Key Findings From the Implementation of the Reaching Every District Using Quality Improvement (RED-QI) Approach in Ethiopia and Uganda

> An Approach Designed to Improve Immunization Program Effectiveness and Reach



## BACKGROUND

### The RED Strategy Was Developed to Strengthen Immunization Programs and Reach the Underserved

The goal to reach every last child with lifesaving vaccinations has been at the heart of immunization programs for decades. However, we continue to struggle to reach all children, missing the most vulnerable populations, such as those affected by conflict, living in remote areas, or experiencing discrimination based on ethnicity and gender.<sup>(1)</sup>

The need to focus on equitable immunization service delivery is a critical component of recently launched strategies by Gavi (the Vaccine Alliance) and the World Health Organization (WHO) and partners, which have prioritized equity of immunization services in their current strategic plans. In Gavi 5.0 (2021-2025), there is "a core focus on unreached and under-immunized children with equity as the organizing principle."<sup>(2)</sup> WHO's Immunization Agenda (IA) 2030 has prioritized reaching "high equitable immunization coverage at the national level and in all districts."<sup>(3)</sup>

Since the mid-1990s, several approaches have been adopted to reach underserved populations. These approaches have made some progress in reducing inequity by helping establish district-level microplanning in immunization programs and routine collection of immunization coverage and disease surveillance data in most countries, with reporting of selected indicators to the global level since 2000.<sup>(4)</sup>

In 2002, the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and other partners in the GAVI Alliance developed the Reaching Every District (RED) strategy to further strengthen management of immunization services at the district level and below, especially in areas with low coverage.

### **RED** focuses on five components:<sup>(5)</sup>

- Planning and management of resources
- Reaching all eligible populations
- Engaging with communities
- Conducting supportive supervision
- Monitoring and using data for action



Addressing the persistent inequities in immunization coverage. Bulletin of the World Health Organization. Vol. 98, No. 2: February 2020. Sourced online in May 2021. <u>https://www.who.int/bulletin/volumes/98/2/19-241620/en/</u>

<sup>2</sup> Gavi Phase V (2021-2025). Sourced online in May 2021. https://www.gavi.org/our-alliance/strategy/phase-5-2021-2025

<sup>3</sup> WHO Immunization Agenda 2030: A Global Strategy to Leave No One Behind. Sourced online in May 2021. <u>https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030</u>

<sup>4 &</sup>quot;Reaching Every District (RED) approach: a way to improve immunization performance." Bulletin of the World Health Organization. Vol. 86, No. 3: March 2008. Sourced online in May 2021. <u>https://www.who.int/bulletin/volumes/86/3/07-042127/en/</u>

<sup>5</sup> Reaching Every District (RED): A guide to increasing coverage and equity in all communities in the African Region. 2017 edition. Sourced online in May 2021. https://www.afro.who.int/sites/default/files/2018-02/Feb%202018\_Reaching%20Every%20District%20%28RED%29%20English%20F%20web%20v3.pdf

By 2004, RED had become the strategy used by most African countries to improve their routine immunization systems. However, many districts and health facilities faced challenges with implementation of RED, finding the strategy difficult to fully operationalize, in part due to inadequate guidance on how to sustainably implement and fund all five components of the strategy and put them into practice.

To address this challenge, John Snow, Inc. (JSI), applied concepts and tools from the field of quality improvement (QI) to develop an innovative approach to help immunization programs at the district, sub-district, and facility level operationalize RED and put all five components into practice. This approach is known as Reaching Every District using Quality Improvement (RED-QI).



# **DEVELOPMENT OF RED-QI**

## Quality Improvement Approach Aims to Improve RED Strategy Implementation

RED-QI provides practical methods that allow immunization stakeholders to examine obstacles to RED implementation, develop possible solutions, and share learning for sustainability and scale-up. It advances RED from a "what to do" strategy to a "how to" approach for strengthening the routine immunization system. Table 1 below describes how various RED-QI tools and practices help to operationalize the components of the RED strategy.

RED strategy components	RED-QI components in Ethiopia and Uganda
Planning and management of resources, including microplanning	• Developing district, sub-district, and health facility WHO Expanded Programme on Immunization (EPI) microplans. Include community leaders and other stakeholders, such as civil administration, in planning process.
	<ul> <li>Conducting participatory community mapping to accurately identify catchment populations</li> </ul>
	<ul> <li>Conducting fishbone analyses to identify the root causes of problems</li> </ul>
	• Conducting pareto analysis, which prioritizes problems having the highest impact
	<ul> <li>Implementing plan-do-study-act (PDSA) cycles to test solutions crafted by health workers and community members working together</li> </ul>
Engaging with communities	<ul> <li>Developing quality work improvement teams (QITs) comprised of health workers and community members to focus on immunization and conduct PDSA cycles, trace defaulters, and obtain community input on immunization program planning, including optimal location and time for vaccination outreach sessions, as well as problem solving</li> </ul>
	<ul> <li>Involving civil administration to elevate issues and mobilize local resources</li> </ul>
Conducting supportive supervision	<ul> <li>Engaging health staff and non-health stakeholders (such as civil administrators) in conducting supportive supervision or reviewing findings from supervisory visits</li> </ul>
	<ul> <li>Increasing focus on health worker capacity building and on-site mentorship, particularly for data analysis and problem solving</li> </ul>
	<ul> <li>Revising existing supportive supervision tools to improve their use for mentoring and on- the-job training</li> </ul>
Monitoring and using data for action	<ul> <li>Conducting data quality self-assessment and improving data consistency across standard EPI reporting tools</li> </ul>
	<ul> <li>Building health worker capacity to monitor immunization coverage and drop-out rates to inform health workers' own actions</li> </ul>
	<ul> <li>Holding quarterly review meetings (QRMs) with both health personnel and local non- health stakeholders to review performance and encourage participants to "think outside the box" to problem solve, mobilize local resources, and flag problems needing national- level attention</li> </ul>
Reaching all eligible populations	<ul> <li>Supporting the provision of outreach and mobile services</li> </ul>
	• Using data to expand availability of health facilities providing static services
	<ul> <li>Mobilizing local resources to overcome barriers to service delivery</li> </ul>

#### Table I: How RED-QI tools and practices support the RED strategy

## **RED-QI IN ETHIOPIA AND UGANDA**

## Implementation, Scale-up, Adaptation Through Continuous Learning, and Reaching Under-served Communities

JSI worked with the government of Ethiopia from 2011-2021 and the government of Uganda from 2013-2019 to introduce this enhanced approach.

In both countries, the projects grew from smaller, focused assistance into large-scale implementation in low-resource settings, applying QI and adult learning methods to improve the quality of immunization program management and increase the uptake of the RED strategy. RED-QI was ultimately implemented in 103 districts in Ethiopia and 25 districts in Uganda.

The projects implemented RED-QI as a continuous learning process, which enabled the model to be adapted to local contexts and evolve over time. RED-QI focused on building health worker capacity to solve problems and address their own challenges based on their specific needs and context, rather than applying a proscriptive package of immunization interventions.

# RED-QI was also designed to be scalable and sustainable by ensuring that it:

- Fits within the existing local government health service delivery system without large additional costs
- Engages stakeholders who have been overlooked in the past, such as local government leaders
- Helps managers allocate tasks to the appropriate level
- Generates data for better decision making at all levels
- Incorporates continuous learning and sharing so that best practices and feasible solutions can be applied in new settings and to the RED-QI approach as well

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The approach proved to be effective in helping to identify and

reach zero-dose and under-immunized children. For example, in the four developing regions in Ethiopia where RED-QI was implemented, more than 50% of the population in hard-to-reach districts required immunization through mobile or outreach services, with a considerable portion of the population in pastoralist areas requiring mobile services exclusively. Across these four regions, data showed an average increase of 43% in the number of district-level immunization micro-plans (with some districts creating them for the first time) and an average increase of 29% in the number of community-level catchment area maps, including mapping of travel routes of pastoralist populations. <sup>(6)</sup> Also, across 10 intervention districts in Uganda, there was a 42% increase in the number of communities reached with routine immunization services, representing 1,241 additional villages.<sup>(7)</sup>

<sup>6</sup> JSI. UI-FHS Process Based Supportive Supervision Database: 2015-2018. Addis Ababa, Ethiopia. Universal Immunization through Improving Family Health Services (UI-FHS). 2018. Unpublished database.

<sup>7 &</sup>quot;Innovating to Vaccinate Every Child in Uganda Through Strengthening Subnational Management." Sourced online in July 2021. <u>https://www.jsi.com/resource/innovating-to-vaccinate-every-child-in-uganda-through-strengthening-subnational-management</u>

## **ANALYSIS OF RED-QI IN ETHIOPIA AND UGANDA**

## Desk Review and Key Informant Interviews Draw Out Key Findings

JSI conducted a desk review of key project documents, data, and studies from RED-QI in Ethiopia and Uganda—as well as 28 key informant interviews with project officers, EPI managers, health facility managers, and immunization partners familiar with the approach's implementation and expansion in these countries—to draw out the lessons learned and help inform how the approach can be tailored to strengthen routine immunization in other countries.

#### This analysis aimed to:

- Document the steps in moving from pilot projects to scale
- Identify RED-QI tools and practices that worked well and were scalable and sustainable
- Examine the context and conditions that affected implementation and scale-up of the RED-QI components

#### Below is a summary of key findings from this assessment:

**Effective in reaching objectives.** Quantitative findings from both countries indicate that the approach was effective in reaching its objectives of better planning of immunization sessions, improved quality of services and use of data for decision making, and increased equity of service provision through a greater ability to identify and provide services to underserved communities. For example, a serological study of the three pilot districts in Ethiopia demonstrated that immunological protection from tetanus increased by an average of 12 percentage points from 2013 (pre-intervention) to 2016 (post-intervention). <sup>(8)</sup> In Uganda, facility-based microplanning and mapping helped improve the equitable delivery of immunization, substantially increasing the identification of communities needing vaccination and the number of communities reached with RI services.

#### Valuable, inexpensive, sustainable. The RED-QI

approach was widely viewed by those who implemented it in both countries—including regional and district immunization officers and health workers at the facility level—as being valuable, effective, inexpensive, compatible with existing systems, and sustainable. Aligning the QI approach to the widely accepted RED strategy and providing methods of operationalizing the components of that strategy contributed to the effectiveness of the RED-QI approach and its perceived value in both countries.



<sup>8</sup> https://www.jsi.com/resource/reaching-for-universal-immunization-coverage-results-and-program-recommendations-from-combined-immunization-coverage-and-serology-surveys-in-three-woredas-districts-of-ethiopia-in-2013- and-2016/



**Non-health stakeholder engagement effective.** Engagement of non-health stakeholders — including local civil authorities and political and community leaders — in immunization planning, monitoring, and resource allocation is perceived as innovative, productive, and central to the effectiveness of the RED-QI approach. Evidence from both Ethiopia and Uganda demonstrates the benefits of this engagement in helping to mobilize local resources for immunization, enhancing local ownership and problem solving, and identifying underserved communities. As one national manager in Uganda noted, this engagement successfully avoided the common mistake of a technical project circumventing the local government authorities and structures, which can lead to resentment and a lack of sustainability of an approach after external support ends.

**Components most and least easily scaled or sustainable.** Specific RED-QI components that were cited most often as easily scaled and/or sustainable were participatory community mapping, bottom-up microplanning, and the fishbone analysis tool. Components considered less sustainable or less easily scaled were data quality analysis and the PDSA cycle. While the use of certain tools was not sustained, the problem-solving and community collaboration processes engendered by the QI approach were sustained, which was the goal of the approach.

**Learning, flexibility, open-mindedness keys to success.** The project leadership's key operating principle of ongoing learning, flexibility, and open-mindedness about making changes to the RED-QI approach led to an improved intervention. Rather than implementing the same approach while it was scaled up in a phased manner, project managers continuously monitored its implementation, modifying the approach or specific components based on emerging findings on

worked well and what did not. Adaptations such as strengthening the component of non-health stakeholder involvement in Uganda and focusing first on building the RI system and then improving quality of services in low-performing districts in Ethiopia were the result of this openness to learning.

**Partnerships support government ownership.** The close partnership between JSI and both Ethiopia's Federal Ministry of Health (FMOH) and Uganda's National Expanded Program on Immunization (UNEPI) was appreciated and felt to be effective in building the MOH's sense of ownership of the RED-QI approach. This was achieved through the collaborative nature of planning, regular communication and feedback about implementation to MOH leadership, and the MOH's lead role in implementation.

Lack of plans and funding for further scale-up. While key informant interview respondents unanimously agreed that the approach should be expanded further in these countries, no specific plans or designated funding for additional scaling-up was identified. The lack of a single agreed-upon approach to strengthening EPI among immunization partners in these countries, as well as the perceived need for evidence of the approach's effectiveness in increasing vaccination coverage by immunization partners, were cited as potential barriers to future expansion of RED-QI.

Additional barriers to sustainability and scale-up. Challenges to the sustainability and further scaling of the RED-QI approach were identified, including health system issues, such as high staff attrition; intensive workloads of health workers and managers; funding shortfalls; a perceived lack of accountability at higher levels; and, in Uganda, inadequate coordination between the government departments that separately manage immunization services and vaccine supply, leading to stock-outs. In addition, several of the QI practices themselves are considered to be complex, and there is a reported shortage of ongoing capacity building, through supportive supervision, to reinforce the use of the practices.

**Need for continuous capacity building, support, mentoring.** For RED-QI practices to be sustained in the face of high staff turnover among both supervisors and health workers, there is a felt need on the ground for continuous capacity building, follow-up support, and mentoring. Key informant interview respondents from both countries described how some QI practices reduced or stopped after direct project support ended, although solutions to local issues that were developed using QI tools had continued.

