

Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update— Bangladesh

May 2024

Gavi Zero-Dose Learning Hub (ZDLH)

Funded by [Gavi](#), the Zero-Dose Learning Hub (ZDLH) serves as the global learning partner and is led by [JSI Research & Training Institute, Inc.](#) (JSI) with two consortium partners, [The Geneva Learning Foundation](#) (TGLF) and the [International Institute of Health Management Research](#) (IIHMR). Together, the consortium enables sharing and learning across four Country Learning Hubs (CLHs) in Bangladesh, Mali, Nigeria, and Uganda to advance the uptake of evidence by synthesizing and disseminating key learnings. The ZDLH also focuses on improving immunization equity and reducing the number of zero-dose (ZD) and under-immunized children globally by facilitating high-quality evidence generation and uptake.

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ACRONYMS

[S]BCC	[social and] behavior change communication
CC	city corporation
CES	Coverage Evaluation Survey
CHW	community health worker
CLH	Country Learning Hub
CSO	civil society organization
DGHS	Directorate General of Health Services
DHIS	District Health Information System
DHS	Demographic and Health Survey
DNCC	Dhaka North City Corporation
DSCC	Dhaka South City Corporation
EAF	Equity Acceleration Fund
EPI	Expanded Programme on Immunisation
eVLMIS	electronic vaccine logistics management information systems
FDMN	forcibly displaced Myanmar nationals
FED	Fragility, Emergencies, and Displaced Populations [Policy]
GIS	geographic information system
HCD	human-centered design
HDSS	Health and Demographic Surveillance Sites
HSS	health systems strengthening
HTR	hard-to-reach
icddr,b	International Centre for Diarrheal Disease Research, Bangladesh
IR	implementation research
IRMMA	Identify, Reach, Monitor, Measure, Advocate
JSI	JSI Research & Training Institute, Inc.
KCC	Khulna City Corporation
LGI	local government institutions
MIS	Management Information System
MoLGRDC	Ministry of Local Government, Rural Development, and Cooperatives

MoHFW	Ministry of Health and Family Welfare
NGO	nongovernmental organization
NIS	National Immunization Strategy
PEA	political economy analysis
PHC	primary health care
RCM	rapid convenience monitoring
SCC	Sylhet City Corporation
UI	under-immunized
UNHCR	United Nations High Commissioner for Refugees
VPD	vaccine-preventable diseases
WHO	World Health Organization
ZD	zero-dose
ZDLH	Zero-Dose Learning Hub
ZDLH-X	ZDLH Inter-Country Peer Exchange

BANGLADESH

BANGLADESH COUNTRY LEARNING HUB

The Zero-Dose Learning Hub (ZDLH), established by Gavi, addresses immunization equity by generating data, evidence, new insights, and learning to better understand the factors influencing implementation and performance of approaches to identify and reach zero-dose (ZD) and under-immunized (UI) children and missed communities. The ZDLH consortium is led by [JSI Research & Training Institute, Inc. \(JSI\)](#), in collaboration with [The Geneva Learning Foundation](#) and the [International Institute of Health Management Research](#). ZDLH works to address immunization equity through the generation of evidence and learning around effective methods and approaches for identifying and reaching zero-dose and under-immunized children. Four Country Learning Hubs (CLHs) in Bangladesh, Mali, Nigeria, and Uganda advance the uptake of research and evidence to improve immunization policy and programming, especially at subnational levels. The [Bangladesh Learning Hub](#) is led by the International Centre for Diarrheal Disease Research, Bangladesh (icddr,b) with partners Jhpiego and RedOrange Communications.

ZDLH Technical Assistance

During the period July–December 2023, as the global learning partner, JSI continued to provide technical assistance, collaborate, and co-create with the Bangladesh Learning Hub. JSI provided tailored technical assistance on the political economy analysis (PEA) and the development and approval of a PEA tool and protocol. This tool aims to uncover governance and political economy aspects influencing ZD programming and policies, with a focus on evidence generation and use to inform ZD-related policies and programming in the country. Conducting a PEA within the context of Gavi 5.0's ambitious objectives is paramount, as the success of these objectives is intricately tied to the prevailing political and economic landscape. The goal is not just to identify challenges with generation and use of evidence to inform ZD programming, but also to prescribe targeted solutions, offering a strategic roadmap for informed policy decisions and a resilient immunization infrastructure in Bangladesh. JSI and the International Institute of Health Management Research, with support from icddr,b received approval from the icddr,b Institutional Review Board to implement the PEA, and are coordinating the forthcoming data collection, involving key informant interviews closely with local partners to ensure comprehensive insights into improving immunization efforts.

Additional Resources

- Current and previous strategies: [Gavi Country Documents—Bangladesh](#)
- [Bangladesh ZDLH Zero-Dose Landscape](#)
- [ZDLH Semiannual Update \(October 2023\)](#) (January–June 2023)
- [Early Learning from Zero-Dose Practitioners in Bangladesh and Mali: Gavi ZDLH Inter-Country Peer Exchange \(ZDLH-X1\)](#)

ZERO-DOSE CONTEXT—GAVI SUPPORT

Table 1. Grants and Objectives

Grant	Status	Objective
Health Systems Strengthening (HSS) 3	Active	Core health systems strengthening grant
Fragility, Emergencies, and Displaced Populations (FED) Policy Funds	Active—Phase 2	Provide support to forcibly displaced Myanmar nationals (FDMN)
Equity Acceleration Fund (EAF)	Under revision	Targeted intervention to accelerate reaching zero-dose and missed communities

Bangladesh has an ongoing Health Systems Strengthening grant with equity-focused elements:

- Development and implementation of **equity focused strategy to improve immunization in hard-to-reach (HTR) populations and low performing rural and urban areas.**
- **Enhanced service delivery** through increasing availability and training of vaccinators, organizing additional vaccination sessions, and engaging community groups to mobilize community members.
- **Expansion of electronic data systems**—electronic vaccine logistics management information system (eVLMIS) and e-tracker in the district health information system (DHIS)2—for improved data-driven procurement, planning and monitoring.
- Research informed **social and behavior change activities** delivered through local community groups.

The equity interventions focus on 16 districts and four city corporations (CCs) with hard-to-reach populations and low performing urban and rural areas: Bandarban, Chattogram City Corporation, Comilla, Cox’s Bazar, Dhaka, Dhaka North City Corporation, Dhaka South City Corporation (DSCC), Gopalganj, Habiganj, Jamalpur, Khagrachari, Kishoreganj, Moulvi Bazar, Narail, Narayanganj, Netrokona, Rangamati, Sunamganj, Sylhet, and Sylhet City Corporation (SCC).

In addition to Bangladesh’s ongoing HSS grant, the country is preparing their EAF strategy for 2024–2028. It focuses on intensifying efforts to reach zero-dose children: “The goal for the EAF grant is to reduce zero-dose and under-immunized children in Bangladesh by 50 percent by the end of the grant period.” The EAF activities intend to fill, extend, and deepen existing HSS activities by specifically tailoring them to zero-dose children and missed communities, using the Gavi Identify, Reach, Monitor, Measure, Advocate ([IRMMA](#)) framework. Additionally, Bangladesh has also proposed activities under Gavi’s [FED policy](#) funding to support activities targeting FDMN.

Bangladesh’s proposed EAF strategy focuses on ZD and UI children concentrated in 19 districts and 12 city corporations throughout the country, which includes a mix of expanding support in areas already under the HSS grant, as well as extending into new areas. To identify priority districts and populations, the country used DHIS2 data for 2022 to identify the areas with the largest percentages of ZD and UI children, with support from Learning Hub partner icddr.^b Under the EAF strategy, Bangladesh will expand support in existing HSS-supported districts (Bandarban, Comilla, Cox’s Bazar, Sunamganj, and

Sylhet) and city corporations (Chattogram, Dhaka North, Dhaka South, and Sylhet). Proposed additional areas for EAF support are: 1) Bagerhat, Bogura, Chapai Nowabganj, Gazipur, Jhalokati, Jhenaidah, Joypurhat, Lakshmipur, Magura, Mymensingh, Naogaon, Noakhali, Patuakhali, and Sariatpur Districts, and 2) Barishal, Comilla, Gazipur, Khulna, Mymensingh, Narayanganj, Rajshahi, and Rangpur City Corporations. The FED policy targets three communities in Cox’s Bazar—Ukhia, Teknaf, and Bhashanchar Island.

IDENTIFY

Countries require a clear understanding of who, where, and how many ZD children and communities exist, and why they have been missed.

Table 2. Identify Priorities and Activities

<i>Identify Priorities in Bangladesh (EAF application—draft; not yet approved)</i>	Bangladesh Learning Hub <i>Identify</i> Activities
<ul style="list-style-type: none"> • Searching and line listing ZD children through routine sessions. • Engage community mobilizers to identify and track ZD and UI children (<i>Target population: urban/peri-urban</i>). • Develop and implement routine Expanded Programme on Immunization (EPI) and campaign vaccination application (Citizen Portal). • Training health workers and community health workers (CHW) to identify ZD children (<i>Target population: forcibly displaced Myanmar nationals</i>). 	<ul style="list-style-type: none"> • Rapid assessment of number and proportion of ZD and UI children in sub-national areas, determinants of ZD and UI, and interventions across the IRMMA framework. • Comprehensive landscape of data ecosystem for denominator and coverage data to make recommendations for improved tracking and measuring of ZD children. • Study of vaccination coverage and associated factors including lived experiences in FDMN and host communities and assess EPI and humanitarian service delivery mechanism.

Zero-Dose Rapid Assessment

The Learning Hub conducted a ZD rapid assessment (December 2022–May 2023) aimed at identifying ZD and UI children using a blend of secondary and primary data sources described in [Gavi’s Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update \(October 2023\)](#). The rapid assessment identified both demand and supply-side factors for ZD. Key demand-side reasons included:

- Migration due to environmental damage (river erosion), or cultural reasons (moving from parental to husband’s home).
- Concerns about side-effects.
- Family duties, especially at harvest time.
- Misconceptions and hesitation.

The most important supply-side reasons included:

- Shortage of health assistants and overload of work.
- Absence of opportunity to provide interpersonal communication.

- Distance to EPI centers and unavailability of transport.
- Inaccurate denominator in EPI.

Learn more: [Unveiling Equity Gaps: Insights from Rapid Assessment Survey](#).

Identify Interventions in Bangladesh

Based on review of the draft *EAF Strategic Narrative, Revised Gavi Budget Application (FDMN), and Gavi Budgeting Reporting Template 2023*, Gavi-supported *Identify* interventions in Bangladesh focus on identifying ZD and UI children through interventions including using community mobilizers to identify, track, and vaccinate ZD and UI children in urban priority areas across city corporations and municipalities, leveraging support from EPI and the Directorate General of Health Services (DGHS). UNICEF has several initiatives including the development and deployment of a vaccination app (Citizen Portal) to facilitate self-registration and identification of ZD and UI children, and the implementation of special microplans in city corporations to reach missed communities. Further interventions include transportation support for vaccinators to conduct house-to-house visits, and line listing activities in 50 *upazilas* spanning various geographic challenges including hill tracts, char areas (sandy/silty land surrounded by water), haors (wetlands), and coastal zones. Additional support activities include the maintenance and enhancement of system servers for the Citizen Portal to ensure effective identification and tracking of ZD and UI children, as well as additional transportation for health workers in hard-to-reach areas to conduct line listing for catch-up campaigns. In a focus on FDMN, training for health workers and community health workers is being conducted in Ukhia, Teknaf, and Bhashanchar Island to improve identification of ZD children. *Note: The Bangladesh EAF application is currently being refined, so these priority interventions may change during the finalization process.* **Learn more:** [Annex 1. Gavi-Supported Zero-Dose Interventions in Bangladesh](#).

Emerging Lessons and Learnings: Identify

The Bangladesh rapid assessment findings confirmed the existence of ZD and UI children in specific geographic areas of the country including: haor, hill, coastal, char, urban slums, and in plainland. This is despite the high overall vaccination coverage in the country.

The challenges related to defining ZD children in Bangladesh are multifaceted. The Gavi definition of ZD differs from that of the existing EPI definition, complicating the accurate identification and tracking of these children. To tackle these challenges, the CLH offered several recommendations. Firstly, utilizing DHIS2 data can be a useful step for the initial pinpointing of areas with high concentrations of ZD children, but to improve the identification of areas with ZD children, it is crucial to enhance the quality of administrative data from the DHIS2 and address accuracy issues related to the denominator of target children. Secondly, addressing problems with inaccurate and/or outdated denominator data is critical to achieving precise performance metrics. National surveys, such as the Coverage Evaluation Survey (CES) and the Demographic and Health Survey (DHS), are not currently designed to provide micro-level information, including sub-district or zone-level data, which could aid in identifying ZD children. However, revising sampling could provide more detailed information at the micro-level, such as from upazila/zone-level or specific upazilas with high proportions of ZD children. Additionally, lot quality assurance sampling could be a tool for both the identification and verification of missed communities, further streamlining the process of targeting interventions towards ZD children. Other emerging recommendations include:

- Utilize geographic information system (GIS) mapping for hard-to-reach areas, considering geographical context and local communication systems to reach pockets of populations. Additionally, an assessment is needed to standardize the process for estimating denominators for vaccine coverage in both urban and rural settings.
- Strengthen engagement with local government representatives and community influencers, such as members of the Union Parishad, school teachers, and community health workers, to motivate caregivers for childhood vaccination.
- Innovate with electronic or mobile-based interventions to help caregivers who have lost their children’s vaccination cards.
- Arrange frequent “crash programs” to increase immunization in areas with low coverage, and introduce evening EPI sessions for working mothers in urban areas.
- Transition from paper-based to digital monitoring systems to enhance the effectiveness of monitoring EPI coverage and the identification and vaccination of ZD and UI children.
- Estimate the context-specific transportation costs for hard-to-reach areas and develop policies to cover these costs for health assistants and their supervisors for regular field work and monitoring visits. A mechanism for the advance payment of transportation costs to field staff would address reimbursement issues.

REACH

After identification, the next step is to develop and implement targeted strategies that respond to the identified barriers. Reaching ZD children and missed communities requires addressing both supply side and demand side barriers.

Table 3. Reach Priorities and Activities

<i>Reach Priorities in Bangladesh (EAF application—draft; not yet approved)</i>	<i>Bangladesh Learning Hub Reach Activities</i>
<ul style="list-style-type: none"> • Expanding immunization staff: vaccinators, support staff, CHWs. • Development of updated microplans at all levels, with a focus on ZD children. • Enhanced service delivery through catch-up campaigns and additional immunization sessions including evenings and weekends. • Working with community members to advocate for and mobilize caregivers to reach ZD children (<i>Target population: urban/peri-urban</i>). 	<ul style="list-style-type: none"> • Implementation research on equity strategies in six districts, including on modified EPI session schedule, distribution of behavior communication materials, use of screening checklist, service provider training, community advocacy and involvement, electronic registration, monitoring and reminders, and EPI support groups. • Support to share learning from FDMN strategy.

Reach Interventions

Based on review of the draft *EAF Strategic Narrative, Revised Gavi Budget Application (FDMN), and Gavi Budgeting Reporting Template 2023*, Gavi-supported *Reach* interventions in Bangladesh aim to reach ZD and UI children through a variety of interventions focused on improved service availability and delivery,

community mobilization and awareness, and special populations and geographies. Interventions focused on service availability and delivery include enhanced routine EPI sessions, increased vaccination staff, microplan development, digital information displays, integrated services, and special session schedules. Community mobilization and awareness are the focus areas for interventions including advocacy workshops, social media awareness and door to door CHW campaigns. Targeted campaigns across city corporations, municipalities, and districts, including efforts focused on FDMN demonstrate a focus on key populations. Additionally, interventions aimed at FDMN in Ukhia, Teknaf, and Bhashanchar Island focus on community outreach and improved coordination of health services. Finally, EAF interventions focus on critical geographies. Health workers target key urban areas such as Dhaka North, Dhaka South, Narayanganj, Sylhet, Khulna, and Rangpur with additional routine EPI sessions, integration of EPI services, and various community mobilization efforts. In rural and peri-urban settings, activities include orientation and mobilization in specific zones within large city corporations. The plan also extends to 19 priority districts and 490 upazilas nationwide, with advocacy workshops and development of a comprehensive EPI Microplan for 2024. *Note: The Bangladesh EAF application is currently being refined, so these priority interventions may change during the finalization process.* **Learn more:** [Annex 1. Gavi-Supported Zero-Dose Interventions in Bangladesh.](#)

Improving Intervention Strategies through Human-Centered Design

Human-centered design (HCD) is a process that fosters innovation, prioritizes learning, and puts people at the center of public health solutions. The Learning Hub's HCD work in Bangladesh sought to refine and improve vaccination intervention strategies and inform implementation research planning in hard-to-reach areas and urban slums. Jhpiego supported an accelerated HCD process with virtual capacity strengthening and a design workshop emphasizing adapting interventions to local contexts, lowering the risk of failure, and considering user perspectives. The process included activities such as empathy building, persona development, journey mapping, and creative ideation sessions with ZD parents and health assistants. Insights revealed challenges including misinformation, fears about vaccination side effects, and the physical and financial burdens of reaching vaccination centers.

Participants discussed the key barriers to vaccination, including those identified during the rapid assessment, to inform intervention recommendations. The HCD activities concluded with recommendations for proposed interventions for hard-to-reach areas and urban slums including training of service providers, e-registration of target children, vaccination reminders through e-messaging, advocacy with community leaders, modified EPI session schedules, conducting courtyard meetings, activation of existing community support groups, and e-monitoring. While tailored modifications to vaccination interventions could significantly improve their effectiveness and acceptability among end-users, the critical issue of health assistant staffing shortages presents a major barrier to the long-term success of these strategies. Despite the potential for immediate improvements within the constraints of existing budgets, addressing this systemic issue is vital for sustainable progress. The initiative concluded with a call for expanding HCD applications to other regions with distinct challenges, and for continued advocacy for critical support to address staffing shortages, ensuring the sustainability and success of vaccination efforts in Bangladesh. **Learn more:** [Human Centered Design as a Tool to Refine Interventions for Country Learning Hub—Bangladesh.](#)

Learning Hub Implementation Research

Following the rapid assessment, the Bangladesh Learning Hub selected areas for implementation and initiated implementation research (IR) in five districts, Sunamganj, Gaibandha, Noakhali, Sherpur, Rangamati, and one city corporation—Dhaka North City Corporation (DNCC). The Bangladesh Learning Hub selected two upazilas in each district (one intervention and one comparison) for the IR. This effort began with briefing meetings to introduce and discuss the proposed interventions and future activities with district and upazila-level managers and providers. Feedback from these meetings informed the final selection of interventions, some of which were common across all areas, while others were specific to the area's challenges. Key interventions, which largely align with the EAF interventions, include:

- Implement an EPI e-tracker to observe and monitor the status of children's immunization.
- Use a screening checklist to identify immunization needs among children/families presenting at health centers in all areas except urban slums.
- Distribute behavior change communication (BCC) materials.
- Modify EPI session schedules to fit local needs (i.e., Friday and evening hours).
- Respond to barriers with area-specific strategies. In hard-to-reach char areas, advocacy with community leaders is planned. Efforts in hard-to-reach haor areas include strengthening EPI support groups. In hard-to-reach hilly areas strategies include involving of nongovernmental organization (NGO) community workers and advocacy with community leaders. Efforts in hard-to-reach coastal areas include health education through community health care providers and the use of e-supervision checklists. In plainlands, strategies include courtyard meetings and in urban slums and interventions include community engagement and health education through NGO counselors.

Ahead of implementation of the interventions mentioned above, the Bangladesh Learning Hub conducted a baseline survey from September–December 2023 using a probability survey carried out with KoboToolbox, yielding a total of 12,756 interviews across both intervention and comparison areas. The objective of this data collection was to establish a baseline from which the Learning Hub can compare endline data to measure changes due to the interventions. The Learning Hub employed field visits and regular feedback to data collectors to support data quality assurance throughout the data collection. In addition to data collection, the Learning Hub provided training sessions for government field staff in the selected intervention areas, in collaboration with the Ministry of Health and Family Welfare (MOHFW). These sessions aimed to orient participants to the objectives of the Learning Hub, focusing on ZD/UI children and missed communities. The training covered identification processes and practical training on interventions to integrate identified children into the immunization program.

Emerging Lessons and Learnings: Reach

The variety of barriers uncovered during the rapid assessment highlights the importance of tailoring strategies to the specific contexts and needs of communities. Human-centered design can help the process of identifying interventions that respond to specific barriers. When directly engaged, communities, health assistants, and other stakeholders can design interventions to address the unique barriers encountered in different regions. Implementation research is ongoing, and the Learning Hub will detail findings in future reports. Emerging recommendations from the implementation research include:

- Use theories of change, like those developed and tested by icddr,b to better understand program contributions and interactions and the greater system and context within which these programs exist. The number and type of interventions to reach ZD and UI children vary widely and how they interact to drive change is unclear.
- Engage local government representatives and community elites in EPI to motivate caregivers for childhood vaccination.
- Introduce electronic or mobile-based interventions for caregivers who lost their children’s vaccination cards.
- Arrange crash programs (i.e., sensitizing the community by motivating mothers to attend the EPI sessions to vaccinate their children) frequently to boost EPI coverage in areas with low coverage to reach ZD and UI children in different under-served areas.
- Introduce evening EPI sessions in urban areas for working mothers.
- Estimate context-specific transportation with the MoHFW and formulate policy to provide transportation cost to health assistants and their supervisors.

Box 1. ZDLH-X Experience

In 2023, the Zero-Dose Learning Hub Learning Innovation Unit, held two Inter-Country Peer Learning Exchanges(ZDLH-X) focused on ZD and UI children and missed communities’ challenges. The session provided an opportunity for national and sub-national practitioners from the two countries to share their experiences and learn from each other, and to strengthen networking within and across countries.

ZDLH conducted an analysis of pre-event and post-event questionnaire data (25 responses from Bangladesh). Respondents from Bangladesh identified the most promising practices to reach ZD children as: the implementation of electronic immunization registries and real-time data monitoring, missed opportunities for vaccination, engaging with private/NGO providers, and community engagement approaches. Attendees shared a case study on the use of rapid convenience monitoring in Chattogram City.

Learn more: [Early Learning from Zero-Dose Practitioners in Bangladesh and Mali: Gavi ZDLH Inter-Country Peer Exchange \(ZDLH-X1\)](#)

MONITOR AND MEASURE

The findings from the Bangladesh Learning Hub suggest that most of the data sources in Bangladesh currently lack specific tracking mechanisms for ZD and/or are low-quality (especially denominators), which hampers health workers’ ability to track ZD issues. Moreover, for most sources the available data is aggregated primarily at the district level, hindering the ability to effectively track ZD children at lower administrative levels. These limitations underscore the need for targeted interventions and strengthened data systems to identify and address the immunization gaps among ZD populations. There are prospects for overcoming these challenges and enhancing the overall effectiveness of immunization information systems in identifying and monitoring ZD prevalence. There are opportunities for identifying, measuring, and monitoring some of the underlying drivers of ZD, but these will require significantly more effort; especially in tracking demand-side issues.

Table 4. Monitor and Measure Priorities and Activities

Monitor & Measure Priorities in Bangladesh (EAF application—draft; not yet approved)	Bangladesh Learning Hub Monitor & Measure Activities
<ul style="list-style-type: none"> • Deploy application-based supervision and monitoring at multiple levels, including digital screening checklists. • Hold regular EPI coordination and performance review meetings to monitor progress against reaching ZD children. • Deploy health field monitors (<i>Target population: forcibly displaced Myanmar nationals</i>). • EPI coverage evaluation survey (<i>Target population: national level and forcibly displaced Myanmar nationals</i>). • Improve denominator estimates through routine data review and validation and implementation of the TrueCover model. 	<ul style="list-style-type: none"> • Implementation research on equity strategies in six districts, including on use of screening checklist for supervision. • Conduct comprehensive landscape of data ecosystem for denominator and coverage data and make recommendations for improved tracking and measuring of ZD children. • Support to provide learnings from FDMN strategy.

Data System Assessment

Bangladesh relies on diverse immunization data sources to monitor and improve vaccination programs. The in-depth assessment of current immunization data for improving identification of ZD into routine data systems conducted by the Learning Hub in 2023 included a desk review of existing data sources and consultations with key stakeholders (EPI managers, implementing partners, and government officials). The assessment identified three key data systems in Bangladesh that hold promise for enhancing the tracking, monitoring, and measuring of ZD immunization status among children:

- **DHIS2:** The open-source health management information system gathers information from health facilities’ standardized vaccination registers and community health workers. All public health facilities report monthly on vaccination metrics to the district level, including the number of children vaccinated in the catchment area. This system integrates supply chain, cold chain, and routine EPI service data, facilitating the identification of issues within the immunization program and aiding in the creation of targeted interventions. DHIS2 offers real-time, aggregated data on various health indicators, enhancing decision-making across the health system. An e-tracker piloted in select areas in 2019 boosts the system’s ability to track ZD children, and has improved vaccination coverage monitoring and campaign organization. The tracker is being expanded to Learning Hub study areas.

However, DHIS2 faces challenges, including data completeness and accuracy. Reporting inconsistencies and the reliance on aggregate data complicate the tracking of individual ZD cases. The system’s user interface restricts simultaneous data viewing across different levels, limiting the analysis and comparison of data trends. Despite these limitations, DHIS2’s timely data reports are invaluable for monitoring immunization coverage and identifying program gaps. The platform’s integration across all health system levels in Bangladesh makes it a key tool for addressing immunization needs. Addressing data gaps, particularly from private sector reporting and enhancing community-based data’s timeliness and comprehensiveness, remains essential for maximizing DHIS2’s impact on Bangladesh’s immunization efforts.

- **Rapid Convenience Monitoring (RCM):** Routine immunization monitoring and supervision includes use of an RCM tool through the existing World Health Organization (WHO) surveillance and immunization medical officer network to collect real-time immunization data. RCM is conducted nationwide in three phases. Medical officers monitor a minimum of 60 children per district and a minimum of 10 children per catchment area, and assess at least one child per household. The RCM tool focuses specifically on monitoring indicators such as Bacillus Calmette–Guérin (BCG), Penta 1, measles–rubella1, and measles–rubella2, along with their corresponding identifiers. This system has potential for regular focus on areas with high ZD prevalence, especially with the application of digital tools. Despite its potential, RCM faces challenges with data quality due to missing key indicators and needs improvements in sampling methodology to ensure unbiased data collection. However, its real-time monitoring capability, accessible via dashboards, enables prompt identification and action to address immunization gaps, making RCM a promising tool.
- **Health and Demographic Surveillance Sites (HDSS):** The HDSS in Matlab, Chakaria, and Dhaka urban slums, established by icddr,b, provide valuable longitudinal data on health, demographics, and social characteristics. Since their inception, these sites have offered insights into immunization coverage, including ZD children, especially in urban slums and areas with Rohingya refugees. Quarterly household visits collect data on vaccinations for children under three, covering a significant portion of the population within these areas. Despite the potential of HDSS data to identify and understand ZD children dynamics, current reporting mechanisms do not specifically highlight ZD trends, necessitating focused analyses. Moreover, access to these data requires additional funding, and their scope is limited to specific areas, possibly affecting representativeness and service uptake due to long-term program presence. Enhancing accessibility and tailoring analyses could significantly improve HDSS’s role in identifying and addressing ZD children’s needs within Bangladesh’s diverse contexts.

The data system assessment identified recommendations for improving the monitoring of ZD children within the immunization data landscape. Key takeaways from the assessment include the critical need for strategic modifications to existing systems, the importance of a collaborative and integrated approach with various stakeholders, and the potential benefits of technological innovation in enhancing data-driven decision-making. The goal of these efforts is to enable more targeted interventions, efficient resource allocation, and improved immunization coverage for reduced ZD. Challenges identified include the lack of consolidated ZD-specific information, insufficient tools for effective ZD monitoring, and significant data quality issues affecting the identification and tracking of ZD children. The absence of a robust unique identifier-based tracking system and limited detail in Demographic and Health Surveys further complicate the effective monitoring of ZD children. Sub-district level identification and monitoring face validation and implementation hurdles, while demand-side barriers and ambiguity in population catchment areas obscure a clear understanding of the ZD population. The Learning Hub also noted underutilization of surveillance and data triangulation systems as a limitation for continuous monitoring.

The assessment underscored opportunities for overcoming these challenges through targeted interventions and strengthening of data systems to better identify and address immunization gaps among ZD populations. Promising prospects include the expanded use of existing tools and improvement in data quality, particularly through DHIS2, RCM, and HDSS sites for more detailed and focused tracking of ZD children and the underlying reasons for non-vaccination. Furthermore, enhancements in the next Demographic and Health Surveys and the establishment of a dedicated

knowledge hub would facilitate better data collection and analysis, aiming for more informed and strategic interventions to improve immunization coverage among ZD children. A future CES that collects data on vaccination coverage and identifies the drivers of vaccination down to the sub-district (upazila) level could be valuable. This additional data collection would potentially increase the cost of the survey but has promise to enhance the understanding and tracking of ZD and UI children, enabling targeted interventions. While survey data collection is often limited frequency, it has the advantage of providing information on socio-demographic characteristics that helps improve our understanding of who is zero-dose and the reasons why.

Monitor and Measure Interventions

Based on review of the draft *EAF Strategic Narrative, Revised Gavi Budget Application (FDMN), and Gavi Budgeting Reporting Template 2023*, Gavi-supported *Monitor and Measure* interventions in Bangladesh focus on evaluating routine EPI coverage, implementing models for accurate coverage estimation, validating vaccination performance data, supporting coordination and review meetings, and enhancing supervision and monitoring efforts to identify and reach ZD and UI children across various geographic focuses and target populations. In urban areas, multiple city corporations are engaging in bi-annual coordination meetings, app-based monitoring, and performance review meetings to track and improve vaccination coverage. The interventions give special attention to forcibly displaced Myanmar nationals in Ukhia, Teknaf, and Bhashanchar Island, with efforts including the development of digital databases for young children, enhanced surveillance, and detailed monitoring of immunization practices. Additionally, interventions such as implementation of the TrueCover model in selected hard-to-reach areas aim to refine the accuracy of coverage data. *Note: The Bangladesh EAF application is currently being refined, so these priority interventions may change during the finalization process.* **Learn more:** [Annex 1. Gavi-Supported Zero-Dose Interventions in Bangladesh.](#)

Emerging Lessons and Learnings: Monitor and Measure

The data landscape assessment uncovered critical challenges. The lack of consolidation for ZD-specific information within the EPI and partner forums impedes effective monitoring and integration of routine systems, as seen in the absence of consolidated estimates of ZD children in the national Routine Health Information Dashboard. Insufficient tools for ZD monitoring and data quality issues—including the absence of assessments focusing on ZD children—limit the ability to accurately estimate health catchment populations, which inform immunization denominators. The lack of a robust name-based tracking system, limited details in the Bangladesh DHS, and challenges at the sub-district levels further complicate comprehensive immunization coverage. Inadequate understanding of demand-side barriers emphasizes the necessity for targeted interventions and improvements within existing data sources.

Despite existing challenges, the Learning Hub has identified potential paths forward for improving the tracking of ZD children through existing information systems and targeted modifications. A comprehensive approach involving government and partners is essential for improving data quality, fostering knowledge sharing, and leveraging technological solutions to enhance immunization coverage and reduce ZD children. The proposed next steps involve in-depth consultation with immunization partners to validate findings, consider promising practices, and plan for improved ZD tracking. This may include a co-creation workshop with key stakeholders to discuss options and develop a comprehensive plan for ZD monitoring. The emerging proposals for further review include:

- **Expanded use of existing tools and data quality improvement:** There are promising prospects for improvement at different levels, including by leveraging DHIS2 capacities and addressing data quality challenges. This could involve EPI and multi-agency partner oversight of ZD issues, establishing a District/National Task Force on ZD, and reviewing data quality assessments to include examination of current catchment population estimates. Adapting the WHO Data Assurance Checklist could help evaluate immunization data quality across all sources, with a focus on ZD children. A structured plan based on data quality assessment findings could address identified gaps and challenges, including denominator and cluster identification issues.
- **Creation of new tools and resources for routine ZD information purposes:** Prioritization and responsibility assignment by EPI and partners oversight could lead to the development of supportive supervision tools and rapid convenience monitoring for identifying ZD populations. Conducting rapid assessment and coverage evaluation surveys, and collaboration with medical colleges and public health institutions, could provide insights into ZD data progress and underlying causes. Additionally, a digital technological solution utilizing a name-based tracking system could identify ZD and UI children efficiently. Reviewing current GIS developments to ensure appropriate inclusion of ZD measures is also recommended for scaling up.
- **Next DHS survey planning:** Reviewing question guides and methodology for the next DHS based on identified drivers in the rapid assessment report, partner work, and implementation research could lead to greater detail on reasons for non-vaccination and other associations of ZD. Utilizing tools to gain more insights into comprehensive and validated reasons for non-vaccination, with an emphasis on behavioral and social drivers, could provide actionable understanding of vaccination hesitancy and impediments. Health workers may also identify associations useful for exploring ZD intersections, including those related to gender inequity and lack of access to essential primary health care, for inclusion.
- **National dashboard for monitoring and advocacy:** Enhancing the existing Routine Health Information Dashboard to highlight Penta1 and Penta3 coverage and expanding a centralized platform that integrates and triangulates data from various sources could significantly improve ZD tracking. This dashboard would facilitate data visualization, analysis, and tracking of immunization coverage at different levels.
- **Strengthening sub-district level identification and monitoring:** Validation of DHIS2 at the facility and district levels in specific sites identified by other means and implementing measures for data collection, reporting, and management at the sub-district levels are crucial steps. This includes ensuring timely and accurate data entry, improving data completeness, and establishing robust data tracking mechanisms for ZD children.
- **Program review mechanisms:** Incorporating a dedicated data-focused agenda item in regular review meetings at district and regional levels and identifying mechanisms for regular review of demand-side barriers are important for continuous improvement. Regular dissemination of factsheets and the utilization of data during monthly immunization review meetings could facilitate informed decision-making and program enhancements.
- **Plan for ZD monitoring to link to DHIS2:** Creating a separate local health bulletin for ZD monitoring that analyzes data by region, facility, urban-rural, and gender would be beneficial. Sharing this health bulletin at all levels and using it during monthly immunization review meetings for corrective measures can help address ZD challenges effectively.

- **Validating facility catchment areas:** Advanced GIS modeling to define and validate population catchment areas at the facility level is essential to ensure that EPI can identify and reach potentially overlooked communities. Implementing actionable strategies to ensure that ZD populations are reached is a critical step towards immunization equity.

ADVOCATE

Table 5. Advocate Priorities and Activities

<i>Advocate Priorities in Bangladesh (EAF application—draft; not yet approved)</i>	<i>Bangladesh Learning Hub Advocate Activities</i>
<ul style="list-style-type: none"> • Conduct a series of advocacy workshops around ZD with (a) religious leaders, women’s groups, and teachers; (b) multi sector partners; and (c) community clinics. 	<ul style="list-style-type: none"> • Carry out advocacy meetings with community leaders in two districts and one city corporation. • Conduct briefing meetings with national and sub-national EPI stakeholders, including presentations at the national monitoring committee and sub-national committees covering the six implementation areas.

Country Policies

Bangladesh’s National Immunization Strategy (NIS) is the main document the government produces that provides insight into immunization-related priorities. The latest NIS outlines immunization programming and priorities for the Bangladesh EPI for the period of 2023–2027. The strategy describes recent immunization achievements including maintenance of polio and maternal and neonatal tetanus elimination statuses and maintenance of high immunization coverage levels and reduced drop-out rates. It also highlights remaining gaps such as human resource shortages, including supply chain management staff, dependence on donor funding for training and the surveillance network, and the continued existence of areas deemed “hard-to-reach” for immunization efforts. National objectives set forth in the plan include maintaining high coverage rates, keeping the country free of polio and maternal and neonatal tetanus, elimination of measles and rubella, maintaining hepatitis B control, and maintaining crucial aspects of immunization operations through the transition from external to government and domestic funding sources. The strategies for the immunization program outlined in the NIS to achieve immunization objectives contains one strategy of relevance to ZD programming efforts. The strategy includes identifying and implementing “creative approaches” to reach under-immunized, ZD, and missed communities in traditionally hard-to-reach areas, including urban slums, and other marginalized populations, including refugees and ethnic minorities. The focus on ZD children in the five-year strategy signals a commitment by the government to improve coverage and access among these populations. More generally, the inclusion of immunization activities in national strategy and policy documents indicates a commitment by the government to reduce vaccine-preventable diseases (VPD) nationally. **Learn more:** [ZDLH Bangladesh Zero-Dose Landscape](#).

Advocate Interventions

Based on review of the draft *EAF Strategic Narrative, Revised Gavi Budget Application (FDMN), and Gavi Budgeting Reporting Template 2023*, Gavi-supported *Advocate* interventions in Bangladesh include conducting advocacy workshops at various levels with multi-sectoral partners to address ZD and UI children, involving community and religious leaders, city corporations, and interministerial coordination meetings to strengthen and restore immunization efforts. At the city corporation level, advocacy efforts will take place across eight city corporations, while additional workshops at the municipal and community levels involve a diverse group of community clinics, community leaders, and multi-sectoral partners. Workshops will engage religious leaders, women’s groups, slum dwellers, and school teachers at 341 wards in eight city corporations and 50 upazilas in four districts (Sylhet, Sunamganj, Habiganj, and Moulvibazar). Additionally, interventions include a collaboration with the Islamic Foundation to engage religious leaders more broadly. Quarterly interministerial coordination meetings are also planned to foster a multi-faceted approach to strengthen urban immunization programs. *Note: The Bangladesh EAF application is currently being refined, so these priority interventions may change during the finalization process.* **Learn more:** [Annex 1. Gavi-Supported Zero-Dose Interventions in Bangladesh](#).

Stakeholder Engagement Methods

In Bangladesh, the Learning Hub’s efforts in partner engagement and advocacy include the formation and active engagement of monitoring and implementation committees, facilitation of workshops for co-creation and capacity strengthening; continuous communication and information dissemination; and strategic planning for monitoring, learning, and risk management. These activities aim to enhancing collaboration, ensuring smooth implementation, and achieving the objectives of improving identification and reach of ZD/UI children. The establishment of both a national-level monitoring committee and sub-national committees to support and monitor Learning Hub activities is integral for implementation oversight and for addressing any arising challenges. Regular meetings of the monitoring committee, chaired by the additional secretary, Health Service Division, MoHFW, facilitate the sharing of activity schedules, workplan progress, and any obstacles encountered. The committee’s support is crucial in overcoming implementation barriers. At the sub-national level, committees focus on monitoring research activities, providing assistance, and making recommendations to ensure successful intervention implementation in the IR areas. These committees include key stakeholders such as chief health officers, civil surgeons, health and family planning officers, and WHO and UNICEF officials, among others.

A co-creation workshop facilitated by Jhpiego shared data landscape report findings and co-creation of plans for embedding ZD issues into future routine immunization monitoring systems. This engagement is pivotal for developing action plans for improving ZD tracking and health information systems.

In collaboration with Jhpiego, icddr,b is documenting progress and achievements through an activity tracker, tracking predefined monitoring and evaluation indicators ([Bangladesh Dashboard](#)), and engaging in global learning activities. The Learning Hub has planned regular presentations to stakeholders and participation in learning activities to facilitate knowledge sharing and application.

Emerging Lessons and Learnings: Advocacy

Strong political leadership is crucial for advancing immunization equity and sustaining progress through domestic financing. Targeted advocacy efforts are key to fostering and maintaining political will. Emerging lessons include:

- Strategies like maintaining communication with new officials and providing orientations on the Learning Hub would help address programmatic risks, such as the impact of frequent transfers of Government of Bangladesh officials on the pace of study implementation.
- Systemic issues, such as health worker shortages, may require increased funding, exploring innovative staffing solutions and benefits packages, and enhancing support and training for existing health workers.
- Data quality issues are widespread and greatly impede the ability to identify ZD and UI children. EPI investment in ZD-specific data quality assessments, unique identifier-based tracking systems and more detailed coverage surveys, among other interventions could greatly benefit efforts to enumerate and reach ZD and UI children in the country.

ANNEX 1. GAVI-SUPPORTED ZERO-DOSE INTERVENTIONS IN BANGLADESH

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	WHO	Community mobilizers to identify, enlist, track, and vaccinate ZD/UI children in urban priority areas of city corporations/municipalities through city corporation with the support of EPI, DGHS.*	Identify	–	–
EAF	UNICEF	Develop and implementation of a vaccination app (Citizen Portal) with self and suggestive registration for vaccination of routine EPI and any EPI campaign to identify ZD/UI through the Management Information System (MIS), DGHS.	Identify	–	Data landscape report
EAF	UNICEF	Implement alternate strategy and special microplan to identify ZD/UI children and missed communities in 8 City Corporations.	Identify	8 city corporations	–
EAF	UNICEF	Municipality: Transportation cost for vaccinators for house-to-house searches and line listing of ZD/UI and missed communities children in 210 wards.	Identify	210 wards of 15 large municipalities	–
EAF	UNICEF	Quarterly line listing in HTR areas and Hill tracts areas to reach ZD and UI children in 50 upazilas and bring them to the routine vaccination center	Identify	50 upazilas (Hill districts—20, Char—10, Haor—10, Coastal—10)	–

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	UNICEF	Searching, line listing, and vaccination of ZD and UI children through routine session in 972 wards of 324 unions of identified 34 upazilas of 19 districts.*	Identify	972 wards of 324 unions of identified 34 upazilas of 19 districts	–
EAF	UNICEF	System server maintenance and enhancement of the routine EPI and campaign vaccination app (Citizen Portal) to identify ZD and UI children through MIS, DGHS.	Identify	–	Data landscape report
EAF	UNICEF	Upazila: Covering additional transportation costs by health workers for hard-to-reach areas for line listing for catch-up campaigns.	Identify	–	–
FED Policy	–	FDMN: Training health workers and CHWs to identify ZD and VPD notification.	Identify	Ukhia, Teknaf, Bhashanchar Island / <i>(new)/forcibly displaced Myanmar nationals</i>	Learning around FDMN
EAF	WHO	Additional routine EPI sessions for selected city corporations and municipalities to reach ZD and UI children.*	Reach	–	–
EAF	WHO	Additional vaccinators, supervisors, statistical support, and porters for city corporations, districts, and municipalities to identify, reach ZD and UI children and missed communities.	Reach	–	–
EAF	UNICEF	Advocacy workshop at selected 19 districts level with multi-sectoral partners to address ZD and UI during catch-up campaign with support of EPI, DGHS, MIS, and other stakeholders.*	Reach	19 priority districts	Advocacy with community leaders—Saghata, Kawkhali, DNCC

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	WHO	Awareness-building activity (on social media/online platforms) on EPI vaccination center app to reach ZD and UI children.*	Reach	–	–
EAF	UNICEF	CC: Work with adolescent girl, women/mothers groups— orientation and engage them to motivate urban and peri-urban community members/mothers to reach ZD and UI children.*	Reach	16 wards in Zone 8, Zone 3, and Zone 6 of DNCC; 14 wards in Zone 1, and Zone 10 of DSCC; 10 wards of Zone 3 of Chattogram CC; and 3 zones of Khulna, Sylhet, and Rangpur City Corporations	–
EAF	UNICEF	Development of EPI Microplan 2024 in 12 city corporations, 490 upazilas, and 100 municipalities.*	Reach	12 City corporations, 490 upazilas, and 100 municipalities	–
EAF	WHO	Digital display board for urban vaccination sites of selected urban areas in public gathering places.	Reach	–	–
EAF	UNICEF	EPI sign board for outreach vaccination sites in rural areas to identify the sites and to inform the dates and time of the sessions to the communities.	Reach	–	–
EAF	WHO	Establish integrated EPI services with primary health care (PHC) centers in city corporations and municipalities.*	Reach	–	–
EAF	UNICEF	Evening/Friday sessions.	Reach	Dhaka North CC; Dhaka South CC; Narayangan	Implementation research—modified EPI session schedule

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	Civil society organizations (CSO)	Mobilize community workers (BRAC, CSOs) to conduct door-to-door visits annually at five city corporation areas for social mobilization and navigate ZD and UI children to the next possible vaccination sessions.	Reach	5 city corporations	–
EAF	UNICEF	Municipality: ZD catch-up campaign.	Reach	–	–
EAF	UNICEF	Orientation on SBCC and immunization supply chain (eVLMIS and cold chain) for vaccinators + supervisor + paramedics.	Reach	DSCC—Zones 1 and 10; DNCC—Zones 3, 6, and 8	–
EAF	UNICEF	Orientation on SBCC, immunization supply chain (eVLMIS and cold chain) for mid-level managers DSCC: 15 people; DNCC: 10 people Khulna CC (KCC) + SCC + Cumilla CC: 10 people; Total 35 people (1 batch).	Reach	DSCC, DNCC, KCC, SCC, Cumilla CC	–
EAF	CSO	Planning workshop for utilization of SBCC materials through multi-channels.	Reach	–	Implementation research on interventions— Distribution of BCC materials
EAF	UNICEF	Quarterly urban health working group meeting for planning, coordinating, tracking, and reaching ZD children.	Reach	–	–
EAF	UNICEF	Support for vaccinators; supervisors; information technology support; and porters for Narayanganj, Sylhet, Khulna, and Rangpur City Corporations for routine immunization and to ensure identification, registration, and vaccination of ZD, UI, and missed communities including slums.	Reach	Narayanganj, Sylhet, Khulna, and Rangpur City Corporations	–

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	UNICEF	20 porters' transportation costs for evening session/Friday session for Dhaka North CC; 7 wards of zone 1 and 8 wards of zone 8= 15 wards + Dhaka South CC; 15 wards, and Narayanganj 12 = 56 sessions per month or 3 CCs x 24 months.	Reach	Dhaka North CC: 7 wards of zone 1; 8 wards of zone 8 and Dhaka South CC; 15 wards, and Narayanganj: 12	Implementation research — modified EPI session schedule
EAF	WHO	Update microplan focusing ZD/UI at city corporation level.*	Reach	–	–
EAF	WHO	Update microplan focusing ZD/UI at municipality level.*	Reach	–	–
EAF	WHO	Update microplan focusing ZD/UI at national level with coordination of EPI, DGHS, MIS, local government institutions (LGIs) and participation from the city corporation and district level.	Reach	–	–
EAF	WHO	Update microplan focusing ZD/UI at zone level of city corporation with participation of LGIs, EPI, DGHS, MIS, and partners.	Reach	–	–
EAF	WHO	Update microplan guideline to address ZD and UI children and missed communities.*	Reach	–	–
EAF	UNICEF	Upazila: Additional porters for HTR areas, technical assistance cost: Tk 600/- per union x 38 unions x 4 times/year x 2 years.	Reach	–	–
EAF	UNICEF	Upazila: 20 additional sessions for 30 upazilas in Sunamganj, Patuakhali, Bhola, Borguna, Gaibandha, Kurigram Districts/month x 24 months.	Reach	30 upazilas in Sunamganj, Patuakhali, Bhola, Borguna, Gaibandha, Kurigram Districts	–

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
FED Policy		FDMN: Outreach three days/week and five days/week in health post and 6 days in PHC centers.	Reach	Ukhia, Teknaf, Bhashanchar Island / (new)/forcibly displaced Myanmar nationals	Learning around FDMN planned by CLH
FED Policy	United Nations High Commissioner for Refugees (UNHCR)	FDMN: Community outreach and coordinating CHWs (UNHCR).	Reach	Ukhia, Teknaf, Bhashanchar Island / (new)/forcibly displaced Myanmar nationals	Learning around FDMN planned by CLH
FED Policy	UNHCR	FDMN: Improved coordination between CHWs and vaccinators (UNHCR).	Reach	Ukhia, Teknaf, Bhashanchar Island / (new)/forcibly displaced Myanmar nationals	Learnings around FDMN planned by CLH
EAF	CSO	Utilize social media platforms for promoting vaccination and audio-visuals including paid marketing and boosting (e.g., Facebook, YouTube).*	Reach	–	–
EAF	WHO	Conduct routine EPI coverage evaluation survey.	Measure	–	Co-creation workshop on results from data landscape—recommendations for better tracking ZD in upcoming CES
EAF	UNICEF	Implementation of TrueCover model to estimate accurate denominator and coverage in selected CC and hard-to-reach areas of districts to identify ZD/UI children and measure the actual coverage.	Measure	–	Results from data landscape report inform how additional analyses on denominator and coverage can learn from/leverage existing data sources

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	WHO	To address denominator issue, extensive data review and validation in selected areas (district/CC) for correct and validate estimation of vaccination performance.	Measure	–	Results from data landscape report inform how additional analyses on denominator and coverage can learn from/ leverage existing data sources
FED Policy		FDMN: Developing digital database of children under 2 using UNHCR Global Distribution tool (in addition to administrative data, UNICEF e-tracker, and Kobo platform concurrent monitoring).	Measure	Ukhia, Teknaf, Bhashanchar Island / <i>(new)/forcibly displaced Myanmar nationals</i>	Learning around FDMN planned by CLH
FED Policy		FDMN: Coverage evaluation survey planned, possibly including sero-studies.	Measure	Ukhia, Teknaf, Bhashanchar Island / <i>(new)/forcibly displaced Myanmar nationals</i>	Learning around FDMN planned by CLH
EAF	UNICEF	Bi-annual coordination meetings of the urban health coordination committee (MoHFW; EPI; DGHS; MIS; Ministry of Local Government, Rural Development, and Cooperatives (MoLGRDC); LGIs; CSOs; and partners) in 8 CCs for tracking progress and reaching ZD children; bi-annual meeting.*	Monitor	8 city corporations	–
EAF	WHO	App-based supervision and monitoring in city corporations and districts to track ZD and UI children and follow-up vaccination (in coordination with MIS; DGHS; and EPI; and Maternal, Neonatal, Child, and Adolescent Health).*	Monitor	–	Implementation research

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	WHO	App-based supervision and monitoring in municipalities to track ZD and UI children and follow up (in coordination with MIS; DGHS; and EPI; and Maternal, Neonatal, Child, and Adolescent Health).	Monitor	–	Implementation research
EAF	WHO	City corporation level—EPI performance review meetings/workshops to discuss on ZD and UI coverage in 12 CCs with representation from local elected councilors, MoLGRDC, DGHS, LGI, NGOs, and development partners.	Monitor	12 city corporations	–
EAF	UNICEF	Conduct 34 upazila monthly performance review meetings in 19 districts to catch all children, especially to reach ZD/UI.	Monitor	19 priority districts	–
EAF	CSO	Conduct joint supervisory visits of vaccination sessions.	Monitor	–	–
EAF	WHO	Conduct supervision and monitoring in EAF areas to identify, reach, and monitor/measure ZD/UI children.	Monitor	–	–
EAF	WHO	EPI performance review meetings/workshops to discuss ZD and UI coverage at the national level with representation from MoHFW, DGHS, MoLGRDC, EPI, division director—8 community health officers—12 CCs, civil society members—12, NGOs, and development partners.	Monitor	–	Co-creation workshop on results from data landscape report, how to improve ZD tracking; incorporating into IR-selected districts

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	WHO	EPI performance review meetings/workshops to discuss on ZD and UI coverage in 55 municipalities with representation (municipal mayor, MoHFW, MoLGRDC, EPI, DGHS, civil society, district EPI superintendent, NGOs, and partners).	Monitor	55 municipalities	Co-creation workshop on results from data landscape report, how to improve ZD tracking; incorporating into IR-selected districts
EAF	WHO	Immunization field monitor to track, monitor, and support immunization activities with focus identification, reach, enlist and followed by vaccination of ZD and UI children.	Monitor	–	–
EAF	UNICEF	Monthly performance review meeting for 4 CC (Narayanganj, Sylhet, Khulna, and Rangpur) through EPI, DGHS to ensure identification, registration and vaccination of ZD/UI and missed communities including slums.*	Monitor	4 CC (Narayanganj, Sylhet, Khulna, & Rangpur)	–
EAF	UNICEF	Quarterly review workshop on reporting data and decision making to strengthen data management system to identify ZD/UI children in 8 city corporations.	Monitor	8 city corporations	Results from data landscape report—how additional analyses on denominator and coverage can learn from/leverage existing data sources
EAF	UNICEF	Six monthly review workshops on reporting data and decision making to strengthen data management system to identify ZD/UI children in 19 districts.	Monitor	19 districts	–

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	WHO	Technical support at the national level to support targeted ZD/ UI children to analyze data, review performance, planning and monitoring the coverage and contribute to reach missed communities and ZD/UI children.	Monitor	–	Results from data landscape report should inform how additional analyses on denominator and coverage can learn from/leverage existing data sources
EAF	UNICEF	Technical support for four zonal health officers (50%) at the division Level and four consultants in four city corporations to continue into 2026–2027 to support targeted zero-dose and UI children.	Monitor	4 zones (divisions); 4 city corporations	–
FED Policy	–	FDMN: Active and passive VPD surveillance.	Monitor	Ukhia, Teknaf, Bhashanchar Island / <i>(new)/forcibly displaced Myanmar nationals</i>	Learning around FDMN planned by CLH
FED Policy	–	FDMN: Review meetings and orientation workshops and meets with leadership.	Monitor	Ukhia, Teknaf, Bhashanchar Island / <i>(new)/forcibly displaced Myanmar nationals</i>	Learning around FDMN planned by CLH
FED Policy	–	FDMN: Health field monitors (25) to plan and implement monitoring activities.	Monitor	Ukhia, Teknaf, Bhashanchar Island / <i>(new)/forcibly displaced Myanmar nationals</i>	Learnings around FDMN planned by CLH
FED Policy	WHO/ UNICEF	FDMN: WHO and UNICEF monitoring coverage and other immunization indicators and process indicators for activity implementation (WHO and UNICEF).	Monitor	Ukhia, Teknaf, Bhashanchar Island / <i>(new)/forcibly displaced Myanmar nationals</i>	Learnings around FDMN planned by CLH

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ Target Population	Learning Hub Support
EAF	WHO	Advocacy workshop at city corporation level with multi-sectoral partners with coordination of EPI, DGHS, and MIS to address ZD and UI to strengthen and restore immunization.	Advocate	–	–
EAF	WHO	Advocacy workshop at municipal and community level involving a community group of community clinics with multisectoral partners to address ZD and UI with the support of EPI, DGHS, MIS, and other stakeholders.	Advocate	–	Advocacy with community leaders
EAF	UNICEF	Advocacy workshop for eight city corporations at the national level with multi-sectoral partners with coordination by EPI, DGHS, and MIS.	Advocate	8 city corporations	–
EAF	UNICEF	Advocacy workshop with religious leaders (Islam and other religion), women’s group, slums dwellers, school teachers, etc. at 341 ward level of city corporations (DNCC, DSCC, Gazipur CC, Chattogram CC, Narayanganj CC, SCC, Rangpur CC and KCC) and 50 upazilas of 4 districts (Sylhet, Sunamganj, Habiganj, and Moulvibazar).	Advocate	341 wards in 8 city corporations (DNCC, DSCC, Gazipur CC, Chattogram CC, Narayanganj CC, SCC, Rangpur CC, and KCC) 50 upazilas of 4 districts (Sylhet, Sunamganj, Habiganj and Moulvibazar)	Advocacy with community leaders
EAF	CSO	Conduct meeting with Islamic Foundation for collaboration of religious leaders.	Advocate	–	–
EAF	CSO	CSO coordination meeting.	Advocate	–	–

Grant	Implementer/ Sub-Recipient	Activity Description * > \$ 1 Million USD	Identify, Reach, Monitor, Measure, Advocate (IRMMA)	Geographic Focus/ <i>Target Population</i>	Learning Hub Support
EAF	CSO	Organize orientation of community leaders including local government representatives (chairman/members, school teachers, social and political leaders, and members from the community clinic management and support groups) for community engagement.	Advocate	–	–
EAF	WHO	Quarterly interministerial coordination meeting (MoHFW, MoLGRDC, EPI, LGI, Ministry of Education, Ministry of Religious Affairs, and partners) to strengthen urban immunization.	Advocate	–	–

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