which have limited infrastructure and remote communities, including nomadic populations. JSI’s bottom-up approach—working at the facility and woreda level to integrate quality improvement (QI) into the existing national immunization strategy—Reaching Every District (RED)—resulted in immunization system improvements. This brief describes summary findings from an inquiry on the elements of RED-QI that were sustained beyond direct technical support, and the factors that contributed to the continuation (or non-continuation) of these activities.

**Equity: Why RED-QI in Immunization Matters**

RED-QI is a pro-equity approach that builds health system capacity to expand the reach of immunization services, including to the hardest-to-reach communities.

**The Take-Away**

- Respondents in this investigation viewed QI as essential—though challenging—because the approach enables stakeholders to examine and address problems in immunization in a context-appropriate manner.
- Linking communities and health facilities improved decision-making for immunization by leveraging community-specific knowledge to identify missed populations and strengthen service delivery.
- RED-QI led to improvements in the effectiveness and reach of immunization programs—including in remote and nomadic areas—and these have been sustained.

**Recommendations**

Actions for health authorities to consider in sustainably scaling up immunization services:

- Re-invest in starting up and sustaining QITs (Quality Improvement Teams) at each level of the health system, and further integrate QI tools and methods into immunization service planning and analysis.
- Use QI tools to strengthen adaptive management skills of sub-national staff, within a wider capacity building strategy for health care workers.
- Ensure sustained and adequate funding for the immunization program, including support for bottom-up microplanning, community input, and operational costs of outreach and mobile services critical to reaching underserved populations.
- Routinely engage communities—especially underserved communities—to strengthen immunization reach, equity, and sustainability.

---

1. The five components of Ethiopia’s RED strategy are: planning and management of resources, reaching all eligible populations, engaging with communities, conducting supportive supervision, and monitoring and using data for action.
BACKGROUND

In 2011, JSI received a grant from the Bill & Melinda Gates Foundation to develop and test a sustainable strategy for strengthening routine immunization in Ethiopia. Despite considerable progress in improving maternal and child health outcomes, Ethiopia continues to struggle with frequent disease outbreaks and achieving equitable improvements in immunization across the country. To that end, JSI conducted a phased implementation (see Figure 1) of the Universal Immunization through Improving Family Health Services (UI-FHS) project in six regions—to strengthen management of the routine immunization system, focusing on building health worker capacity at the facility and woreda levels to assess, address, and manage challenges within their catchment areas and improve immunization performance. Two-thirds of the 103 project implementation woredas were in low equity settings with remote, hard to reach populations and overall weak health system capacity.

The technical assistance included:

- Integration of QI approaches into immunization activities (root cause analysis with communities and health teams using fishbone diagram during microplanning, formation of Quality Improvement Teams (QITs), problem solving using plan-do-study-act (PDSA) cycles)\(^3\)

- Engagement of community leaders within QITs to improve community mapping and session planning, mobilization of communities for immunization services, and localized problem identification and problem solving

- Capacity building to improve health workers’ ability to analyze, prioritize, and take action on their own problems, using their own data, and largely using locally-available resources to address challenges

WHY EXAMINE SUSTAINABILITY OF THE RED-QI APPROACH?

After woreda-level project support ended, the project observed woredas where implementation of the RED-QI approach continued. To understand which elements of RED-QI were

---

Box 1. Inquiry Methodology

**Qualitative study:**

- 27 key informant interviews per region (managers, providers, QIT community members) at facility and woreda level

**3 woredas each in 2 regions:**

- Somali: weak infrastructure, mainly nomadic
- SNNPR: stronger infrastructure, mainly agrarian

---

3 More information on QI approaches used is available at: [https://publications.jsi.com/JSIInternet/Inc/Common/_download_pub.cfm?id=23633&lid=3](https://publications.jsi.com/JSIInternet/Inc/Common/_download_pub.cfm?id=23633&lid=3)
sustained, and why, JSI conducted a qualitative inquiry. This approach (see Box 1), involved interviews focused on how participants—in the community, on health frontlines, and at the management level—viewed the QI approach and their perception of its benefits and sustainability.

FINDINGS: LESSONS ON SUSTAINING PERFORMANCE

Inquiry respondents reported that the RED-QI approach helped them to address a number of challenges in their local working environment and improve their program’s performance. Prior to RED-QI implementation, inquiry respondents, especially health workers (HWs) and health extension workers (HEWs), described a weak immunization system. Health workers noted infrastructure weaknesses such as lack of refrigeration, logistical hurdles such as lack of funding for transport, shortage of reporting tools, and high workloads. The weak health system in Somali Region was compounded by factors such as the remoteness of target communities which made their jobs exceedingly difficult and hindered community engagement with the health system.

“[At] the time I have arrived in this health facility, there was low immunization coverage, poor involvement and utilization of the community on routine immunization, and poor knowledge of the community.”
— Somali HC Staff

Major benefits ensued from improved community-facility linkages, and from better understanding of how data improves decision-making and program management. Inquiry respondents said that some RED-QI practices had continued, but not all. Certain activities—such as QITs, defaulter tracking through community members, microplanning, and outreach sessions—were more often sustained.

Activities that were commonly sustained:

- **Improved planning**—including more immunization sessions and outreach sessions—resulted from better microplanning and community mapping. Improved planning also strengthened the reach of services and supply forecasting, since HWs had a clearer understanding of their target populations. Microplanning processes were largely sustained by woredas after direct assistance ceased.

- **Greater community engagement and support**: Enhancing linkages with communities, involving community members in QITs and microplanning, and leveraging leaders’ knowledge and support improved immunization reach by building awareness and understanding of immunization, increasing demand for services, and improving defaulter tracing. QITs and defaulter tracing through QIT community representatives have continued.

  “RED-QI tools...did a big job because we got knowledge: how can we use the QIT’s community representative to call all children who are [defaulting, and]...to raise community awareness...”
— Somali HC Staff

- **Collaborative problem solving**: Inquiry respondents universally praised the QIT approach for bringing HWs and communities together to identify, prioritize, and find ways to address problems affecting their catchment area. This approach led to expanded and sustained outreach programs.

  “Distance does not have the biggest effect now since the HEWs have addressed these unreachable areas with an outreach session, using QIT as mobilizers.”
— SNNPR QIT member

- **Use of data**: The RED-QI process helped stakeholders understand the value of all types of data—from data on the immunization program’s performance to target population head counts to the location of a nomadic community for planning outreach sessions.

- **Improved local accountability**: Strengthening community-facility relationships led to increased accountability among HWs. One HW interviewee noted that he now lets the community representative know when he may be absent from the health post. Further, communities feel empowered to demand better services if needed.

  “The community has better awareness... The community is even evaluating the work of HEWs if they have problems providing the services.”
— SNNPR Woreda Health Officer

STRENGTHENING THE ROUTINE IMMUNIZATION SYSTEM REQUIRES A LONG-TERM VIEW FOR CAPACITY BUILDING

Though HWs appreciated the value of QI tools (such as PDSA cycles and fishbone analysis), inquiry respondents reported that some tools were more difficult to understand, particularly PDSA cycles. Continued use of those QI tools would therefore require
routine support, such as supportive supervision, to build and sustain capacity.

Supportive supervision was a key element of the RED-QI approach; however, HWs expressed frustration at the lack of supervision and support after RED-QI assistance ended. Supervisors, also, were frustrated because they had insufficient resources (transport, per diem) to conduct supervision regularly in remote areas. While RED-QI helped in local problem solving, system-wide attention is needed to address larger chronic and systemic problems, such as implementing supportive supervision regularly, addressing health worker turnover and capacity, or trying to find new funding sources to continue outreach or mobile services.

“High turnover of staffs that are trained is a challenge, the budget shortage and lack of support after JSI left is another major problem.”
— SNNPR Woreda Health Officer

Lastly, the inquiry found that even strong health systems can experience program disruptions that have long-term effects. In 2018 and 2019, civil unrest in SNNPR disrupted daily life and travel and affected many aspects of health system, including the ability to deliver quality immunization services. This disruption undid some of the progress made and caused the cessation of some RED-QI activities that had initially continued beyond direct technical support. Overall, respondents found that the RED-QI approach improved the performance of their immunization programs. They adapted approaches that suited them—especially approaches for engaging communities to strengthen the reach of immunization services—which represent the most sustainable elements of the RED-QI approach. They also endorsed the continued use of other elements of RED-QI, including use of QI tools. However, continuing these elements will likely require continued support from the government and attention to chronic systemic deficits to become sustainable.

Recommendations for sustainability

The findings of this investigation suggest actions for the Ethiopian government to consider in sustainably scaling up immunization services.

• Re-invest in starting up and sustaining QITs at each level of the health system. Build on the recent incorporation of QI tools into national guidelines and further mainstream the use of QI tools and methods in immunization service planning and analysis.
• Use QI tools to strengthen adaptive management skills of sub-national staff, within a wider capacity building strategy for health care workers.
• Fully fund the immunization program, including support for bottom-up microplanning, community input, and operational costs of outreach and mobile services critical to reaching underserved populations.
• Routinely engage communities in planning and problem-solving—especially those who are underserved—to strengthen immunization reach, equity, and sustainability.