World Health Organization

A GUIDE FOR CONDUCTING A SITUATION ANALYSIS OF IMMUNIZATION PROGRAMME PERFORMANCE

November 2023

INTRODUCTION

The Guide for conducting a situation analysis of immunization programme performance enables national immunization programmes to use existing information sources to identify and prioritise critical programme barriers, strengths and evidence gaps.

Purpose

A situation analysis is a fundamental step and key instrument for programme reviews and strategic planning. It provides a thorough, comprehensive and objective assessment aimed at evaluating national immunization programmes in order to guide future priorities.

Systematically documenting reviewed evidence during a situation analysis offers an efficient mechanism for assessing and reporting programme successes and barriers.

During this situation analysis, there is no primary data collection. The desk review relies on existing quantitative and qualitative evidence.

Box 1.

A quality situation analysis

- ✓ Reflects country context and draws attention to the most needed areas
- ✓ Is systematic, logical, and rigorous using both quantitative and qualitative data in the analysis
- ✓ Identifies critical programme barriers and assigns them relative importance
- ✓ Combines a desk review with stakeholder discussions for prioritisation

A strong situation analysis is evidence based, country-led and uses country-specific data. There are many ways a situation analysis can be conducted. The purpose of this guidance is to summarise key steps and highlight best practices for conducting a situation analysis.

Who is this guidance for?

This guidance document and the accompanying Excel-based Workbook are intended for use by individuals and teams responsible for planning and implementing EPI programmes. This includes EPI managers, programme staff, consultants, international advisers and partners.

Navigating this guidance and the accompanying workbook

An accompanying **Excel-based Workbook for conducting a situation analysis of immunization programme performance** was developed to facilitate the process of documenting the evidence reviewed and outcomes of the analysis conducted.

The Workbook is dynamic and comprehensive. The tables allow for automated calculations and self-generated lists of barriers, strengths and evidence gaps. The detailed list of lines of enquiry is a comprehensive set of topics that should be documented during the situation analysis. Guiding questions are available to assist the user in critically assessing whether a barrier is present or not.

Through out this guidance document, key features of the Workbook are highlighted, using the green Excel icon.

When to use the findings?

If conducted properly, the process outlined in this guidance and the accompanying Workbook will yield lists of barriers, strengths and evidence gaps, each supported by evidence from clearly cited sources.

The findings can be used to inform:

- **Expanded Programme on Immunization (EPI) Review** to guide data collection efforts across the country and facilitate gathering evidence in strategic subject areas where information is missing.

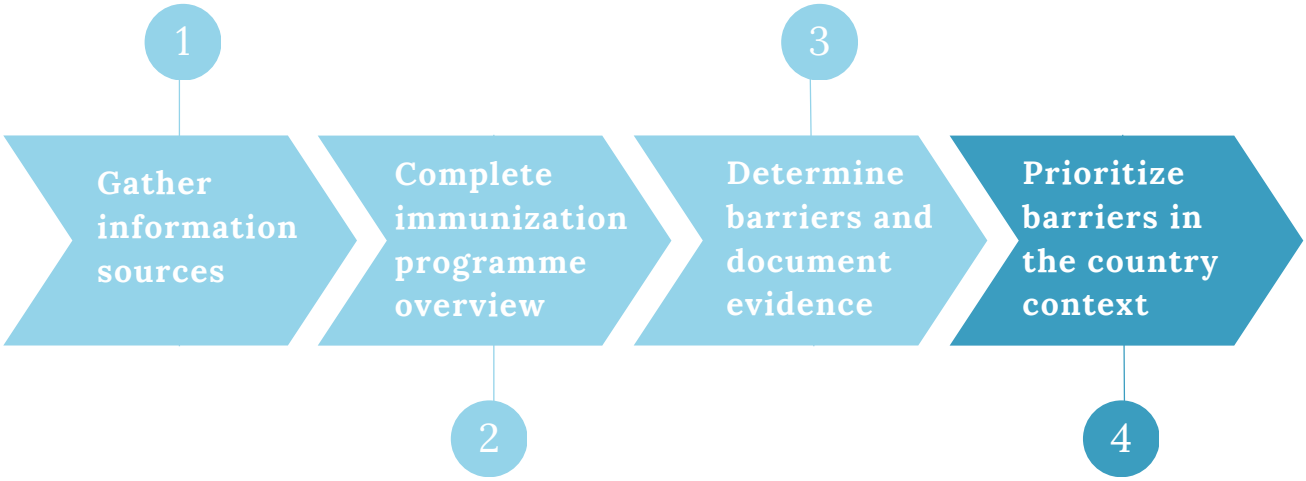
- **National Immunization Strategy** to assess the current immunization performance to inform future strategic direction.

- **Gender assessments** to determine gender specific barriers.

- **Contributing to research agendas** at national, regional, or global level on the basis of identified evidence gaps.

Essential steps to conducting a systematic analysis

Figure 1. Steps of the Situation Analysis



The four essential steps of the situation analysis can be divided into a desk review component (steps 1-3) and a deliberative prioritisation component (step 4). The four steps are summarised below:

1 **Gather relevant information sources** to serve as the evidence base for the assessment exercise.

2 **Complete a quick immunization programme overview** by documenting immunization coverage and equity, to produce a more holistic picture of the immunization country context. In addition, document vaccine preventable diseases data and answer questions about the surveillance system.

3 Use the seven EPI categories to **systematically document evidence** for various lines of enquiry. **Determine a list of barriers**, along with the evidence that supports each. Highlight where data are, or are not, available.

For a detailed list of lines of enquiry use the Workbook

4 **Prioritize the barriers** identified in Step 3 within the local context by assessing their relative importance to one another. The guiding questions selected in Step 4 should facilitate the prioritisation process to determine the relative importance of each barrier. Consulting different stakeholders during this step will result in a more representative prioritization.

Assessment of sub-national barriers

This methodology and Workbook allow for the assessment of barriers at the sub-national level.

Defining sub-national setting: Users can rely on the administrative division or focus directly on grouping underserved populations based on specific characteristics (e.g. social, cultural, political, geographic, gender, etc).

The sub-national level assessment is achieved through:

- **Specific questions:** the guiding questions for some of the lines of enquiry allow for distinction between the national and sub-national level.

- **Comment sections**: users are encouraged to document any differences that might exist at the sub-national level by distinguishing in the comments section whether the barrier applies to all, or to specific sub-populations or sub-settings.

- **Expert representation during Step 4:** during the prioritisation discussions it is essential to ensure representation from the sub-national level. Those can be health officers, vaccinators or any other person that would have knowledge and experience to reflect the diversity that exists at sub-national levels.

- **Using the workbook for a single sub-national setting, if needed:** all lines of enquiry should be assessed using the documents available for the given sub-national level, and the evidence documented will refer only to the specific sub-national setting/population. Thus, several workbooks could be completed to capture the variation in the country.

Note: Since existing information sources will likely have been designed and collected for other purposes, they may not offer detailed information about the variation of barriers at sub-national level or between different populations. Flag which information is missing for the different categories so plans can be put in place to ensure the required data is generated in the future.

STEP 1: GATHER INFORMATION SOURCES

Step 1 objective: to identify information sources that would serve as the evidence base for the desk review.

Step 1 of the desk review component of the situation analysis calls for identification of already existing resources that would serve as the evidence base. The information sources might be produced by various stakeholders in the country, and thus might not be stored in one central place. It is essential to contact all relevant stakeholders and to request access to available documents.

Annex 1 and the Workbook provide a list of information resources. Most of the information needed for the desk review could be identified in the standard EPI core documents. They are more commonly available, generally standardized and generated regularly. The complementary resources may provide additional evidence, although their format might be less standaridzed and they might be produced less frequently.

The unavailability of any of the listed information sources should not hinder the desk review. If additional sources of information are available they can be used as well. It is important to list all available resources and note the publication date to understand the timeliness of the information, and facilitate updates, whenever feasible.

Box 2.

Examples of standard EPI core information sources

- Coverage reports (administrative data, WUENIC, DHS/MICs, surveys)
- EPI Review
- National Immunization Plan (NIS)
- Effective Vaccine Management (EVM)
- Missed Opportunities for Vaccination (MOV Assessments)
- Service Availability and Readiness Assessment (SARA)
- Service Provision Assessment (SPA)
- UNICEF Coverage and Equity Assessment (CEA)
- Behavioural and Social drivers of vaccination (BeSD tools)
- Vaccine Preventable Diseases (VPD) surveillance reports
- Wastage information

Full list is available in Annex 1

The Workbook contains a brief description of each source and a short example of information that could be extracted from these sources. It also provides space to document the availability of resources.

STEP 2: COMPLETE AN IMMUNIZATION PROGRAMME OVERVIEW

Step 2 objective: to provide a brief quantitative overview of the immunization programme by analyzing immunization coverage and equity, as well as vaccine preventable diseases (VPDs) surveillance.

Immunization programme overview

Immunization Coverage and Equity

A brief examination of immunization coverage and equity indicators provides insight into the country's current situation. Please see Annex 2 for a detailed indicator list and some general thresholds that can help signal whether a potential barrier might exist. These thresholds are indicators that prompt the assessor to search for more information among the sources identified in Step 1, and should not be used in absolute terms. This type of snapshot does not identify or explain the causes of lower coverage or inequity, instead it should guide the identification of barriers in Step 3. The WHO/UNICEF Estimates of National Immunization Coverage (WUENIC) and/or latest official administrative data should be used for the immunization coverage.

Vaccine Preventable Diseases Surveillance

VPD surveillance should be assessed to understand the diseases under surveillance and to identify which warrant more in-depth review, either as part of the situation analysis or as part of a separate review. It is recommended to document the total number of cases for diseases under surveillance. Moreover, the VPD surveillance Tool gives a snapshot of the performance of various areas of the surveillance system (See Annex 2). Findings can be used to contextualise the review of the evidence in Step 3 in particular under EPI category 6: Disease Surveillance.

Extra features of the Workbook

- ✓ **Automatically generated graphs for vaccine coverage based on data input**
- ✓ **Automated calculation of drop-out rates and difference in coverage across various equity dimensions**

Estimating the number of zero dose children

The Immunization Agenda 2030 and Gavi 5.0 both recommend using the first routine dose of diphtheria pertussis and tetanus (DTP1) vaccination as the determining factor to define a child as “zero-dose”, or never vaccinate
Potential barriers leading to high number or percentage of zero-dose children include:

• **Service delivery issues:** vaccine stockouts, health worker shortages, poor microplanning, etc.

• **Community concerns:** lack of knowledge of benefits of vaccination, poor quality of services, inconvenience of when and where services are offered, fear of AEFI, etc.

• **Gender-related barriers:** gender roles, norms and relations considered for both the caregivers and health workers.

•**Subnational variation:** certain sub-populations or settings experience a unique set of barriers, for instance conflict settings or special populations.

Detailed list of dimensions to measure are provided in Annex 2 and the Workbook. Moreover, in Step 3, for each EPI category there are specific questions focusing on barriers relating to zero-dose children.

STEP 3: DETERMINE BARRIERS AND DOCUMENT EVIDENCE

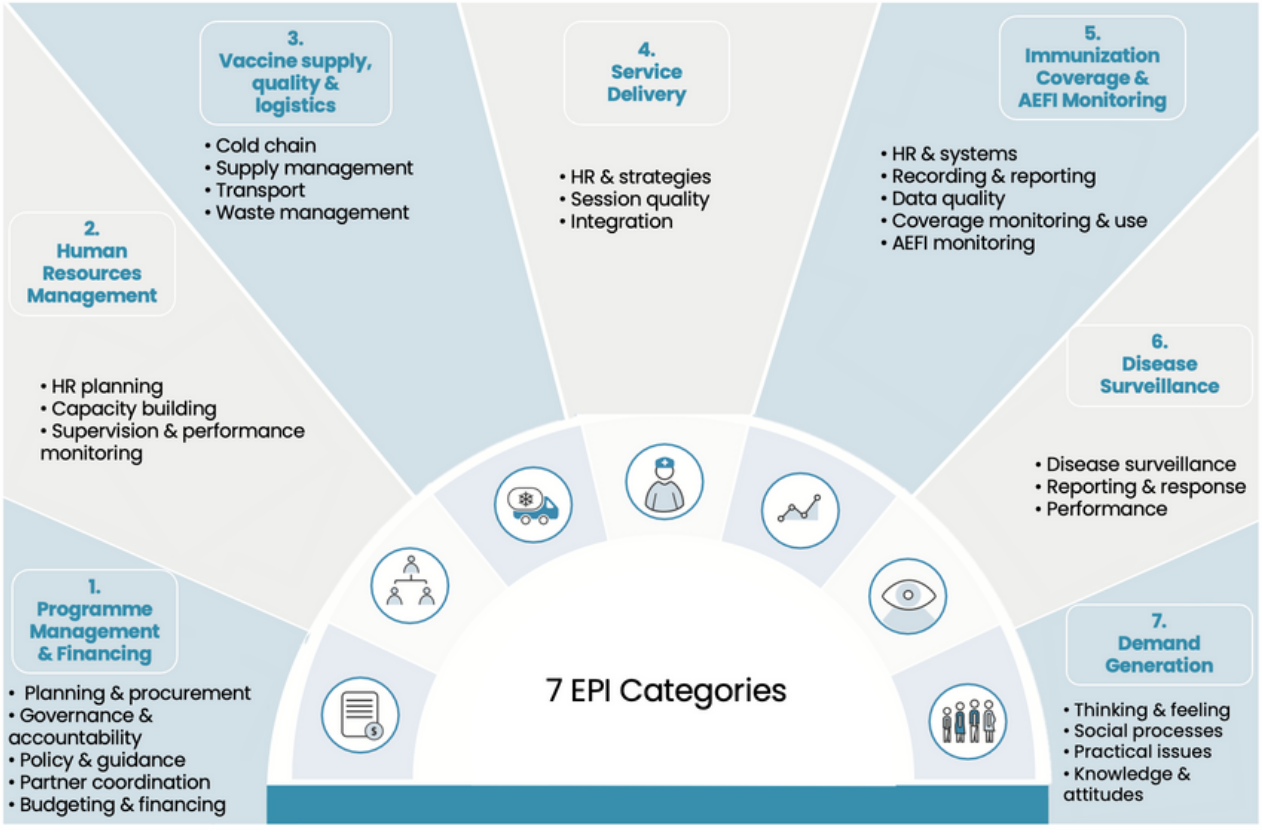
Step 3 objective: to identify barriers, strengths and evidence gaps based on the information extracted from the sources identified in Step 1, and to systematically document the supporting evidence.

For a detailed list of lines of enquiry and guiding questions use the Workbook

Systematically documenting evidence that indicates why there might or might not be a barrier is essential. This allows for objective determination of barriers and evidence based discussions between stakeholders. In the long term, it allows for quick updates of the information if a new or more recent source of information becomes available.

To identify information about the potential barriers, start by reviewing the sources identified in Step 1. Document the evidence available and note any variation that might exist at sub-national level or between different settings (e.g. urban, rural, agricultural, pastoral and fishing communities) and across different populations (e.g. migrant populations, different ethnic and religious groups). Figure 2 shows the list of EPI categories and topics that should be addressed during the desk review.

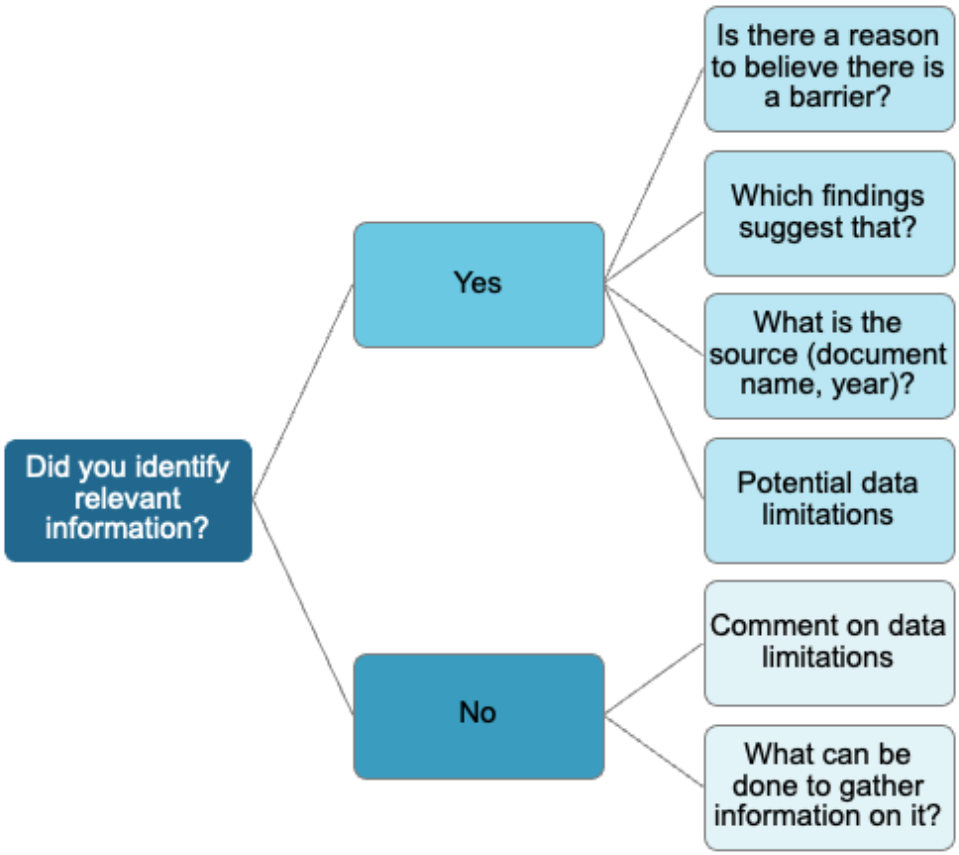
Figure 2. EPI categories with topics to be addressed



Key questions to address

Figure 3 proposes a question flow to documenting evidence during Step 3. There are several questions that should be answered on the basis of whether relevant information is available or not in the existing resources. If information is not available, it is important to comment on the data limitation and when possible, note what can be done to obtain the missing information. This information can be sought out during the next EPI Review or generated through other interventions, possibly through implementation research. Interviews with key informants can also be conducted to collect needed information. The need for additional evidence should be flagged to relevant authorities at the national or regional level who can address this gap in research agendas.

Figure 3. Key questions to address when documenting evidence



Extra features of the Workbook facilitating the documentation of evidence

- ✓ **Dynamic tables showing only relevant questions**
- ✓ **Based on answer input, automatically generated lists to considered in Step 4**
- ✓ **Detailed guidance on the potential impact of barriers on the immunization coverage and equity**

STEP 4: PRIORITIZE BARRIERS IN THE COUNTRY CONTEXT

Step 4 objective: to prioritize barriers in the given national or sub-national context, based on their relative importance.

The barriers identified in Step 3 may vary in their degree of importance, depending on the country context. Prioritising the barriers within the national context or across settings/populations involves assessing their relative importance to one another and determining whether they are of low, medium or high priority. Stakeholders should consider the questions below to deliberate the relative importance assigned to each barrier. If there is large variation across settings/populations in barriers experienced, the prioritization can be completed separately considering both the national setting and the other settings.

Box 3.

Tips for successful prioritization process:

• The prioritization of barriers is a qualitative process reflective of the deliberations between stakeholders. Hence, it is crucial to ensure representation of all relevant stakeholders during the discussion.

• The prioritization is relative, meaning it can vary depending on its focus. *Example: The same barrier "Concerns about multiple injections in one session" might be prioritized as high priority if focusing on vaccines given at 4-8 weeks, and low priority for vaccines given at 9 months.*

Extra features of the Workbook facilitating prioritization

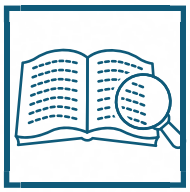
- ✓ **Automatically generated list of barriers based on input in Step 3**
- ✓ **Automated filtering of barriers as high, medium, low and extraction to sheets that allow further considerations such as identification of next actions and priority decision-questions**

Questions to guide the prioritization discussions

- Is the impact of the barrier on immunization coverage and equity large or small?
- Will changes in the barrier result in improved coverage?
- Will changes in the barrier result in more equitable coverage for underserved populations?
- Does the barrier affect the country's ability to catch up children with missed RI vaccination?
- Has the barrier already been addressed by other programme interventions that appear to be working to improve coverage and equity?
- Is the barrier modifiable by immunization programme modifications?
- How feasible is it to undertake activities to address the barrier?
- Are changes in vaccine product presentation or technological innovations likely to impact this barrier?
- What is the history of and progress made to date on decreasing the barrier?
- Are there other more pressing barriers that are having a greater impact on coverage and equity?

Be sure to document the rationale used to prioritize the identified barriers. All questions do not have to be used and additional considerations can be made.

HOW TO USE THE FINDINGS

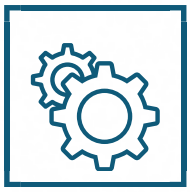


Define priority actions

Use the list of barriers to define priority actions and activities that need to be undertaken to reduce or eliminate the barriers. These actions can be part of the National Immunization Strategy or annual operational plans.

Identify priority decision questions

Identify priority decisions that need to be made by decision-makers in order to reduce or eliminate the barriers. These discussions can be part of the strategic thinking.



Call for further research

Use the list of evidence gaps to develop a plan to generate information and communicate data needs to relevant authorities and partners. The additional evidence can be generated as part of the field visits of an EPI Review or through a national or regional research agenda.

Share best practices

Use the list of strengths to identify positive experiences that could be implemented in different settings in the country or can be shared with other countries as lessons learned on best practices.

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COUNTRY TEAMS PARTICIPATING IN THE PILOTING

Indonesia
Zambia
Liberia
Burkina Faso

ANNEX 1:
LIST OF INFORMATION SOURCES

Example standard EPI core information sources

- Coverage reports (administrative data, WUENIC, DHS/MICs, surveys)
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- Behavioural and Social drivers of vaccination (BeSD tools)
- Vaccine Preventable Diseases (VPD) surveillance reports
- Wastage information

Key potential complementary sources

- Bottleneck Analysis (BNA)
- Child Health Analysis
- Periodic Intensification of Routine Immunisation (PIRI) Reports
- Costing or economic studies
- Countdown report
- Data quality assessment (DQA)/ Data quality survey (DQS)
- Health sector policy, strategies, plans, reviews and organogram
- ICC reports
- Qualitative assessments
  - Focus group discussions (FGD)
  - Key informant interviews (KII)
  - Knowledge Attitude Practices (KAP)
- NITAG reports
- Operational plans
- Partner assessments i.e. Gavi Joint Appraisal, full country evaluations, etc.
- Post-vaccine introduction evaluations (PIEs)
- Primary Health Care development plans
- Reaching every district (RED) assessment
- Root Cause Analysis (RCA)
- State of Inequality/ Exploration of Inequality
- Universal Health Coverage National Strategy
- Workload Indicators of Staffing Needs (WINS) report
- PUBMED search
- Any other source

ANNEX 2: IMMUNIZATION PROGRAMME OVERVIEW

Figure A1. Immunization coverage indicators

Indicator	Coverage in %								Potential barrier
	Current Year	_Year_	_Year_	_Year_	_Year_	_Year_	_Year_	_Year_	
DTP1 coverage									If coverage is <90% -barriers relative to access
DTP3 coverage									If coverage is <85% - barriers relative to access or utilization of services/system functioning
MCV1 coverage									If coverage of MCV1 is >10% lower than DTP1 - barriers relative to utilization of services/system functioning
MCV2 coverage									If coverage of MCV2 is >10% lower than DTP3 - barriers relative to utilization of services/system functioning
HPV1 coverage									If the coverage is <90%- barriers relative to access to vaccines or to system functioning, or may signal existence of stigmatization/misinformation related to HPV vaccine and/or sexual and reproductive health.
Drop out ((DTP1-DTP3)/DTP1)									If the drop out is >10% (calculated: (DTP1-DTP3)/DTP1) - barriers relative to utilization of services/system functioning
% district DTP3 <50%									If the percentage of districts where DTP3 <50% is >0% - possible inequity could potentially exist.
% districts DTP3 <80%									If the percentage of districts where DTP3 is <80% is >20% - possible inequity could potentially exist.

Figure A2. Immunization equity indicators

Equitable immunization coverage	DTP3 coverage in %							
	Current Year	_Year_	_Year_	_Year_	_Year_	_Year_	_Year_	_Year_
Sex								
Male								
Female								
Difference								
Wealth quintile								
Lowest								
Highest								
Difference								
Residence								
Urban								
Rural								
Difference								
Regions								
Region with highest coverage								
Region with lowest coverage								
Difference								

Inequity: Large/ moderate/ minimal (thresholds)
Note: there is no standard quantifiable categorization of large, moderate or minimal for equity differences. The categorization's purpose is to highlight potential inequities so that more in-depth search can be done during a review of the information sources. **Large:** The difference gap is >40% **Moderate**: The difference gap is between 10% and 40% **Minimal:** The difference gap is <10%

Regions or any other term that is used to describe sub-national level.
**Note: there is no standard categorization of large, moderate or minimal for equity differences. Thus, the proposed categorization should be used only as an indicator to highlight inequities. The more in-depth search can be done during the review of the information sources.
You can use the HEAT tool to explore inequality. The HEAT tool is developed by the WHO and enables the exploration and comparison of within-country health inequalities. You can access the tool here.

Figure A3. Documenting the number of zero-dose children

National estimates	
Target population (number)	
Zero-dose children % (based on DTP 1 coverage)	
Estimated number of zero-dose children	

Sub-national estimates				
Top 5 regions with lowest DTP1 coverage in %	Region name	DTP1 coverage in %	DTP3 coverage in %	Drop out [(DTP1-DTP3)/DTP1)
1.				
2.				
3.				
4.				
5.				

Top 5 regions with highest number of zero-dose children based on lack of DTP 1	Region name	Target population	Number of zero dose children
1.			
2.			
3.			
4.			
5.			

Figure A4. VPD Surveillance

VPD	Total number of cases								Potential barrier
	Current Year	_Year_	_Year_	_Year_	_Year_	_Year_	_Year_	_Year_	
Acute Flaccid Paralysis (polio)									
Suspected Measles cases									
Confirmed Measles cases									
Congenital Rubella Syndrome									
Diphtheria									
Hepatitis A									
Hepatitis B									
Japanese encephalitis									
Mumps									
Neonatal Tetanus									
Non-neonatal Tetanus									
Pertussis									
Rotavirus									
Rubella									
Typhoid									
Varicella									
Yellow fever									

Figure A5. VPD Surveillance Tool

	Acute Flaccid Paralysis (polio)	Acute Fever Rash (measles/rubella)	Congenital Rubella Syndrome	Meningitis/encephalitis	Respiratory Diseases	Diarrhoea	Tetanus	Diphtheria	Yellow Fever	Other
Is there a functional surveillance system? (Yes/No)										
Is surveillance national (N), subnational (SN) and/or sentinel (S)?										
Review case definitions: Are they reasonable within country context?										
Are standard operating procedures available for review?										
Are they adequate? (Who should report, what, when, how, to whom)?										
Are >80% of reporting units reporting?										
Is data complete?										
Is data timely?										
Are cases laboratory confirmed? (Yes/No/Partial)										
Is sensitivity of surveillance sufficient?										

ANNEX3: TEMPLATE REPORT

BACKGROUND

Document

- When was the situation analysis completed?
- Who conducted the situation analysis?
- What will the findings be used for?

GATHERED INFORMATION SOURCES

Briefly summarise the existing resources that were gathered and used for this review.

- Comment on their availability and timeliness.
- Were there any major limitations?

COMPLETED IMMUNIZATION PROGRAMME OVERVIEW

A brief summary of the immunization coverage and equity indicators and explain whether based on the provided thresholds there is a reason to believe there might be potential barriers. Moreover, provide a brief assessment of VPD surveillance.

LIST OF BARRIERS AND DOCUMENTED EVIDENCE

Explain the evidence documentation process:

- Comment whether evidence was available and if there were any major research gaps.
- Describe the process of determining whether a barrier exists, with a reference to the guiding questions.
- Comment whether any other barriers relevant to the national context, beyond those suggested, were considered.

PRIORITIZED BARRIERS IN THE COUNTRY CONTEXT

The description of the prioritization process should include:

- List of participants, explanation of how the stakeholders were selected, and the format of the deliberations.
- The main considerations when determining whether a barrier is high, medium and low priority.

Include the long list of identified barriers specifying high, medium and low priority.

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