



GLOBAL TASK FORCE ON
CHOLERA CONTROL

GT FCC METHODS AND PROCESS FOR THE
IDENTIFICATION OF PAMIs

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Key principles

GLOBAL ROADMAP TO END CHOLERA

- The Global Roadmap to End Cholera by 2030 calls for control & elimination strategies **spatially targeted** to priority geographic areas
- These **Priority Areas for Multisectoral Interventions** are PAMIs

ENDING CHOLERA **A GLOBAL ROADMAP TO 2030**

A renewed strategy to end cholera

Once identified, cholera PAMIs must become the primary targets of multisectoral interventions

WHERE DOES PAMI IDENTIFICATION FIT IN WITH NCP DEVELOPMENT?

NCP Inception

1. Declaration of country commitment

1. Identification of priority areas for interventions

2. Situational analysis (including capacity assessment)

4. Defining leadership and coordination mechanisms

5. Formulation of NCP goal

NCP Development

Development of operational cholera control plans covering all pillars targeted to priority areas

(not all priority areas will necessarily receive the same intervention packages)

WHY USE GTFCC PAMI METHODS?

Promotes data-driven and transparent prioritization of with standard epidemiologic indicators

Emphasizes implementation feasibility, public health impact, and consensus-building among in-country stakeholders and partners

Applying GTFCC PAMI methods facilitates smoother access to OCV for preventive use and NCP endorsement

WHICH COUNTRIES SHOULD IDENTIFY PAMIS & WHEN?

Countries affected by or at-risk for cholera outbreaks
should perform PAMI identification



The identification of PAMIs

- should be **updated periodically, in line with NCP renewal cycles (≈ every 5 years)**
- usually **takes about 6 months**

Overview of approach

TWO DISTINCT GTFCC METHODS

PAMIs for cholera control

For countries with moderate to high cholera transmission

- **$\geq 5\%$ of areas reported cholera in the past 5 years**
- PAMIs identification primarily based on the **cholera burden**
- **NCP is for cholera control**

PAMIs for cholera elimination

For countries limited or no cholera transmission

- **$< 5\%$ of the areas reported cholera in the past 5 years**
- PAMIs identification primarily based on the **vulnerabilities for cholera (re)emergence**
- **NCP is for cholera elimination**

TRANSITIONING FROM CONTROL TO ELIMINATION

All countries are encouraged to set elimination as their ultimate goal but to effectively reach this goal, **intermediate objectives** (i.e., cholera control) are necessary

- Endemic countries shall first aim at controlling cholera (reducing incidence) through an **NCP (and PAMIs) for cholera control**
- As fewer areas remain affected by cholera, the country will progress towards cholera elimination through an **NCP (and PAMIs) for elimination**

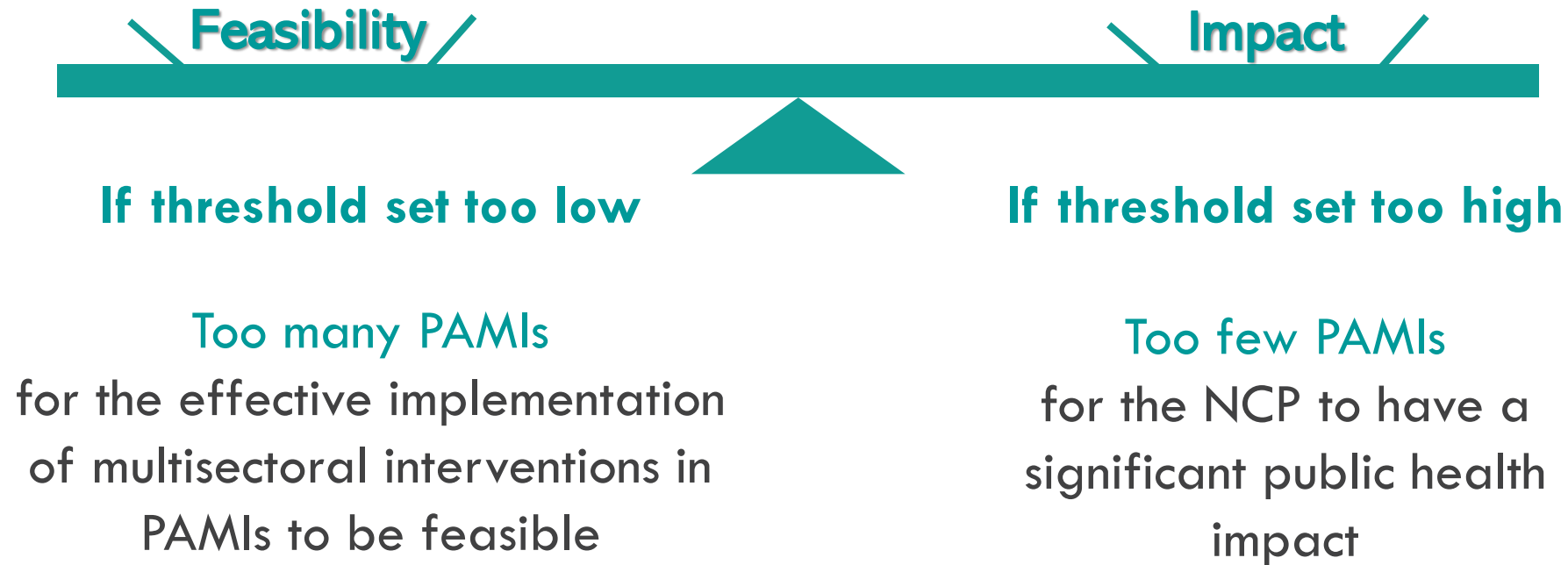
THE 2 PAMI METHODS FOLLOW A SIMILAR APPROACH



- All geographic units of a country are **scored according to a numeric index**
- Aims to inform evidence-based / objective decision making
- **Stakeholders from multiple sectors** decide based on consensus on an index threshold value
- All geographic units with an index value $>$ threshold are PAMIs

PRINCIPLES FOR SELECTING THE PAMI INDEX THRESHOLD

All areas above an index threshold are considered PAMIs



Identification of PAMIs for cholera control

NUMERIC INDEX: **PRIORITY INDEX**

- Calculated using cholera surveillance data over the past 5 to 15 years
- For all 'NCP operational geographic unit' (Admin-2 or Admin-3, for countries to decide)
- Represents dimensions of cholera "burden"
 - Cholera **incidence**
 - Cholera **mortality**
 - Cholera **persistence** (% of weeks with reported cholera)
 - Cholera **test positivity** indicator [depending on representativeness of cholera testing]

PRIORITY INDEX

- Each indicator is scored
- The priority index is the sum of the scores of all indicators

Priority index

incidence score + mortality score + persistence score +
test positivity score (if applicable depending on representativeness)

SCORING OF EPIDEMIOLOGIC INDICATORS

Based on country specific distribution parameters

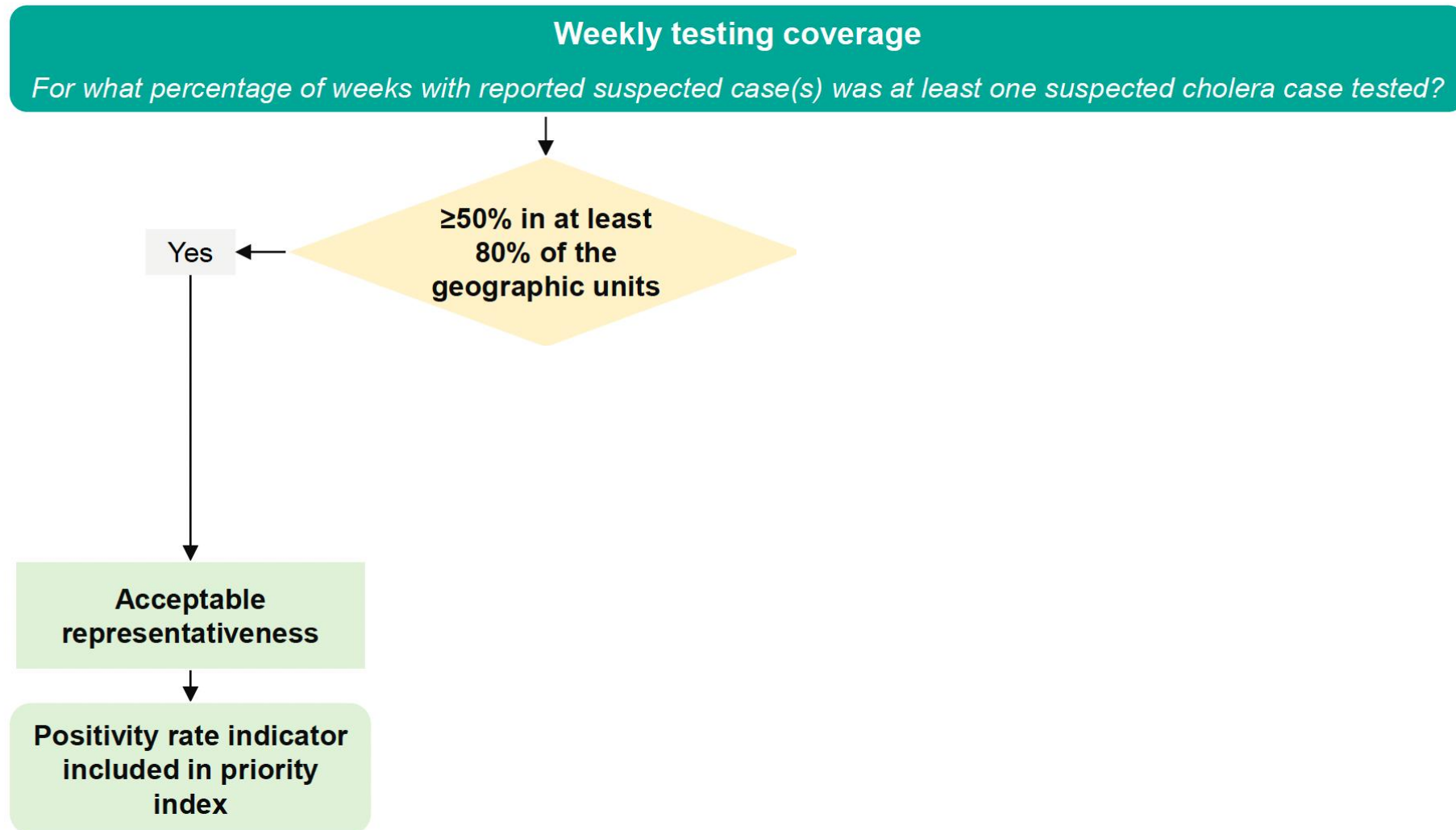
Incidence, mortality, persistence

- 0 point: 0
- 1 point: >0 and $<\text{median}$
- 2 points: $\geq \text{median}$ and $< 80\text{th percentile}$
- 3 points: $\geq 80\text{th percentile}$

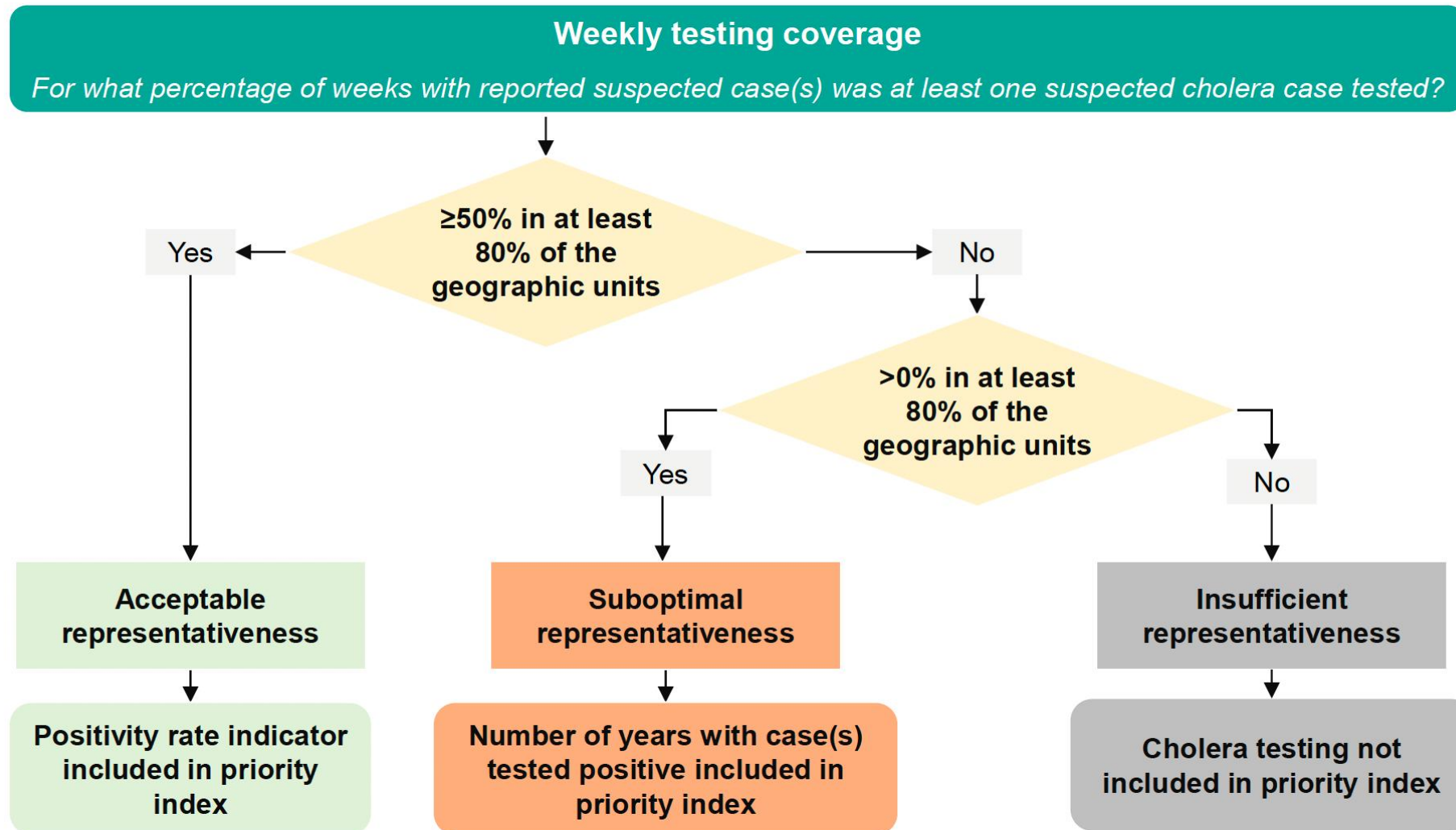
CONSIDERATIONS FOR DEFINING A TEST POSITIVITY INDICATOR

- Systematic testing for cholera is not yet common surveillance practice
- Missingness in testing could introduce biases in any indicator related to test positivity
- Assess representativeness of cholera testing to determine how test positivity should be scored

ASSESS REPRESENTATIVENESS OF TESTING INDICATOR



ASSESS REPRESENTATIVENESS OF TESTING INDICATOR



SELECTION OF TEST POSITIVITY INDICATORS

- **Acceptable representativeness of testing**
Positivity rate
- **Suboptimal representativeness of testing**
Number of years with case(s) tested positive
- **Insufficient representativeness of testing**
No testing indicator included in the PAMI analysis

SCORING OF TEST POSITIVITY INDICATOR

Representativeness	Cholera test positivity indicator	Score			
		0 point	1 point	2 points	3 points
Acceptable	Positivity rate	0%	$\leq 10\%$	$> 10\%$ and $\leq 30\%$	$> 30\%$
Suboptimal	Number of years with case(s) tested positive	0	1	> 1	NA
Insufficient	Not applicable	NA	NA	NA	NA

PRIORITY INDEX THRESHOLD

Hypothetical example

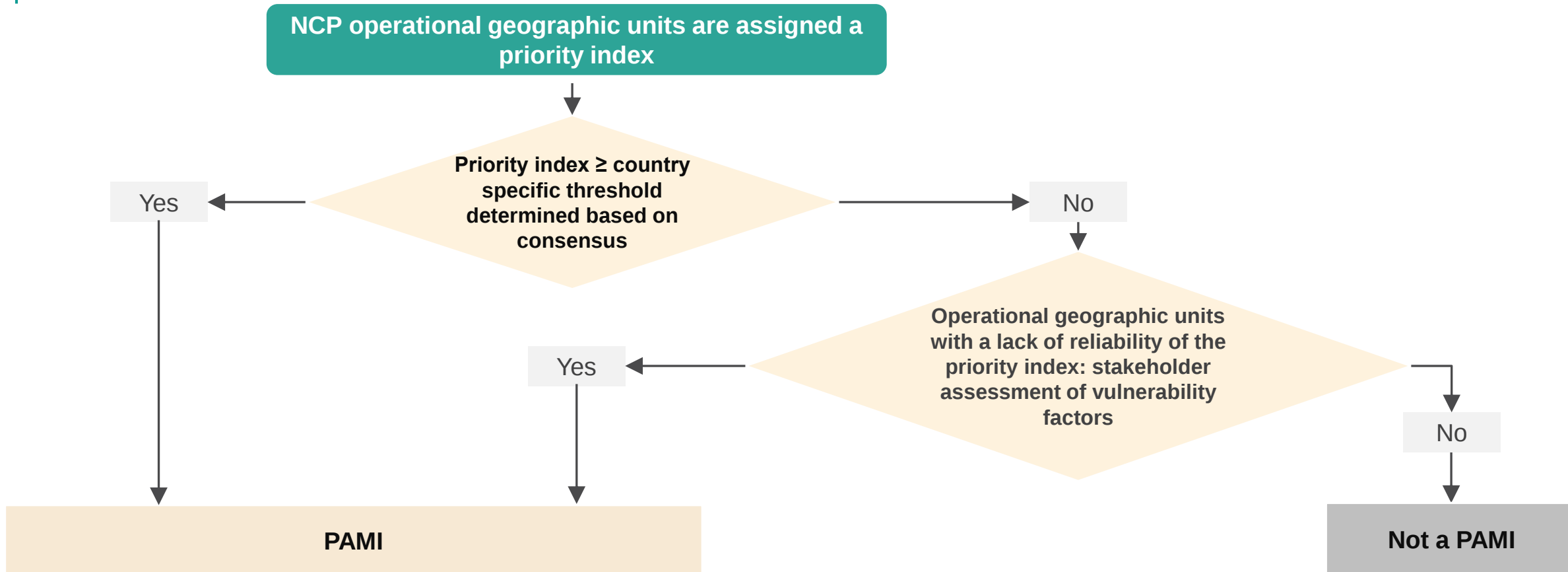
Feasibility			Impact	
Priority index	Cumulative % of units	Cumulative % of population	Cumulative % of cholera cases	Cumulative % of cholera deaths
12	2	2	16	10
11	7	8	40	26
10	20	25	88	65
9	35	47	93	81
8	37	49	94	84

ADDITIONAL PAMIs

Optional

- The priority index may sometimes underestimate the true burden of cholera when there are:
 - Major surveillance gaps or underreporting
 - Recent OCV campaign(s) (temporarily lowers the priority index)
- Flexibility for countries to consider additional PAMIs (**optional**)
 - **BUT** number of additional PAMIs should remain **limited** compared to number of PAMIs based on priority index
 - **Feasibility** should be re-assessed after adding additional PAMIs

PAMIs FOR CONTROL



PAMI for cholera control



- Technical guidance document



- Excel tool
- Template to format the data
- Training datasets



- Step by step user guide

- ✓ English
- ✓ Arabic
- ✓ French
- ✓ Portuguese

Identification of PAMIs for cholera elimination

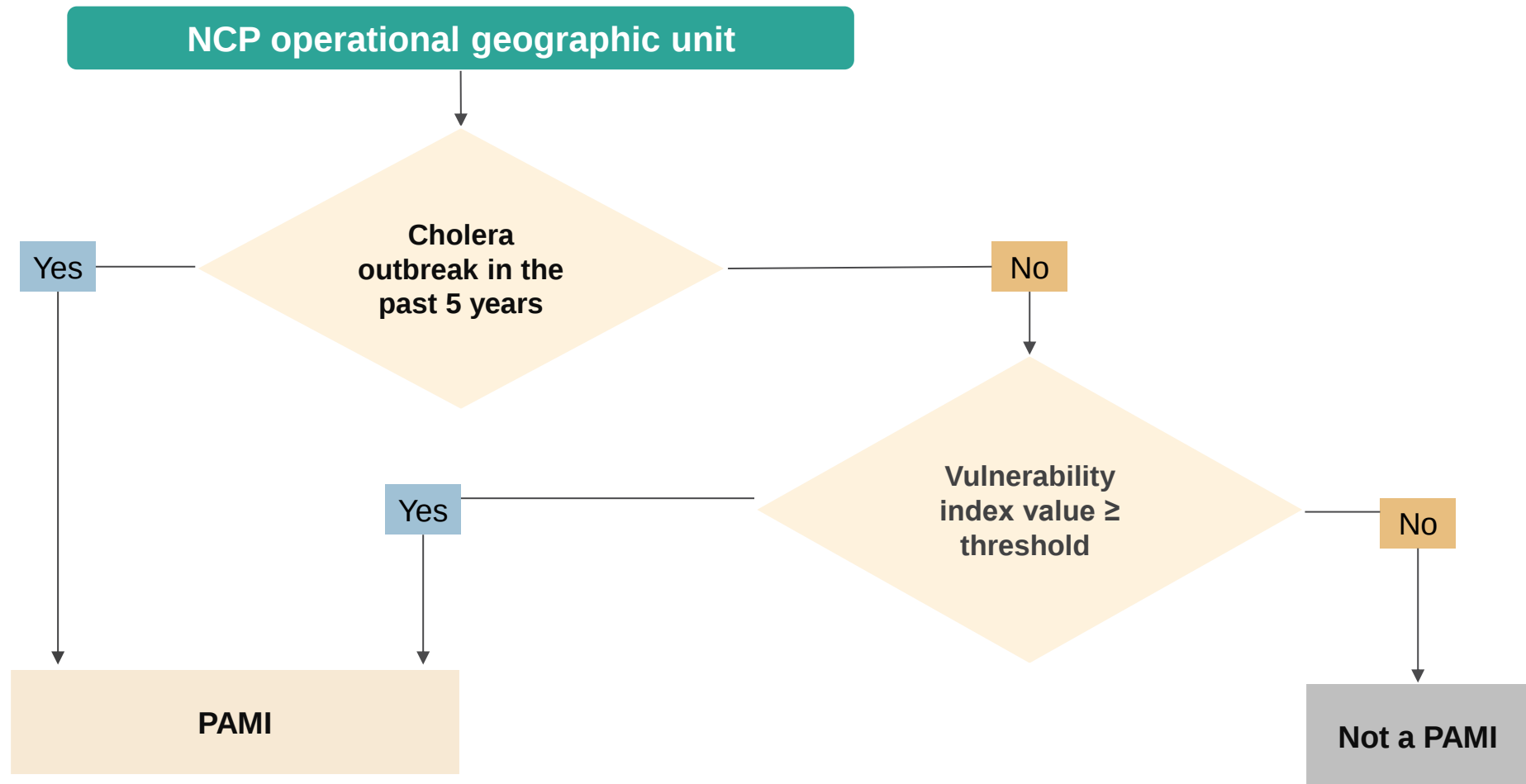
NUMERIC INDEX: **VULNERABILITY INDEX**

- Represents vulnerabilities to the introduction, onset or spread of a cholera outbreak
- **Takes into account vulnerability factors**
 - Indicative GTFCC list generic of vulnerability factors
 - Customisable to factors relevant to the country-specific context

VULNERABILITY INDEX

- Each vulnerability indicator is scored (presence (0) / absence (1))
- The vulnerability index is the sum of the score of all vulnerability indicators
- A vulnerability index threshold is determined by country stakeholders
- Geographic units with a vulnerability index $>$ threshold are PAMIs
- **In addition**, geographic units where confirmed cholera outbreaks were reported in the last 5 years are also PAMIs regardless of their vulnerability index

PAMIS FOR ELIMINATION



PAMI for cholera elimination



- Technical guidance document



- Excel tool
- Template to format the data
- Training datasets



- Step by step user guide

- ✓ English
- ✓ Arabic
- ✓ French
- ✓ Portuguese

Next steps following PAMI identification

DOCUMENTATION

- PAMI identification should be documented in a report following standard templates

The filled Excel tool does not account for a documentation of PAMI identification



Template report on the identification of PAMIs for cholera control

I. Background

- Information on any previous identification of PAMIs (method, analysis period)
- Information on NCP status and targets (past, current, and future) in the country
- Concise description of the cholera epidemiological situation in the country in recent years (up to last 10 years)
- Concise description of cholera surveillance system
- Concise description of cholera testing strategy
- Justification for using the method "PAMIs for cholera control" (i.e., provide percentage of NCP operational geographic units with cholera outbreaks cumulatively over the past five years)

II. Methods

■ Datasets

General

- Administrative level of NCP operational geographic units
- Duration of analysis period

Priority index

- Sources of data for epidemiological and testing indicators
- Assessment of quality of the data
- Management of missing data

Vulnerability factors [optional]

- List of vulnerability factors selected emphasizing their relevance in the country context
- Data sources for vulnerability factors
- Criteria to identify NCP operational geographic units to undergo a vulnerability assessment
- Method for assessing vulnerability factors



Template report on the identification of PAMIs for cholera elimination

I. Background

- Information on any previous identification of PAMIs (method, analysis period)
- Information on NCP status and targets (past, current, and future) in the country
- Concise description of the cholera epidemiological situation in the country and cholera control efforts in recent years (up to last 10 years)
- Concise description of cholera surveillance system
- Concise description of cholera testing strategy
- Justification for using the method "PAMIs for cholera elimination" (i.e., provide percentage of NCP operational geographic units with confirmed cholera outbreaks cumulatively over the past five years)

II. Methods

■ Supporting information

- Administrative level of NCP operational geographic units
- Duration of analysis period
- Description of vulnerability factors considered in the analysis
- Rationale for not selecting of any generic vulnerability factors (if applicable)
- Rationale for selecting of any additional country-specific vulnerability factors (if applicable)

■ Vulnerability index

- Data documentation table reporting the definition of each measurable indicator with concise description of the corresponding data sources
- Assessment of quality of the data
- Management of missing data

GTFCC PAMI REVIEW



- Independent technical review of PAMI identification by the GTFCC
- Formally required for countries planning to request OCV for preventive use and/or to submit their NCP for GTFCC endorsement
- To be requested rapidly after PAMI identification: **before initiating intervention planning in PAMIs**
- Takes 30 days for completion



RESOURCES



GTFCC PAMI reviews

Ensuring that PAMIs have been identified with a GTFCC method before initiating intervention planning

The identification of Priority Areas for Multisectoral Interventions (PAMIs) is of critical importance to target effective cholera control and elimination strategies along the principles of the [Global Roadmap to End Cholera](#).

What are GTFCC PAMI reviews?

GTFCC PAMIs reviews:

- Are performed **upon request** of National Authorities
- Assess whether PAMIs were identified in accordance with a **GTFCC PAMI method**
- Are performed by **independent** experts of the GTFCC using standard criteria
- Focus on providing **practical** advice and recommendations to countries

Which countries should request a review?

Any country that identified its PAMIs can benefit from a GTFCC PAMI review.

GTFCC PAMI reviews are formally required for countries that plan to prepare a request for Oral Cholera Vaccines for preventive use and/or to submit their National Cholera Plan (NCP) for GTFCC endorsement.

When to request a review?

It is recommended to request a GTFCC PAMI review rapidly after completion of PAMIs identification, **before the list of PAMIs is used for any intervention planning**.

How to request a review?

National Authorities are invited address their request for a GTFCC PAMI review to the GTFCC Secretariat (GTFCCsecretariat@who.int) and to attach the following:

- Report on PAMI identification
- Filled GTFCC PAMI Excel tool
- Map of PAMIs

How long does it take?

Countries can expect the GTFCC PAMI review to be completed in **about 30 days**

Technical support for PAMI identification

PAMI 'starter pack'

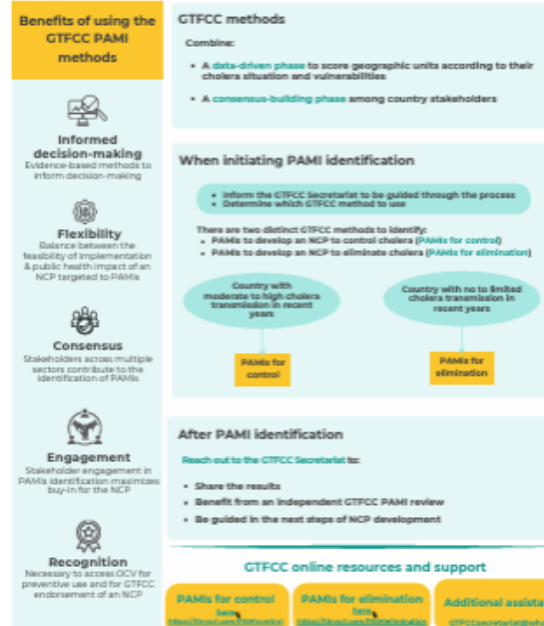
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For any additional question, please contact the GTFCC Secretariat:
GTFCCsecretariat@who.int

Identification of PAMIs

How to target cholera control and elimination strategies and improve the effectiveness of National Cholera Plans (NCPs)?



GLOBAL TASK FORCE ON CHOLERA CONTROL

GTFCCsecretariat@who.int
<https://www.gtfcc.org/>

Together we can #endcholera

Identification of PAMIs for cholera control



Identification of PAMIs for cholera elimination



ONLINE TRAINING MODULES

- Introduction to PAMIs
- How to identify PAMIs for control
- How to use the Excel tool PAMIs for control (tutorial)
- How to identify PAMIs for elimination
- How to use the Excel tool PAMIs for elimination (tutorial)



THE GTFCC NETWORK IS HERE TO GUIDE & SUPPORT YOU

- GTFCC Secretariat / WHO HQ
- GTFCC Country Support Platform
- WHO Regional Offices
- UNICEF HQ
- UNICEF Regional Offices
- Africa CDC



GTFCCsecretariat@who.int

Thank you

Together we can
#endcholera



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