

Performance Monitoring Tool for
the National Expanded Program
on Immunization

PHASE 2

Annex 7:

Criteria for the selection of areas for monitoring application

PAHO



Pan American
Health
Organization



World Health
Organization
regional office for the Americas



In partnership with

Canada

Performance Management Tool for National EPI teams in the Latin American and Caribbean Region

Annex 7. Criteria for the selection of areas for monitoring application

Aim:

Conduct the EPI performance monitoring self-assessment at the sub-national level to

- validate findings at the national level
- review local implementation, helping to confirm and supplement the national-level findings
- inform and refine the national-level score by providing a more granular understanding of the program's performance

Objective:

To select sub-national areas for the EPI performance monitoring self-assessment that can provide comprehensive insights into the situation at this level.

This document provides a step-by-step guide (based on the methodology of the International Evaluation of the Expanded Program on Immunization¹) on the process to select the sub-national area to visit. The seven steps include:

1. Selecting variables for risk-level
2. Scoring the each municipality
3. Calculating the score for each municipality
4. Classifying municipalities according to risk level
5. Selecting sub-national levels to visit
6. Identifying municipalities for health facility visits
7. Selecting health facilities to visit

¹ Pan American Health Organization
"Methodology for the international evaluation of the Expanded Program on Immunization"
Washington, DC: PAHO, © 2012. (Updated to 2019).

The criteria of selection can be adjusted according to the country context in light of:

- The criteria in this document
- Recent and updated risk assessments for measles-rubella or polio
- Needs and priorities established by the country

Note: If a recent risk assessment for measles-rubella or polio already exists:

- Classify level of risk for each sub-national level into three levels: high risk, medium risk and low risk
- Directly go to step 5

Procedure: Selecting sub-national levels and health facilities to visit for the self-assessment

Step 1: Selecting variables for risk-level

Select the area to visit according to the risk-level classification of the municipality (drawing from available data). It is recommended to include the following variables to classify the the risk-level:

- EPI performance indicators:
 - a. vaccination coverage with three doses of DPT-containing vaccine (diphtheria, pertussis, and tetanus)
 - b. % children under one year of age living in municipalities with <95% coverage of DPT3, Polio3 and MMR1
- VPD surveillance system indicators:
 - a. acute flaccid paralysis notification rate
 - b. Silent districts in measles and rubella surveillance
- Presence of a case or outbreak of VPD
- Social indicator of unsatisfied basic needs
- Municipalities with urban-marginal population groups, tourist, border area, high rate of migration or displaced population, existence of indigenous groups and urban or rural areas

Geographic access and the existence of areas of conflict or insecurity are variables that must be considered for the final selection.

Step 2: Scoring each municipality

Once the criteria for risk classification have been selected:

- define the risk categories
- assign a score to each category according to the level of risk for the achievement of the program's goals

Consider that the punctuation is arbitrary and that it can vary from country to country, according to the adaptations or adjustments that are deemed convenient.

Table 1 presents a proposal of criteria and categories, which allows the classification of municipalities according to the risk for the achievement of the EPI goals, which may possibly be applied in most countries.

Table 1. Criteria and categories for the classification of municipalities

No.	Criterion	Category	Score
1	Vaccination coverage with DPT3, in children under one year of age.	Coverage \geq 95% in the last 2 years.	0
		Coverage from 80 to 94% in the last 2 years	10
		Coverage less than 80% in the last 2 years	15
2	Percentage of the population under one year of age living in municipalities with coverage of less than 95% for DPT3, in children under 1 year of age.	\leq 5% in the last year	0
		6% to 15% in the last year	10
		> 15% in the last year	15
3	Polio3 vaccination coverage in children under one year of age.	Coverage \geq 95% in the last 2 years	0
		Coverage from 80% to 94% in the last 2 years	10
		Coverage < 80% in the last 2 years	15

4	Vaccination coverage with the MMR1 vaccine in one-year-old children.	Coverage \geq 95% in the last 2 years	0
		Coverage from 80% to 94% in the last 2 years	10
		Coverage $<$ 80% in the last 2 years	15
5	AFP reporting rate	\geq 1 case/100,000 $<$ 15 years in the last year	0
		$<$ 1 case/100,000 $<$ 15 years in the last year	10
6	Epidemiological silence in measles/rubella surveillance.	At least one suspected case reported in the last year	0
		Zero suspected cases reported in the last year	15
7	Case or outbreak of vaccine-preventable diseases.	Absence of cases or outbreak	0
		Presence of cases or outbreak	15
8	Unsatisfied basic needs (the strata are defined according to what is established by each country).	If the municipality is in the least poor stratum	0
		If the municipality is in the poorest stratum.	5
9	Municipalities with urban-marginal population groups, tourist area, border area, high migration rate or displaced population	The municipality does not have any of these characteristics	0
		The municipality has some of these characteristics	5
10	Existence of indigenous groups.	No	0
		Yes	5

xStep 3: Calculating score for each municipality

Calculate the total score of each municipality, according to the evaluated criteria. The maximum score that can be achieved, based on the characterization and score assignment in Table 1, is 115 points.

Step 4: Classifying municipalities according to risk-level




Once the scores have been assigned to each municipality, they are classified into three risk strata, according to the cut-off points established:

- Low risk those who reached <25% of the total score
- Medium risk those who reached between 25% and 50% of the total score
- High risk those who reached >50% of the total score

To facilitate the interpretation of the results, these strata can be presented with different colors, using a traffic light scheme.

The table below shows an example of the cut-off points based on the characterization and scoring in Table 1.

Table 2. Classification of municipalities according to total score

% of total score achieved	Risk	Color
More than 50% of the total (more than 58 points)	High	Red 
Between 25% and 50% of the total (between 28 and 58 points)	Medium	Yellow 
less than 25% (less than 28 points)	Low	Green 

Step 5: Selecting sub-national levels to visit

Verify for each state/province the risk classification received by the majority of its municipalities. Ideally, select three states to visit based on the following:

- one state with majority municipalities classified as high risk
- one state with majority municipalities classified as medium risk
- one state with majority municipalities classified as low risk

Other important logistical aspects must be considered, such as distances, the means of transport required and security conditions in the area.

Step 6: Identifying municipalities for health facility visits

Once the three states have been defined, three municipalities from each state must be selected:

- one municipality classified as high risk
- one municipality classified as medium risk
- one municipality classified as low risk

Note: The number of departments and municipalities may be increased according to the characteristics of the country to be evaluated.

Step 7: Selecting health facilities to visit

Select a total of three health facilities from each state: one health facility from a high risk municipality, one from a medium risk municipality and one from a low risk municipality. The selection of the health facilities to visit must be carried out in the first meeting of the evaluation team with the municipal team, therefore it is important to take into account the following criteria:

1. Type of health facility
2. Influence area (assigned population) of each health facility
3. Geographic access and transportation availability
4. Facilities that are low performing and high performing
5. Facilities that implement successful or innovative strategies to achieve the goals of the program

For the selection of health facilities, it is important to have available the list of different types of health facilities.