

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

October 2025

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.](#) with two consortium partners, [The Geneva Learning Foundation](#) and the [International Institute of Health Management Research](#). Together, the consortium enables sharing and learning across four Country Learning Hubs 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 and under-immunized children globally by facilitating high-quality evidence generation and uptake.

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ACRONYMS

AFENET	Africa Field Epidemiology Network
AHBN	Africa Health Budget Network
BeSD	behavioral and social drivers [of vaccination]
CoP	community of practice
CSO	civil society organization
DIM	decentralized immunization monitoring
DTP	diphtheria-tetanus-pertussis [-containing vaccine]
DQA	data quality assessment
GEMEL	Growing Expertise in Monitoring, Evaluation, and Learning
IR	implementation research
IRMMA	Identify, Reach, Monitor and Measure, and Advocate
JSI	JSI Research & Training Institute, Inc.
KT	knowledge translation
LGA	local government area
LQAS	lot quality assurance sampling
MEL	monitoring, evaluation, and learning
M&E	monitoring and evaluation
NHMIS	National Health Management Information System
RI	routine immunization
RITWG	Routine Immunization Technical Working Group
SFA	stochastic frontier analysis
TA	technical assistance
ToC	theory of change
TWG	technical working group
UI	under-immunized
ZD	zero-dose
ZDLH	Zero-Dose Learning Hub
Z-DROP	Zero-Dose Reduction Operational Plan

EXECUTIVE SUMMARY

From January to June 2025, the Gavi-funded Nigeria Learning Hub, led by the [Africa Field Epidemiology Network](#) (AFENET) and [Africa Health Budget Network](#) (AHBN) with technical assistance (TA) from Zero-Dose Learning Hub (ZDLH) global learning partner JSI, continued to generate and translate evidence to strengthen the identification and reach of zero-dose (ZD) and under-immunized (UI) children. Through decentralized immunization monitoring (DIM), implementation research (IR), data quality assessments (DQAs), and advocacy for sustainable financing, the Learning Hub worked with subnational governments in Bauchi, Borno, Kano, and Sokoto states to address persistent routine immunization (RI) challenges.

The second round of DIM, conducted across eight local government areas (LGAs) using lot quality assurance sampling (LQAS), showed modest but noteworthy gains: at the aggregate level ZD prevalence fell from 33.6 percent to 29.9 percent, diphtheria-tetanus-pertussis-containing vaccine (DTP)1 uptake rose from 63.9 percent to 69.5 percent, and DTP3 coverage improved from 50.6 percent to 59.1 percent. Using the LQAS classification data, DIM also identified 41 wards needing priority attention for DTP1, 59 for DTP3, and 68 for Measles1, enabling states to refine microplans and target outreach. Findings reaffirmed the concentration of ZD/UI children among rural and poor households, those with low caregiver education, and families with home births, while also highlighting the influence of demand-side barriers such as low trust in health workers and limited decision-making power among female caregivers.

Baseline IR findings from Bauchi and Sokoto underscored the uneven performance of the Zero-Dose Reduction Operational Plan (Z-DROP) across selected LGAs. High ZD prevalence persisted in Sokoto's Tambuwal (59.4%) and Wamakko (46.5%) compared to Bauchi (16.2%). Analysis revealed that social determinants, including caregiver education, household wealth, and gender norms, may be more influential than geographic distance alone. An efficiency analysis using health facility data also showed wide variation in facility performance, with many sites operating below potential output, underscoring opportunities for greater efficiency in service delivery. DQAs exposed systemic weaknesses in RI data systems, including recurrent vaccine stockouts, shortages of data tools, and inconsistencies across DHIS2, tally sheets, and monthly reports. However, mentorship of technical staff in the Learning Hub study areas, particularly through the Growing Expertise in Monitoring, Evaluation, and Learning (GEMEL) fellows, provided trained staff to work on improving the timeliness of RI reporting and contributed to observed improvements in reporting timeliness and documentation quality. For example, during the period of GEMEL support, vaccine utilization reporting in Bauchi rose from 69.1 percent to 96.7 percent between late 2024 and early 2025, and defaulter tracking in Borno contributed to reaching previously unvaccinated children. These improvements suggest that the presence of GEMEL fellows may have supported broader efforts to strengthen RI systems, even though the changes cannot be attributed solely to their involvement.

Advocacy and accountability efforts translated into tangible financing gains in the Learning Hub study areas. Bauchi created and fully released a dedicated ₦870 million immunization budget line by mid-year, Borno increased its allocation to ₦234 million, and Kano more than doubled its budget to ₦1.5 billion with a 95 percent execution rate. Immunization Accountability Scorecards, validated across all four states, linked budget execution with RI coverage and strengthened responsiveness from policymakers. Communities of Practice (CoPs) institutionalized civil society participation in state technical working

groups (TWG) and taskforces, secured new allocations (including ₦482 million earmarked for ZD LGAs in Borno), and mobilized high-level champions, including legislators. By embedding gender-responsive data and strategies into RI systems and sustaining domestic financing gains, Nigeria is positioned to make further progress in reducing the number of ZD and UI children and institutionalizing evidence-based immunization practices.

KEY LEARNINGS & RECOMMENDATIONS

IDENTIFY: UNDERSTANDING THE ZERO-DOSE BURDEN

Key Learnings

- **DIM using LQAS is a practical and cost-efficient approach to identifying areas likely to have high numbers of ZD children at a local level.** By producing ward-level performance data based on LQAS classifications, DIM gives local teams timely, actionable data to detect underperforming areas and track changes over time. Aggregated findings from the second round of DIM across eight LGAs revealed a decline in ZD prevalence from 33.6 percent to 29.9 percent. DTP1 uptake improved from 63.9 percent to 69.5 percent. DIM identified 41 high-priority wards for DTP1, 59 for DTP3, and 68 for Measles 1, with 47 wards failing on 10 or more antigens. Its repeated, rapid-cycle design allows teams not only to identify missed communities but also to monitor progress and make course corrections between DIM monitoring rounds.
- **A consistent equity profile has emerged across multiple data streams.** Both DIM and the IR baseline study show that ZD and children with delayed vaccination are overwhelmingly concentrated in hard-to-reach and rural settlements, among the poorest households, and in families where caregivers have little or no formal education and where home births and low antenatal care attendance are common. This coherence strengthens confidence in subdistrict targeting strategies for reaching ZD and UI children.
- **Behavioral barriers like negative perceptions and distrust contribute to low vaccine uptake.** Findings showed that negative vaccine perceptions, low trust in health workers, and weak social support—especially lack of spousal or household encouragement—are key barriers, even when caregivers express intent to vaccinate. These barriers help explain why some settlements remain persistently missed despite service availability and reinforce the need to focus on community-led interventions that address behavioral and attitudinal barriers within families and communities.
- **Gender-related barriers are a major factor in under-immunization.** IR findings highlighted major gender barriers: 75 percent of caregivers had no formal education; only 14 percent had access to household resources; and 93 percent required spousal permission for health decisions. Patriarchal norms such as purdah and 40-day postpartum seclusion limited women’s mobility, while the shortage of female health workers and gender-blind routine information systems reinforced inequities. The study also identified key enablers that overcome these barriers, including literacy, women’s decision-making power, financial access, and expanded outreach sessions that bring services closer to female caregivers.
- **Building local capacity strengthens the identification of ZD children.** The GEMEL Fellowship and related mentorship of selected health facility staff improved data quality, timeliness, and defaulter tracking in the Learning Hub study areas, showing that strengthening frontline data use skills directly enhances the ability of LGAs to identify ZD children and missed communities. The fellowship has produced a cadre of health facility staff in the Learning Hub LGAs who are familiar with LQAS data and equipped to interpret and act on findings to inform targeted outreach.

Recommendations

- **Scale and institutionalize the use of repeated DIM rounds for systematic monitoring or RI performance at ward level.** Expand the DIM approach to all 100 ZD LGAs, conduct biannual monitoring, and embed results into government planning and coordination mechanisms to track progress and guide program adjustments.
- **Strengthen data systems to capture social and gender dimensions.** Advocate for National Health Management Information System (NHMIS) and DHIS2 to integrate sex-disaggregated and social data. Revise RI microplans to map special populations such as street children, shelter residents, and those in sexual assault referral centers.
- **Target interventions based on sociobehavioral evidence.** Apply Behavioral and Social Drivers (BeSD) of vaccination insights to design targeted interventions that address mistrust in health workers, cultural restrictions, and limited female autonomy. This includes engaging fathers, traditional/religious leaders, and women's groups to build demand and counter misinformation.
- **Integrate gender-sensitive strategies into identification and service delivery.** Increase deployment of female health workers, incorporate gender modules into RI training, allocate funds for gender-responsive interventions, and re-evaluate the Z-DROP "within 2km" benchmark to ensure outreach effectively reaches women restricted by cultural practices.
- **Sustain local capacity through fellowship models.** Continue supporting the GEMEL Fellowship to institutionalize evidence use, data analysis, and gender-sensitive microplanning. Fellowship models should be scaled to ensure durable improvements in ZD identification and follow-up at state and LGA levels.

REACH: ENSURING ACCESS TO IMMUNIZATION SERVICES

Key Learnings

- **DIM delivered granular, actionable insights for reaching ZD children through program adaptation.** The DIM approach using LQAS proved operationally feasible and cost-efficient, generating timely data on ZD prevalence, delayed vaccination, and ward-level performance. In the Kumbotso LGA of Kano State, DIM identified a 26.8 percent ZD prevalence and flagged underperforming wards. Subsequent rounds tracked improvements in DTP1 uptake and overall ever-vaccinated coverage across eight LGAs. DIM findings were directly applied: in quarter one (Q1) and quarter two (Q2), respectively, 79 and 81 ZD children were identified through DIM and subsequently reached through outreach sessions.
- **Socioeconomic and behavioral determinants were stronger than geographic access.** DIM consistently showed that factors such as low maternal education, limited decision-making power, and distrust in health workers strongly influenced vaccination outcomes, suggesting economic and social barriers were more significant than distance alone.
- **Delivery models varied in cost-effectiveness by context.** IR carried out by the Nigeria Learning Hub confirmed that fixed-post delivery was cost-effective and achieved high vaccination coverage in Bauchi, whereas outreach and mobile sessions were essential to reach remote communities in Sokoto, despite higher per-child costs.

- **Gender norms restricted immunization uptake.** IR findings showed that women’s limited mobility, lack of financial autonomy, and restricted decision-making, reinforced by patriarchal norms and gender-blind data systems, were major barriers to vaccination. Shortages of female health workers compounded these challenges.
- **Z-DROP reviews highlighted persistent systemic challenges.** Reviews across 18 states and 100 LGAs revealed continued high ZD prevalence, weak data harmonization, financial management gaps, and persistent operational barriers in hard-to-reach areas, despite increased funding commitments.
- **Capacity building strengthened reach strategies.** The first cohort of 23 GEMEL fellows graduated in April 2025, and fieldwork by the graduates improved defaulter tracking, data documentation, and integration of gender considerations into immunization planning. In Borno, fellows supported identification and vaccination of 16 ZD children through fellow-led defaulter tracking; in Kano and Sokoto, they strengthened documentation, data use, and gender-sensitive approaches.

Recommendations

- **Address demand-side barriers through social engagement.** Expand male engagement, household dialogues, and community mobilization, including involvement of fathers and traditional leaders, to counter hesitancy, build trust in health workers, and strengthen community demand.
- **Match delivery strategies to context.** Continue efficient fixed-post delivery in states like Bauchi, while prioritizing outreach and mobile sessions in areas such as Sokoto where structural barriers persist.
- **Integrate gender-responsive approaches into RI systems.** Increase recruitment of female health workers, revise NHMIS/DHIS2 to capture sex-disaggregated data, and fund gender-sensitive outreach models to address restrictive cultural practices.
- **Refine Z-DROP implementation.** Evaluate Z-DROP for cost-effectiveness, update microplans to include marginalized populations (e.g., displaced children, those in shelters and safe spaces), and link plans more explicitly to financing and resource mobilization.
- **Sustain local capacity through institutionalized fellowships.** Expand and embed the GEMEL Fellowship and related capacity-building models within state and LGA structures to ensure continuous use of evidence for designing and adapting reach strategies.

MONITOR AND MEASURE: IMPROVING DATA SYSTEMS AND TRACKING IMMUNIZATION COVERAGE

Key Learnings

- **IR revealed divergent cost-effectiveness of delivery models.** Baseline costing analysis showed that fixed-post delivery was more efficient in Bauchi, while outreach and mobile services were essential in Sokoto to reach underserved populations, though at higher cost and with lower coverage outcomes.

- **DQAs revealed systemic weaknesses, and their findings—when used by GEMEL fellows and monitoring and evaluation (M&E) officers to guide mentorship—helped strengthen frontline practices.** Quarterly DQAs consistently revealed vaccine stockouts, shortages of data tools, and reporting inconsistencies. Integrated mentorship during DQA visits measurably improved reporting timeliness (for example, Bauchi’s vaccine utilization reporting rose from 69.1% to 96.7%) and guided operational fixes such as tool distribution and outreach prioritization.
- **Linking advocacy to data increased policy responsiveness.** Evidence generated from DIM, DQAs, and scorecards enhanced the credibility of advocacy, influencing fund releases and stakeholder commitments. Dissemination through TWGs, press briefings, and more than 90 coordination meetings in Q2 reinforced the central role of data in decision-making.

Recommendations

- **Strengthen gender-responsive data and programming.** Revise NHMIS and DHIS2 to include sex-disaggregated and social variables, expand the deployment of female health workers, and fund gender-sensitive outreach strategies that address mobility and decision-making barriers.
- **Leverage IR to optimize delivery models.** Apply IR findings to tailor state-specific strategies, emphasizing fixed-post efficiency where feasible and scaling outreach/mobile sessions where structural barriers persist, to improve cost-effectiveness and coverage.
- **Embed accountability through Z-DROP evaluation and adaptation.** Conduct end-line evaluations to benchmark Z-DROP’s cost-effectiveness and impact, and revise microplans to explicitly include hard-to-reach populations such as displaced children and those in shelters or safe spaces.
- **Link data-driven insights to policy and financing decisions.** Ensure findings from DIM, DQAs, and scorecards directly inform government planning, RI budget execution, and advocacy to strengthen financial transparency and sustain domestic commitment.

ADVOCATE: STRENGTHENING POLICIES, STAKEHOLDER ENGAGEMENT, AND FINANCING

Key Learnings

- **Advocacy secured significant subnational financing commitments for immunization.** Political engagement translated into expanded allocations and timely releases in all four ZDLH states. Bauchi created a dedicated immunization budget line with ₦870 million allocated and fully released by mid-year. Borno increased its 2025 budget from ₦160 million to ₦234 million and surpassed counterpart funding requirements. Kano more than doubled its budget to ₦1.5 billion with a 95 percent execution rate. Sokoto demonstrated coverage gains and accountability participation, though financing details were less prominent. Utilization gaps remain, but the trend reflects stronger state-level ownership.
- **Evidence-based accountability tools enhanced credibility and responsiveness.** The Immunization Accountability Scorecard was validated in all four focus states, engaging more than 100 stakeholders. By incorporating civil society organization (CSO) participation, contextual indicators, and state-specific metrics (e.g., LGA-level budget tracking in Kano and CHW

engagement in Borno), the tool linked financing performance with immunization outcomes. Policymakers responded more actively when advocacy was grounded in real-time scorecard and DIM data.

- **CoP models embedded civil society into accountability structures.** CoPs led 29 high-level engagements in Q1 2025 and participated in more than 15 coordination platforms in Q2, influencing earmarked allocations such as ₦482 million for ZD LGAs in Borno. Formal integration of CSOs into routine immunization technical working groups (RITWGs) and taskforces strengthened oversight, while the Immunization Champion Initiative mobilized legislators and commissioners. For example, a senator in Borno North pledged constituency funding following a ZDLH advocacy visit.
- **Public dissemination reinforced accountability through visibility.** Scorecard launches and press briefings across all four states generated media coverage and public dialogue on delays, equity gaps, and RI performance, reinforcing transparency and citizen oversight.
- **Adaptive advocacy addressed persistent challenges.** Delayed fund releases and insecurity were mitigated through intensified high-level advocacy, engagement of local guides, and mobilization of community leaders. Peer-learning retreats allowed CoPs to exchange strategies and replicate scalable advocacy practices across states.

Recommendations

- **Sustain and institutionalize political commitment.** Continue structured dialogue with governors, legislators, and senior officials to embed immunization accountability in policy frameworks. Institutionalize CSO participation in RI taskforces and joint supervision to ensure durable accountability.
- **Scale proven models and tools.** Expand the CoP model beyond the four ZDLH states, given its demonstrated impact on budget release and oversight. Broaden the use of RI budget scorecards and subnational budget analysis to strengthen financial transparency and support Gavi's sustainability agenda. Advocacy should continue leveraging DIM findings to build credibility with policymakers.
- **Deepen multisectoral coordination and targeted investment.** Engage sectors such as education (e.g., Quranic and nomadic schools) to reach missed communities, and prioritize girls' education to address caregiver education gaps. Advocate for revisions to NHMIS and DHIS2 to include sex-disaggregated and social data, and ensure funding for gender-sensitive activities. Position immunization as a national security priority through engagement with security and planning offices, governors' forums, and fiscal authorities.
- **Strengthen community engagement as an advocacy lever.** Expand household dialogues and male engagement to address decision-making barriers. Leverage trusted traditional, religious, and political leaders as champions to counter hesitancy. Increase the deployment of female health workers and integrate gender-responsive approaches into training and service delivery to ensure advocacy translates into equitable access.

NIGERIA COUNTRY LEARNING HUB

The 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 ZD and 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 ZD and UI children. Four Country Learning Hubs in Bangladesh, Mali, Nigeria, and Uganda advance the uptake of research and evidence to improve immunization policy and programming, especially at subnational levels. In 2023, Gavi selected [AFENET](#) and [AHBN](#) as the learning partners for Nigeria. The AFENET–AHBN consortium works across four states in Nigeria: Kano and Sokoto in the North West and Borno and Bauchi in the North East. These states contain 49 of the 100 LGAs identified as priority areas for interventions targeting ZD and UI children in the Z-DROP. The consortium is supporting Nigeria on interventions across Gavi’s Identify, Reach, Monitor and Measure, and Advocate (IRMMA) framework. The ongoing support from AFENET and AHBN will allow Nigeria to continue to focus on attainable and measurable advancements in identifying and advocating for ZD children across the course of its grants.

This semiannual update for the Gavi Board and other stakeholders highlights the ZDLH consortium’s efforts to generate and share evidence for a deeper understanding of the factors that affect the implementation and performance of strategies to identify and reach ZD and UI children and missed communities. It synthesizes findings, challenges, and recommendations across Gavi’s IRMMA framework emerging from the Learning Hubs.

ZERO-DOSE LEARNING HUB TECHNICAL ASSISTANCE

During the period January–June 2025, JSI, as the global learning partner, continued to provide TA, collaborate, and co-create with the Nigeria Learning Hub to strengthen the design, implementation, and reporting of DIM and IR activities. JSI worked closely with the team to improve and finalize the Kumbotso DIM manuscript for journal submission, providing written feedback on successive drafts, facilitating detailed discussions on ward performance classifications, and guiding the interpretation of bivariate and multivariate analyses. The manuscript, led by AFENET, was finalized, submitted, and published in *Vaccines* in June 2025.

In preparation for the second round of DIM data collection, JSI developed an Excel-based sampling frame tool; conducted walkthrough sessions to build Learning Hub capacity for independent use; and calculated sampling frames for all eight participating LGAs across Bauchi, Borno, Kano, and Sokoto states. The tool was added to the forthcoming ZDLH LQAS toolkit for future use. JSI also reviewed and provided feedback on the DIM four-state report, which presented LQAS data from all LGAs.

JSI provided in-depth technical support for the IR baseline report through working sessions and written feedback. This included curating gender-related frameworks, refining the sampling methodology, guiding re-analysis to disaggregate findings by age cohort, and recommending statistical tests and multivariate analysis. This work also strengthened the methodology for efficiency analysis, providing

clarity and expanding the scope beyond gender to include other social, cultural, and systemic barriers to immunization. JSI also reviewed and provided feedback on various IR products, from quantitative results to cost-effectiveness analyses, while offering technical guidance to refine these outputs. In addition, JSI provided strategic guidance to improve the organization and readability of reporting, ensuring they clearly demonstrated how workstreams contributed to broader programmatic outcomes.

Finally, JSI participated in strategic planning and coordination meetings with Gavi and the Learning Hub to align activities, deliverables, and timelines; explore integration of DIM and IR data collection; and discuss revisions to the project theory of change (ToC) and monitoring, evaluation, and learning (MEL) plans. These discussions emphasized the need for pillar-specific ToCs to better align activities with intended outcomes and strengthen the overall strategic framework for the Nigeria Learning Hub.

RELATED RESOURCES

- [Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update—Nigeria \(April 2025\)](#) | [Nigeria Data Dashboard \(April 2025\)](#)
- [Assessment of the Political Economy Context Surrounding Evidence Use for Zero-Dose Programming and Policies in Nigeria](#) (December 2024)
- [Exploring the Landscape of Routine Immunization in Nigeria: A Scoping Review of Barriers and Facilitators](#) (October 2024)
- [Zero-Dose Learning Hub Nigeria Learning Agenda Workshop Report](#) (September 2024)
- [Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update—Nigeria \(October 2024\)](#)
- [Nigeria Data Dashboard \(January-June 2024\)](#)
- [Closing The Immunization Gap: Enhancing Routine Immunization in Nigeria by Reaching Zero-Dose and Under-Immunized Children in Marginalized Communities: Report of a Rapid Assessment](#) (July 2024)
- [Sub-National Budget Analysis Focusing on Immunization Under the Nigeria Zero-Dose Learning Hub Consortium in Nigeria](#) (July 2024)
- [Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update—Nigeria \(May 2024\)](#)

KEY ACTIVITIES & IMPLEMENTATION RESEARCH

CAPACITY STRENGTHENING

Nigeria Learning Hub Webinar Series

During this reporting period, the Nigeria Learning Hub consortium completed its ZD webinar series. The target audience includes frontline health care workers, RI providers, facility in-charges, program managers, M&E officers, state and LGA health management teams, decision-makers within organizations or programs, and individuals involved or interested in immunization-related projects in Nigeria. Three webinars were held during this reporting period:

- [ZDLH Nigeria Webinar Series - 6th Edition](#) (February 2025): Topics included sustainable immunization financing in Nigeria and gender perspectives in reaching ZD children.
- [ZDLH Nigeria Webinar Series - 7th Edition](#) (April 2025): Topics included leveraging MEL approaches to close the ZD gap in Nigeria and the ZDLH approach to capacity building.
- [ZDLH Nigeria Webinar Series - 8th Edition](#) (June 2025): Topics included an overview of Learning Hub activities and how ZDLH accountability approaches are leading to improved political commitment for ZD children in Nigeria.

Growing Expertise in Monitoring, Evaluation and Learning Fellowship

The GEMEL Fellowship is a ten-week, Nigeria Learning Hub-developed capacity strengthening program. The fellowship blends adult learning workshops (didactic sessions) with hands-on field assignments, mentorship, and supportive supervision to strengthen data use, advocacy and budget-tracking skills among RI program managers and M&E officers across the four focal states. Based on a 2024 needs assessment, the Learning Hub designed and facilitated the curriculum, equipping fellows with the skills to apply MEL tools and strengthening their capacity in data-driven decision-making, advocacy, and budget tracking. During the first half of 2025, the first cohort (23 fellows) completed its second didactic workshop, undertook a four-week field assignment, and graduated. The second cohort (21 fellows) launched in May 2025. The GEMEL Fellowship has moved from design and pilot to demonstrable systems effects, graduating its first cohort, over-achieving its training target (10) for a second cohort (21), and leading to measurable improvements in routine data quality and use across multiple LGAs.

Outcomes

- Fellows' assignments have translated into measurable improvements in data systems and routine reporting: in Bauchi, vaccine utilization reporting rose from 69.1 percent to 96.7 percent in Bauchi LGA and from 82.9 percent to 90.4 percent in Ganjuwa between quarter four (Q4) 2024 and Q1 2025; timeliness in the same period improved from 55.5 percent to 93.7 percent in Bauchi LGA and from 54.2 percent to 60.8 percent in Ganjuwa.
- These gains were sustained into the second quarter of 2025, with NHMIS timeliness slightly increasing in Bauchi (77.3% to 78.1%) and sharply improving in Ganjuwa (60.8% to 87.1%). In

Kano's Kumbotso LGA, the monthly summary form reporting rate reached 99.05 percent in Q1 2025 (with timeliness at 88.56% that quarter).

- Fellows also contributed to service delivery problem-solving: in Borno, they supported defaulter tracking that identified and reached 16 ZD children across Jere and Maiduguri Metropolitan Council LGAs; in Sokoto, they trained state and LGA teams on DHIS2 access and settlement categorization to strengthen routine reporting and planning, including attention to gender-responsive strategies.
- To embed capability, the Learning Hub continued mentorship in facilities (99 health facilities visited and 187 health workers mentored on data management in the second quarter of 2025) and is supporting step-down strategies such as Borno State's plan to cascade GEMEL across metropolitan LGAs.

DECENTRALIZED IMMUNIZATION MONITORING

Following the successful first round of the DIM, the Learning Hub conducted a second round of data collection in April 2025, six months after the initial survey. This follow-up aimed to track progress on key immunization indicators, inform strategic decision-making, and identify priority wards for targeted interventions.

The methodology for DIM Round 2 was largely consistent with the first round, employing the classic LQAS approach and the BeSD of vaccination instrument. A revision was made to the younger cohort, which was redefined from 0–11 months to 4.5–11 months. Each LGA was treated as a catchment area, with wards serving as supervision areas. Data was collected from 4,018 caregivers of eligible children across eight LGAs, utilizing a household survey based on population proportionate to size for selecting 19 settlements per ward. The field survey was conducted over six days by 212 trained research assistants, with supervision from the project team and state and LGA health teams.

The second round of DIM revealed important sociodemographic barriers to DTP1 uptake that mirrored the findings from the first round. The survey found lower rates of antenatal care attendance and institutional deliveries among caregivers of delayed and ZD children. For instance, only 28.9 percent of caregivers of delayed children and 22.9 percent of those with ZD children reported institutional deliveries, a stark contrast to children with timely vaccinations (50.7% and 51.8%, respectively). Caregivers of delayed (75.1%) and ZD (78.7%) children also largely lacked formal education, and a majority lived in rural areas (63.9% and 69.6%, respectively). Furthermore, a high proportion of caregivers for children with delayed (42.6%) and ZD (43.5%) status were unemployed and fell into the poorest two wealth quintiles. These findings reaffirm the correlation between low caregiver education, rural residence, and home births with delayed/ZD status.

Overall, the second round of DIM showed modest improvements in immunization performance. DTP1 uptake improved from 63.9 percent in Round 1 to 69.5 percent in Round 2, and DTP3 coverage saw a statistically significant increase from 50.6 percent to 59.1 percent. While some LGAs, such as Jere and Wamakko, showed notable increases in vaccinated children, others like Sumaila, Wamakko, and Tambuwal still had a significant number of antigens performing below 50 percent coverage. The prevalence of ZD children decreased by 3.7 percentage points, from 33.6 percent in Round 1 to 29.9 percent in Round Two, a statistically significant improvement. However, 60 percent of these ZD cases among children aged 12–23 months were concentrated in four LGAs: Tambuwal, Wamakko, Jere, and

Sumaila. Card retention also varied by LGA, improving in Bauchi and Wamakko but declining sharply in Jere and Maiduguri.

The second round of DIM also involved prioritizing wards for targeted interventions. Based on immunization benchmarks and LQAS decision rules, 41 wards were prioritized for DTP1, 59 for DTP3, and 68 for Measles1. Only 24 wards, predominantly in Sokoto state, required prioritization for the Bacille Calmette-Guérin (BCG) vaccine.

The findings from DIM Round 2 will be disseminated to stakeholders, including government officials, donors, and implementing partners, through workshop-based sessions. The goal is to translate this evidence into actionable, tailored strategies for ZD reduction. Briefs will be developed to facilitate cross-learning among states, and preparatory planning for the third and final round of DIM is underway for September 2025.

IMPLEMENTATION RESEARCH

Background

As part of its mandate to foster adaptive learning and generate evidence for improving immunization coverage, the Nigeria Learning Hub initiated a comprehensive IR study to examine how the Z-DROP is being implemented across focal sites in Bauchi and Sokoto States. The IR is intended to provide a robust baseline understanding of the reach, efficiency, and cost of RI services, and to assess the contextual barriers and enablers that shape the delivery of Z-DROP interventions. While the [previous semiannual report](#) described the study's design and early activities, this reporting period presents the first analysis of findings. These findings will form the baseline for evaluating the effectiveness, efficiency, and cost-effectiveness of Z-DROP as implementation progresses.

Methods

The IR adopted a mixed-methods, quasi-experimental design structured around an interrupted time series framework to allow for longitudinal outcome evaluation. Data collection took place between July and September 2024 in four Z-DROP focal LGAs: Tambuwal and Wamakko in Sokoto State, and Bauchi and Ganjuwa in Bauchi State.

Key data sources included:

- A **household survey** with 1,108 caregivers of children aged 4.5–11 months (for timeliness of DTP1) and 12–23 months (for ZD status), capturing immunization history, care-seeking behavior, sociodemographic characteristics, and behavioral and social drivers.
- **Health facility assessments** conducted at 45 primary health care facilities across the four study LGAs. These captured information on staffing, infrastructure, cold chain functionality, session delivery, supervision, training, social mobilization, and input costs.
- **Costing data**, comprising RI expenditure data from August 2023 to August 2024, collected at state, LGA, and health facility levels, as well as household expenditures.

- **Recurrent costs:** personnel, transportation, training, meetings, outreach and mobile sessions, social mobilization, vaccines, waste management, maintenance, supportive supervision, and electricity/energy.
- **Capital costs:** buildings, cold chain and cold rooms, vehicles, and motorbikes.
- **Caregiver (household) cost data,** capturing the economic burden of seeking immunization services including opportunity cost of caregiver time and transport costs.
- **Qualitative interviews** with a total of 52 respondents across the four LGAs, comprising:
 - 38 RI focal persons (one from each of the 38 prioritized wards);
 - Eight community gatekeepers (two from each LGA);
 - Four RI implementing partners (one from each LGA);
 - One protection service provider from the Sexual Assault Referral Centre in Sokoto State; and,
 - One representative of the RITWG at state level (the RI program manager).

Quantitative analyses included descriptive statistics, multivariable logistic regression to explore determinants of ZD and delayed vaccination, and stochastic frontier analysis (SFA) to assess the technical efficiency of service delivery. The study also embedded a prospective cost-effectiveness evaluation that will estimate the incremental cost per additional child immunized as Z-DROP is rolled out.

Findings

The baseline survey revealed substantial immunization gaps among children aged 4.5–11 months, with 39.2 percent having delayed immunization (had not received DTP1 despite being eligible). These delays were most pronounced in Tambuwal (74.0 percent) and Wamakko (46.6 percent), compared to 17.9 percent in Bauchi LGA. Among children aged 12–23 months, 35.9 percent were completely ZD, again highest in Tambuwal (59.4 percent) and Wamakko (46.5 percent), and lowest in Bauchi (16.2 percent). These disparities were strongly linked to geography and household socioeconomic status. Over half of children with delayed vaccination (52.5 percent) and over a quarter of ZD children (27.5 percent) lived in hard-to-reach or fragile settings, compared to just 3.9 percent in urban areas, and children from the poorest households were roughly twice as likely to be delayed or ZD as those from wealthier households. Caregiver education and occupation were also strongly associated with immunization outcomes: over nine in ten caregivers of delayed children (91.1 percent) and nearly nine in ten caregivers of ZD children (88.2 percent) had no formal education, compared to 63.1 percent and 69.0 percent respectively among their non-delayed and vaccinated counterparts, and children of unemployed caregivers were disproportionately represented among both delayed (44.1 percent) and ZD cases (41.5 percent). Multivariable analysis confirmed these patterns: children whose caregivers had primary education were about three times less likely to be delayed than those whose caregivers had no education, and those with caregivers who had secondary or higher education were about eight times less likely to be delayed. Children from the poorest households were more than twice as likely to experience delayed vaccination compared to those from middle-income households. For ZD status, children of caregivers with secondary or higher education were about three times less likely to be ZD, and those living in urban areas were also about three times less likely to be ZD than children in rural or hard-to-reach areas.

Analysis of BeSD provided further insight into demand-side barriers. Overall, caregivers generally held positive attitudes towards vaccination, with over 80 percent agreeing that vaccines are important and effective for child health. However, confidence was much lower among caregivers of ZD children: only about half of these caregivers felt confident that vaccines were safe, compared to over three-quarters among caregivers of vaccinated children. Practical and service-related barriers were more pronounced: among caregivers of delayed children, nearly two-thirds reported difficulties reaching health facilities and half had experienced long waiting times, compared to one-quarter and one-third, respectively, among caregivers of children vaccinated on time. Negative service experiences eroded trust—caregivers who had encountered stockouts or disrespectful treatment from health workers were significantly less likely to express intent to return for future vaccinations. Social support also played a role: although 89 percent of caregivers reported needing permission—mostly from husbands—to vaccinate their children, with no significant difference between ZD and non-ZD groups, only 59 percent of caregivers of ZD children felt that close family and friends wanted them to vaccinate, compared to 95 percent of caregivers of non-ZD children.

Facility efficiency analysis using SFA highlighted considerable variation in how effectively inputs such as number of trained staff, of supervision visits, of cold chain equipment were converted into outputs, namely the number of children immunized with DTP1. The average technical efficiency score across facilities was 0.60, with scores ranging from 0.21 to 0.89. In practical terms, this means that, on average, facilities were producing only about 60 percent of the immunization outputs they could achieve with the same resources if operating at full efficiency, and that many facilities could increase their output substantially by using their existing inputs more effectively. Efficiency varied not only by facility type and settlement setting, but also across states and LGAs: in Bauchi State, Ganjuwa LGA recorded the highest mean efficiency (0.67), while Bauchi LGA averaged 0.60 but ranged from 0.21 to 0.82 across facilities; in Sokoto State, Tambuwal LGA had the lowest mean efficiency (0.54). Maternity centers demonstrated the highest efficiency (around 0.79), outperforming most primary health centers while facilities in urban and semiurban areas consistently outperformed those in rural and hard-to-reach settings. More efficient facilities tended to deliver immunization sessions more regularly, attract higher client volumes, and minimize downtime from stockouts or service interruptions—thereby translating the same staff, infrastructure, and supervision inputs into more children reached with vaccinations. These findings underscore that efficiency gains—achieving more immunization outputs with the same resources—are possible and could improve service delivery without necessarily increasing costs, a critical consideration given the wide cost variation observed across facilities.

Costing analysis also revealed wide heterogeneity. Total RI expenditures during the study period were estimated at ₦4.37 billion in Bauchi State and ₦157.71 million in Sokoto State, reflecting differences in scale and infrastructure composition. Facility-level costs per child immunized ranged from ₦355.28 to ₦154,617.04, driven by variation in session volume, staffing, transport costs, and fixed cost absorption. Caregivers incurred substantial indirect costs, with total caregiver expenditures estimated at ₦2.04 million in Bauchi alone, largely due to transport expenses and lost time from income-generating activities. These findings establish the cost baseline for the planned incremental cost-effectiveness analysis, which will examine whether Z-DROP achieves greater coverage at a lower or similar cost per additional fully immunized child compared to current practice.

Qualitative interviews helped contextualize the quantitative findings and provided important insights into the operational and social barriers shaping immunization service delivery. Respondents described multiple persistent challenges affecting the implementation of Z-DROP. These included insecurity and community-level conflict, long distances to health facilities, and difficult terrain in remote settlements

that impeded outreach. Health workers cited irregular vaccine supply, cold chain equipment breakdowns, staff shortages, and inconsistent supervision as barriers to reliable service delivery. Data were often recorded on paper and rarely used for planning or feedback. Despite these challenges, several enabling practices were identified. Engagement of traditional and religious leaders was widely credited with improving community trust and mobilization, while the use of community-based volunteers—especially those familiar with local languages and customs—was seen as increasing turnout at sessions. Respondents emphasized that fixed sessions worked well in well-served areas, whereas outreach and mobile strategies were indispensable for reaching ZD children in remote communities, provided that transport funding, logistics, and social mobilization support were consistently available.

The interviews also highlighted how gender norms shape access to immunization. Many women reported needing permission from husbands or household heads to take children for vaccination, and some were not allowed to travel to facilities or outreach points alone. Heavy domestic workloads frequently conflicted with session schedules, limiting their ability to attend. Health workers and community leaders noted that men were rarely present at immunization sessions, even though they were often the key decision-makers regarding household health spending and mobility. These dynamics were perceived to contribute to delayed and missed vaccinations, especially in more conservative settings. Respondents stressed the need to actively engage male caregivers and community leaders, adapt session timing to better align with women’s daily routines, and continue using female community-based volunteers and local language communication to build women’s confidence and autonomy in seeking services. Visible endorsement of immunization by religious and traditional leaders was also seen as a critical enabler for shifting gender norms and improving uptake.

DATA QUALITY ASSURANCE

The Learning Hub partners with state and LGA health authorities to conduct periodic DQAs in selected health facilities within the Learning Hub focus LGAs, strengthening the quality and use of RI data at facility and LGA levels. Assessments apply a standard data quality tracking tool, integrate rapid community surveys, and feed findings back to LGA and state forums for targeted action. This evidence loop is reinforced by capacity building, particularly through GEMEL fellows who execute field assignments and mentor health workers. Structured dissemination to TWGs and coordination platforms support managers to translate gaps (e.g., stockouts, tool shortages, recording inconsistencies) into operational fixes. During the first half of 2025, two DQA cycles were completed across the eight focus LGAs. In the first cycle, teams evaluated 64 priority public health facilities (eight per LGA) using the standard toolset and conducted a rapid community survey examining 441 children aged 4.5–11 months. The second cycle revisited 32 facilities (eight per LGA) and expanded the community component to 739 children in the same age cohort. Field activities concluded with dissemination of results to LGA and state coordination platforms for incorporation into supervision and operational planning.

Key Findings

- **Vaccine stockouts were frequent and concentrated in specific LGAs.** Recurrent shortages were recorded for measles, hepatitis B, rotavirus, and yellow fever vaccines. Kumbotso and Sumaila LGAs in Kano state were most affected in Q1, and across the 64 facilities consolidated in Q2 analysis, 27 facilities (42.2%) reported a stockout in the previous six months and 8 facilities (12.5%) were in active stockout, notably in Kumbotso, Sumaila, Wamakko, Ganjuwa, Maiduguri, and Jere.

- **Essential data tools were often missing, constraining complete and timely reporting.** About 34 percent of facilities across five LGAs lacked monthly summary forms and vaccine ledgers in Q1, with the problem most severe in Sokoto’s Tambuwal and Wamakko LGAs (75% shortage), and gaps persisted in Q2 across six LGAs (Bauchi, Kumbotso, Maiduguri, Sumaila, Tambuwal, Wamakko), extending to RI registers and tally sheets.
- **Data quality problems were systemic but pinpointable to fields and locations.** In Q1, five LGAs exceeded the national ≤ 10 percent threshold for discrepancy between tally sheets, monthly summary forms, and DHIS2, with Ganjuwa showing the highest variance due to DHIS2 over-reporting; antigen-reporting consistency fell as low as 14.8 percent and 28.9 percent in two LGAs, and 21 vaccine-utilization reports were missing over the review window. In Q2, core fields were strong (100% for date of birth/age; 99% for sex) but only 80 percent consistent for “last antigen received,” with Bauchi LGA the poorest performer and Borno (Jere, Maiduguri) the strongest.
- **Timeliness improved where mentorship by GEMEL fellows was focused, but dose uptake delays persisted.** In Bauchi, reporting timeliness rose from 55 percent (late 2024) to 94 percent (Q1 2025), yet 20.4 percent of sampled children in Q1 experienced delays and 72.2 percent of those were completely unimmunized, with delays exceeding 30 percent in Tambuwal, Wamakko, and Sumaila; by Q2, delayed vaccination remained common at 31–35 percent among children 4.5–11 months across all eight LGAs, with timely coverage hovering in the mid-60s.
- **Documentation was generally retained, but follow-up systems lagged.** Among vaccinated children, 328 of 376 retained cards in Q1, indicating good record keeping; however, weak defaulter-tracking and follow-up limited translation of documentation into on-time completion of schedules.

The DQA findings consistently revealed systemic challenges across the target LGAs surfacing core bottlenecks that undermine RI: vaccine stockouts, gaps in basic data tools, and recording inconsistencies. With the Learning Hub’s support, states and LGAs initiated concrete corrective actions in response to the findings. In Bauchi, data tools were produced and distributed to cover upcoming quarters, while Kano worked to fill gaps in distribution and Sokoto initiated statewide production and deployment of newly printed forms and registers. The Learning Hub reinforced corrective measures through on-the-job mentorship and supervision. M&E officers and GEMEL fellows mentored frontline health workers across Bauchi, Borno, Kano, and Sokoto, strengthening capacity in data management, documentation practices, and vaccine handling. At the systems level, RITWGs, supported by the Learning Hub, stepped in to address recurrent vaccine shortages by requesting full quarterly allocations from the National Primary Health Care Development Agency (NPHCDA) and troubleshooting delivery bottlenecks. Complementing these supply- and system-focused interventions, community and religious leaders were mobilized to encourage timely immunization and counter vaccine hesitancy. Outreach sessions in hard-to-reach settlements targeted ZD children, while Village Development Committee leaders supported defaulter tracking and household-level advocacy.

SUB-NATIONAL BUDGET TRACKING AND ACCOUNTABILITY

As part of its advocacy work for improved subnational immunization financing, Learning Hub partner AHBN, with support from the state-level CoP on immunization, budget, tracking, accountability, and sustainability, developed a comprehensive ZDLH Accountability Framework for use at subnational levels. This framework is designed to monitor and track immunization-related expenditures, ensuring greater transparency and effectiveness in resource allocation. The Learning Hub convenes and equips state actors and civil society to secure on-time allocation, release, and use of RI funds, reduce bureaucratic delays, and shift reliance from external to domestic financing. The Learning Hub conducted targeted high-level advocacy informed by DIM/IR evidence, co-developed and validated an Immunization Accountability Scorecard with states, facilitated CoPs (co-chaired by government and CSOs) that use budget and performance data to press for timely releases, and amplified accountability through media and public briefings.

Key Findings

- **Advocacy volume and reach increased, with measurable financing results.** Across the four states during the first half of 2025, the Learning Hub executed 29 high-level engagements and a further 25 strategic visits, linking DIM/IR findings to budget decisions and timely releases.
- **Scorecard institutionalization deepened.** The Immunization Accountability Scorecard was validated in all four states with 100+ stakeholders in the first quarter of 2025; enhancements include tracking CSO participation in RITWGs, integration of Penta 1/Penta 3¹ coverage mirrored with budget performance, and state-specific indicators such as LGA-level budget tracking (Kano) and CHW engagement (Borno).
- **Concrete budget outcomes were realized.** In Bauchi, a dedicated immunization budget line of approximately ₦870–875 million was created through the 2024 appropriation, and by Q2 2025 the state confirmed 100 percent release of the allocated funds, an improvement from 2024, when less than 65 percent of the budgeted amount was released. Borno increased its RI allocation to ₦234 million with full release by Q2 2025; Kano increased its RI budget to ₦1.5 billion for 2025 and executed ~95 percent of its 2024 allocation. These shifts were consistently attributed to CoP-led and evidence-backed advocacy.
- **CSO roles in accountability strengthened.** States integrated CSOs into TWGs and taskforces; Kano's CoP members were formally embedded in the Social Mobilization & Community Engagement Subcommittee, giving civil society a recognized place in RI planning and oversight.
- **Evidence-to-action at the local level was visible.** Leaders used DQA/DIM findings to make resource decisions: Sokoto's Tambuwal LGA increased RI facilities from 27 to 32; Bauchi adjusted operational plans to raise outreach stipends to enable sessions in hard-to-reach areas.
- **CoPs influenced additional resource flows.** In Borno, CoP engagement helped shape primary health care memorandum of understanding financing, with ₦651 million reflected in the draft and ₦482 million specifically oriented to ZD LGAs.

¹ In Nigeria, the pentavalent vaccine (Penta)—which includes protection against diphtheria, tetanus, and pertussis (DTP) and hepatitis B and Haemophilus influenzae type b (Hib)—is commonly used in place of the standalone DTP vaccine and is the standard reference in national immunization data.

- **Public accountability was elevated.** State scorecard dissemination and media briefings generated national coverage, reinforcing pressure for timely releases and transparent execution.

Taken together, the evidence shows that the Learning Hub’s package of targeted advocacy anchored in DIM/IR findings, a validated Immunization Accountability Scorecard, and CSO-government CoPs has shifted subnational financing from intent to execution, with confirmed releases, operational adjustments, and a clearer line of sight between budgets and coverage. The immediate way forward is to consolidate these gains by making scorecard review a standing item in state and LGA decision forums, keeping CSO participation formally seated in TWGs and taskforces, and continuing CoP-led, evidence-to-budget dialogues that pair coverage results with budget performance. In parallel, sustained public communication around scorecard roll-outs can maintain pressure for timely releases and transparent utilization, while routine use of DIM/IR outputs in microplanning and supervision keeps resource decisions responsive to local gaps.

KNOWLEDGE TRANSLATION

Knowledge translation (KT), the systematic process of moving research into policy and practice, is central to the ZDLH approach. In Nigeria, the Learning Hub has used KT to bridge the gap between evidence generation and decision-making. By combining rigorous research with targeted advocacy, tailored communication, and sustained engagement, the Learning Hub ensures that findings are not only produced but also understood, adopted, and embedded into policy and programming. This process followed a continuum, from dissemination to impact, illustrating how evidence has shaped immunization financing, service delivery, and accountability mechanisms at both national and subnational levels.

DISSEMINATION: SHARING EVIDENCE TO DRIVE CHANGE

The Learning Hub continues to actively share evidence and knowledge products to foster understanding and drive change across multiple platforms. Its webinar series reached over 1,467 participants from 15 countries, including frontline health workers, program managers, partners, and donors. Eight sessions, three held during this reporting period, have addressed critical topics such as strategies for identifying and reaching ZD children, monitoring ZD using DIM, and the role of partnerships in reducing missed communities. The Learning Hub also continues to publish its findings widely: a manuscript on the DIM pilot in Kumbotso LGA was published in *Vaccines*, a Learning Agenda manuscript is under external review, and other outputs include a scoping review on barriers and facilitators, quarterly newsletters, and reports. Evidence has been shared in high-level forums and state-level scorecard dissemination sessions and press briefings in Bauchi, Borno, Kano, and Sokoto have generated national media coverage.

TRANSMISSION: TAILORING EVIDENCE FOR DECISION-MAKERS

The Learning Hub aims to make evidence accessible and actionable by tailoring it for decision-making contexts. A core tool is the Immunization Accountability Scorecard, validated across the four focal states and customized to local priorities such as LGA-level budget tracking in Bauchi and Kano and community health worker engagement in Borno. Across all states, the scorecard integrates Penta 1 and Penta 3 coverage with budget performance. Evidence was also packaged into advocacy briefs and targeted visits to state and LGA leadership, linking DIM, DQA, and IR findings to resource release and programmatic needs. Findings on barriers from Bauchi and Sokoto were presented at state and LGA levels, providing concrete and contextual recommendations aimed at improving RI uptake and addressing gender inequities. Culturally relevant influencers such as wives of LGA chairmen in Borno, and religious and traditional leaders in Sokoto were engaged to support RI demand generation.

ACQUISITION: STAKEHOLDERS RECOGNIZING AND ADOPTING KNOWLEDGE

The Learning Hub's evidence has been recognized and adopted by decision-makers, leading to tangible policy and financing shifts. CoPs integrated scorecard data into planning processes, advocating for stronger microplanning and supportive supervision. Subnational governments acted on scorecard-informed advocacy by increasing RI budgets and ensuring timely releases in Borno, Bauchi, and Kano states. Political leaders have demonstrated ownership. Senator Mohammed Tahir Monguno formally committed to championing immunization in Borno North, while Sokoto expanded CSO participation in technical groups and taskforces, including through engagement with the Deputy Governor's office. Bauchi's State Primary Health Care Development Agency pledged further IR studies in other LGAs, and Sokoto's Executive Secretary committed to mobilizing traditional and religious structures for addressing vaccine hesitancy. These achievements demonstrate a growing political commitment to immunization financing at the subnational level, directly aligning with the Learning Hub's ToC.

APPLICATION: IMPLEMENTING RESEARCH-BASED SOLUTIONS

Research findings are informing targeted interventions, advocacy efforts, policy adjustments, and resource allocation to address the ZD challenge. The Learning Hub has identified challenges, proposed evidence-based solutions, and supported their implementation at various levels, leading to measurable improvements in immunization strategies and service delivery. DIM identified low-performing wards and guided targeted interventions. In Bauchi, outreach sessions were prioritized for communities >2km from health facilities, while Sokoto organized outreach in Gidan Gebe and Loba communities, vaccinating 28 ZD children identified through DIM. Findings also informed adjustments to the Z-DROP, including extending implementation timelines where funds were underutilized. The GEMEL Fellowship developed by the Learning Hub institutionalizes the use of evidence by training M&E officers, program managers, and LGA staff in data use, advocacy, and budget tracking. Fellows complete practical field assignments that directly strengthen data systems and reporting. For example, in Kumbotso LGA, NHMIS reporting timeliness improved from 93 percent in Q4 2024 to 99 percent in Q1 2025 following fellows' fieldwork. Mentorship and on-site data management training for health workers strengthened vaccine handling and reporting. Recommendations from the Learning Hub's IR led to revisions of RI microplans to map underserved populations, including internally displaced persons and children in safe spaces, and to allocate funds for gender-sensitive activities. Together, these applications demonstrate how evidence is being systematically translated into action strengthening data systems, refining service delivery, and embedding new practices that directly expand access to immunization for ZD/UI children.

IMPACT: INSTITUTIONALIZING EVIDENCE-BASED PRACTICES AND STRENGTHENING IMMUNIZATION

KT efforts have translated into measurable change in Nigeria. The Learning Hub's approach, generating evidence on how to identify, reach, and measure and monitor ZD children and missed communities, is yielding results across financing, accountability, and service delivery. Dedicated immunization budget lines, CSO integration in state TWGs, and accountability frameworks are now embedded, strengthening sustainability. In Bauchi State, a dedicated immunization budget line of ₦870 million was created for

2025, and—following 2024 appropriation—the entire amount had been released by Q2 2025, compared with less than 65 percent of the 2024 allocation released. In Kano, the RI budget rose from ₦520 million (2024) to ₦1.5 billion (2025). And in Borno, the RI allocation increased from ₦160 million (2024) to ₦234 million (2025) with 100 percent release by Q2 2025.

Civil society participation has been formally strengthened: CSO representatives were integrated into the Sokoto Immunization Taskforce and a new “CSO participation in RITWGs” indicator was added to the Immunization Accountability Scorecard across all four states. In Kano, CoP members were integrated into the Social Mobilization and Community Engagement Subcommittee, reinforcing civil society’s role in planning and oversight.

DIM and IR findings are being used within supervision and microplanning. In Sokoto’s Tambuwal LGA, leaders acted on data by expanding RI health facilities from 27 to 32 of 47; and Bauchi’s 2025 annual operational plan increased outreach stipends from ₦1,500 to ₦4,000 to enable hard-to-reach sessions, both concrete resource decisions tied to evidence.

Capacity is also being institutionalized through the GEMEL Fellowship. The first cohort graduated 23 fellows, and a second cohort of 21 participants has been launched, creating a pipeline of state and LGA staff with enhanced skills in data use, advocacy, and budget tracking, helping to address persistent workforce turnover. The 44 fellows are expected to apply their training by strengthening health information systems, including conducting DQAs at health facilities, improving the quality of supervision, and driving data-driven decisions for RI programming. In addition, fellows are tasked with cascading their knowledge to colleagues and mentoring frontline health workers, thereby expanding institutional capacity and embedding data-driven practices.

Finally, the Nigeria Learning Hub presented recommendations to the RITWG at both national and subnational levels. The recommendations focus on scale and inclusion, specifically calling for the expansion of DIM to all 100 ZD LGAs and the integration of gender and inclusion indicators into NHMIS/DHIS2 to improve routine monitoring and the reach of ZD children. It is now the responsibility of the working groups, in collaboration with state and local governments, to review these recommendations and take forward the necessary steps to ensure their effective implementation.

Together, these shifts—budgetary commitments and releases, formalized CSO roles, validated accountability tools, data-driven microplanning, measurable coverage improvements, and capacity pipelines—demonstrate the institutionalization of evidence-based practice in Nigeria, a cornerstone of sustainable immunization system strengthening.



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