



CAN IMMUNIZATION CAMPAIGNS CONTRIBUTE TO ROUTINE IMMUNIZATION?

LESSONS FOR THE COVID-19 ERA AND BEYOND

Background

Immunization campaigns or supplementary immunization activities (SIA) — coupled with delivery through routine immunization (RI) systems — have been a major component of global disease elimination efforts. While SIAs and RI services both seek to reduce inequities in immunization coverage, identifying and implementing appropriate service delivery approaches for hard-to-reach¹ and hard-to-vaccinate² populations remain a persistent challenge (1). Yet, heavy reliance on campaigns as a delivery modality has led to trade-offs in country-led strengthening of RI systems and, in many instances, has not achieved coverage targets for key populations (2).

A key component to increase equitable access is to identify an optimal set of immunization delivery approaches—including well-planned and targeted

campaigns as needed—to reach under-immunized and zero-dose children while maintaining population-level coverage and strengthening primary health care (PHC) delivery (3,4).

With a renewed focus on reducing immunization inequities in Gavi's 5.0 Strategy and Immunization Agenda 2030, it is critical to understand how campaigns and RI systems can work synergistically to address persistent coverage inequities.

Finding the correct balance of immunization service modalities to address these challenges is an ongoing question, particularly as strong RI systems are needed during inter-campaign periods to maintain coverage (5). The roll-out of COVID-19 vaccines via campaigns adds to the importance and complexity of this question as it will require substantial health systems resources to identify and reach larger, adult segments of

the population, possibly diverting attention and resources for RI. As of March 2021, a detailed review of 57 countries' initial COVID-19 vaccine deployment plans by The World Bank highlights that the vertical, emergency-based nature of the vaccine roll-out may potentially lead to missed opportunities to strengthen immunization systems and the broader health system (6).

Mitigating potential disruptions to RI, as well as identifying opportunities for COVID-19 vaccine introduction to strengthen immunizations systems, are of critical importance.

In taking stock of the benefits, challenges, and trade-offs that immunization campaigns pose to RI and health systems writ large, there is a need to understand how decision-making on the appropriate and strategic use of campaigns and RI systems can be more productive and effective at increasing and/or maintaining immunization coverage (5,7,8). While the role that campaigns have played in increasing immunization coverage, increasing population immunity, and achieving elimination/eradication globally is well-documented, there has been less systematic documentation on how campaigns can be deployed more effectively and/or efficiently, and how campaigns could contribute to broader RI strengthening. Lessons from this evidence base could inform planning of immunization campaigns, including identifying ways in which COVID-19 vaccine campaigns in LMICs can be carried out to contribute to longer-term immunization system strengthening.

¹ Those facing supply-side barriers to receiving immunization services, such as physical accessibility or discrimination by healthcare providers)

² Those facing demand-side barriers, such as lack of awareness of service availability, or those that distrust the health system



Approach

To address this knowledge gap, the Accelerator conducted a systematic review to find existing evidence on these priority themes, with a focus on synthesizing lessons on the practical opportunities and challenges in leveraging campaign and campaign outputs to strengthen RI systems. The Accelerator searched both peer-reviewed and gray literature systematically, which resulted in 2,560 unique sources found and 134 sources fully reviewed to identify applicable lessons in line with the research questions. This brief summarizes a selection of findings; for the full review of findings, please refer to the full report.

Key Findings

Based on the reviewed evidence, immunization campaigns have had both beneficial and negative effects on strengthening RI systems, and there has been mixed success in leveraging campaign resources to identify and vaccinate hard-to-reach and hard-to-vaccinate communities through RI systems.

The following summarizes evidence on how discrete campaign-derived outputs and resources have been used to improve countries' RI systems along the six functions of the Health System Strengthening Accelerator's Institutional Architecture for driving health system change and strengthening health systems: (1) Generate Evidence (2) Analyze Data and Diagnose Problems (3) Formulate Solutions (4) Manage Adoption of Solutions (5) Operationalize and Implement Change (6) Engage and Manage Stakeholders.

Generate Evidence

Campaigns have been used to strengthen the capacity of RI systems to generate usable data and evidence that facilitates evidence-based decision making.

- **Identification of hard-to-reach or hard-to-vaccinate communities** through pre-SIA mapping was regularly seen as a positive output of campaigns that could be used to strengthen RI systems and other service delivery functions (9–11).
- **In Angola, Chad, DRC, Ethiopia, Nigeria, and India**, surveillance systems developed for acute flaccid paralysis eventually evolved to become integrated disease surveillance systems (14).

Analyze Data and Diagnose Problems

Campaigns have been used to strengthen the capacity of RI systems to analyze, interpret, and use data to identify issues that need action.

- **Stronger implementation of microplanning and other components of Reaching Every District/ Reaching Every Child (RED/REC)** has frequently been made possible through campaign funding dedicated to building health worker capacity on these approaches and updating microplans (8,12– 14). Data generated from campaign planning were used to update micromaps that could in turn be used for fixed-site and outreach services (15–17).
- **In India**, the use of risk assessment tools for measles SIAs had a longer-term utility for RI planning, particularly in identifying and tracking districts at high-risk for accumulating children susceptible to polio (16).
- **In Uttar Pradesh, India**, the CORE Group Polio Project networks of “local influencers” were seen as a critical component in reaching communities with polio immunity gaps through SIAs as they were able to identify households that were likely to be hesitant to participate early, and then leverage community ties and training in inter-personal communication techniques to demonstrate the value of obtaining immunization services (27,28).

Formulate Solutions

Campaigns have provided opportunities for actors in RI systems to curate and develop solutions to identified problems.

- **Global Polio Eradication Initiative (GPEI) and Measles and Rubella Initiative assets** were seen as contributing to improved planning, training of EPI staff, and surveillance infrastructure, but there have been sustainability issues to ensure these assets remained in place to support RI goals (18).
- **In China**, accountability mechanisms, coverage estimates, and an internet-based immunization registration system from measles SIAs were later used for broader RI strengthening (19).



Manage Adoption of Solutions

Campaigns have been used to strengthen the capacity of RI systems to maneuver, within a given political economy context, from proposed solutions to the adoption of new policy or some other change in practice.

- **In Bangladesh, Ethiopia, Tajikistan**, community engagement for measles SIAs helped to foster broader accountability of RI services at subnational levels (9).
- **In Malawi, Honduras, Timor-Leste, Tanzania, Liberia, Pakistan, and Ethiopia**, the mobilization of funding to increase cold chain capacity for campaigns provided longer-term capacity for RI. (12).

Operationalize and Implement Change

Campaigns have been used to strengthen the capacity of RI systems to operationalize solutions to barriers to high coverage.

- **In Bangladesh**, targeted investments to the logistics system, including human capacity development, increased longer-term capacity to manage and strengthen EPI logistics (20).
- **Across multiple countries**, increased staff training on immunization services and safety, planning, coordination within and across sectors, cold chain equipment, waste management infrastructure, and surveillance systems were consistently cited as strengthening staff capacity to carry out key health system functions and address common challenges (9,11,12,21–26).

Engage and Manage Stakeholders

Campaigns have been used to strengthen the capacity of RI systems to engage with key stakeholders across the health system to develop and implement solutions.

- **In Angola, Chad, DRC, Ethiopia, Pakistan, Somalia, and India**, polio-related social mobilization networks originally supported by GPEI were used for RI, with a focus on defaulter tracing (14).
- **In Bangladesh, Brazil, Cameroon, Ethiopia, Tajikistan, and Vietnam**, accelerated measles elimination activities contributed to partnership-building across Ministry of Health departments and partner agencies for routine immunization program governance, planning, management, and financing (29).

Implications of Findings

More can be done to systematically make better use of campaign-generated assets and resources to strengthen RI and PHC platforms. Some countries have been more successful in transitioning SIA assets into RI systems, but they have often had historically high donor support for campaigns and RI services (e.g., India, Nigeria, and Pakistan). To effectively realize the benefits that campaigns can provide to RI, there must be targeted funding — coupled with longer-term domestic and/or external resource mobilization efforts — to support a productive integration of campaign assets and resources into RI systems.

With the increased focus on reaching zero-dose children in Immunization Agenda 2030 and Gavi's 5.0 Strategy, there is a need for countries to identify an optimal set of immunization strategies that identify and deliver services to both hard-to-reach and hard-to-vaccinate communities (while also considering how RI activities can be better integrated into PHC platforms). Evidence synthesized in this review suggests that measles and polio SIAs have been somewhat successful in reaching these communities, and that data on these communities generated from SIAs has been used in RI planning in some contexts. But there have been many missed opportunities to strengthen these linkages and develop more robust pro-equity immunization planning at national and sub-national levels — inclusive of

RI and the appropriate use of campaigns — to address persistent inequities in immunization coverage.

As the COVID-19 vaccine introduction begins in low- and middle-income countries around the world, campaign-based delivery will be a major feature to reach prioritized populations. While the initial priority populations (e.g., health workers, adults 65+) differ from the traditional RI focus on young children, roll-out of the COVID vaccine will require leveraging existing aspects of countries' immunization systems, which could lead to disruptions in RI services without proper safeguards in place. To mitigate these RI disruptions and achieve high levels of coverage among priority populations for the COVID-19 vaccine (assuming adequate supply of vaccines), well-planned delivery strategies and identification of the needed system-level and behavioral adjustments are needed.

Yet, past experience with immunization campaigns emphasizes the need to facilitate more intentional linkage of campaign-derived resources with RI systems. Despite differences in the target populations for the COVID-19 vaccine, there is urgent need to identify what aspects of its delivery can contribute to longer-term strengthening of immunization systems while mitigating any adverse impacts on childhood vaccination in countries that have already faced substantial disruptions to immunization services since COVID-19 began.



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