Toolkit to Identify, Reach, Monitor, Measure, and Advocate for Un- and Under-Immunized Children and Communities

Guidance for subnational and district teams

June 2026

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Contents

Acknowledgements ... 3

Abbreviations ... 3

Introduction ... 4

How to Use the Toolkit ... 5

Stage 1. Identify ... 7

Step 1. Review and triangulate data ... 7

Step 2. Conduct root cause analysis ... 10

Step 3. Validate findings ... 11

Stage 2. Reach ... 13

Step 1. Co-create interventions ... 13

Step 2. Implement interventions ... 15

Stages 3 & 4. Monitor and Measure ... 18

Step 1. Data collection, analysis, and review ... 19

Step 2. Data use for action ... 19

Stage 5. Advocate ... 20

Step 1. Build strong partnerships ... 21

Step 2. Package and share evidence ... 21

Annex 1 ... 23

Annex 2 ... 24

Annex 3 ... 25

Annex 4 ... 26

Annex 5 ... 28

Annex 6 ... 29

Annex 7 ... 30

Annex 8 ... 31

Annex 9 ... 32

Annex 10 ... 33

Annex 11 ... 34

Annex 12 ... 35

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Abbreviations

EPI	Expanded Programme on Immunization
HMIS	health management information system
IRMMA	Identify, Reach, Monitor, Measure, Advocate
REC	Reaching Every Community
RED	Reaching Every District

Introduction

One of the goals of the Immunization Agenda 2030 (IA2030) is to achieve full vaccination coverage and leave no one behind.[1] While there has been progress, there is still a high proportion of un- and under-immunized children in many low- and middle-income countries. The COVID-19 pandemic contributed to disruptions in immunization programs and services, and deepened access issues and immunity gaps.[2,3]

The goal of this toolkit is to help district Expanded Programme on Immunization (EPI) teams' use the Identify, Reach, Monitor, Measure, Advocate (IRMMA) Framework (Figure 1) to vaccinate un-and under-immunized communities, including children. It links to several manuals and guides to support each step.

Please note that the tool contains several references to other tools and templates. If you travel to a location with limited connectivity, please download all references ahead of time.

This toolkit supports district (we use "district" to mean local administrative units) teams that are responsible for un- and under-immunized children, adolescents, and adults (collectively referred to as "communities" throughout this tool). The terms "un- and under-immunized" capture a range of vaccination status including zero-dose children]).[4] See Annex 1 for definitions of key terms.

Features

This toolkit is organized around the IRMMA Framework, which supports the realization of IA2030 goal "to reduce the number of zero-dose children globally by 50 percent by 2030 and provide vaccines."[5] The IRMAA Framework guides the reader through five essential steps for reducing the prevalence or widespread presence of un- and under-immunized communities. In this toolkit, each component on the IRMMA Framework (Figure 1) corresponds to a stage (we have combined the monitor and measure stages). The toolkit links to other frameworks like the Reaching Every District (RED) and Reaching Every District- Quality Improvement (RED-QI) that are either already in use by EPI teams or recommended for district teams to increase coverage. Table 1 maps the overlap between RED and IRMMA.

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[1] World Health Organization. Immunization Agenda 2030: A global strategy to leave no- one behind. Geneva: WHO; 2021. https://www.who.int/docs/default-source/immunization/strategy/ia2030/ia2030-document-en.pdf

[2] World Health Organization / UNICEF. Wuenic report. https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/immunization-coverage/who-unicef-estimates-of-national-immunization-coverage

[3] Gavi. The Zero-Dose Child: Explained. https://www.gavi.org/vaccineswork/zero-dose-child-explained

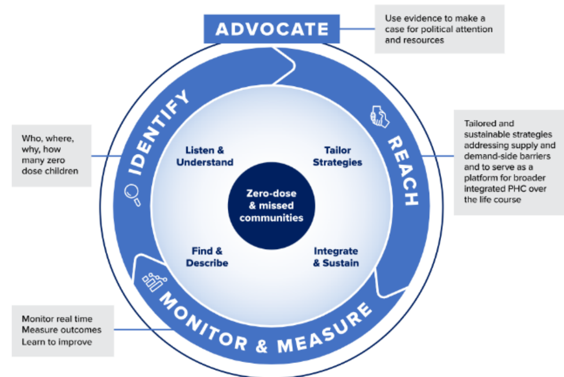
[4] Gavi. Reaching Zero-dose children. https://www.gavi.org/our-alliance/strategy/phase-5-2021-2025/equity-goal/zero-dose-children-missed-communities#fn2

[5] Guidance on use of Gavi support to reach zero dose children and missed communities. https://irp.cdn-website.com/44236788/files/uploaded/Gavi_Zero-dose_FundingGuidelines.pdf

Table 1: Overlap between RED and IRMMA

Reaching Every District (RED)	IRMMA			
	Identify	Reach	Monitor & Measure	Advocate
Engaging with communities	■	■		
Planning & management of resources	■	■		■
Reaching all eligible populations		■		
Monitoring and using data for action			■	■
Supportive supervision	■		■	

Figure 1. IRMMA Framework



Source: https://zdlh.gavi.org/resources/evidence-map

Intended Audience

This toolkit is aimed at district teams that are responsible for EPI, including identifying resources, managing vaccine supply, conducting supportive supervision, and helping health facilities plan service delivery and monitor vaccination coverage. There is a companion national-level toolkit that is aimed at program managers, supervisors, and monitoring and evaluation officers operating within the national EPI.

How to Use the Toolkit

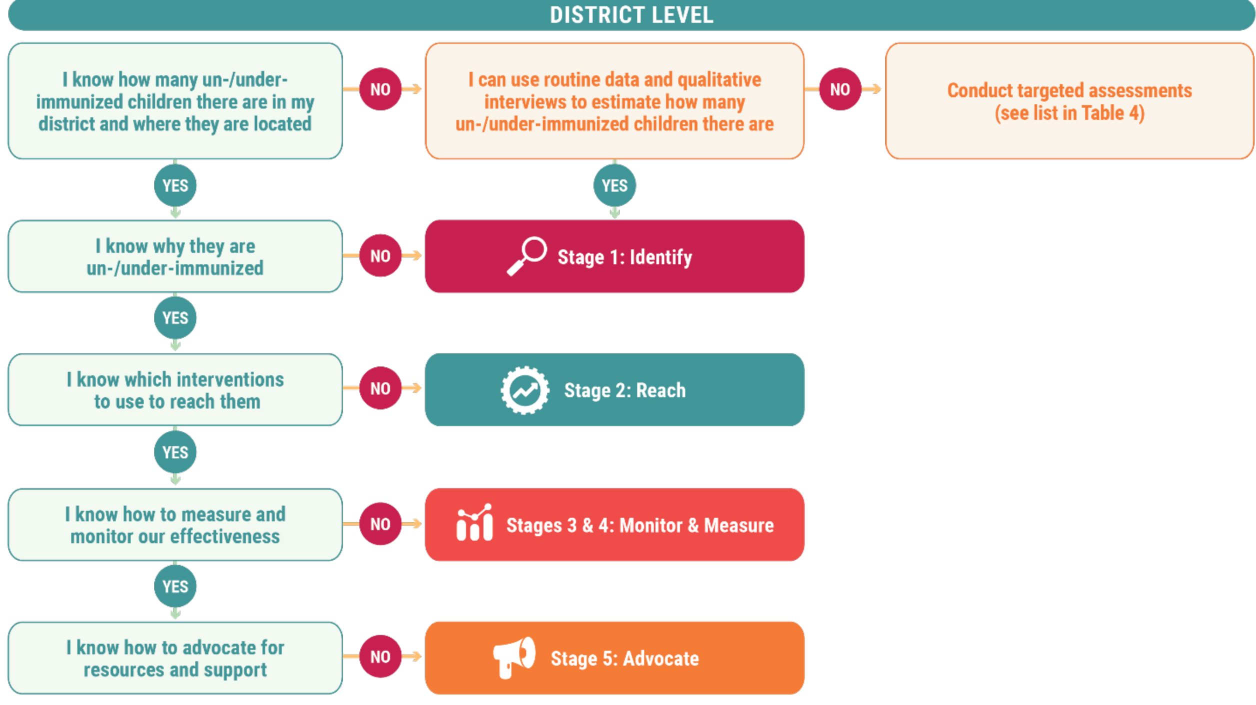
This toolkit is meant to be used to identify and fully immunize people who have missed vaccinations and those who are missing any or all vaccinations. Before using the toolkit, review its structure (Table 2). You will note that it contains several references and links to other tools and templates. If you plan to travel to a location with limited connectivity, download all references ahead of time.

Table 2. Toolkit Structure by IRMMA Stage and Steps

IRMMA Stage	Steps
Stage 1: Identify	1 Review and triangulate data 2 Conduct root cause analysis (RCA) 3 Validate findings
Stage 2: Reach	1 Co-create interventions 2 Implement interventions
Stages 3 &4: Monitor and Measure	1 Continuously collect, analyze and present data 2 Review data, adapt interventions. Return to Identify and Reach stages as needed
Stage 5: Advocate	1 Build strong partnerships with stakeholders 2 Package and share evidence

Use the decision tree in Figure 2 to decide where to begin, identify sections that are relevant to you, and ensure you have a team in place to implement the steps outlined under each section. Read the decision tree from left to right. For instance, if you know how many un- or under-immunized children there are in your district but not the reasons, begin at Identify.

Figure 2. **Decision Tree**



Stage 1. Identify

Steps:

1. Review and triangulate data
2. Conduct RCA
3. Validate findings

A critical part of identifying includes characterizing communities by examining why those with unimmunized children are unable to access health services. **The main goal is to answer the following three questions** to understand more about missed communities so you can provide tailored services and close the immunization coverage gap.

2. Where are they located?

3. Why are they un-/ under-immunized?

Step 1. Review and triangulate data

Stage 1 Goal and Outputs

Goal:

- Locate and characterize un-and under-immunized communities.

Outputs:

- Estimated number of un-and under-immunized children by location and community type.
- Reasons why they have not been reached and vaccinated.

What is data triangulation?[6]

- An approach to critically synthesize data from two or more sources to answer questions for program planning and decision-making.

Why is it important?

- By using multiple data sources, you can identify and mitigate limitations of any one source or methodology.

[6] https://www.technet-21.org/en/topics/data/triangulation-for-improved-decision-making-in-immunization-programmes

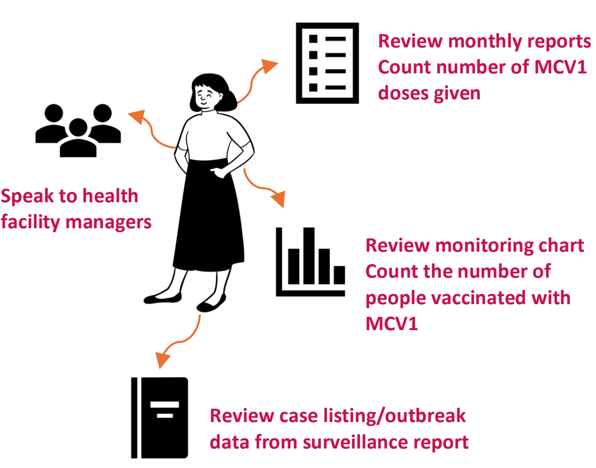
- You can gain deeper insight by making sense of complementary information and integrating knowledge of the broader context and underlying process.

Do the following:

1. **Write** the three questions (above).
2. **List** key indicators to answer the questions. Start with annexes 2 and 3 which suggest indicators from immunization and other programs. Select existing indicators; do not create new ones.
   a. It will be important to engage with other programs and stakeholders to access and interpret indicators from outside the immunization program.
3. **Identify** data sources for the key indicators or to fill information gaps to answer the three questions.
   a. See Annex 4 for potential data sources and Annex 5 for questions for qualitative data collection.
   b. Consider data sources managed by other programs and government departments. Seek approval to access their data.
   c. If available, include data on vaccine demand and community perceptions of vaccination services.
4. **Summarize** data and describe the local context. Compare available indicators and data sources and consider other relevant information about the local context. Describe how many unimmunized and missed communities there are and where they are located. For context, remember to consider fragile, urban poor, rural remote, and especially vulnerable communities during analysis.
5. **Rank** the communities with the highest number of un- and under-immunized children.
6. **Identify** the top two or three communities for RCA.
   a. Section 3.1 of the Rapid Convenience Monitoring Guide offers additional criteria to determine how to prioritize communities.
7. **See figures 3 and 4 for illustrations of data triangulation at district and facility levels.**

FIGURE 3: DATA TRIANGULATION: DISTRICT LEVEL EPI FOCAL POINT

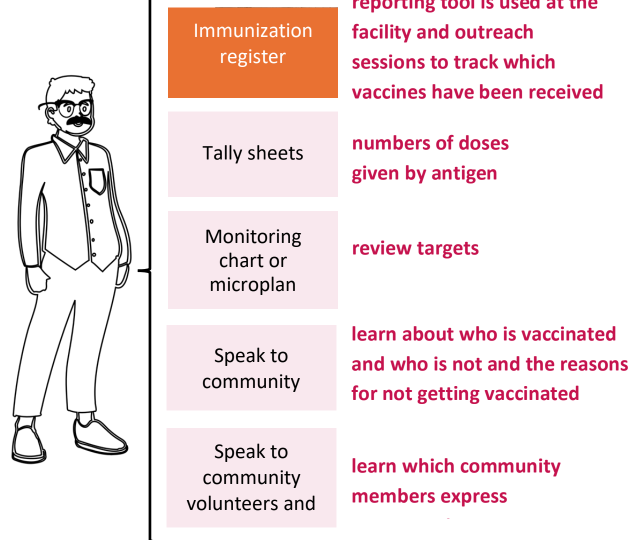
Case study with MCV1: Mary, an EPI Focal Point at the district level wants to make sure MCV1 coverage in her district is high so that there are no measles outbreaks. She regularly reviews the monthly reports to count the MCV1 doses given in the health facilities in her district and also tracks the number of people who have received MCV1 on the district monitoring chart. When she learns that some children in her district have been diagnosed with measles, she talks to the health facility managers, reviews surveillance data, and asks the health workers to talk to the community to understand who did not receive the vaccine and where they live. By comparing data from the monthly reports, monitoring chart, surveillance reports, and speaking to health facility managers, Mary has a good understanding of where the gaps in immunization are. She can now take the next step in understanding their challenges by conducting root cause analysis with her team to identify actions to close the gaps in immunization.



For more on measles outbreak investigations please refer to this document: https://www.who.int/publications/i/item/9789240052079

FIGURE 4: DATA TRIANGULATION: FACILITY LEVEL HEALTH WORKER

Case study with MCV1: Paul, a vaccinator at a health facility learns that some children in his district have been diagnosed with measles. At the same time, Mary, the EPI Focal point for the district also learns about the outbreak and reaches out to ask about it. Paul looks at the tally sheets and register to determine how many MCV1 doses have been given and how many people have been vaccinated with MCV1. He also looks up the MCV1 target for his catchment area in the monitoring chart or microplan so he can compare his progress. Paul reaches out to community volunteers to understand their perspectives about low vaccination rates. By comparing data from the immunization register, tally sheets, monitoring chart, and by speaking to community members and community volunteers, he has a good understanding of where the gaps in immunization are and why people are not vaccinated. He can now take the next step in understanding their challenges by implementing Root Cause Analysis.



For more on measles outbreak investigations please refer to this document: https://www.who.int/publications/i/item/9789240052079.

TIP

Note your country's age cut-offs for the different antigens for a child to be considered un- or under-immunized. Seek guidance from your ministry of health to determine how to proceed with your calculations.

Examples of triangulated analysis

- Triangulated analysis-subnational level immunity gaps.
- Triangulated analysis-subnational program target denominators.

Table 3. Data Triangulation Dos and Don'ts*

DO	DON'T
1. Focus the analysis based on the key question identified and underlying hypothesis.	Perform an unfocused, "everything but the kitchen sink" analysis.
2. Be open-minded and consider alternative explanations.	Come to the process with preconceived answers and solutions.
3. Be honest about data limitations and consider performing sensitivity analyses to explore the impact of missing data.	Fail to document the limitations of source data.
4. Explore patterns and associations through descriptive and graphical methods.	Over-interpret small effects, even if they may be statistically significant ("data dredging").
5. Embrace uncertainty and enable your audience to view the results through a clear lens/full picture.	Discard results that do not fit your hypothesis.

*https://www.technet-21.org/media/com_resources/trl/6632/multi_upload/EPI_data_triangulation_framework_17Dec2019_cleared_FINAL.pdf.

Step 2. Conduct root cause analysis

RCA is an effective way to identify and understand the root causes behind not using routine immunization services.

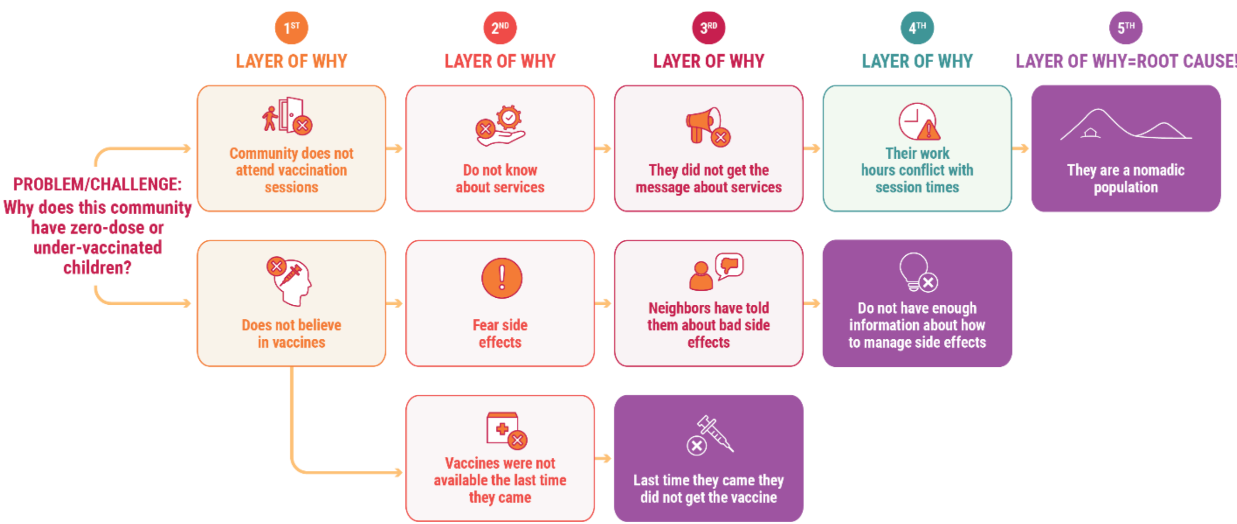
The main question RCA helps answer is: *Why* are communities un- or under-immunized?
A well-done RCA requires that teams ask "why" at least five times for every reason that is initially provided in a session. An RCA example is provided in Figure 5 and can be used as a template.

Who should be involved in the RCA? This is a participatory exercise with multiple stakeholders. A facilitator should ask those below the "why" questions and visually chart responses. It helps to write everything on paper then continue to refine it.

What data should be reviewed for the RCA?

- Draw on all qualitative and quantitative data collected on priority communities.
- Consider health system and community factors that contribute to under-use of immunization services.
- If there are gaps in the data, validate hypotheses through rapid assessments or triangulation. Validation will also help check biases.

Figure 5. RCA Example



**Purple boxes are examples of root causes.*

Use Annex 6 to document findings from the RCA before Step 3.

2A. Targeted assessments

If, after conducting Steps 1 and 2, you are unable to answer the three questions, consider conducting a targeted assessment. This toolkit defines targeted assessments as primary data collection using surveys or interview guides to learn more about a specific community and its access to and utilization of vaccination services – e.g., a population living in urban slums or in hard-to-reach urban or remote areas. There are different types of targeted assessments (Table 4); choose based on the information you need and the time and resources you have to conduct the assessment. Triangulate data from the targeted assessment with any existing data to get the full picture.

Table 4. Examples of Targeted Assessments

Assessment	Purpose
Rapid convenience monitoring	Identify reasons why children have not been immunized and which targeted actions should be implemented to increase or maintain vaccination coverage. This tool is meant to be applied at the household level but can be combined with a facility-level tool.
Lot quality assurance sampling	Measure coverage at the district, subdistrict, or community levels.
WHO vaccination coverage cluster survey	Measure vaccination coverage at the household level.
Harmonized Health Facility Assessment (formerly known as Service Availability and Readiness Survey)	Assess service availability and readiness, quality of care, and management and finance.
Service provision assessment	Comprehensive overview of a country´s health service delivery.
Health Resources and Services Availability Monitoring System	Assess availability of essential health services in humanitarian emergencies and fragile states.
Frequent Assessments and System Tools for Resilience	A compilation of health facility tools to strengthen decision making through rapid data collection and use cycles.
Behavioral and Social Drivers of Vaccination	Surveys and interview guides to assess drivers of childhood vaccinations aimed at caregivers, health workers, community influencers, and program managers.

Step 3. Validate findings

By this step, you should be clear on how many un- and under-immunized children and communities there are, where they are located, and why they are un- and under-immunized. Validate your findings through data review meetings with the following groups:

- Health facility teams, including facility managers/in-charges and vaccinators.
- Community leaders, health volunteers, and members.
- Non-health stakeholders who work with specific populations and may have insights into barriers to accessing/using immunization services that the immunization program is unaware of.

Use Annex 7 for a sample data review meeting agenda before scheduling the meetings.

Use Annex 8 to guide discussions with community members for data validation.

Case Study: Using Rapid Community Surveys as Part of Supportive Supervision in Nigeria

In Jigawa State, Nigeria, six of 27 local government areas (LGAs) were identified as having a high number of unimmunized children. The LGAs collaborated with the US Government-funded MRITE Project to conduct a survey to identify un- and under-immunized children during supervisors' monthly supportive supervision visits. These rapid community surveys helped identify missed settlements and 179 un- and 422 under-immunized children among the LGAs' 3,954 children. The project linked the settlements to nearby health facilities for immunization and other missed services.

Stage 1. Tools and Resources

Step 1. Review and triangulate data

- Triangulation for Improved Decision Making in Immunization (March 2020)
- Strengthening analysis and use of routine facility data for maternal, newborn, child, and adolescent health Data triangulation: Using multiple sources of MNCAH data together
- Public Health Data Triangulation for Immunization and Vaccine-preventable Disease Surveillance Programs: Draft Framework Document, Geneva: World Health Organization; 2019
- Annex 1. Key Definitions
- Annex 2. Immunization Indicators
- Annex 3. Other Health Indicators
- Annex 4. Quantitative and Qualitative Data Sources and their Advantages and Disadvantages
- Annex 5. Questions for Key Informant Interviews/Focus Group Discussions/Informal Discussions

Step 2. Root cause analysis

- PATH Root Cause Analysis
- Fishbone Diagram to Find Root Causes and Effective Solutions
- Annex 6. Document findings from the Root Cause Analysis

Step 3. Validate findings

- Annex 7. Sample Data Review Meeting Agenda
- Annex 8. Community Validation Questions

Stage 2. Reach

Steps:

1. Co-create interventions
2. Implement interventions

Stage 2 Goal and Output

Goal

- Co-create and implement tailored interventions to increase coverage for different community settings.

Output

- Six-month workplan.

TIP

MINDSET: Stay curious and open minded. Ask questions and seek input from all, especially caregivers, and use their perspectives and preferences to inform the design of the interventions.

Step 1. Co-create interventions

Hold co-creation meetings with the data review meeting participants to identify interventions to remedy un- and under-vaccination. See Annex 9 for guidance.

"Co-creation" refers to the continual, iterative partnership with stakeholders at all levels to understand problems and solutions in new ways. Co-creation also means designing solutions with and for those closest to the problem.

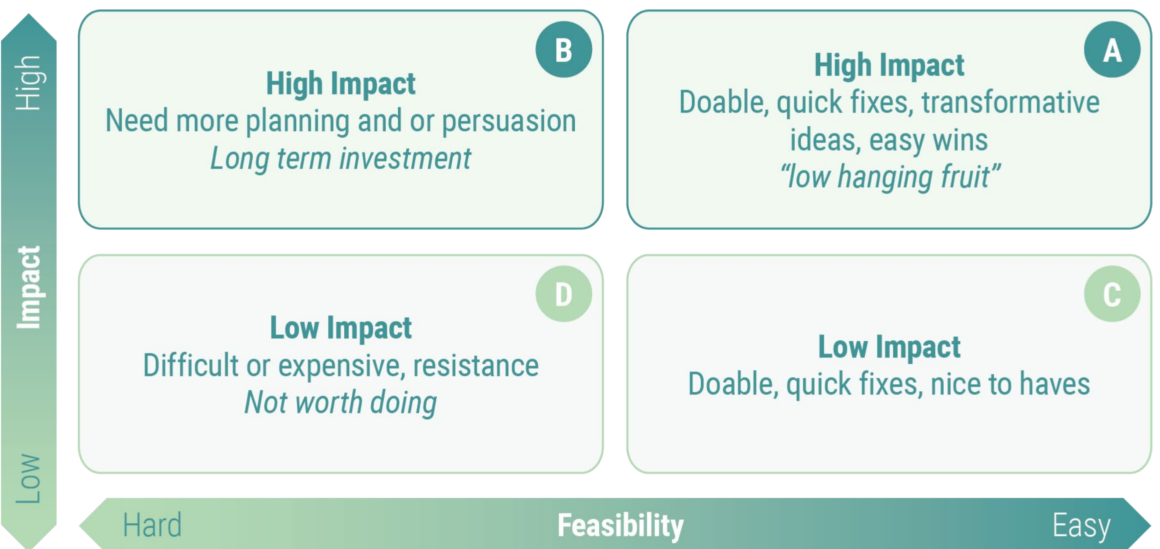
Complete the following actions during the co-creation phase. They are not exclusive or linear; they complement and inform each other.

- **Brainstorm.** Brainstorm intervention ideas to address root causes including barriers that surfaced in the RCA (Step 2). Make sure you elicit input from health facility staff, community members, and non-health stakeholders and keep an open mind.
- **Define interventions**. List interventions that could help overcome the challenges. See Annex 10 for guidance.
- **Assess feasibility.** Assess the practicality of each intervention based on constraints and enabling factors from the health system and the community perspective. Health facility staff will offer critical insights into their challenges and factors that will help them reach more communities. Community members will offer insights into their challenges and ways to overcome them.

- The health facility perspective may include constraints like staff and community volunteer workloads; supply and cold chain constraints; and cost and logistics of adding more fixed or outreach sessions. Enabling factors could include greater support from community leaders.
- The community perspective may include challenges like inconvenient clinic hours and not knowing about outreach sessions. Their enabling factors could be respectful treatment by health facility staff or support from family members in the form of payment for transport to get children immunized.

- **Prioritize interventions.** Prioritize interventions by desirability (to health workers and communities), feasibility, and sustainability. Figure 6 presents a prioritization framework.
- **Tailor interventions**. Be sure to consider different community settings and members identified in Stage 1, Step 1. Include nomadic and displaced populations; refugees; migrants; and ethnic and religious minorities if they are part of the identified areas and tailor interventions to their needs. See Figure 7 for examples of interventions tailored to different settings. The interventions for different settings may overlap.
- **Consider partnering** with the private sector or nongovernmental organizations to deliver services. Private sector partnerships could support additional outreach sessions, particularly in hard-to-reach areas, in addition to clinic-based services.

Figure 6. Mapping High- and Low-Impact Interventions to Feasibility



Adapted from Intervention guidebook for implementing and monitoring activities to reduce Missed Opportunities for Vaccination. Geneva: World Health Organization; 2019.

Figure 7. Illustrative Intervention Examples, by Setting and Type

Setting	Community Engagement	Health Systems Strengthening and Integration	Technological
Urban Slums	• Use art for public health messaging • Conduct community-based outreach • Engage religious leaders • Collaborate with women's/mothers' support groups	• Use incentives for community health workers to reach community members • Establish health committees fo those living in urban slums	• Use dashboards to evaluate progress in coverage or track reported adverse events • Use GIS for community mapping.
Remote/ Rural	• Implement culturally specific messaging	• Integration with agricultural, other animal health, and commercial sector services	• Deploy remote temperature monitoring devices • Deliver vaccine supplies using drones
Conflict Zones	• Increase health care workers' communication and access to information through WhatsApp messaging or anonymous online hubs. • Incentivize health care workers to work in a conflict zone.	• Use electronic immunization registers • Implement digital health IDs • Integrate with other humanitarian response services	• Use biometrics

Adapted from Ingle EA, Shrestha P, Seth A, Lalika MS, Azie JI, Patel RC. Interventions to Vaccinate Zero-Dose Children: A Narrative Review and Synthesis. Viruses. 2023 Oct 14;15(10):2092. doi: 10.3390/v15102092. PMID: 37896868; PMCID: PMC10612020.

Complete the worksheet in Annex 10 to map interventions to root causes.

CASE STUDY: Tailoring Programs in Collaboration with Mobile Populations

MOMENTUM Integrated Health Resilience collaborated with communities in Mali to tailor health programs to nomadic herders who moved frequently and seldomly visited the same health facility. Political instability further complicated service delivery efforts. MOMENTUM implemented routine vaccinations monitoring and the Reach Every District and Community (RED/REC) microplanning strategy; coached vaccinators on tracing children who were missing doses; created microplans that considered displaced and nomadic populations; supervised data capture to ensure quality; and reviewed and corrected data as needed.

Step 2. Implement interventions

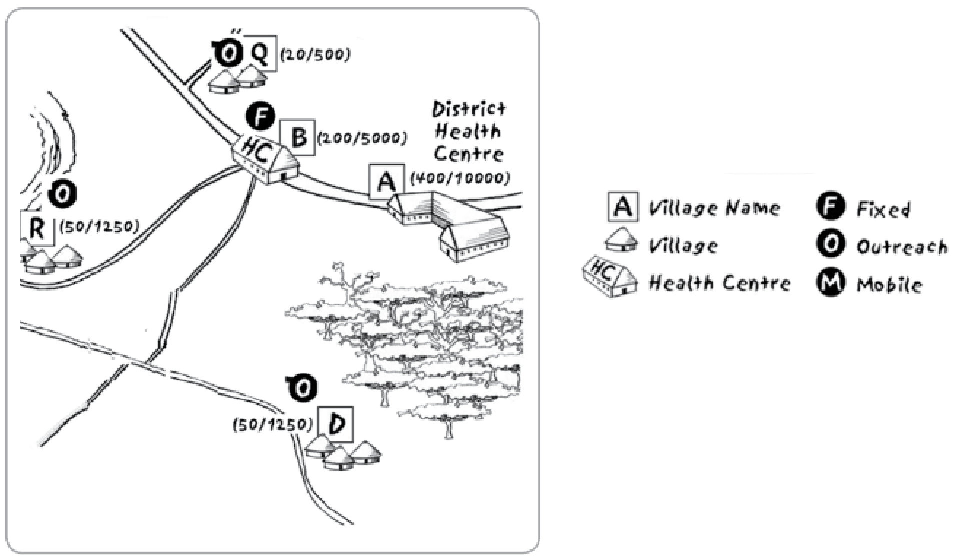
Once the district team has identified the interventions, district managers, health facility teams, and community members will talk through the RED/REC steps that can be taken to reach un- and under-immunized communities. Have an open mind during this step and remember that you are testing these ideas and will continue to seek feedback from all stakeholders during implementation to assess whether the intervention is working and what can be improved.

Refer to the RED/REC guide before finalizing your approach to implementing interventions.

To implement the interventions, district teams should:

- **Review and update microplans** with members of the communities identified during Stage 1. This will include updating district and health facility maps and community catchment areas. Figure 8 shows a sample health center map.
    - Consider using **GIS (Geographic Information Systems)** during microplanning to identify areas of need with greater precision so you can target interventions and resources accordingly.

Figure 8. Sample Health Center Map



Source: *REACHING EVERY DISTRICT (RED) A guide to increasing coverage and equity in all communities in the African Region*.

- **Create a six-month workplan** to implement the interventions. This plan should include a budget and dates when health facility staff, community members, and non-health stakeholders will reconvene to assess implementation and refine interventions based on continuous feedback.
- **Deliver interventions** tailored to the characteristics of the community. Communicate with community leaders to ensure interventions are tailored to community preferences as much as possible.

Use Annex 11 to develop your workplan.

CASE STUDY: Bangladesh

In Dhaka, Bangladesh, national nongovernmental organizations in partnership with national and municipal governments provided over 95 percent of immunizations, primarily through outreach sessions in slums and static clinics. They implemented a package of interventions including an extended EPI service schedule; training for service providers; a screening tool for immunization needs; and an EPI support group for social mobilization. The national EPI ensured vaccine supply and logistical support, while the municipal government assisted with planning, monitoring, and evaluation. This collaboration increased the percent of children ages 12–23 months who had all valid doses of recommended antigens from 43 to 99.

Stage 2 Tools and Resources

Step 1. Co-create interventions

- Annex 9. Guidance on Co-creating Interventions
- Annex 10. Worksheet for Mapping Interventions to Root Causes

Step 2. Implement interventions

- REACHING EVERY DISTRICT (RED) A guide to increasing coverage in all communities in the African Region
- The WHO Planning Guide to Reduce Missed Opportunities for Vaccination
- Annex 11. Template for Time-bound Workplan to Implement Interventions

Stages 3 & 4. Monitor and Measure

Steps:

1. **Data collection, analysis, and review**
2. **Data use for action**

Stages 3 & 4 Goal and Output

Goal

- Track progress on interventions and refine strategies as needed.

Output

- A plan to monitor and measure interventions for continuous learning and improvement.

Once the interventions have been implemented, district teams should:

- Monitor them to track progress, identify what is and is not working, and refine to reach more communities if needed. The monitoring approach should embody continuous learning and improvement (Figure 9).
- Ask these questions during the data review meetings and other monitoring fora: 1) Who is unable to get vaccinated? and; 2) Do we know why? Depending on the answers, go back to the Stage 1 and implement steps like data triangulation and RCA to understand who is not vaccinated and why.
- The timeline for these monitoring activities should align with existing monitoring activities such as EPI reviews and quarterly review meetings. By combining these, you can combine resources as well.

1) Who is unable to get vaccinated?

2. Do we know why?

Step 1. Data collection, analysis, and review

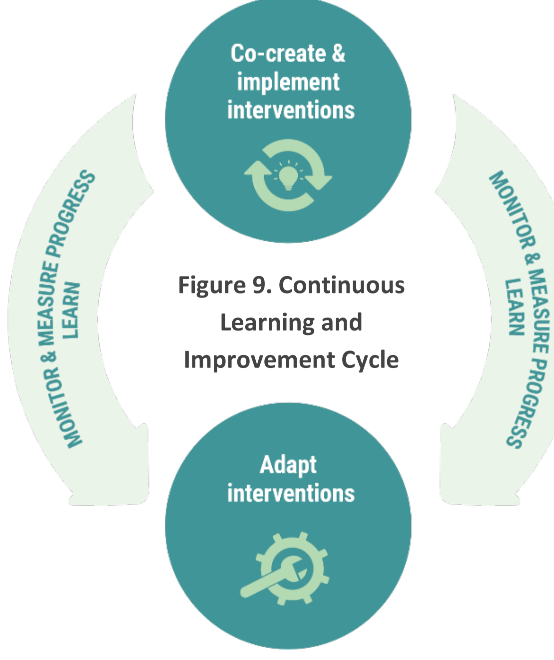


Figure 9. Continuous Learning and Improvement Cycle

1. **Monitor** interventions to assess how each is helping to reduce under-immunized children. Table 5 provides examples of use cases for monitoring and measuring progress.
2. **Identify** input, process, and outcome indicators to track over time. Monitoring indicators should consist of quantitative and qualitative measures. See Annex 12 for an illustrative list of indicators; tailor this list to your district or subnational unit.
   a. **Ensure indicators** are SMART (specific, measurable, attainable, realistic, timely) and align with country and district priorities.
   b. **Establish targets** that are short-, medium-, and/or long-term.
3. **Collect** data from different sources including community-based monitoring and health management information systems (HMIS).
4. **Analyze data including triangulation across** sources.
5. **Review** and interpret data with health facility staff, community members, and non-health stakeholders.
6. **Visualize** data using graphs and other tools to highlight insights during discussions.

Step 2. Data use for action

1. **Use** existing data review meetings to formally review data, and ask about progress and bottlenecks during supportive supervision visits and when meeting community members and non-health stakeholders.
2. **Schedule** meetings with community members at regular intervals to discuss progress and seek input.
3. **Identify and document** any changes being made to the interventions.
4. **Update the microplan** as needed.
5. **Schedule** meetings to assess progress on the modified interventions. If needed, consider additional or different indicators to help track progress.
6. **Continue** this cycle of data collection and reflection at regular intervals.

Table 5. Examples of Specific Use Cases

Monitoring and measurement objective	Data source(s)
Assess changes in immunization performance by monitoring coverage	Routine data
Assess whether activities are being implemented	Microplans
Know where un-and under-immunized children are located	Home visits Refer to Stage 1
Know if un-and under-immunized children are being reached	Facility registers Supportive supervision Routine data

CASE STUDY: Engaging Non-Health Stakeholders and Non-Traditional Partners in Uganda

In Uganda, district health officers shared immunization performance data with and invited local civil authorities and political leaders to quarterly review meetings, which increased their understanding and ownership of and support for the program. As a result, over 20 districts saw increased financial, in-kind, and political support, leading to creative strategies to improve immunization efforts, including using the mayor's motorcycle to transport health workers and the district commissioner's regular radio address to generate demand.

Stages 3 & 4 Tools and Resources

Step 1. Data collection, analysis, and review

- Annex 12 for a list of illustrative indicators

Step 2. Data use for action

- Reaching Every District, Chapter 7: Monitoring and Data Use for Action
- Training for mid-level managers (MLM): module 5: monitoring the immunization system
- Documenting Adaptive Learning Toolkit: Templates and Resources to Support the Documentation of Adaptive Learning
- Community-Based Monitoring
- Supportive Supervision
- WHO Handbook on the use, collection, and improvement of immunization data
- Analyzing and using routine data to monitor the effects of COVID-19 on essential health services: practical guide for national and subnational decision-makers
- Reaching Every District Using Quality Improvement (RED-QI) Methods: A How-To Guide for Immunization Program Managers
- Analysis and Use of Health Facility Data: Guidance for immunization programme managers

Stage 5. Advocate

Steps:

1. **Build strong partnerships**
2. **Package and share evidence**

Advocacy is critical to sustain gains in increasing vaccination rates and to improve vaccine coverage. As described in the IRMMA Framework, a key mechanism of advocacy is establishing partnerships with government actors; civil society, faith-based, and advocacy organizations; and professional associations, and new context-specific partnerships because each stakeholder has a role in advancing the cause of immunization by generating resources, building community trust, improving service quality, and/or increasing vaccination demand. Advocacy should happen continuously so that stakeholders are part of all processes and ready to support strong immunization systems.

Stage 5 Goal and Output

Goal:

- Generate and sustain support for the routine immunization program at community, district, regional, and national levels.

Output:

- Advocacy plan targeted at different stakeholders.

Step 1. Build strong partnerships

1. **Partner** with civil society, non-health stakeholders, community and religious leaders, caregivers, clients, human resource and finance departments within the district government, and the media.
   a. In some countries, this may involve forming subnational working groups or task forces.
   b. Community advocacy may involve meeting local leaders to learn about concerns and engaging volunteers to mobilize communities.
2. **Engage** regional and national EPI teams to ensure support for district priorities.

Step 2. Package and share evidence

Consider which information to package and share for advocacy:

1. **Identify** indicators that communicate how routine immunization helped the district.
2. **Explain** how community concerns were alleviated in partnership with religious and community leaders and members.
3. **Highlight key gaps and budget support needed** to achieve goals.

Consider how to present the information:

4. **Use** creative visualizations in PowerPoint or a one-page summary. You could use factsheets, drama, or radio to create awareness.
5. **Tailor** presentations to stakeholder role.

Create opportunities for regular sharing:

6. **Stay updated** about meetings with national and regional EPI teams and be ready to present.
7. **Hold** regular meetings with civil society, media, human resource and finance departments within the district government, and communities for feedback and to ensure accountability of all stakeholders.

Case study: Implementing a Comprehensive Stakeholder Engagement and Advocacy Strategy in Nigeria

The Country Learning Hub in Nigeria, part of the Zero-Dose Learning Hub project, is using civil society organization networks to implement an engagement and advocacy strategy to involve legislators, government officials, international partners, traditional and religious leaders, and communities in improving routine immunization. Methods include advocacy visits, workshops, and disseminating learning materials to mitigate challenges such as siloed data and non-specific budget allocations for immunization. Support from the National Emergency Routine Immunization Coordination Center, the State Emergency Routine Immunization Coordination Center, and LGAs facilitated opportunities to assess progress, overcome challenges, and refine strategies in real-time. Through these efforts, the Country Learning Hub has laid the groundwork for its next phase, emphasizing the necessity of inclusive and participatory approaches in immunization programs to achieve sustainable health outcomes[7].

Stage 5 Tools and Resources

- UNICEF Immunization Advocacy Toolkit
- Africa Vaccination Week Media Toolkit
- Urban Immunization Toolkit
- Gavi: Advocacy for Immunization How to Generate and Maintain Support for Vaccination Programs

[7] Gavi Zero-Dose Learning Hub. 2024. "Gavi's Zero-Dose Learning Hub IRMMA Aligned Interventions: Semiannual Update—Nigeria (May 2024)." https://zdlh.gavi.org/resources/gavis-zero-dose-learning-hub-irmma-aligned-interventions-semiannual-update-nigeria-may.

Annex 1

Definitions of Key Terms

Fully immunized	An infant who received 1 dose of BCG, 3 doses of OPV, 3 doses of pentavalent vaccines, and 1 dose of measles-containing vaccine within the first year of life.
Missed communities	Communities with clusters of un- and under-immunized children. These communities often face multiple deprivations and vulnerabilities, including lack of services, socio-economic factors, and barriers.
Under-immunized	Those missing the third dose of diphtheria, tetanus and pertussis (DTP)-containing vaccine (DTP3).
Unimmunized	Those who have not received any vaccine as defined in the national immunization schedule.

Annex 2

Immunization Indicators and Their Interpretation

Name	Definition	Data Source	Interpretation
DPT1 vaccination received	Percent of children 12–23 (or 24–35) months who received DPT 1 vaccination.	Surveys, HMIS data	Can indicate availability, access, and use of immunization services. If this indicator is low, it indicates a prevalence of unimmunized children.
DPT3 vaccination received	Percent of children 12–23 (or 24–35) months who received DPT 3 vaccination.	Surveys, HMIS data	Can indicate continuous use and availability and quality of immunization services.
MCV 1 received	Percent of children 12–23 (or 24–35) months who received MCV 1 vaccination.	Surveys, HMIS data	Does not indicate ability of the immunization program to deliver services because measles vaccines are often also provided during campaigns.
MCV 2 received	Percent of children 24–35 months who had received MCV 2 vaccination.	Surveys, HMIS data	Does not indicate ability of the immunization program to deliver services because measles vaccines are often also provided during campaigns.
Dropout rates between DPT1 and MCV1	Difference in the number of children who receive DTP1 and the number who receive MCV1.	Surveys, HMIS data	Indicates challenges reaching target populations early in the vaccination schedules. A dropout rate of >10 percent reflects underuse of immunization services.
Dropout rates between MCV1 and MCV2	Difference in the number of children who receive MCV1 and the number who receive MCV2.	Surveys, HMIS data	Indicates challenges with reaching target populations with both doses of the measles vaccine. A dropout rate of >10 percent reflects underuse of immunization services.

Annex 3

Other Health Indicators

	Indicator definition	Data Source	Interpretation
Antenatal care (ANC) visits	Percent of women ages 15–49 with a live birth in a given time period who received antenatal care four or more times.	DHS surveys, HMIS data	Households in which women have had fewer than four ANC visits are at increased risk of having children who are un- or under-immunized. Note: while ANC is a useful measure, it is one data point. We recommend including locations with acceptable ANC coverage because there could be other barriers to completing the schedule.
Neonatal tetanus toxoid immunization	Percent distribution of last live births in the last five or three years preceding the survey by number of tetanus toxoid injections given to the mother during pregnancy. Responses can be 0, 1, 2, or more.	DHS surveys, HMIS data	Households in which women have not received any tetanus toxoid injections are at increased risk of having children who are un- or under-immunized. Note: while this is a useful measure, it is one data point. We recommend including locations with acceptable tetanus toxoid coverage because there could be other barriers to completing the schedule.
Place of delivery	Percent distribution of live births in the last five or three years preceding the survey, by place of delivery, according to selected background characteristics.	DHS surveys, HMIS data	Households in which women report delivering at home are at increased risk of having children who are un- or under-immunized.
Disease outbreaks	Confirmed cases of specific disease by laboratory test or by meeting the clinical case definition.	Surveillance data (community- or facility-based)	Measles and polio outbreaks indicate low vaccination rates. Diphtheria outbreak indicates low DTP coverage.

Annex 4

Quantitative and Qualitative Data Sources and their Advantages and Disadvantages

Question	Source	Advantages	Disadvantages
How many un- and under-immunized children are in this district?	• EPI administrative data • Community headcounts	Provides real-time estimates of number of children who have received vaccines. Can be used to monitor coverage and take corrective actions by vaccine, target population, place, and time.	Data quality is a concern. Verify how denominators were calculated; may be microplanning data, census estimates, or a combination.
	• Supplemental immunization activities/post-campaign coverage data • Targeted assessments	Provides the proportion of the target population that has been vaccinated with an antigen.	Since these are one-off studies/surveys, they might not capture the antigen of interest so it is important to review vaccine(s) administered, target population(s), dates of implementation in different geographic areas, and strategies used.
	• Microplans • District maps • Health facility maps	Provides granular data on communities of interest.	Might not be up to date so review dates last updated.
Who are un-, under-immunized children and communities?	• Interviews/focus group discussions/informal conversations with community health workers, vaccinators, and facility-in-charges during supportive supervision visits and data review meetings • Speak with non-health stakeholders • See Annex 5	Offers detailed descriptions of barriers and enablers of access to and use of services and insights into unreached communities.	These need to be scheduled since they are not part of the usual supervision checklist or data review meetings. Data should be triangulated with data from surveys, targeted assessments, and special studies, if possible, to ensure a holistic understanding of the challenges.
	• Special studies focused on health system barriers or community perceptions of services • Survey data	Offer focused insights into health system barriers and community perceptions of services. May also contain useful data on other determinants of access like the socio-demographic characteristics of the communities.	
Why have un- and under-immunized children not been vaccinated?	• Interviews/focus group discussions/informal conversations with community health workers, vaccinators, and facility in-charges during	Offers detailed descriptions of barriers and enablers of access to and use of services and insights into unreached communities.	These need to be scheduled since they are not part of the usual supervision checklist or data review meetings. Data should be triangulated with data from surveys, targeted assessments, and special studies, if possible, to

	supportive supervision visits and data review meetings • Special studies focused on health system barriers or community perceptions of services		ensure a holistic understanding of the challenges.
	• Speak with non-health stakeholders	Offer perspectives that might be missed by the health sector.	
	• Special studies focused on health system barriers or community perceptions of services	Can offer targeted results on specific questions related to the characteristics of communities.	Timing and geographic location of the studies might not align with our locations of interest so must be verified.

Annex 5

Questions for Key Informant Interviews/Focus Group Discussions/Informal Conversations

Who are un-/under-immunized children and communities?

1. Where are the under-immunized communities/areas?
2. Do they include specific subpopulations (e.g., migrants, displaced or nomadic populations, refugees, ethnic and religious minorities)?
3. Do they lack access to other health services?

Why are children un- and under-immunized?

1. What social, cultural, political, or barriers to accessing services might they or their families face?
2. How do the reasons differ by subpopulation?
3. What barriers relate to using health services in general?
4. What service-related barriers (e.g., distance to the health facility, infrequent immunization sessions, frequent stockouts, long waiting times) prevent children from being vaccinated?
5. What demand-related barriers (e.g., confidence in vaccine benefits, family referral and/or recommendations, service quality) prevent children from being vaccinated?

Annex 6

RCA Findings Worksheet

List the top five root causes identified during RCA		
Cause	**Reason**	**Communities***
1		
2		
3		
4		
5		

*Categories: Locations: urban slum, rural remote; Population groups: nomadic populations, refugees, migrants, displaced population, ethnic or religious minorities, closed populations.

Annex 7

Sample Data Review Meeting Agenda and Preparation

Topic	Time
Introductions and meeting objectives	5 mins
Present findings	25 mins
Invite attendees to share thoughts on the findings	20 mins
Discuss how subdistrict/health facility teams will use findings to vaccinate un- and under-immunized children	20 mins
Discuss ways that community members and non-health stakeholders can facilitate vaccination	15 mins
Schedule a follow-up meeting to check on the action items	5 mins
Total meeting time	**90 mins**

MEETING PREPARATION

Slides should include:

- Three questions (first slide).
- Data sources used to collect information. If primary data were collected, explain methodology (second slide).
- Quantitative findings in bar charts.
- Qualitative findings by theme.

After the meeting, speak with the human resources and finance teams to make sure resources are available to conduct activities discussed at the meeting.

Annex 8

Community Validation Questions

1. Do these findings resonate with your experience?
Answer
2. Is there anything you would like to add?
Answer
3. How can we plan immunization sessions to enable more children to get vaccinated?
Answer
4. Are there special times of day or days of the week when it is easier to get vaccinated (e.g., market days)?
Answer

Annex 9

Guidance on Co-creating Interventions

- Before a co-creation session, synthesize all the data and identify major themes.
- Convene health facility staff, community members, and non-health stakeholders.
- As possible, create breakout groups with equal representation between males and females.
- Give each breakout group a scenario related to the root causes.

  To optimize empathy with a group other than the one's own, assign each breakout group a challenge experienced by another group. For example, ask the breakout group with community leaders work on caregiver challenges and the group of district teams to work on health worker challenges.
- In each breakout group, complete the template below to ideate solutions.

Brainstorm ideas to answer "How might we…?" [25 minutes]

- HUMAN-CENTERED DESIGN MINDSET: Any idea is good worth considering. Think creatively and expansively. Imagine you have the budget to do it all. Imagine that you have a different but related job. What would you do?

Idea 1
Idea 2
Idea 3
Idea 4
Idea 5
Idea 6
Idea 7
Idea 8
Idea 9
Idea 10

Rank the two top ideas [15 minutes]

As a group, use the following factors to rate each idea on a scale of 0–3 (3 being the best):

1) It is **desirable** by communities and facility workers (do people want it)?

2) It is **feasible** to implement now (do you have or can you obtain the resources to do it through existing funding streams)?

3) It is **sustainable** over time?

Using the scoring above, capture two ideas that scored highly. Write them down to build out in the next session.

Discussion - Add details to the concepts of the idea [30 minutes]

As a team, discuss and write down the details for the two priority ideas:
What is the idea? Describe it as an activity.
How would the user directly benefit from this solution?
How and who would conduct it?
When, where, how often would it be done?
What additional inputs/resources would be needed?
Why are they needed/what would they accomplish?

Present at plenary

Adapted from the Human-Centered Design Playbook.

Annex 10

Worksheet for Mapping Interventions to Root Causes

District	Community	Name of facility linked to the community	Key problem faced/root causes faced by community	Activities to be undertaken by health facility staff	Activities to be undertaken by community members	Activities to be undertaken by non-health stakeholders

Adapted from Universal Immunization through Improved Family Health Services (UI-FHS). Reaching Every District Using Quality Improvement Methods (RED-QI): A Guide for Immunization Program Managers. Addis Ababa: John Snow Research & Training Institute, Inc. (JSI), 2015.

Annex 11

Template for Time-bound Workplan to Implement Interventions

				Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
District	Community	Name of facility linked to the community	Activities to be undertaken by health facility staff						

Adapted from Universal Immunization through Improved Family Health Services (UI-FHS). Reaching Every District Using Quality Improvement Methods (RED-QI): A Guide for Immunization Program Managers. Addis Ababa: John Snow Research & Training Institute, Inc. (JSI), 2015.

Annex 12

Illustrative Indicators to Monitor Implementation

Topic	Indicator	Method
Vaccine coverage		
Outcome	DPT1 coverage	Surveys, HMIS data
Outcome	DPT3 coverage	Surveys, HMIS data
Outcome	MCV1 coverage	Surveys, HMIS data
Outcome	MCV2 coverage	Surveys, HMIS data
Outcome	Dropout rates DPT1–MCV1	Surveys, HMIS data
Outcome	Dropout rates MCV1–MCV2	Surveys, HMIS data
Output	Number of doses per antigen	HMIS
Outcome	If tracking outbreaks, consider measles and polio coverage	Surveys, assessments, campaign monitoring
Health service planning and delivery		
Output	Number of planned fixed sessions held	HMIS, microplans
Output	Number of planned outreach sessions held	HMIS, microplans
Output	Number of planned mobile sessions held	HMIS, microplans
Output	Cold chain: number of health facilities with functional cold chain and equipment	Supportive supervision checklists
Output	Vaccine stock: number of days with vaccines in stock.	Supportive supervision checklists, LMIS
Output	Vaccine stock: number of days of vaccine stock out	Supportive supervision checklists, LMIS
Health worker perspectives	Health care worker feedback on reaching un- and under-immunized communities	Surveys, assessments, interviews, focus group discussions
Community perspectives	Community feedback on quality of services	Surveys and assessments, community conversations, exit interviews