



Technical Brief

March 2024

## REACHING ZERO-DOSE AND UNDER-IMMUNIZED CHILDREN IN FRAGILE SETTINGS

Ensuring the continuity of essential immunization services in fragile settings requires flexibility and the foresight to anticipate, prepare for, and respond to shocks and stresses. The global COVID-19 pandemic response created additional challenges as attention was deflected away from routine services amidst already strained health systems. This technical brief explores relevant MOMENTUM planning and development activities in fragile settings in response to these challenges, and provides resources to help reach children in need and strengthen health resilience.

### RED/REC Approach

MOMENTUM Integrated Health Resilience contributes to implementing the Reach Every District/Reach Every Child (RED/REC) approach to enhance global immunization efforts.

## BACKGROUND

This technical brief outlines the rationale and approach that USAID’s MOMENTUM Integrated Health Resilience (MIHR) is taking with partner countries to accelerate their post-pandemic immunization catch-up and recovery and build the resilience of their national immunization programs (building on subnational learning). The information presented is for consideration and use by those global and country actors who, like MIHR, work in fragile settings and at the nexus of humanitarian and development assistance.<sup>1</sup> It describes how the project’s country partners are adapting and using the Reaching Every District/Reaching Every Child (RED/REC)<sup>2</sup> approach to build more resilient, sustainable, and equitable immunization services in settings affected by conflict and other environmental and man-made shocks and stresses.

Beginning in 2020, the COVID-19 pandemic put unprecedented strains on national health systems, including interruptions to routine childhood immunization programs. In 2021, when global priorities shifted to making COVID-19 vaccines available to high-risk populations, routine childhood vaccination services and supplemental immunization campaigns were temporarily suspended, contributing to a sharp drop in childhood vaccination coverage. Globally, an estimated 22.7 million children under the age of 1 year did not receive basic vaccines in 2020, approximately 3.7 million more than in 2019. Of

### Routine Immunizations are Vital

Routine immunization services in the humanitarian-development nexus are a foundation of child health and well-being, and a vital entry point to primary health care services. Zero-dose children—those who have not received a single dose of the diphtheria-tetanus-pertussis (DTP) vaccine—are especially vulnerable to illness and death from vaccine-preventable diseases. Un- and under-vaccinated children, their families, and communities may face systemic barriers to accessing essential health services that are exacerbated when conflict, disasters, displacement, or other emergencies occur, and local and national health systems break down. Unable to access preventive health care, these communities are also more likely to be exposed to infectious disease outbreaks. Communities in remote, conflict-affected, or urban areas are the three geographic contexts in which nearly 50 percent of zero-dose children live. MOMENTUM Integrated Health Resilience works in these settings to restore, sustain, and strengthen maternal, newborn, and child health services, provide voluntary family planning and reproductive health information and services, identify marginalized or missed communities, reach under-immunized children, and support routine immunization—a vital shield against deadly vaccine-preventable epidemics.

Source: <https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/immunization-coverage/who-unicef-estimates-of-national-immunization-coverage>. See also <https://www.gavi.org/our-alliance/strategy/phase-5-2021-2025/equity-goal/zero-dose-children-missed-communities>.

<sup>1</sup> USAID MOMENTUM. n.d. “The Humanitarian-Development Nexus: A Framework for Maternal, Newborn, and Child Health, Voluntary Family Planning, and Reproductive Health.” <https://usaidmomentum.org/resource/humanitarian-development-nexus/>.

<sup>2</sup> The RED/REC approach was developed by WHO and partners in the early 2000s and is implemented by countries to strengthen their immunization programs and improve equity. The five components (as seen in the graphic later in this brief) align with health system strengthening elements. Further adaptation of RED/REC has been done in the Africa region using the 2017 Reaching Every District (RED) guide: WHO. 2017 revision.” Reaching Every District (RED). A guide to increasing coverage in the African Region.” [https://www.afro.who.int/sites/default/files/2018-02/Feb 2018 Reaching Every District %28RED%29 English F web v3.pdf](https://www.afro.who.int/sites/default/files/2018-02/Feb%202018%20Reaching%20Every%20District%20%28RED%29%20English%20F%20web%20v3.pdf).

these, 17.1 million children did not receive their first dose of DTP vaccine (a proxy for zero-dose children), and an additional 5.6 million children were only partially vaccinated.<sup>3</sup>

Immunization coverage has partially recovered since 2021 but remains below 2019 levels. WHO and UNICEF estimates for 2022 coverage found that more than 20.5 million children still missed out on one or more vaccines, and over 14.3 million missed out on DPT1.<sup>4,5</sup> Children in these settings often fail to complete the basic immunization schedule because of the breakdown—and sometimes deliberate destruction—of vital health infrastructure, the displacement of health workers, and the barriers that displaced and other migratory populations face in obtaining government services, including, in some cases, the lack of civil documentation and registration. In response to this situation, USAID, WHO, Gavi the Vaccine Alliance, UNICEF, and other local partners have redoubled their efforts to address the reasons why immunization and other primary health care (PHC) services continue to miss some children and their families.<sup>6</sup>

## MOMENTUM INTEGRATED HEALTH RESILIENCE APPROACH

MOMENTUM Integrated Health Resilience works with partner countries in fragile and conflict-affected settings to strengthen basic immunization services for women and children as part of maternal, newborn, and child health (MNCH), voluntary family planning (FP), reproductive health (RH), and nutrition services. MIHR focuses on strengthening health resilience, including the preparedness of local health systems, health facilities, health care providers, communities, households, and individuals to deliver quality health information and services in times of calm but also during conflicts, disasters, and other shocks and stresses.

MOMENTUM Integrated Health Resilience collaborates with national and subnational health authorities, international organizations, local civil society, and others at the humanitarian-development nexus in five partner countries (Burkina Faso, the Democratic Republic of the Congo [DRC], Mali, Niger, and South Sudan) to identify marginalized communities, find zero-dose and other under-vaccinated children, and address gaps in immunization services. To help bridge the divide between humanitarian and development assistance, the project seeks to increase coordination and collaboration among actors: government, humanitarian, development, public, private, national, and local. Project teams also work with them to stabilize and accelerate the post-pandemic recovery of essential immunization and other PHC services. MIHR's holistic approach to strengthening the resilience capacities of health systems, communities, and households considers risk awareness and surveillance; emergency preparedness, response, and recovery; and system transformation (through broader health and social sector development) to prevent future crises and facilitate faster recovery when they do occur.

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<sup>3</sup> WHO. 2021. "Progress and Challenges with Achieving Universal Immunization Coverage: 2022 WHO/UNICEF Estimates of National Immunization Coverage." <https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/immunization-coverage/who-unicef-estimates-of-national-immunization-coverage>.

<sup>4</sup> WHO. 2023. "Progress and Challenges with Achieving Universal Immunization Coverage: 2022 WHO/UNICEF Estimates of National Immunization Coverage." Estimates as of July 2, 2023. [https://cdn.who.int/media/docs/default-source/immunization/wuenic-progress-and-challenges.pdf?sfvrsn=b5eb9141\\_12&download=true](https://cdn.who.int/media/docs/default-source/immunization/wuenic-progress-and-challenges.pdf?sfvrsn=b5eb9141_12&download=true). See also <https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/immunization-coverage/who-unicef-estimates-of-national-immunization-coverage>. Accessed August 28, 2023.

<sup>5</sup> UNICEF. n.d. "Immunization and conflict: Children everywhere, in any situation or circumstance, have the right to survive and thrive." <https://www.unicef.org/immunization/immunization-and-conflict>. Accessed August 28, 2023.

<sup>6</sup> USAID. n.d. "Reaching Zero-Dose Children: Resources from MOMENTUM." <https://usaidmomentum.org/zero-dose-resources/>.

To reach zero-dose and under-immunized children and their family members with immunization and other essential primary health care services, MOMENTUM Integrated Health Resilience works strategically with its country partners to:

- Adapt and leverage the RED/REC approach in fragile settings to more effectively serve zero-dose and under-immunized children in their specific contexts.
- Assess and strengthen subnational health systems and community capacities that are key during shocks and stresses to RED/REC and the continuity of immunization and other primary health care services.
- Integrate elements of emergency preparedness and response planning with immunization microplanning (a cornerstone of the RED/REC approach).

## ADAPTING AND LEVERAGING THE RED/REC APPROACH IN FRAGILE SETTINGS

Communities in fragile, conflict, and cross-border settings—especially nomadic, refugee, and internally displaced populations—are often difficult to identify and reach regularly with health care services, including immunization. Government services are particularly constrained in this respect. MOMENTUM Integrated Health Resilience works closely with public and private health systems, communities, civil society organizations (CSOs), international partners, and others within and beyond the health sector to identify missed communities/families, with a focus on reaching zero-dose and other under-vaccinated children.

The RED/REC approach is a package of proven immunization management and implementation practices and tools that has the potential to reduce the currently high numbers of zero-dose and under-immunized children in conflict-affected and other fragile settings. Most Gavi-eligible countries have been implementing elements of the RED approach for more than two decades. Districts and health facilities across Africa and Asia have used it at different levels of intensity to raise childhood vaccination coverage, strengthen their routine immunization programs, and introduce new and under-utilized vaccines.

### Strengthening Resilience Capacities for Immunization: A Few Examples

**Absorptive capacities** help service delivery points to prevent and then cope to avoid permanent, negative impacts from shocks and stresses.

*Example: Linking emergency preparedness and early warning systems with immunization program microplanning (including for vaccine availability and delivery).*

**Adaptive capacities** strengthen the health system's ability to make changes to mitigate shocks and stresses, toward improving system performance.

*Example: Contingency planning and adjusted immunization service delivery to avoid/address vaccination session disruptions. This includes adapting approaches such as RED, periodic intensification of routine immunization, and missed opportunities for vaccination by local health facilities and health workers to reach populations most efficiently.*

**Transformative capacities** strengthen the enabling environment for multi-sectoral networks and broader immunization and health system change; address underlying vulnerabilities and contextual dynamics affecting system performance.

*Examples: Health emergency preparedness structures at national and subnational levels include immunization services, representatives, and data for local decision-making; more robust financial and procurement mechanisms for continual and emergency vaccine supply and delivery.*





In 2017, WHO and its partners revised the RED Guide<sup>7</sup> for the Africa region, increasing the emphasis on reaching every community and every child, integrating immunization with other primary health care services, vaccinating in the second year of life and across the life course, and addressing the need to tailor vaccinations for the urban poor, isolated rural, disabled, and conflict-affected populations. When the COVID-19 pandemic

started in early 2020, countries in Africa were at various stages in the process of adapting and rolling out the 2017 RED Guide.

For MOMENTUM Integrated Health Resilience, support for RED/REC revitalization helps national and particularly subnational health authorities to identify and reach more zero-dose and other under-immunized children than otherwise reached through traditional approaches or where services are not functioning as planned. The RED/REC approach is well suited to identify and track these children, as it calls upon health workers and community actors to map missed households and tailor their service delivery strategies—fixed, outreach, mobile, catch-up, and periodic intensification of routine immunization (PIRI)<sup>8</sup>—to consistently reach all children and other clients with timely vaccinations. MOMENTUM Integrated Health Resilience partner country teams support RED/REC adaptation (including for other maternal and child health services)

<sup>7</sup> Many countries had adjusted RED to also include “reaching every community” or “reaching every child” before the 2017 revision. MOMENTUM Integrated Health Resilience and most development projects and agencies refer to the approach today as “RED/REC.”

<sup>8</sup> USAID, WHO, IMMUNIZATIONbasics Project. 2009, pre-print release. *Periodic Intensification of Routine Immunization: Lessons Learned and Implications for Action*. [https://www.mchip.net/sites/default/files/PIRI\\_monograph\\_Feb09\\_0.PDF](https://www.mchip.net/sites/default/files/PIRI_monograph_Feb09_0.PDF).

and health worker orientation and training, as well as health facility and community microplanning, supportive supervision, data review meetings, data quality self-assessments, and other systems strengthening activities.

## **STRENGTHENING SUBNATIONAL HEALTH SYSTEM CAPACITIES**

RED/REC implementation and a successful immunization program need a well-functioning health system that can equitably and consistently reach target populations with various vaccines; this remains a challenge for health systems in many lower- and middle-income countries. RED/REC helps to quantify supply, staff, transport, allowances, and other operational needs for immunization service delivery. However, for optimal performance, it must be linked with national and subnational health system planning, budgeting, financing, supply chains, human resources, and health management information systems.

MOMENTUM Integrated Health Resilience partner country teams actively work at the humanitarian-development nexus and with provincial and district health teams (or equivalents) to strengthen subnational health system functions and health resilience capacities. The country teams provide support, for example, for annual planning and partner coordination meetings, integrated supervision and data quality improvement, and periodic data reviews and use in monitoring. Several teams also provide support to partner governments to expand community health worker (CHW) networks and improve community health systems. It is in the context of this broader health system resilience work and collaboration with humanitarian partners that MOMENTUM Integrated Health Resilience supports the revitalization and adaptation of RED/REC to sustainably improve immunization coverage.

## **EMERGENCY PREPAREDNESS AND RESPONSE**

In several partner countries, MOMENTUM Integrated Health Resilience advisors have worked with subnational authorities to develop emergency preparedness and response plans based on worst-case risk scenarios (i.e., new disease outbreaks, conflicts, ethnic tensions, political tensions, and disasters such as flooding, drought, and other climate-related changes). To increase the absorptive and adaptive resilience capacities of immunization systems, partner country programs are beginning to explore the feasibility of adding elements of emergency preparedness and response planning to RED/REC microplanning.

## **EARLY LEARNING: MOMENTUM INTEGRATED HEALTH RESILIENCE COUNTRY ASSESSMENTS**

Building on the MOMENTUM-wide commitment to reduce the numbers of zero-dose and under-immunized children, MOMENTUM Integrated Health Resilience provides immunization technical assistance (TA) to five countries, as noted above—Burkina Faso, DRC, Mali, Niger, and South Sudan—with efforts focused in subnational areas determined with USAID and the respective ministries of health (MOHs). From September 2022 to August 2023, four country teams (DRC, Mali, Niger, and South Sudan) supported rapid assessments and stakeholder workshops to document subnational-level RED/REC implementation and immunization program performance. Several also assessed, from stakeholder perspectives, the functionality of the health systems that immunization and RED/REC depend on and the degree to which emergency preparedness and response structures are in place and inclusive of immunization. Although country findings and recommendations were specific to individual contexts, themes emerged, as presented in the table below.

## Assessment Findings and Implications for MOMENTUM Integrated Health Resilience Support

Strategy	Common Strengths/Gaps	MOMENTUM Integrated Health Resilience supports...
<p><b>Adapt and leverage the RED/REC approach in the fragile settings where MIHR works</b></p>	<ul style="list-style-type: none"> <li>● <b>Revitalizing RED/REC:</b> DRC and Burkina Faso MOHs adapted the 2017 RED Guide and introduced new national RED/REC guidelines and tools in 2021-22. Niger pivoted to an equity approach that considered different marginalized populations (nomadic, religious, urban poor, conflict-affected, and displaced groups). <b>Gaps:</b> <i>Adaptation and rollout of new RED/REC guidelines were delayed (Mali, South Sudan). Alignment with local realities and equity strategies is needed in fragile settings (DRC, Niger).</i></li> <li>● <b>Microplanning:</b> Immunization microplanning is routine at the district level; however, the degree to which health facilities participate in microplanning varies. <b>Gaps:</b> <i>Most health facility staff have not been oriented on RED/REC and associated tools, and require training in microplanning.</i></li> <li>● <b>Service delivery:</b> Most health facilities conduct both fixed and outreach immunization sessions, but not always according to national norms or that are tailored to displaced or other at-risk populations. <b>Gaps:</b> <i>Out-of-date or incorrect population estimates make locating and tracking zero-dose and un-/under-immunized children difficult; outreach targets may be unrealistic or insufficiently tracked given available resources and/or insecurity.</i></li> <li>● <b>Community engagement:</b> All countries report engaging community leaders in planning for immunization outreach sessions, usually through established community health or development committees and CHWs. <b>Gaps:</b> <i>There are too few active CHWs in some areas; CHWs may lack community mobilization and interpersonal communication skills.</i></li> <li>● <b>Supportive supervision:</b> Many health facilities report receiving quarterly supervision visits; several countries have integrated supervision systems; problem-solving plans are a feature of supervision. <b>Gaps:</b> <i>Follow-up on problem-solving plans is lacking; quality of supervision was not assessed.</i></li> <li>● <b>Monitoring for action:</b> Data review meetings are held regularly; at least one country recently conducted a data quality assessment (DQA) and developed a plan for data quality improvement. <b>Gaps:</b> <i>Expanded Program on Immunization (EPI) focal points do not always participate in data review meetings; data quality support is needed at the facility level; there is lack of funding to implement data quality improvement plans.</i></li> </ul>	<ul style="list-style-type: none"> <li>● Adaptation, launch, and initial rollout of new national RED/REC guides and tools with Mali and South Sudan MOHs. Alignment and tailoring of RED/REC and equity approaches in subnational fragile settings in Burkina Faso, DRC, and Niger.</li> <li>● Adaptation/introduction of newer RED/REC priorities—i.e., integration, vaccination in 2<sup>nd</sup> year of life, special approaches (including “catch-up,” PIRI, CHWs as vaccinators, and adjusting service delivery locations and times) for conflict-affected and other vulnerable populations.</li> <li>● RED/REC orientation and microplanning training and compilation guidance for district and health facility staff, including quarterly review of health facility microplans and tracking of planned, versus conducting fixed and outreach sessions.</li> <li>● Efforts to close immunity gaps through feasible local actions, including coordination with community groups, health clusters, CSOs, and CHWs to identify zero-dose and under-immunized children.</li> <li>● Refresher training for CHWs in the basics of immunization, including social mobilization, risk communication, and interpersonal communication.</li> <li>● Data analysis and problem-solving at community health centers with EPI managers.</li> <li>● Capacity strengthening for health facility staff on the fundamentals of immunization data and data analysis (through training, mentoring, data triangulation, etc.).</li> <li>● Immunization planning and data review meetings that are tailored</li> </ul>

Strategy	Common Strengths/Gaps	MOMENTUM Integrated Health Resilience supports...
<p><b>Strengthen subnational health system and community capacities that are key to RED/REC and service continuity</b></p>	<ul style="list-style-type: none"> <li>● <b>Leadership and governance:</b> National immunization coordination mechanisms (interagency coordinating committees, technical working groups, and humanitarian health clusters) are functioning. <b>Gaps:</b> <i>Partner coordination at the subnational level is often weak, leading to parallel structures and gaps in support.</i></li> <li>● <b>Planning and budgeting:</b> Annual planning, budgeting, and implementation systems are established and decentralized. <b>Gaps:</b> <i>Funding limitations and competing priorities result in siloed annual planning and partial implementation.</i></li> <li>● <b>Human resources:</b> Health focal points are assigned and working with communities, notably CHWs. <b>Gaps:</b> <i>Insufficient numbers of health workers in health facilities, particularly in conflict-affected areas, limit ability to conduct outreach.</i></li> <li>● <b>Health management information systems (HMIS):</b> Immunization data are captured through the national HMIS (i.e., District Health Information Software 2 [DHIS2]), which has improved timeliness and data visualization. <b>Gaps:</b> <i>Data quality and completeness continue to be an issue at the input or base level.</i></li> <li>● <b>Supply chain:</b> MOH supply chains can deliver vaccines and other immunization supplies on time, most of the time. <b>Gaps:</b> <i>Vaccine stockouts and equipment failures occur at health facilities during calm and in crisis.</i></li> <li>● <b>Community health systems:</b> Countries have national community health strategies/roadmaps; networks of CHWs; and CHW training, supervision, and supply systems. <b>Gaps:</b> <i>Too few CHWs are in conflict-affected sites and are living over 5 kms from health facilities; multiple types of CHWs have different priorities, incentives, training, supervisors, and reporting systems.</i></li> </ul>	<p>to local fragilities and involve broader sectoral involvement.</p> <ul style="list-style-type: none"> <li>● Advocacy to address immunization and other FP/RH and MNCH resource constraints (human, financial, and material), including increasing the numbers of active CHWs in fragile areas.</li> <li>● Mechanisms to improve subnational government/partner coordination, including linking immunization plans with broader PHC and pandemic preparedness.</li> <li>● Interventions to improve virtual and blended learning—including use of digital options—for microplanning and budgeting, logistics management, supervision and on-the-job mentoring, networking of health care workers, client surveys, and local data analysis and use.</li> <li>● Mapping supply chain realities to determine causes of and eliminate health facility stockouts of vaccines and other primary health care commodities and cold chain interruptions.</li> <li>● Harmonized CHW guidelines to link with immunization plans and foster client-centered delivery and uptake, based on local realities.</li> <li>● Implementation of community health roadmaps (Innovation: mutual assistance or framework agreements between CSOs and community groups to increase accountability to communities [Mali]).</li> </ul>
<p><b>Integrate elements of emergency preparedness and response planning with immunization microplanning</b></p>	<ul style="list-style-type: none"> <li>● Crisis risk management (CRM) and emergency preparedness and response committees exist at national and subnational levels. They are government-led and multisectoral, and have national and international financial support. <b>Gaps:</b> <i>Such committees are said to be largely inactive except in times of crisis; health programs like immunization do not have a direct link to these committees. Global guidance on immunization microplanning does not include CRM or emergency preparedness and response</i></li> </ul>	<ul style="list-style-type: none"> <li>● Add elements from emergency preparedness and response planning to RED/REC microplanning, and other efforts to improve preparedness for service continuity, including community surveillance, at district (or equivalent) and facility levels.</li> <li>● Inter-community dialogues and cross-sectoral collaboration (e.g., among health clusters, emergency</li> </ul>



Strategy	Common Strengths/Gaps	MOMENTUM Integrated Health Resilience supports...
	<i>planning. Early humanitarian response assessments do not include attention to immunization.</i>	response teams, and EPI/primary health care) to increase contingency planning, attention to immunization in any type of humanitarian assessments, and greater partner and local health authority accountability for results.

## ACTING ON ASSESSMENT FINDINGS AND RECOMMENDATIONS

MOMENTUM Integrated Health Resilience has intensified its support for the revitalization of RED/REC in five technical assistance countries, including for refresher training on microplanning at sub-national levels (where MIHR has a presence) and the use of the revised guidelines launched in Mali and South Sudan. To improve service continuity in times of crisis, the project has begun collaborating with government partners to add elements of emergency preparedness and response planning to RED/REC microplanning. The project is also exploring ways to: 1) link immunization service delivery to community-based disease surveillance and response; 2) tailor annual plans, budgets, and data reviews to address local fragilities; 3) advocate for inclusion of immunization in humanitarian assessments and decision-making; 4) encourage broader sectoral involvement, local data use, and “feed-up” of subnational results and findings to national decision-makers (i.e., EPI, immunization interagency coordinating committees, health clusters); and 5) train CHWs in social mobilization and risk communication.

These efforts are being adapted as feasible. Each partner country program provides support that is aligned with respective national priorities, local needs, project resources, and other partner contributions. Country teams are also exploring more deliberate integration of immunization, health resilience, and subnational health system strengthening efforts. These include building stronger community health systems and CHW networks; improving subnational planning, budgeting, monitoring, and problem-solving; and addressing breaks in vaccine supply and the cold chain. Community engagement efforts to reduce post-pandemic immunity gaps involve feasible local actions with CSOs and community groups and leaders, in order to identify zero-dose and other under-immunized children and increase the engagement of community leaders in planning (as described in the [Quality Immunization Services Planning Guide](#)). MOMENTUM Integrated Health Resilience teams are also conducting community dialogues that build trust and improve health worker and client interactions, including considerations for improved [service experience](#), gender needs, and social and behavior change. With health facilities, the project is improving immunization data quality and use through inclusive review meetings, and training and coaching for health workers in the basics of immunization data analysis and [data triangulation](#). Project-wide, MOMENTUM Integrated Health Resilience is also promoting existing digital and data solutions for data capture/analysis/use (such as applying human-centered design for building data culture and local data triangulation skills),<sup>9</sup> virtual and blended learning, networking of frontline health workers, direct messaging to clients, and care/client satisfaction surveys.

<sup>9</sup> A WHO/UNICEF/U.S. Centers for Disease Control and Prevention data triangulation framework covering the triangulation of immunization data for program decision-making that uses District Health Information Software 2 (DHIS2) will be among the digital solutions assessed, along with other sources, such as JSI’s “Data Triangulation: Use of Health Facility Immunization Reporting Tools” (<https://www.jsi.com/resource/data-triangulation-use-of-health-facility-immunization-reporting-tools/>) and “Vx Data Insights: Human-Centered Data for Decision & Action” (<https://vx-data-insights.webflow.io>).

## DOCUMENTING AND SHARING LEARNING

In the COVID-19 era and moving forward, continued collaboration with global and regional partners is vital to close health equity gaps, ensure the availability of primary health care services (including immunization as a priority), and ensure preparedness to prevent and respond to future pandemics. To this end, MOMENTUM Integrated Health Resilience promotes cross-country learning and dissemination among country teams, their partners, and the global community. Country teams learned from each other during their RED/REC assessments, including developing a standard protocol and tools that can be used in the future to measure the strength of RED/REC implementation. MIHR will continue facilitating peer-to-peer information exchanges as project country partners adapt existing approaches (such as RED/REC, zero-dose, and health resilience capacity strengthening with households, communities, and health systems). As these efforts progress, teams will support local stakeholders to analyze and present their results in international and national forums.

MOMENTUM Integrated Health Resilience will also continue to share emerging country learnings at the global level, such as with the [Immunization Agenda 2030 SP5 Outbreaks and Emergencies](#) working group and [Gavi's zero-dose and equity accelerator efforts](#). With the MOMENTUM-wide Zero-Dose Immunization Group, MOMENTUM Integrated Health Resilience is contributing to cross-project strategies that reach missed infants and communities, notably in fragile and conflict-affected environments. The project also interacts with and advises other disease control initiatives, such as with polio eradication and measles control/elimination, to help countries move from often verticalized campaigns to more stable modes of immunization service delivery. The guidelines that MOMENTUM Integrated Health Resilience uses with groups and partners include the WHO [Vaccination in Acute Humanitarian Emergencies](#), the [Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response](#), and UNICEF's [Core Commitments for Children](#).

## CONSIDERATIONS AND RESOURCES: RESILIENCE-BUILDING IN FRAGILE SETTINGS

The following are some general considerations and resources (linked below and listed on following pages) that can be applied in countries as they look to build resilience in their respective fragile settings:

1. Given challenges with denominators and coverage discrepancies in fragile geographies, local data analysis should involve community participation to determine populations for vaccinations (i.e., zero-dose and under-vaccinated infants and pregnant women) and to align immunization delivery services to reach them (such as fixed sites, outreach, mobile, [PIRI](#), and missed opportunity for vaccination [[MOV](#)]).
2. Microplanning should incorporate considerations of different risk scenarios from available fragility and resilience studies and approaches (e.g., [Capacity and Needs Assessment Tools to Build Community Resilience](#), [MOMENTUM's Resilience Approach](#), and the [Analysis of the Resilience of Communities to Disaster \[ARC-D\] Toolkit](#)) and respond to different shock and stress scenarios. Likewise, preparedness plans should respond to unforeseen epidemics and known hazards, such as adapting learning from [COVID-19 vaccination microplanning](#).
3. Donors and governments should proactively engage communities, including [formalizing and sustaining partnerships with CSOs and community groups](#), to know where missed communities/families are and identify how these families will be reached with immunization services at least five times a year, every year. Ideally, this is linked with other child health interventions and with health clusters who have community relationships and trust.
4. To empower local problem solving, consider adopting [Reaching Every District Using Quality Improvement \(RED-QI\) Methods](#) and learnings from the [Universal Immunization through Improving](#)

Family Health Services (UI-FHS) project. Similar techniques from previous USAID projects should also be considered (e.g., fishbone analysis, local quality improvement teams, and community involvement with facilities and local authorities).

5. Implement immunization through a resilience lens using resources such as the WHO products “Guiding Principles for recovering, building resiliency, and strengthening of immunization in 2022 and beyond,” “Health system resilience indicators: an integrated package for measuring and monitoring health system resilience in countries,” and the WHO Reaching Every District Guide.
6. Support learning opportunities for local facilities and vaccinators on the fundamentals of immunization data analysis and use for local decision-making in coordination with WHO, UNICEF, USAID, and other learning exchanges, such as: The Geneva Learning Foundation, Immunization Academy, The Boost Community, TechNet, and the Zero-Dose Community of Practice.
7. Undertake a multisectoral approach to integrating gender, behavioral norms, adolescent health, and health system strengthening with efforts to improve immunization results, particularly in fragile settings. These should be linked with a mechanism to identify and reach pregnant women before delivery (e.g., at antenatal visits) and at childbirth so they know that their newborns should receive vaccines, understand the vaccination schedule, and can access services (e.g., receiving a vaccination card and service provision from health workers and CHWs).

## RESOURCES

### Immunization in Emergencies, Conflict, and Fragile Settings

- 1) Grundy, J. and B.A. Biggs. 2018. “The Impact of Conflict on Immunisation Coverage in 16 Countries.” *International Journal of Health Policy and Management*.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6499911/pdf/ijhpm-8-211.pdf>.
- 2) Immunization Agenda 2030. n.d. “SP4 Life Course and Integration.”  
<https://www.immunizationagenda2030.org/strategic-priorities/life-course-integration>.
- 3) Immunization Agenda 2030. n.d. “SP5 Outbreaks and Emergencies.”  
<https://www.immunizationagenda2030.org/strategic-priorities/outbreaks-emergencies>.
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## Online Immunization-related Training Resources and Communities of Practice

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- 2) Immunization Academy: <https://immunizationacademy.com/en>
- 3) Sabin Vaccine Institute: Boost Community: <https://www.sabin.org/communities/boost-community/>
- 4) TechNet-21: <https://www.technet-21.org/en/>
- 5) Zero-Dose Community of Practice: <https://www.zero-dose.org/>

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Cover photo: Mariama Harouna holds her infant for early vaccinations in Gao, Mali, administered here by health worker Youssouf Koddo. Photo by Salamata Ibrahim, community health worker, MOMENTUM Integrated Health Resilience/Mali.

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