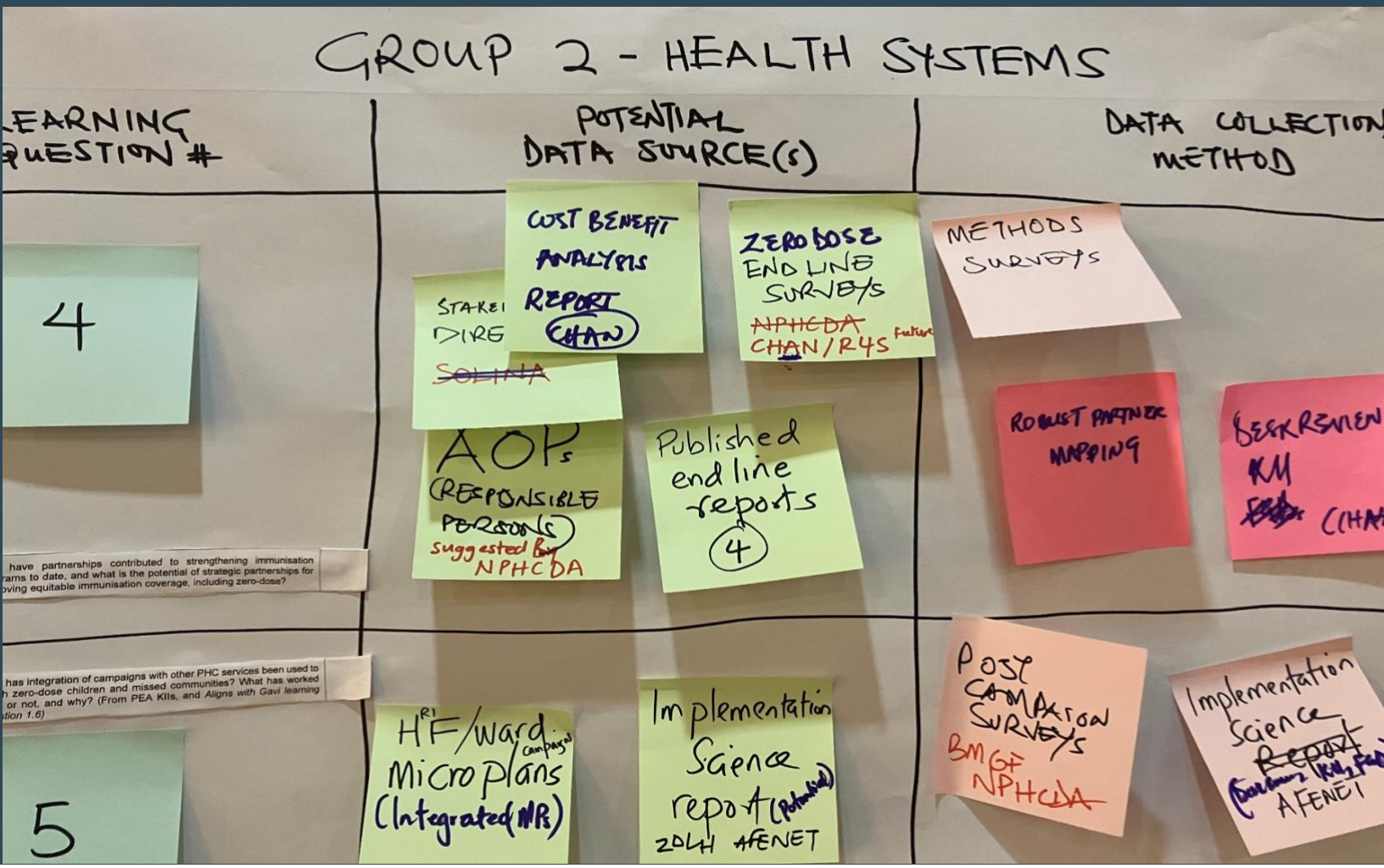
Zero-Dose LEARNING HUB

Zero-Dose Learning Hub Nigeria Learning Agenda Workshop Report

December 8, 2023 | Grand Ball Hall, Hawthorn Suite by Wyndham, Garki 2



Gavi The Vaccine Alliance | JSI | IIHMR DELHI | THE GENEVA LEARNING FOUNDATION

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.

Recommended Citation

Gavi Zero-Dose Learning Hub. 2024. "Zero-Dose Learning Hub Nigeria Learning Agenda Workshop Report." https://zdlh.gavi.org/.

Photo Credit

Oludotun Babayemi on behalf of the Zero-Dose Learning Hub

Contact Information

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

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

CONTENTS

ACRONYMS

AFENET	African Field Epidemiology Network
AHBN	Africa Health Budget Network
CHAI	Clinton Health Access Initiative
CHAN	Christian Health Association of Nigeria
CHIPs	Community Health Influencers, Promoters, and Services
CLH	Country Learning Hub
DHIS2	District Health Information Software, version 2
EMID	Electronic Management of Immunisation Data
FGD	focus group discussion
GIS	Geographic information system
GEEKS	Growing Expertise in E-Health Knowledge and Skills
IHP	Integrated Health Program
KII	key informant interview
NERICC	National Emergency Routine Immunization Coordination Centre
NPHCDA	National Primary Health Care Development Agency
PAPA-LQAS	Programme Assessment for Performance Management and Action-Lot Quality Assurance Sampling
PEA	Political and Economy Analysis
RI-SMS	Routine Immunization Short Message Service
SMS	Short Message Service
TB DIAH	TB Data, Impact Assessment and Communications Hub
TPI	triosephosphate isomerase
UNICEF	United Nations International Children's Emergency Fund
VCM	Volunteer Community Mobilizer
ZD	zero-dose
ZDLH	Zero-Dose Learning Hub

EXECUTIVE SUMMARY

On December 8, 2023, the Zero-Dose Learning Hub (ZDLH) and the Nigeria Country Learning Hub (CLH) held a learning agenda workshop to adopt and validate learning questions that meet country priorities, map zero-dose (ZD)-related data collected by stakeholders, and co-create data sources and methodology for collecting data relevant to answering the learning questions. Fifty participants attended the workshop, including representatives from international partners, government agencies, and country implementers working to reach ZD children in Nigeria.

To adopt and validate learning questions that meet country priorities, participants used the Delphi method to systematically and quantitatively combine expert opinions and evidence by rating, discussing, and then re-rating the learning questions. Participants worked in groups to identify data and data sources to map ZD-related data collected by stakeholders and co-create data sources and methodologies for collecting data relevant to answering the learning questions. The ZDLH team used the exhibition method to verify each group's work.

According to the results documented at the workshop, most participants said that the learning questions related to equity were the most critical. The equity-related learning questions asked who ZD children are and where they and the most effective approaches and methods for identifying them. Participants emphasized the importance of this question, with many mentioning that in their past work and experiences, ZD children were found in the communities, not at health facilities. Participants deemed the question on documenting lessons from the introduction of other vaccines, such as typhoid and cholera, as least critical because they felt this had been done already. However, participants agreed that outbreak management and lessons learned from the measles and COVID-19 campaigns provide useful examples for deploying strategies for reaching ZD children.

Most participants identified the questions on key enablers and barriers at each level of the health system and effective community engagement strategies for reducing the number of ZD children as the most critical. They emphasized that integrating strategies to reduce ZD children would allow for data collection to measure the strategies' effectiveness. Other participants mentioned that gender-disaggregated data for ZD and strategies incorporating gender and social inclusion should be included as part of the learning questions.

Quantitative data sources for the most critical learning questions include routine monitoring data collected through the Electronic Management of Immunisation Data (EMID) system, Programme Assessment for Performance Management and Action-Lot Quality Assurance Sampling (PAPA-LQAS), the Short Message Service (RI-SMS) platform of the National Primary Health Care Development Agency (NPHCDA), and the CommCare application of Christian Health Association of Nigeria (CHAN). Suggested qualitative data sources included focus group discussions (FGDs) and literature reviews by McKinsey & Company (McKinsey), NPHCDA community engagement reports, and Gender Barrier Analysis by United Nations International Children's Emergency Fund (UNICEF). Geo-referenced data sources mentioned included the GRID3 map. Participants found this session informative, as it might have been the first time, participants from different organizations working on reducing ZD mapped the various data sources from their work. Participants said this was a useful first step to collaborating on data integration. However, they noted that other important stakeholders were not present, including UNICEF and WHO,

who are collecting data relevant to the learning question related to where and who ZD children are in Nigeria.

In concluding the workshop, NPHCDA said that it would take the five prioritized learning questions as the high-level learning questions for Nigeria while also using an iterative and adaptive method to continuously review the learning questions with stakeholders present. By the end of the workshop, the roles of other participants had yet to be determined, but there was consensus that the exercise provided a foundation for mapping data sources that will inform the learning agenda questions. The Nigeria CLH will use the outcomes of this priority setting exercise to guide its work and inform subsequent discussions with partners to track and understand progress toward gaining answers to the learning questions.

BACKGROUND

Nigeria has an estimated 2.2 million zero-dose (ZD) children, the largest population in Africa and the second largest in the world. Nigeria's vaccination coverage has improved over the last two decades, with the percentage of children aged 12–23 months who have received their basic vaccination increasing from 23 percent in 2008 to 44 percent in 2021.[1] However, additional efforts are needed if Nigeria is to reach its national target of 80 percent coverage of all routine antigens by 2028.[2] Persistent challenges include data fragmentation, data quality issues, limited use of data for ZD programming and policies, and ineffective monitoring of ZD programs and coverage. A holistic and collaborative approach to ZD programming is essential to effectively address these challenges.

Understanding this, the National Emergency Routine Immunization Coordination Centre (NERICC) of the National Primary Healthcare Development Agency (NPHCDA), in partnership with key stakeholders, organized a workshop to address these gaps. The workshop leveraged the Zero-Dose Learning Hub (ZDLH) Nigeria Zero-Dose Landscape and findings of the ZDLH Political and Economy Analysis (PEA), including the key informant interviews (KII) conducted as part of the PEA, to work toward a unified learning agenda to effectively managing childhood immunization and ZD programming. This effort will foster a synergistic joint effort to address challenges, unlock partnerships, and avoid duplication of efforts.

The workshop's primary goal aimed to identify and harmonize existing learning questions within organizations and ensure their alignment with the Immunization Agenda 2030 global learning questions. This will ensure that a knowledge base for crucial immunization- and ZD-related programming decisions is curated and available. The workshop prioritized global learning questions, ensuring that the nation's priorities align with the international discourse and positions Nigeria as an important participant in the global conversation on immunization.

The key objectives of the workshop were to:

1. Adopt and validate learning questions that meet country priorities.
2. Map ZD data collected by stakeholders.
3. Co-create data sources and a methodology for collecting data relevant to answering the learning questions.

[1] National Population Commission (NPC) and ICF. *Nigeria Demographic and Health Survey 2018*. Abuja, Nigeria: NPC and ICF, 2019. http://dhsprogram.com/pubs/pdf/FR359/FR359.pdf.
[2] Gavi. "Comprehensive Multi-Year Plan Nigeria 2018-2028." Nigeria Strategy for Immunisation and PHC System Strengthening (NSIPSS). April 18, 2018.

INTRODUCTION

The Zero-Dose Learning Hub (ZDLH) Learning Agenda Workshop took place at the Grand Ball Hall at Hawthorn Suite in Abuja, Nigeria on December 8, 2023. The 51 participants represented 17 organizations, listed in Table 1 below.

Table 1. List of Organizations and Number of Representatives

Name of Organization	Number of Participants
African Field Epidemiology Network (AFENET)	3
Africa Health Budget Network (AHBN)	4
Christian Health Association of Nigeria (CHAN)	2
Clinton Health Access Initiative (CHAI)	3
Datharm	1
E-Health Africa	1
Gavi, The Vaccine Alliance	1
JSI	1
McKinsey & Company	2
National Primary Health Care Development Agency (NPHCDA)	8
Solina Centre for International Development and Research (SCIDaR)	1
Sydani Initiative for International Development	1
TB Data, Impact Assessment and Communications Hub (TB DIAH)	1
Integrated Health Program (IHP)	1
MOMENTUM Routine Immunization Transformation and Equity (M-Rite)	1
United Nations International Children's Emergency Fund (UNICEF)	1

Below is the workshop agenda:

1. Introduction, welcome remarks, opening remarks, goodwill messages.
2. Presentation of workshop agenda and approaches and overview of the learning agenda/learning questions.
3. Results from consultation/harmonization of learning questions.
4. Dot matrix ranking and participant feedback on collated learning questions.

5. Overview of data sources and methods for data collection and group work by themes on curating data sources and methodology.
6. Feedback on data sources and methods for data collection.
7. Summary of the co-created learning agenda.
8. Feedback from participants.
9. Next steps.

Figure 1. Participants at the Workshop

METHODOLOGY

The workshop employed the Delphi technique,[1] a process of gathering a panel of experts to engage in various rounds of questions to decide on the learning questions to adopt. The technique involved a participatory facilitation approach where participants were actively involved in developing, designing, and revising the learning agenda. Before the workshop, participants ranked learning questions using an online form. During the workshop, participants ranked the learning questions on two occasions.

To create data sources and methods for the learning questions, which in turn will allow for mapping of ZD-related data collected by stakeholders, participants were divided into groups of three. They had 40 minutes to identify the data sources and methods used in their various organizations that can be used to inform the learning questions. The data sources and methods were mapped on a flip chart.

At the end of the group work, participants presented their flip charts. Groups had twenty minutes to spend on each flip chart to provide their inputs, comments, and suggestions. Below is a table of other methods used during the workshop.

Table 2. Methods Used for Each Agenda Item

Methods	Agenda Item
Slide Presentation	• Workshop Agenda and Methods • Data Sources and Methods for Data Collection • Learning Questions • Results from the Ranking Form
Video Analysis	• Establishing Zero Dose Learning Agenda
Discussion	• Participants' Feedback on Learning Questions
Group Work	• Mapping Potential Data Sources and Methods
Exhibition	• Sharing of Group Work Outputs • Participants' Feedback from Group Work
Parking Lot	• A Flip Chart Dedicated to Discussions to Keep in Mind Outside of the Workshop

ADOPTING LEARNING QUESTIONS

Ten learning questions were proposed to participants during the workshop, derived from the following three sources:

1. Gavi global learning questions
2. KIIs with partners before the workshop
3. Consultation with stakeholders

The ten learning questions were categorized into three themes: equity, health systems, and innovation (see Table 3). Participants reflected on each thematic area during the group sessions and prioritized the questions.

Table 3. Learning Questions by Theme

Themes	Learning Questions
Equity	1. Where and who are ZD children and missed communities? Why are they being missed? *(From PEA KIIs and Gavi learning question 1.1)* 2. What are the key enablers and barriers at each level of the health system (policy to community) to identifying, monitoring, and measuring ZD children and missed communities? *(Aligns with Gavi learning question 1.3)* 3. What are the most effective approaches and methods for identifying ZD and under-immunized children and for monitoring and measuring their coverage through to full vaccination? *(From PEA and Aligns with Gavi learning questions 1.2 and 1.7)*
Health Systems	4. How have partnerships contributed to strengthening immunization programs to date, and what is the potential of strategic partnerships for improving equitable immunization coverage, including ZD? 5. How has integration of campaigns with other primary health care (PHC) services been used to reach ZD children and missed communities? What has worked well, or not, and why? *(From PEA KIIs and aligns with Gavi learning question 1.6)* 6. What are the evidence gaps at national/sub-national levels related to the identification, monitoring, and measurement of ZD and missed communities? *(From PEA KIIs)*
Innovation	7. What community engagement strategies are most effective at reducing the number of ZD children? *(From consultations and PEA KIIs)* 8. What capacity-building strategies/interventions (or combination of strategies) are effective in strengthening capacity of data managers at the health facility level? *(From consultations, and PEA KIIs)* 9. What approaches are being used to harmonize parallel systems for data collection to identify, reach, and measure ZD? *(From consultations and PEA KIIs)* 10. What can we learn from the introduction of other vaccinations as an opportunity to identify and reach ZD children? *(From consultations and PEA KIIs)*

Results from Consultation of Learning Questions

Before the workshop, 30 staff members from partner organizations received the learning questions via an online ranking form. They were asked to rank each learning question from most critical to least critical based on its importance for the Nigeria LH. Questions 1, 2, 3, and 5 were ranked as the most critical and Question 10 the least critical. Questions 4, 6, 7, 8 and 9 were ranked somewhat critical. The table below shows the ranking by percentages.

Table 4. Ranking Results from the Online Form Shared with Stakeholders

Learning Questions	Most Critical → → → Least Critical				
	1	2	3	4	5
1	81.8%	0%	9.1%	9.1%	0%
2	72.8%	27.3%	0%	0%	0%
3	90.9%	9.1%	0%	0%	0%
4	45.5%	27.3%	18.3%	9.1%	0%
5	81.8%	18.2%	0%	0%	0%
6	63.6%	27.3%	9.1%	0%	0%
7	63.6%	27.3%	9.1%	0%	0%
8	63.6%	36.4%	0%	0%	0%
9	45.5%	27.3%	27.3%	0%	0%
10	44.4%	11.1%	22.2%	22.2%	0%

Dot Matrix Ranking and Participants' Feedback

During the workshop, participants were again asked to rank the ten questions from the most critical to the least critical. The results are shown in Table 5. Participants ranked questions 1, 2, 3, and 7 as the most critical. Questions 8 and 10 were ranked least critical, and questions 4, 5, 6, and 9 were somewhat critical. Participants emphasized the importance of question 1 because most mentioned that in their past work and experiences, ZD children were found in the communities, not at health facilities. Participants deemed the question on documenting lessons from the introduction of new vaccinations, such as typhoid and cholera, as least critical because they felt this had been done already. However, participants agreed that outbreak management and lessons learned from the measles and COVID-19 campaigns provide useful examples for deploying strategies for reaching ZD children.

Most participants noted the importance of the questions on the key enablers and barriers at each level of the health system and effective community engagement strategies to reduce the number of ZD children. Participants emphasized the need for integration of strategies both at the national and sub-national levels. They emphasized that integrating strategies to reduce ZD children would allow for data collection to measure the strategies' effectiveness. Other participants mentioned that gender-

disaggregated data for ZD children and strategies incorporating gender and social inclusion should be included as part of the learning questions.

Table 5. First Ranking Results from Participants During the Workshop

Learning Questions	Most Critical → → → Least Critical				
	1	2	3	4	5
1	95.5%	4.5%	0	0	0
2	85%	5%	10%	0	0
3	96.7%	4.3%	0	0	0
4	33.3%	33.3%	24%	9.5%	0
5	52.4%	33.3%	14.3%	0	0
6	70%	20%	10%	0	0
7	94.4	5.6%	0	0	0
8	31.6%	26.3%	42.1%	0	0
9	36.8%	57.9%	5.3%	0	0
10	31.6%	21.1%	31.6%	15.8%	0

Figure 2. Participants rank the learning questions during the workshop

All participants conducted a second ranking of the ten learning questions upon leaving the workshop. Questions 1, 2, 3, and 7 were ranked most critical, and question 4 was ranked least critical. Questions 5, 6, 8, 9, and 10 were identified as somewhat critical.

Table 6. Second Ranking results from Participants During the Workshop

Learning Questions	Most Critical → → → Least Critical				
	1	2	3	4	5
1	88.9%	11.1%	0	0	0
2	89.3%	7.1%	3.6%	0	0
3	93.3%	7.7%	0	0	0
4	4.3%	47.8%	39.1%	8.7%	0
5	60%	28%	8%	0	4%
6	68%	32%	0	0	0
7	79.2%	20.8%	0	0	0
8	37.5%	29.2%	33.3%	0	0
9	40%	44%	12%	4%	0
10	30.4%	43.5%	17.4%	4.3%	4.3%

Ranking Results

Below are the ranking results based on the two dot matrix rankings done during the workshop and the pre-workshop ranking:

- Most critical: Questions 3, 7, 2, 1, and 6 (in order of ranking).
- Somewhat critical: Questions 5, 9, 8, and 4 (in order of ranking).
- Least critical: Question 10.

Table 7. Final Score Based on the Three Rankings

Ranking	Learning Questions	Priority	Average Percentage of 3 Rankings
1	**3.** What are the most effective approaches and methods for identifying ZD and under-immunized children and for monitoring and measuring their coverage through to full vaccination?	Most critical	100%
2	**7.** What community engagement strategies are most effective at reducing the number of ZD children?		97%
3	**2.** What are the key enablers and barriers at each level of the health system (policy to community) to identifying, monitoring, and measuring ZD children and missed communities?		95.5%
4	**1.** Where and who are ZD children and missed communities? Why are they being missed?		93.9%
5	**6.** What are the evidence gaps at national/sub-national levels related to the identification, monitoring, and measurement of ZD and missed communities?		93.6%
6	**5.** How has integration of campaigns with other PHC services been used to reach ZD children and missed communities? What has worked well, or not, and why?	Somewhat critical	91.2%
7	**9.** What approaches are been used to harmonize parallel systems for data collection to identify, reach, and measure ZD children?		83.8%
8	**8.** What capacity-building strategies/interventions (or combination of strategies) are effective in strengthening capacity of data managers at the health facility level?		74.9%
9	**4.** How have partnerships contributed to strengthening immunization programs to date, and what is the potential of strategic partnerships for improving equitable immunization coverage, including ZD?		63.9%
10	**10.** What can we learn from the introduction of other vaccinations as an opportunity to identify and reach ZD children?	Least critical	60.7%

Percentage Calculation: Average sum of percentages of 1 (most critical) and 2 (next level of criticality) of the three dot matrix rankings.

CO-CREATING DATA SOURCES AND METHODS

The workshop used participatory group work to map data sources and methods across the three thematic areas listed in Table 3. The data sources will include databases, applications used by the organizations to collect data, and the methods used to obtain the data (qualitative, quantitative, or mixed). In cases where none of the participants use an existing data source or method in their organization, they recommended possible data sources and methods. Participants were split into three groups based on the thematic areas with representatives from a government agency, an international partner, and a ZD service delivery organization (see Table 8).

Table 8. Participating Organizations by Assigned Group

GROUP 1: Equity	GROUP 2: Health Systems	GROUP 3: Innovation
• NPHCDA • JSI • CHAI • eHealth Africa • UNICEF • USAID IHP	• NPHCDA • CHAN • Sydani • AHBN • Solina	• NPHCDA • Gavi • AFENET • Datharm • McKinsey

Group 1 focused on equity. NPHCDA suggested that Programme Assessment for Performance Management and Action-Lot Quality Assurance Sampling (PAPA-LQAS), Routine Immunization Short Message Service (RI-SMS), and District Health Information Software, version 2 (DHIS2) would be good data sources for identifying ZD children, understanding the key enablers and barriers, and determining effective approaches for identifying ZD children. CHAN mentioned that they have deployed CommCare in Sokoto, Kaduna, Plateau, and Borno states to capture where and who ZD children are. Their representative explained that unlike the DHIS2 and PAPA-LQAS, CommCare captures granular data, which can help identify and track ZD children.

NPHCDA also suggested qualitative data sources including the national measles campaign report and the National Measles Verification Committee reports. For methods, the McKinsey participant mentioned plans to conduct a survey, focus group discussion (FGD), and desk reviews in collaboration with CHAI for their work in Kano state. The participants in the group suggested intentionally disaggregating data by gender so that the learning questions can be gender-specific. Find a list of other mentioned sources and methods in Annex VI.

Table 9. A Synthesized List of Proposed Data Sources and Methods Identified by Group 1 (Equity)

Learning Question(s)	**Data Sources/Methods Suggested**	**Organization Responsible** (Organization Collecting Data to Inform Learning Question[s])
Where and who are ZD dose children and missed communities? Why are they being missed?	PAPA-LQAS, Electronic Management of Immunisation Data (EMID), RI-SMS, DHIS2, NERICC Technical Summary Report on Immunization	NPHCDA
	CommCare	CHAN
	Survey, FGD, desk reviews	McKinsey
	Rapid Assessment, Decentralized Immunization Monitoring	AFENET
	Gender barrier analysis	UNICEF
	Kano State learning products	CHAI
What are the key enablers and barriers at each level of the health system (policy to community) to identifying, monitoring, and measuring ZD children and missed communities?	PAPA-LQAS, National Measles Verification Committee report, RI-SMS, DHIS2	NPHCDA
What are the most effective approaches and methods for identifying ZD and under-immunized children and for monitoring and measuring their coverage through to full vaccination?	EMID, RI-SMS, DHIS2	NPHCDA

Group 2 focused on health systems-related learning questions, proposed qualitative data sources, including cost-benefit analysis reports, ZD endline survey reports, and KIIs to be carried out by CHAN. Participants suggested that these data sources could be used to understand how partnerships contribute to reaching and monitoring ZD children. To understand how vaccination campaigns will be integrated with other services to reach ZD children, AFENET proposed their upcoming implementation science report as a data source, and NPHCDA suggested the PAPA-LQAS and their past campaign surveys. Other participants agreed that the micro plans developed by each service delivery partner could provide relevant information on how partnerships contribute to reaching and monitoring ZD children.

CHAN mentioned that their micro plans could provide information on evidence gaps between the national and sub-national governments. Other data sources proposed by CHAN included GRID3 maps and some of the surveys they will carry out during the Raise 4 Sahel project. Participants in the group mentioned that data falsification, denominator issues, accountability, and unrealistic targets are drawbacks to documenting gaps between the national and sub-national governments.

Table 10. A Synthesized List of Proposed Data Sources and Methods Identified by Group 2 (Health Systems)

Learning Question(s)	**Data Sources/Methods Suggested**	**Organization Responsible** (Organization Collecting Data to Inform Learning Question[s])
How have partnerships contributed to strengthening immunization programs to date, and what is the potential of strategic partnerships for improving equitable immunization coverage, including ZD?	Cost Benefit Analysis report, ZD endline surveys	CHAN
How has integration of campaigns with other PHC services been used to reach ZD children and missed communities? What has worked well, or not, and why?	PAPA-LQAS, post-campaign surveys, microplans	NPHCDA
	Implementation science report	AFENET
What are the evidence gaps at national/sub-national levels related to the identification, monitoring, and measurement of ZD and missed communities?	Project microplans, GRID3 map, surveys	CHAN

Group 3 focused on innovations, proposed qualitative data sources and methods that document community engagement strategies that are most effective at reducing the number of ZD children. These include NPHCDA's community engagement reports; McKinsey's pre-post surveys and FGDs with caregivers and influencers; AFENET's desk reviews and mini triosephosphate isomerase (TPI) review; and information from the database of Volunteer Community Mobilizers (VCMs) and Community Health Influencers, Promoters, and Services (CHIPs), which Datharm and other partners could provide. AFENET's Growing Expertise in E-Health Knowledge and Skills (GEEKS) program report and data quality improvement project could provide valuable information to identify effective capacity building strategies/interventions (or combination of strategies) to strengthen the capacity of data managers at the health facility level. NPHCDA also mentioned their rapid immunization training academy.

No existing data sources were identified for understanding effective approaches to align parallel systems for data collection. Group 3 proposed a focused investigation into all existing data streams, which included individual interviews, observation of the data value chains, and KIIs. For the least critical learning question on documenting lessons from past vaccination introductions, participants suggested looking at the polio legacy study or conducting desk reviews and interviews on introducing the COVID-19 vaccine. Annex VI contains other data sources proposed during the workshop.

Table 11. A Synthesized List of Proposed Data Sources and Methods Identified by Group 3 (Innovation)

Learning Question(s)	**Data Sources/Methods Suggested**	**Organization Responsible** (Organization Collecting Data to Inform Learning Question[s])
What community engagement strategies are most effective at reducing the number of ZD children?	Community engagement reports	NPHCDA
	Pre-post surveys, FGDs with caregivers and influences	McKinsey, CHAI
	VCM/CHIPS database	AFENET, NPHCDA, Datharm
	Desk reviews	AFENET
What capacity-building strategies/interventions (or combination of strategies) are effective in strengthening capacity of data managers at the health facility level?	GEEKS Project report, data quality improvement project report, desk reviews	AFENET
	RI training Academy, Training Assessment Report	NPHCDA, Sydani
What approaches are been used to harmonize parallel systems for data collection to identify, reach, and measure ZD?	Data systems investigation, observation	No organization
What can we learn from the introduction of other vaccinations (e.g., TCV and cholera OCV) as an opportunity to identify and reach ZD children?	Polio Legacy Study	NPHCDA
	COVID-19 desk reviews and KIIs	McKinsey

CONCLUSION/NEXT STEPS

Workshop participants and those surveyed ahead of the workshop selected the five most critical learning questions for stakeholders working to reach ZD children in Nigeria. The learning questions and corresponding data sources are in the table below. NPHCDA will lead the ZDLH in collecting data to inform the learning questions, and will be responsible for coordinating data availability for learning purposes. Stakeholders will continue to review the learning questions and update them as needed. A finalized learning agenda will be developed from these learning questions after a follow-up validation workshop.

Table 12. Prioritized Learning Questions and Their Data Sources

Learning Question(s)	**Data Sources/Methods Suggested**	**Organization Responsible** (Organization Collecting Data to Inform Learning Question[s])
Where and who are ZD children and missed communities? Why are they being missed?	PAPA-LQAS, EMID, RI-SMS, DHIS2, NERICC Technical Summary Report on Immunization	NPHCDA
	CommCare	CHAN
	Survey, FGD, desk reviews	McKinsey
	Gender Barrier Analysis	UNICEF
	Kano State learning products	CHAI
What are the key enablers and barriers at each level of the health system (policy to community) to identifying, monitoring, and measuring ZD children and missed communities?	PAPA-LQAS, National Measles Verification Committee report, RI-SMS, DHIS2	NPHCDA
What are the most effective approaches and methods for identifying ZD and under-immunized children and for monitoring and measuring their coverage through to full vaccination?	EMID, RI-SMS, DHIS2	NPHCDA
What are the evidence gaps at national/sub-national levels related to the identification, monitoring, and measurement of ZD and missed communities?	Project micro plans, GRID3 map, surveys	CHAN
What community engagement strategies are most effective at reducing the number of ZD children?	Community engagement reports	NPHCDA
	Pre-post surveys, FGDs with caregivers and influences	McKinsey, CHAI

Learning Question(s)	Data Sources/Methods Suggested	**Organization Responsible** (Organization Collecting Data to Inform Learning Question[s])
	VCM/CHIPS database	AFENET, NPHCDA, Datharm
	Desk reviews	AFINITY

ANNEX I. ATTENDANCE SHEET

S/N	Name	Gender	Organization	Designation
1	Dr. Okon Ubong. A	M	eHealth Africa	Manager, Public Health Epidemiology
2	Dr. Hyelshilni Waziri	M	AFENET	TL Capacity Building
3	Oyeyemi Pitan	F	AHBN	Knowledge Mgt Specialist
4	Dr. Heidi Reynolds	F	Gavi	Sr. Specialist
5	Dr. Shaikh Kabir	M	UNICEF	Health Manager
6	Amina Haladu Moh'd	F	AHBN	Prog. Delivery/ Francophone Hausa
7	Dr. Adejoke Oladele	F	NPHCDA	PMO2/COVID vaccine PM
8	Abdulazeez Yahaya	M	NPHCDA	DD
9	Dr. Patrick M. Nguku	M	AFENET	RC
10	Dr. Lawong Damian	M	AFENET	Health Economist
11	Anointed David O.	M	CHAN	Mel Lead
12	Dr. Muknaan D. Nshe	M	CHAN	Prog Manager/Tech Lead
13	Abdullahi Adeleke	M	TB DIAH	Project Driver
14	Khadija Yahaya M	F	Cloneshouse	M&E Asst.
15	Rachael Okoronkwo	F	Cloneshouse	M&E Asst.
16	Abah Success	M	AFENET	Zero Dose (Asst M&E)
17	Margaret Osas Wisdom	F	AFENET	ID
18	Nememma Agu	F	AFENET	Zero Dose Learning Hub
19	Oyeyemi Pitan	F	AHBN	Knowledge Management Specialist
20	Omotayo Giwa	F	CHAI	Manager
21	Belinda Uba	F	AFENET	SFC
22	Dr. Songwe Clovos	M	CHAI	Manager
23	Asmau Sani	M	Datharm	Research Associate

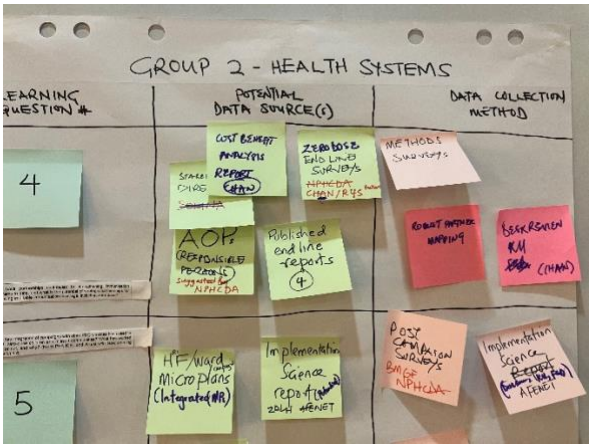
S/N	Name	Gender	Organization	Designation
24	Dr. Halima Tafida	F	NPHCDA	PM01
25	Alhassan Yazeera	M	NPHCDA	Program Analyst
26	Dr. Mohammed Yahaya	M	AFENET	Project Coordinator
27	Dr. Ahmed Rufai	M	NPHCDA	Director DC1 NPHCDA
28	Suleiman Etamesor	M	NPHCDA	Head Data Team NERICC
29	Dr. Peter Okebukola	M	McKinsey	Director DC1 NPHCDA
30	Dr Aminu Magashi	M	AHBN	CEO
31	Khadija Hamid Bobboyi	F	AHBN	Health Security
32	Daniel Daudu	M	Sydani Group	Consultant
33	Garba M. Ashiru	M	USAID URP	Child Health
34	Chioma Ugochukwu	F	USAID/M-RITE	Program Officer
35	Temitope Morenikeji	F	JSI R&T	Fin & Ops Mgr
36	Oluwatomiwa Ande	M	Cloneshouse	M&E Officer
37	Eridiong Bassey	F	Cloneshouse	M&E Officer
38	Dr Endie Waziri	F	AFENET	NC
39	Hajia Binta Ismail	F	NPHCDA	RI Consultant
40	Dr Sophia Usuwa	F	Africa CDC/NPHOA	Epidemiologist
41	Babatunde Amoo	M	AFENET	M&E Officer
42	Adam Attahiru	M	AFENET	SMEAL
43	Oludotun Babayemi	M	JSI	Consultant
44	Fiyidi Mikailu	F	AFENET	M&E Officer
45	Amal Oladimeji	F	AFENET	Communication Officer
46	Dr. Talatu Bello	F	AFENET	Gender Specialist
47	Dr. Salisu Sulaiman	M	CHAI	SPM
48	Dr. Fadahunsi Rhoda	F	AFENET	FC
49	Dr. Alfred Ufulor	M	NPHCDA	Epidemiologist

S/N	Name	Gender	Organization	Designation
50	Ella Togun	F	McKinsey & Co	Consultant

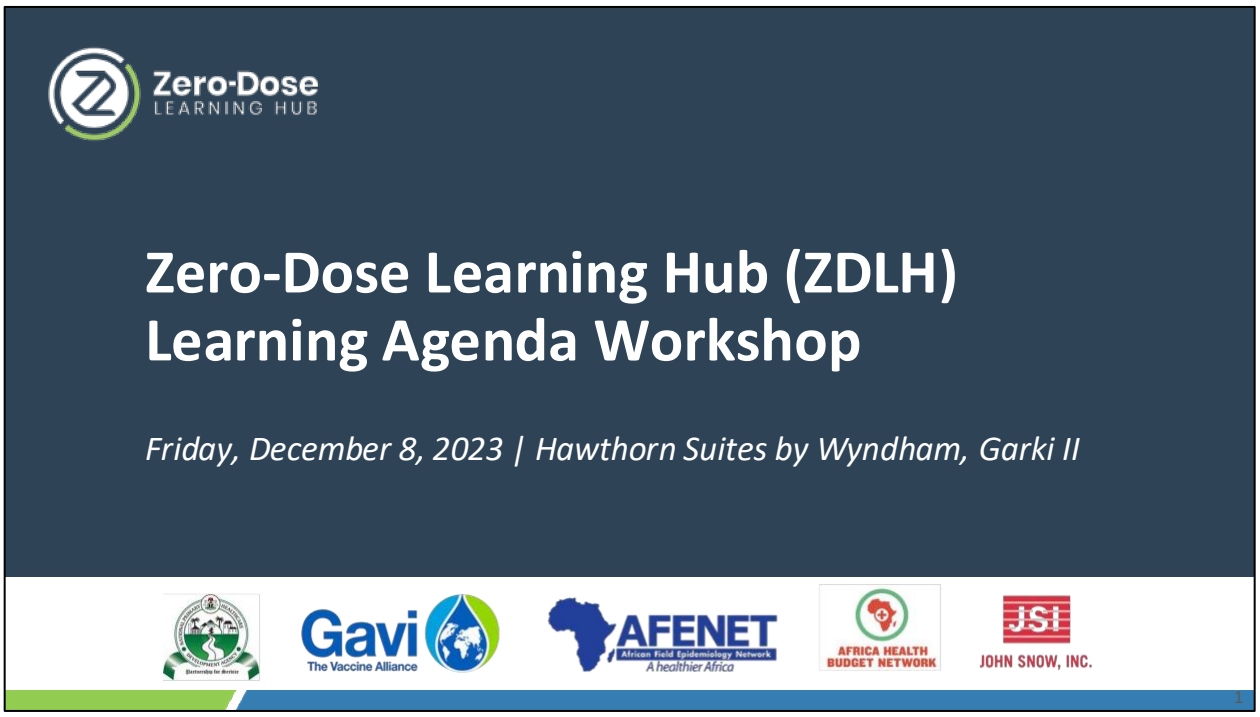
ANNEX II. WORKSHOP AGENDA

S/N	Activity	Time	Responsibility
1	Registration	8.00 - 8.30 am	Admin
2	Introduction	8.30 - 8.45 am	Margeret Wisdom
3	Welcome Remarks	8.45 - 8.50 am	NPHCDA
4	Opening Remarks	8.50 - 8.55 am	Dr. Heidi Reynolds
	Goodwill Messages	8.55 - 9.00 am	AFENET: Dr. Patrick Nguku ABHN: Dr. Aminu UNICEF: Shaikh Kabir Solina: Dr. Uchenna Igbokwe
5	Presentation of Workshop Agenda and Approaches	9.00 - 9.15 am	Adam Attahiru
	An Overview of the Proposed Learning Agenda	9.15 - 9.30 am	JSI representative
6	Results from Consultation/Harmonization of Learning Questions	9.30 - 10.00 am	Dr. Eridiong Bassey
7	Tea/Coffee Break	10.00 - 10.20 am	Margeret Wisdom
8	Participants Feedback on Collated Learning Questions [Discussion]	10.20 - 10.50 am	JSI representative/Dr. Eridiong Bassey
9	An Overview of Data Sources and Methods for data collection	10.50 - 11.20 am	JSI representative
10	Group Work by Themes on Curating Data Sources and Methodology	11.20 am - 12.20 pm	ALL
11	Feedback on Data Sources and Methods for Data Collection	12.20 - 1.00 pm	JSI representative/Dr. Eridiong Bassey
12	Lunch Break/Prayers	1.00 - 2.00 pm	Margeret Wisdom
13	Energizer	2.00 pm - 2.05 pm	Margeret Wisdom
14	A Summary of the Co-created Learning Agenda	2.05 - 2.25 pm	JSI representative/Dr. Eridiong Bassey
15	Feedback from Participants	2.25 - 2.45 pm	ALL
16	Next Steps/Closing Remarks	2.45 - 2. 50pm	Dr. Yahaya

ANNEX III. WORKSHOP PHOTOS



ANNEX IV. PRESENTATION SLIDES



Access the full slide deck on ZDLH.Gavi.Org

ANNEX V. LEARNING QUESTION PRIORITIZATION RESULT

Rank	Learning Questions	Priority	Average Percentage of 3 Rankings
1	**3.** What are the most effective approaches and methods for identifying ZD and under-immunized children and for monitoring and measuring their coverage through to full vaccination?	**Most critical**	100%
2	**7.** What community engagement strategies are most effective at reducing the number of ZD children?		97%
3	**2.** What are the key enablers and barriers at each level of the health system (policy to community) to identifying, monitoring, and measuring ZD children and missed communities?		95.5%
4	**1.** Where and who are ZD children and missed communities? Why are they being missed?		93.9%
5	**6.** What are the evidence gaps at national/sub-national levels related to the identification, monitoring and measurement of ZD and missed communities?		93.6%
6	**5.** How has integration of campaigns with other PHC services been used to reach ZD children and missed communities? What has worked well, or not, and why?	**Somewhat critical**	91.2%
7	**9.** What approaches are been used to harmonize parallel systems for data collection to identify, reach, and measure ZD?		83.8%
8	**8.** What capacity-building strategies/interventions (or combination of strategies) are effective in strengthening capacity of data managers at the health facility level?		74.9%
9	**4.** How have partnerships contributed to strengthening immunization programs to date, and what is the potential of strategic partnerships for improving equitable immunization coverage, including ZD?		63.9%
10	**10.** What can we learn from the introduction of other vaccinations as an opportunity to identify and reach ZD children?	**Least critical**	60.7%

ANNEX VI. DATA SOURCES AND METHODS

LQ	Data Sources	Data Methods	Thematic Area
1	• ZD Analysis, Post Campaign Coverage Survey Report, Technical report summary submitted to Gavi **(NPHCDA)** • CommCare technical summary report **(CHAN)** • DHIS2 • Admin data for non-polio supplementary immunisation activities • Grid 3 • Geographic information system (GIS) data repository • PAPA-LQAS • Optimized Integrated Routine Immunization Session	• Survey, FGD, Desk research **(McKinsey)** • Gender Barrier Analysis **(UNICEF)** • Kano State Iterative Learning (**CHAI** with Gates Foundation funding) • Post-campaign coverage surveys, KIIs, log analysis, admin data, desk review	Equity
2	Policy documents (Nigeria Strategy for Routine Immunisation and Primary Health Care Systems Strengthening); immunization policy **(NPHCDA)** PAPA-LQAS; existing RI structures; National Measles Verification Committee report; campaign reports.	SMS, supervision data, DHIS2	
3	Triangulation of multiple data sources, EMID for RI, SMS reporting	SMS, EMID for RI	
4	• Cost-Benefit Analysis report **(CHAN)** • Reports from ZD endline surveys **(CHAN/R4S)** • Annual operating plans; Responsible persons **(NPHCDA)** • Published endline reports • Stakeholder directories	• Desk review, KIIs **(CHAN)** • Partner mapping • Surveys	Health Systems
5	• Implementation science report **(AFENET)** • Campaign report including post-campaign coverage surveys and LQAS • HF/Ward campaigns • Micro plans	• LQAs **(NPHCDA)** • Post campaign surveys **(Gates Foundation/NPHCDA)** • Implementation science **(AFENET)**	
6	• Consensus data **(NPHCDA)** • HF/project micro plans, FCSs **(CHAN R4S)** • HF **(Government)**	• Grid 3 maps, survey implementation **(CHAN)** • Reprioritization workshop	

LQ	Data Sources	Data Methods	Thematic Area
	• Grid 3 map, outreach map **(CHAN)** <u>Considerations</u>: • Data falsification • Denominator issues • Accountability • Unrealistic target		
7	• Community engagement report **(NPHCDA)** • Demand creation activities • Mini TPI review, servers from VCM/CHIPS data	• Pre- and post-surveys/FGDs of caregivers & influencers, desk research **(McKinsey)** • Desk review, demand creation, mini TPI review **(AFENET)** • Use of electronic data collection tool used by VCMs/CHIPs **(Datharm)**	Innovation
8	• Ekiti State GIS map **(ESPHCDA/Sydani)** • GEEKS project, DHIS 2, data quality improvement project **(AFENET)** • RI training app immunization academy **(AFENET/NPHCDA)** • CommCare **(CHAN R4S)** • Data Governance Framework **(NPHCDA PRS/Sydani)** • Training (online, coaching, physical, mentoring, tailored for conflict regions), training assessment reports	• Desk review, mini TPI review **(AFENET)**	
9	• ODK checklist for ZD, ZD database for supplementary immunization activities, DHIS2, existing data tools, survey/enumeration on ZD **(NPHCDA)** • GEEKS triangulation dashboard **(AFENET)**	• Harmonizing data tools, leveraging existing RI tools, harmonizing ODK submission to DHIS2 post-implementation, ZD data harmonization and sharing meeting (FGDs), quantitative methods (to establish denominator), desk review **(NPHCDA)**	
10	• Post-campaign coverage survey, post-introduction vaccine evaluation, spot checks, Surveillance Outbreak Response Management & Analysis System, learning from polio legacy study **(NPHCDA)** • Interviews, desk research **(McKinsey)**	• Qualitative and quantitative survey **(NPHCDA/WHO)** • Interviews with state agencies and implementing partners, desk research **(McKinsey)**	

ANNEX VII. LEARNING QUESTIONS RANKING FORM

Zero-Dose Learning Hub (ZDLH) Learning Questions Ranking Form v2

Dear Changemakers,

We have created this form for you to use to prioritize and provide input on our harmonized learning questions. The learning questions we have provided here were collated from key informant interviews, and desk reviews carried out on zero-dose programming in Nigeria.

Kindly help us to rank each of the learning questions presented in the form. It will take 3 - 5mins to complete. At the same time, please provide comments (where need be) on each of the learning questions. Enter NA for questions that are Not Applicable to you or your organization

Results from the different rounds of your response will be presented at the upcoming Learning Agenda Workshop on December 8, 2023

We look forward to your response.

* Indicates required question

Organization Name*

Your answer

Position/Role*

Your answer

Contact Information:*

Your answer

Organization Scope of Work*

Your answer

Briefly describe the primary focus and scope of your organization's work in the field of immunization.

Your answer

Does your organization currently have a learning agenda related to immunization?*

- ○ Yes
- ○ No

If yes, please provide a brief overview of the key themes or questions addressed in your existing learning agenda.

Your answer

What are the top three priority questions your organization intends to answer through the learning agenda in the context of immunization?

Your answer

Does your organization collect data around zero-dose children *

for example: # of children that have received pent 1, or pent 3; dropout rate for DTP1 to DTP3; MCV2 coverage for infants, perception of mothers on children vaccination, etc.

- ○ Yes
- ○ No

If yes to the question above, can you list the type of zero-dose related data

Your answer

Next

Clear form

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

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