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

April 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. (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 (UI) children globally by facilitating high-quality evidence generation and uptake.

Recommended Citation

Gavi Zero-Dose Learning Hub. 2025. "Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update—Mali (April 2025)." https://zdlh.gavi.org/.

Contact Information

JSI Research & Training Institute, Inc.
2733 Crystal Drive 4th Floor
Arlington, VA 22202 USA

ZDLH website: https://zdlh.gavi.org/

CONTENTS

ACRONYMS

BeSD	behavioral and social drivers of vaccination
BCU	Big Catch-up
C2P	Coach2PEV
CAPEV	*Centre d'Apprentissage pour l'Equité en Vaccination* (Country Learning Hub)
CIP	Collaborative Intelligence Platform
CNI	*Centre national d'immunisation* (National Immunization Center)
CSCOM	*Centre de Santé Communautaire* (Community Health Center)
CSO	civil society organization
IR	implementation research
JSI	JSI Research & Training Institute, Inc.
KT	knowledge translation
LQAS	lot quality assurance sampling
MOH	Ministry of Health
TOT	training of trainers
UI	under-immunized
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization
ZD	zero-dose
ZDLH	Zero-Dose Learning Hub

EXECUTIVE SUMMARY

Between July–December 2024, the Mali Country Learning Hub continued to advance its mission to generate actionable evidence, strengthen data systems, and foster stakeholder collaboration to close immunization gaps and reach zero-dose (ZD) and under-immunized (UI) children. Through baseline data collection and ongoing implementation research (IR), the Learning Hub deepened its understanding of caregivers' attitudes, health system challenges, and the contextual factors shaping vaccine uptake across diverse settings. However, the inability to conduct surveys in conflict-affected areas like Yorosso District highlighted a critical evidence gap and reinforced the need for alternative, context-sensitive data collection strategies.

Efforts to improve immunization equity also focused on strengthening data systems. During this reporting period, the Learning Hub launched a new exploratory study to map, assess, and improve the use of existing data sources to better identify and monitor ZD children, especially amid reductions in external funding support. In parallel, the successful application of Lot Quality Assurance Sampling (LQAS) in the Learning Hub study areas demonstrated a cost-effective and reliable way to gather actionable coverage data at the local level.

The Learning Hub is conducting implementation research focused on two supply-side interventions in the early stages of implementation—Coach2PEV (C2P), a digital supportive supervision platform, and Medexis, an electronic logistics management information system (e-LMIS). During this reporting period, the Learning Hub worked with stakeholders to validate implementation tools and identify early rollout challenges, laying the groundwork for adaptation, scale-up, and ongoing learning.

The Learning Hub also expanded its stakeholder engagement and knowledge translation (KT) activities, co-creating a suite of evidence products with the government and other partners to inform Mali's immunization strategy. These efforts are supported by the Collaborative Intelligence Platform (CIP), which has emerged as both a coordination tool and an engine for advocacy and evidence use.

Looking ahead, the Learning Hub will prioritize developing flexible data collection approaches in insecure areas, leveraging existing data more effectively, and establishing systems to monitor the use and impact of translated knowledge on policy and practice. Together, these efforts aim to ensure that Mali's immunization programming is both data-informed and responsive to the needs of missed communities.

KEY LEARNINGS & RECOMMENDATIONS

IDENTIFY: UNDERSTANDING THE ZERO-DOSE BURDEN

Key Learnings

- The Learning Hub completed baseline data collection for the implementation research in eight health center *aires de santé* (catchment areas) targeted by the project. The baseline included a probability household survey carried out in six out of the eight aires de santé and qualitative interviews with key informants. Survey findings will provide valuable insights into the vaccination status of children in the targeted areas, as well as caregivers' attitudes toward vaccination, the behavioral and social drivers (BeSD) of vaccination, and the key barriers influencing vaccine uptake. The qualitative findings will capture perspectives from decision-makers, health workers, and community leaders on the acceptability of and challenges to implementing the Coach2PEV (C2P) and Medexis interventions.

- Due to unrest and insecurity, the Learning Hub was unable to carry out the planned household surveys in Yorosso, a conflict-affected district, highlighting an important evidence gap in understanding vaccination coverage, drivers, and barriers specific to populations living in insecure settings. This experience underscores the broader challenge of collecting reliable data in conflict zones, where security risks limit the ability to deploy even targeted survey methods.

Recommendations

- **Explore alternative data collection methods in conflict settings:** Develop alternative data collection strategies for estimating coverage in conflict-affected areas. These could include remote surveys (e.g., mobile phone-based surveys), geographic information system (GIS)-based population estimations, or partner-driven data gathering. While these approaches have biases and limitations to accurately estimating coverage and understanding vaccination drivers and barriers, exploring the feasibility and reliability of context-sensitive approaches will help ensure that critical insights from conflict-affected populations are captured to inform more targeted and effective immunization interventions.

REACH: ENSURING ACCESS TO IMMUNIZATION SERVICES

Key Learnings

- The Learning Hub will synthesize lessons learned related to ongoing *Reach* interventions in Mali and share them through their KT plan and on the CIP. For example, the first two rounds of the Big Catch-Up (BCU) initiative were successfully carried out in the 44 Gavi-prioritized districts, with the first round in October 2024 and the second in December 2024. This marked a significant milestone in the country's efforts to recover immunization coverage disrupted by the COVID-19 pandemic. According to the Director of the National Immunization Center (*Centre*

national d'immunisation [CNI]), detailed reports outlining the achievements, challenges, and key lessons learned from these rounds will be made available in the near future. These forthcoming reports are expected to provide valuable insights that will inform the planning and implementation of subsequent rounds, as well as broader strategies to reach ZD children and strengthen routine immunization systems across the country.

- On November 28, 2024, the Learning Hub participated in the Raise4Sahel project closeout workshop held in Bamako. The workshop highlighted the project's significant achievements, including the administration of 182,810 vaccine doses across seven districts and the training of 4,612 community and religious leaders. Among the key lessons shared, integrating vaccination efforts with broader humanitarian activities was shown to enhance access and coverage; however, additional targeted strategies are still needed to effectively identify and reach ZD children. The combination of proactive negotiation to gain access to hard-to-reach areas and the use of door-to-door mobilization strategies proved particularly effective. Moreover, strong engagement with local communities—especially through religious and traditional leaders— was instrumental in building trust and encouraging participation**.**

Recommendations

- **Synthesize and amplify lessons learned around effective strategies to reach ZD and UI children.** There is a growing body of evidence from recent initiatives in Mali, such as Raise4Sahel and the BCU, that have generated valuable lessons on strategies to identify and reach ZD and UI children. Synthesizing and amplifying these lessons is critical to ensure they inform future efforts. It is essential to translate this evidence into practical guidance tailored to key audiences, including policymakers, program implementers, and community leaders, so that it can be effectively applied. The Learning Hub is well-positioned to lead this process by serving as a central platform for consolidating lessons from diverse partner-led interventions and converting them into actionable insights that drive improved immunization outcomes and equity.

MONITOR & MEASURE: IMPROVING DATA SYSTEMS AND TRACKING IMMUNIZATION COVERAGE

Key Learnings

- Recognizing the persistent challenges with ZD data quality and fragmentation in Mali, the Learning Hub is conducting a study to map existing data sources, including DHIS2, national surveys, administrative records, and partner-generated datasets, and assess how these sources can be better used to provide more reliable, real-time information on ZD children. Strengthening the quality and integration of these data is essential for designing tailored and effective immunization strategies to reach ZD populations.

Recommendations

- **Leverage existing data sources:** In light of recent cuts to the United States Agency for International Development (USAID) funding, which has historically played a critical role in supporting high-quality surveys and strengthening health information systems, it is now more important than ever to maximize the use of existing data sources. By strengthening the use of

available data, stakeholders can continue to make evidence-based decisions, design targeted interventions, and track progress in reaching missed communities, even in the absence of large-scale external survey support. Investing in improving the quality, interoperability, and analysis of existing datasets will be crucial for maintaining momentum toward immunization equity goals.

- **Consider smaller, more affordable survey methods to continue generating reliable data for immunization program monitoring.** Approaches such as LQAS offer an efficient alternative by using small, probability-based household samples to produce valid coverage estimates and actionable information. LQAS can reliably assess population-level vaccination status, track immunization performance over time, and identify gaps in coverage and barriers to vaccination at the local level. The Learning Hub has already demonstrated its feasibility in Mali through the successful completion of the baseline data collection during this reporting period.

ADVOCATE: STRENGTHENING POLICIES, STAKEHOLDER ENGAGEMENT, AND FINANCING

Key Learnings

- The Learning Hub continues to expand its network of local immunization stakeholders, securing their buy-in and fostering collaboration in identifying and prioritizing relevant evidence for KT. This engagement has also helped improve the tracking of Gavi's Full Portfolio Planning (FPP)-funded activities and other immunization programs across the country through the CIP. Maintaining regular, consistent communication with stakeholders has proven critical to sustaining momentum, reinforcing collaboration, and ensuring that learning and evidence remain closely tied to national immunization goals.

Recommendations

- **Develop indicators and mechanisms to monitor real-world impact:** Beyond tracking the development and dissemination of learning products, it is critical to monitor how knowledge is acquired, applied, and translated into action and assess whether learning products are leading to measurable changes in policies, practices, and program implementation. This could involve incorporating indicators that track stakeholder engagement with materials, the integration of new evidence into decision-making processes, and concrete programmatic shifts resulting from applied learning. Regular feedback loops with users, case studies documenting the use of learning products, and policy or operational updates influenced by shared knowledge should all form part of a comprehensive KT monitoring system.

MALI 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 ZD and UI children. Four Learning Hubs in Bangladesh, Mali, Nigeria, and Uganda advance the uptake of research and evidence to improve immunization policy and programming, especially at sub-national levels. In 2023, Gavi selected GaneshAID as the country learning partner for Mali. Together with the Center for Vaccine Development—Mali and the University of Bamako, GaneshAID established the Mali Learning Hub, known in French as *Centre d'Apprentissage pour l'équité en vaccination* (CAPEV).

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 Identify, Reach, Monitor and Measure, and Advocate (IRMMA) framework emerging from the Learning Hubs.

ZDLH TECHNICAL ASSISTANCE

During the period July–December 2024, JSI, as the global learning partner, continued to provide technical assistance, collaborate, and co-create with the Mali Learning Hub focused on IR, survey methodology, and data quality assurance. JSI worked closely with the Learning Hub to develop and refine the IR protocol for submission to the local ethics board, engaging in detailed discussions on study design, methodologies, indicators, and multiple protocol revisions.

Support also focused on the preparation and execution of the cross-sectional household survey using LQAS. JSI provided in-depth guidance on defining catchment areas and lots across four study districts, developing sampling frames, and creating a comprehensive indicator list and questionnaires. To support survey implementation, JSI developed a complete set of training materials in French for a four-day training of trainers (TOT) workshop to ensure the Learning Hub team could effectively train data collectors. JSI onboarded an experienced local consultant to support the Learning Hub in planning and implementing the LQAS survey. The consultant received four days of training from JSI on LQAS concepts before co-leading the TOT with JSI for the Learning Hub team. The TOT included three days of virtual sessions led by JSI staff from Washington, DC, and Costa Rica, followed by a day of pilot testing the questionnaire and sampling approach in a community setting, after which TOT trainers reviewed and addressed challenges.

JSI played a key role in finalizing the LQAS sampling frames for the six study areas, with support from the local consultant who coordinated with Community Health Center (*Centre de Santé Communautaire* [CSCOM]) facility in-charges to gather population data and divide catchment areas into survey lots. JSI also developed standardized data collection materials, including interview schedules, respondent

selection templates, and quality control tools to ensure data accuracy. Multiple rounds of feedback and revisions were conducted for both paper-based and electronic survey instruments. For the replication training for data collectors, JSI designed a four-day training agenda covering LQAS methodology, implementation strategies, and questionnaire review. The local consultant led the replication sessions, which culminated in field testing and a troubleshooting session. Throughout data collection in Segou, Niono, and Bougouni, JSI provided virtual support through a WhatsApp group and direct oversight through the local consultant, who supervised field teams for 19 days. This included conducting verification checks, revisiting 10 percent of surveyed respondents, and re-administering select questions to ensure data accuracy. Through this ongoing collaboration, JSI strengthened the Learning Hub's capacity to implement rigorous research methodologies and high-quality data collection processes, contributing to reliable evidence generation for immunization equity in Mali.

Additional Resources

- [Evaluation Rapide Situation des Enfants Zéro-Dose et Sous-Vaccinés au Mali](#) (October 2024)

- [Identification des enfants zéro dose et sous-vaccinés au Mali en 2023](#) (October 2024)

- [Obstacles courants et spécifiques à la vaccination au Mali en 2023](#) (October 2024)

- [Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update—Mali (October 2024)](#)

- [Mali Data Dashboard (January-June 2024)](#)

- [Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update—Mali (May 2024)](#)

KEY ACTIVITIES & IMPLEMENTATION RESEARCH

IMPLEMENTATION RESEARCH

The Mali Learning Hub's IR aims to evaluate two supply-side interventions, Medexis and C2P, that will be implemented in 2025 to strengthen immunization service delivery and ultimately reach ZD and UI children. The IR employs a mixed-methods approach, using a cross-sectional design for the vaccine coverage survey and a longitudinal (pre/post) qualitative approach to evaluate the implementation process of the two interventions in the four Learning Hub study districts. These districts were chosen based on their typology (urban/peri-urban, remote rural, conflict-affected areas, and special populations) and high ZD burden. Within each district, two CSCOMs and their aires de santé were selected based on their target population size and low Penta-1 coverage. The interventions evaluated are described in Table 1 below.

Table 1. Summary of IR Study Areas

District	Context	CSCOM	Data Collection
Ségou	Urban/peri-urban	Pelengana Nord, Cinzana Gare	Quantitative, qualitative
Yorosso	Conflict	Boura, Karangana	Qualitative
Bougouni	Other populations (internally displaced persons, refugees, islanders, migrants, nomads, gold miners)	Bougouni Est, Kologo	Quantitative, qualitative
Niono	Rural/remote	Niono Central, Ndebougou	Quantitative, qualitative

Table 2 below compares the purpose, key features, implementation status, scale-up plans, challenges, and current adaptation efforts of C2P and Medexis.

Table 2. Summary of C2P and Medexis

Feature	C2P	Medexis
Purpose	Digital supportive supervision tool to improve health worker performance	Electronic logistics management information system to strengthen vaccine availability and stock tracking
Key Features	Self-assessment, individualized coaching, gamified dashboards, performance tracking	Real-time monitoring of vaccine stocks, low-stock alerts, automated ordering, customizable reports
Implementation Status	Launched December 2024; pilot phase in Commune VI of Bamako	Rollout delayed; originally USAID- funded, with new funding secured from Gavi through the Full Portfolio Planning

Planned Scale-Up	Expand to 5 additional districts, eventually 20 nationwide	Future implementation contingent on securing sustainable funding
Anticipated Challenges	User adaptation, resistance to change, limited digital infrastructure in some areas	Loss of donor support, system integration, and long-term sustainability
Adaptation Efforts	National roadmap and supervision tools under development by technical committee	Potential new funders being pursued; functionality already validated in prior phases

Baseline Data Collection

The Learning Hub is conducting IR in four phases between May 2024 and December 2026. During the current Phase 1, the Learning Hub carried out baseline data collection from November 17 to December 4, 2024 across eight CSCOMs.

For the household survey, LQAS was used to collect baseline data from 1,146 caregivers of children, segmented into two age cohorts: 18 weeks to 11 months and 12 to 23 months. Surveys were conducted across six health facility aires de santé: Bougouni Est, Kologo, Pelengana North, Cinzana Gare, Niono Central, and Ndebougou. Due to security concerns, survey data could not be collected from the two CSCOMs located in the conflict-affected districts Boura and Karangana.

The survey questionnaire included:

- Demographic characteristics of caregivers (sex, age, education level, marital status, wealth index, religion, ethnicity, child's place of delivery)

- Immunization status for antigens administered during the first and second years of life, assessed through vaccination card review or caregiver recall if cards were unavailable

- BeSD indicators for vaccination, with questions across the following four domains: thinking and feeling about vaccines, social processes influencing vaccination, motivation or hesitancy to vaccinate, and practical challenges in accessing vaccination services

The qualitative research component comprised 18 in-depth interviews with decision-makers and health care staff at various levels (central, regional, district, and facility) to explore the barriers to and acceptability of the interventions, including the availability of necessary inputs for the successful implementation of C2P and Medexis and quality of current immunization services. It also included 16 focus group discussions with religious and community leaders to understand the cultural, religious, and socio-behavioral factors preventing children from being vaccinated in the specified aires de santé. Data was collected using semi-structured interview guides, recorded, transcribed, and analyzed thematically. The IR baseline findings and information related to subsequent rounds of qualitative data collection to document the implementation of the two interventions will be included in the next semiannual report.

IMPROVING VACCINE EQUITY THROUGH BETTER USE OF DATA: AN EXPLORATORY STUDY

During this reporting period, the Learning Hub designed and developed the protocol for a study that aims to strengthen the use of data for identifying and reaching ZD children. The core objective is to explore challenges and opportunities related to analyzing and combining diverse data sources to better

identify, estimate, and track ZD children. The study seeks to analyze existing data sources and variables relevant to ZD identification, propose solutions to improve data accessibility and triangulation, and develop innovative methods to enhance the evaluation and estimation of ZD children.

The study will employ an exploratory qualitative approach, carried out in four major phases (see Table 3).

Table 3. Phased Approach to Exploratory Study on Improving Data Use for ZD Identification

Phase	Focus Area	Description
1	Desk Review and Data Mapping	Systematic review of available data sources related to immunization and identification of ZD children, including DHIS2, Demographic and Health Surveys, MICS, humanitarian datasets, and external sources like WorldPop and Institute for Health Metrics and Evaluation. Each source will be assessed for accessibility, completeness, reliability, and relevance.
2	Primary Data Collection	Semi-structured interviews with ~15 key informants from Ministry of Health (MOH), CNI, United Nations Children's Fund (UNICEF), World Health Organization (WHO), non-governmental organizations, and academia. Focus groups with members of the national Data Quality Group to explore barriers to data use, triangulation practices, and potential solutions for improved integration and decision-making.
3	Solution Development	Using findings from previous phases, propose strategies to improve data harmonization. This includes centralized data platforms or pipelines, dashboards, and models for cross-data comparisons and automated estimation of ZD children to support decision-making.
4	Data Modeling and Scenario Building	Conduct statistical analysis of ZD predictors using R, Python, and QGIS. Develop prototype models for geospatial visualization and predictive mapping of ZD children across Mali to generate actionable insights that guide targeted interventions and promote immunization equity.

The study will be conducted between April and September 2025 in Bamako, pending approval from the ethics committee, to which the protocol has already been submitted. In light of the recent decision by the U.S. government to withdraw USAID funding—which has historically played a central role in supporting surveys and strengthening health information systems—this work is particularly critical. Without such external support, building local capacity to produce and use high-quality data will be essential to sustaining progress and ensuring that all children are reached with life-saving vaccines.

KNOWLEDGE TRANSLATION

During the reporting period, the Mali Learning Hub developed and advanced a structured and participatory KT system to ensure that evidence informs immunization policy and practice. Central to this approach is the Collaborative Intelligence Platform (CIP), a tool designed to coordinate the design, implementation, and monitoring of ZD activities across the country. The Learning Hub actively promoted the CIP as a mechanism for collaboration and advocacy with national and sub-national stakeholders, including CNI, WHO, UNICEF, Dalberg, World Vision, and Mannion Daniels, the fund manager for the Gavi-financed civil society organization (CSO) portfolio. Mannion Daniels is responsible for selecting CSOs and managing their contracts, while the CSOs themselves support social mobilization, demand generation, and the implementation of immunization strategies.

To support this broader engagement, the Learning Hub applied a co-creation approach that actively engages knowledge generators in identifying which evidence should be translated and disseminated for practical use. Through a series of meetings and brainstorming sessions with partners, the Learning Hub collaboratively defined a KT plan that will produce approximately 20 learning products. These products are designed to communicate key findings and lessons learned using formats such as infographics, technical notes, policy briefs, scientific articles, case studies, webinars, and guidance documents.

Dissemination: Sharing Evidence with Key Stakeholders	The Learning Hub disseminated research findings through multiple channels and formats to support evidence access and use at all levels of the health system. Shared products during the reporting period included two infographics, one research report, and four national and international webinars featuring presentations of rapid assessment findings. These dissemination efforts were complemented by plans to produce two policy briefs, four technical briefs, and one scientific article based on findings from Phase 1 of the implementation research, as well as case studies highlighting national partner-led interventions to identify and reach ZD children. The CIP remains a key dissemination tool, housing approximately 80 documents. These include reports, research papers, policy briefs, guidance notes, and toolkits developed by stakeholders such as the CNI, WHO, UNICEF, World Vision, the Data Quality Group, and ZDLH. In addition to national and partner content, the platform features Learning Hub-developed infographics, presentations, and research reports. Infographics summarizing findings from the Learning Hub's rapid assessment were distributed through the CIP and social media. Rapid assessment findings were also presented during Gavi- and ZDLH-led webinars focused on identifying immunization barriers and solutions.
Transmission: Facilitating Evidence Uptake	To ensure evidence was understood and contextualized for decision-making, the Learning Hub conducted face-to-face meetings, technical discussions, and collaborative exchanges with stakeholders including CNI, WHO, UNICEF, Dalberg, and Mannion Daniels. These consultations were used to define KT priorities, align on thematic areas, and identify appropriate learning product formats. In collaboration with Dalberg, the Learning Hub supported the development of two knowledge products: an infographic describing vaccination strategies tailored to different population groups and another illustrating the process for developing Mali's National Vaccination Strategy. Engagement with WHO led to the identification of two priority themes—data quality and vaccine management—with a technical session planned to capture lessons learned and insights from WHO consultants. Mannion Daniels proposed co-developing materials on opportunity strategies, including leveraging cultural events for hard-to-reach populations. These discussions helped interpret and align evidence with real-world immunization needs in Mali, ensuring the relevance and timeliness of upcoming KT products.

Acquisition: Stakeholders Recognizing and Adopting Knowledge	To build stakeholder capacity to access, interpret, and apply evidence, the Learning Hub conducted two virtual training sessions, five technical sessions, and one in-person validation workshop. CIP training sessions engaged the CNI director and representatives from WHO, UNICEF, Dalberg, World Vision, CHAI, and others. These sessions aimed to improve stakeholders' ability to navigate and use the platform to inform immunization efforts. The collaborative validation workshop held in August 2024 introduced stakeholders to the Learning Hub's IR objectives, study areas, and methodology. Participants provided feedback prior to ethics submission and clarified that Bamako was not among the districts selected for Medexis deployment, resulting in the study area being shifted to Ségou. Stakeholder learning exchanges also included technical sessions with WHO's Data Quality Group on integrating Learning Hub findings into Mali's immunization monitoring systems. During a November 2024 meeting, the CNI director emphasized the importance of capturing lessons from the BCU campaign and proposed specific KT outputs, including infographics on BCU implementation, a scientific article summarizing Mali's BCU experience, and technical briefs on C2P and Medexis. He also confirmed institutional support for early KT product development. Mannion Daniels expressed interest in contributing to and using CIP content, reflecting broader stakeholder recognition of its value in coordinating action and driving improvements.
Application: Integrating Evidence into Policy and Practice	The Learning Hub's emerging research and monitoring data were applied in national immunization planning and strategic adjustments. Dashboards confirmed a high prevalence of ZD children in conflict-affected areas and highlighted the insufficient number of targeted interventions. In response, the CNI reallocated a portion of the Gavi Equity Accelerator Fund (EAF) to support pro-equity immunization activities. Proposed EAF efforts currently being validated by Gavi include enrolling ZD children, strengthening cold chain infrastructure, supporting Phase 4 of Learning Hub IR, training health workers, sustaining the CIP, and expanding outreach in the 44 priority districts. The Learning Hub also contributed to the planning and validation of Mali's conflict-zone vaccination strategy, which was submitted to the MOH for political validation and is now being operationalized through the national immunization strategy. In collaboration with WHO and the CNI Data Quality Group, the Learning Hub supported the validation of performance indicators and their integration into Medexis to improve vaccine logistics tracking. The Learning Hub worked with the CNI to identify key lessons from the first two BCU rounds, which were translated into learning products for the third phase. As a result of these consultations, stakeholders agreed to collaborate on the production of KT products in 2025, including infographics and briefs on strategic innovations and interventions. These efforts reinforced the CIP's role not only as a document repository but as a strategic coordination and operational planning tool.
Impact: Achieving Policy and Programmatic Shifts	KT activities in Mali contributed to several documented changes in immunization policy and program implementation. The conflict-zone vaccination strategy, developed with support from the Learning Hub, has been embedded into Mali's national immunization strategy and is being implemented with a dedicated budget line. Following the Learning Hub's presentation of findings on the financial challenges facing volunteer vaccinators, the CNI proposed a strategy to enroll and compensate them via Orange Money to improve service continuity in hard-to-reach areas. The Learning Hub has also contributed to the institutionalization of KT by integrating the CIP into national decision-making processes. Increased engagement with the platform has supported prioritization of high-need areas, improved resource allocation, and increased visibility and use of immunization data.

The Learning Hub is committed to monitoring not only the production and dissemination of learning products but also their use and impact, including how translated knowledge influences policy, strengthens programs, and supports service delivery. Through structured KT and sustained stakeholder engagement, the Learning Hub continues to position the CIP as both a knowledge-sharing platform and a decision-support tool within Mali's immunization ecosystem.

JSI Research & Training Institute, Inc.
2733 Crystal Drive
4th floor
Arlington, VA 22202
USA

ZDLH website: https://zdlh.gavi.org/