GLOBAL TASK FORCE ON
CHOLERA CONTROL

GTFCC FRAMEWORK FOR THE IDENTIFICATION OF PRIORITY AREAS FOR MULTISECTORAL INTERVENTIONS FOR CHOLERA CONTROL

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IDENTIFICATION OF PRIORITY AREAS FOR MULTISECTORAL INTERVENTIONS
(PAMIS, FORMERLY HOTSPOTS)

INTRODUCTION

ENDING CHOLERA
A GLOBAL ROADMAP TO 2030

AXIS 1

Early detection and quick response to contain outbreaks

AXIS 2

A targeted prevention strategy in cholera hotspots

AXIS 3

GTFCC support and coordination of human, technical and financial resources

Axis 2 - Targeted approach

*"The strategy calls on countries and partners to prevent **cholera transmission** in areas to be prioritized for multisectoral interventions"*

NATIONAL CHOLERA PLAN (NCP) CYCLE

1 INCEPTION

Preparatory Phases:
- Declare country commitment
- Identify & prioritize PAMIs
- Conduct situational analysis
- Define leadership & coordination mechanism
- Formulate goal

2 DEVELOPMENT

For Each of the Pillars:
- Formulate & prioritize activities
- Develop operational plans & associated budget
- Develop a monitoring & evaluation framework including definition of indicators & milestones

3 IMPLEMENTATION

For Each of the Pillars:
Implement according to
- Prioritized activities
- Established timelines
- Available budget

4 MONITORING & REPORTING

For Each of the Pillar:
- Conduct monitoring of indicators
- Provide an annual report of progress against targets and indicators
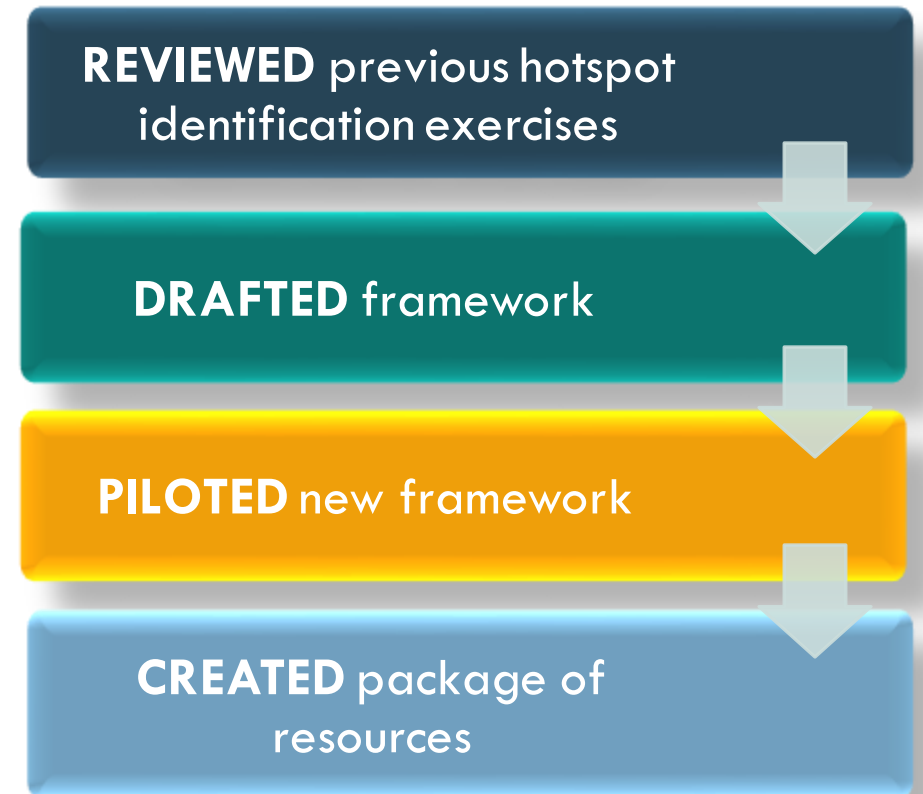- Prioritize activities for next period

DEVELOPMENT OF A NEW FRAMEWORK

Process

RATIONALE FOR A NEW FRAMEWORK

Previous Method (2019)

- Relied on incidence & persistence

- Lack of guidance
  - to set thresholds
  - on how to take into account additional factors

- Not applicable in countries reaching cholera elimination

REVIEWED previous hotspot identification exercises

DRAFTED framework

PILOTED new framework

CREATED package of resources

Principles for PAMI guidance

- Simplicity

- Generalizability

- Flexibility

- Facilitation of targeted & long-term planning

DIFFERENT APPROACHES FOR DIFFERENT TRANSMISSION CONTEXTS
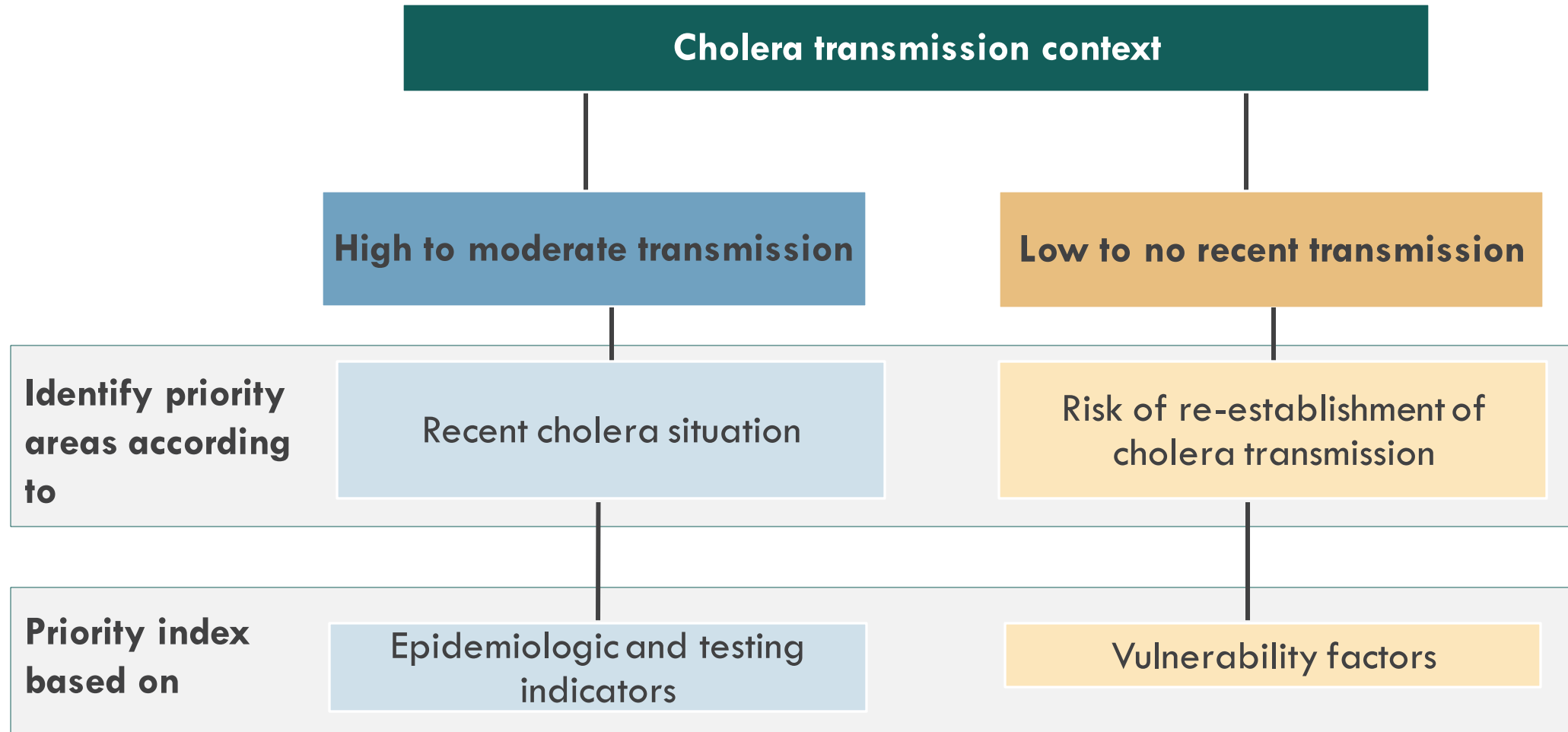
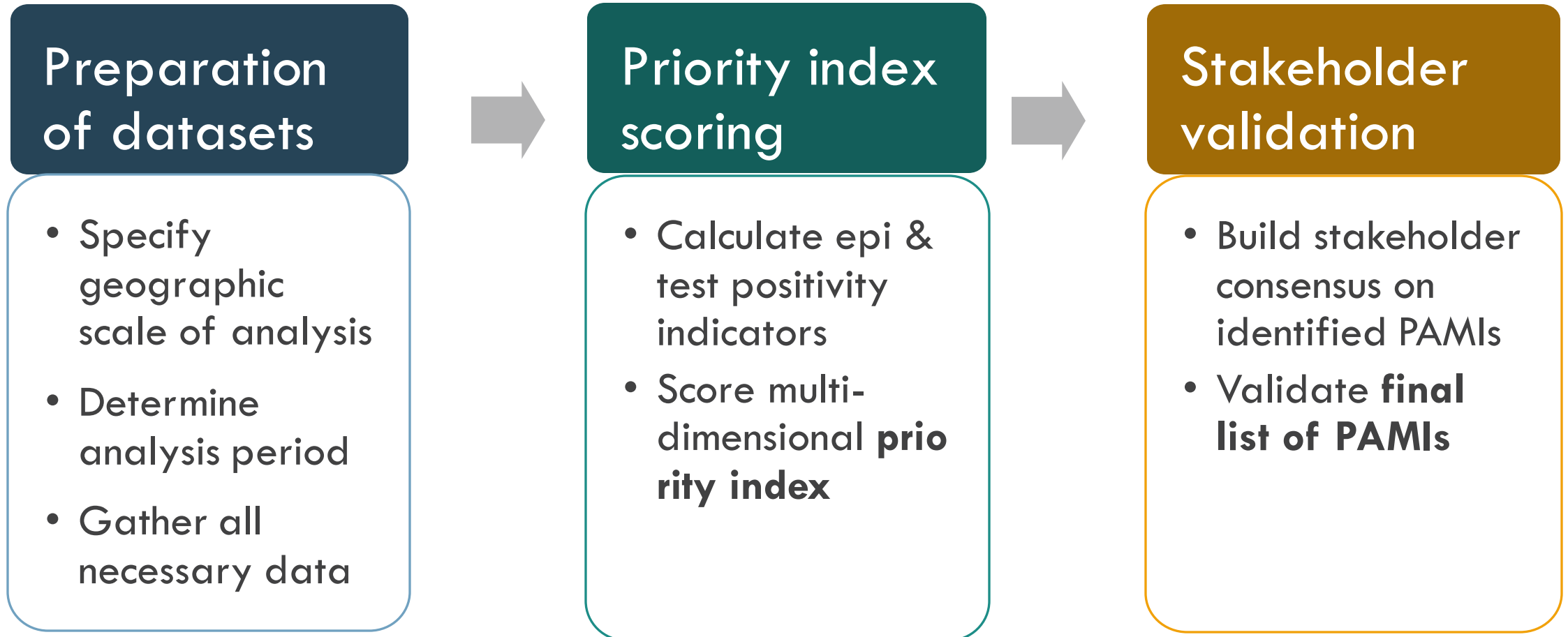# IDENTIFICATION OF PAMIS FOR **CHOLERA CONTROL**

WHEN TO USE THIS METHOD

Towards the beginning of NCP inception

Indicative rule: Use in countries where cholera outbreaks were reported in more than **5%** of the geographic units over the **past 5 years**

IDENTIFICATION OF PAMIS FOR CHOLERA CONTROL
Three-step process

Preparation of datasets

- Specify geographic scale of analysis
- Determine analysis period
- Gather all necessary data

Priority index scoring

- Calculate epi & test positivity indicators
- Score multi-dimensional **priority index**

Stakeholder validation

- Build stakeholder consensus on identified PAMIs
- Validate **final list of PAMIs**

PREPARATION OF DATASETS

Define the administrative level of NCP operational unit

Define the analysis period (5 to 15 years)

- Compile cholera surveillance and testing data for calculation of the priority index
- Collect supporting data for the assessment of vulnerability factors (optional)

Data quality check

DATA REQUIRED FOR PRIORITY INDEX CALCULATION

Category	Data by NCP operational geographic unit
Administrative	List of NCP operational geographic units
	Geographic units in geospatial vector data (GIS format)
Demography	Population
Surveillance	Number of reported **cholera cases** (suspected and tested positive)
	Number of reported **cholera deaths** (suspected and tested positive)
Testing for cholera	Number of reported **suspected cholera cases tested** for cholera (regardless of the testing method)
	Number of reported **suspected cholera cases tested positive** for cholera

PRIORITY INDEX SCORING

Assess, and determine how to address, missing data

Score epidemiologic and test positivity indicators

Calculate priority index

EPIDEMIOLOGIC INDICATORS

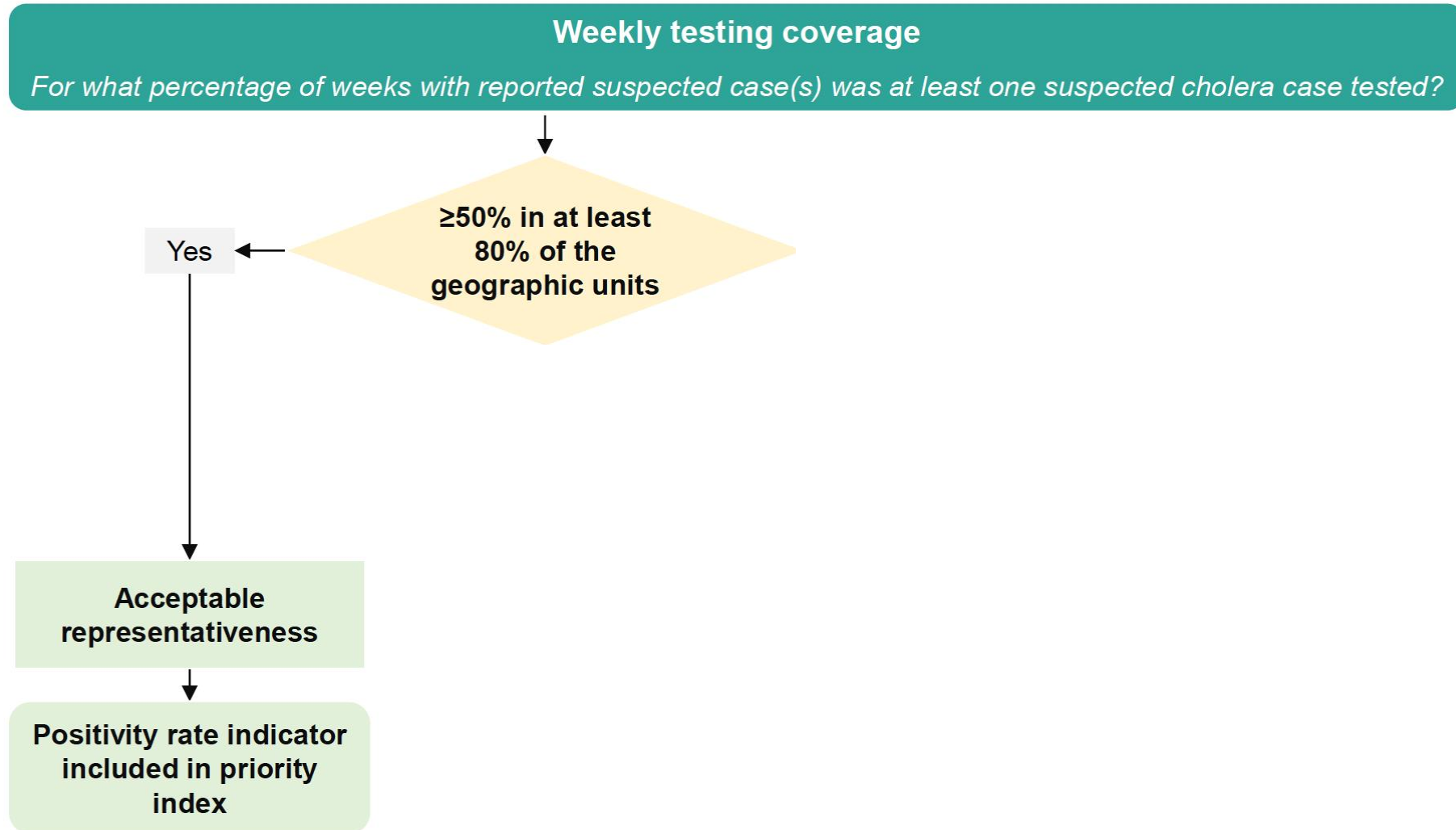|	
Incidence	Incidence rate per population
Mortality	Mortality rate per population
Persistence	Percentage of weeks with at least one reported suspected cholera case

SCORING OF EPIDEMIOLOGIC INDICATORS

Indicator Score	0 point	1 point	2 points	3 points
Incidence	No case	>0 and <median	≥median and <80th percentile	≥80th percentile
Mortality	No death	>0 and <median	≥median and <80th percentile	≥80th percentile
Persistence	No case	>0 and <median	≥median and <80th percentile	≥80th percentile

Median and 80th percentile are calculated among NCP operational geographic units **with at least one cholera case.**
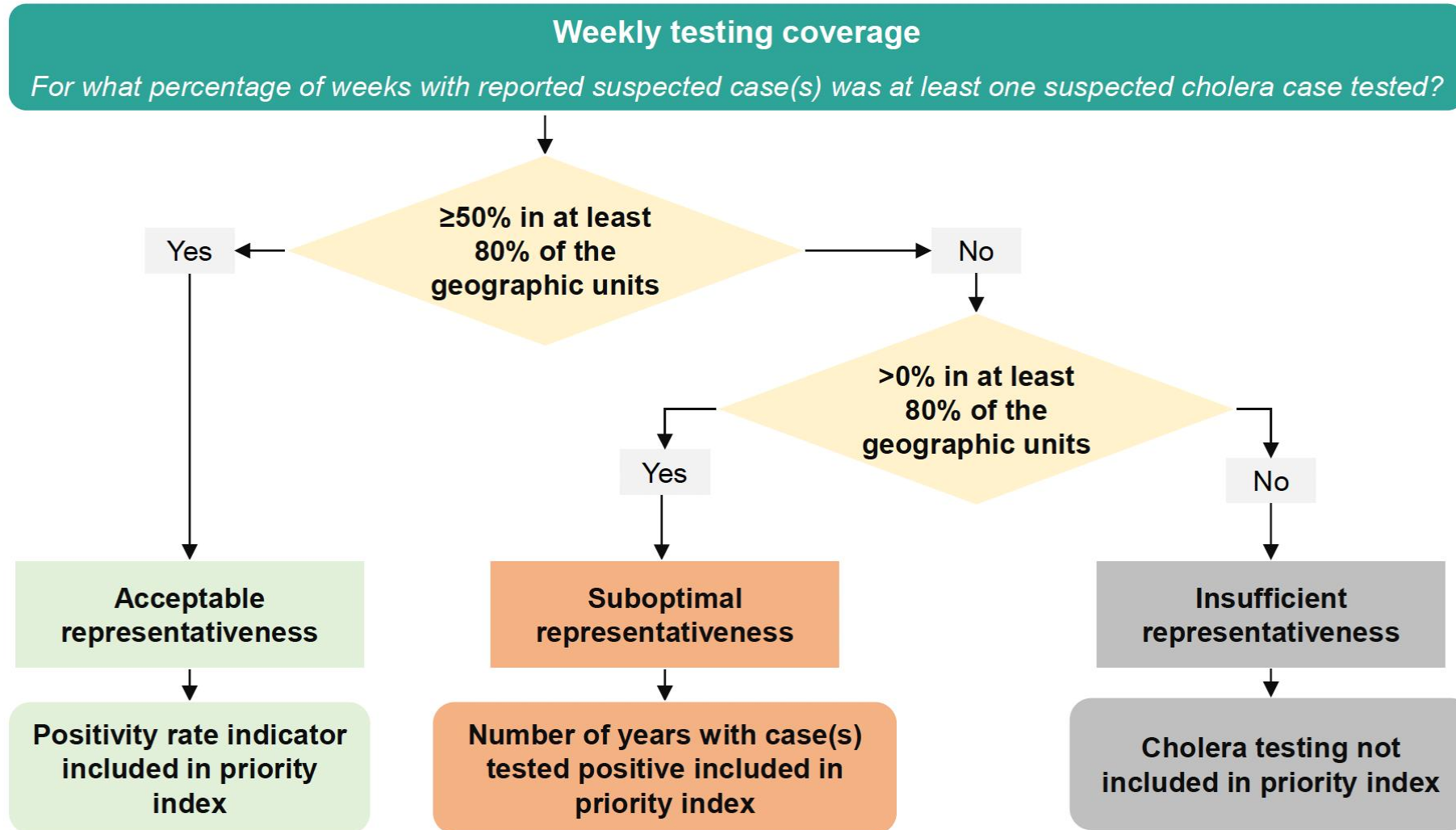
CHALLENGES IN DEFINING A TEST POSITIVITY INDICATOR

- 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

Weekly testing coverage

For what percentage of weeks with reported suspected case(s) was at least one suspected cholera case tested?

≥50% in at least 80% of the geographic units

Yes

Acceptable representativeness

Positivity rate indicator included in priority index

ASSESS REPRESENTATIVENESS OF TESTING INDICATOR

TEST POSITIVITY INDICATORS

Acceptable Representativeness	**Positivity rate**	Percentage of reported suspected cholera cases tested positive for cholera
Suboptimal Representativeness	**Number of years with case(s) tested positive**	Number of years with at least one case tested positive

SCORING OF TEST POSITIVITY INDICATOR

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

PRIORITY INDEX

Priority index =

incidence score + mortality score + persistence score

+

test positivity score (if applicable)

Calculate priority index for each NCP operational geographic unit

Index range [0-12] if four indicators used

Feasibility of targeting all PAMIs with at least one intervention

Public health impact and achievement of national cholera control objectives
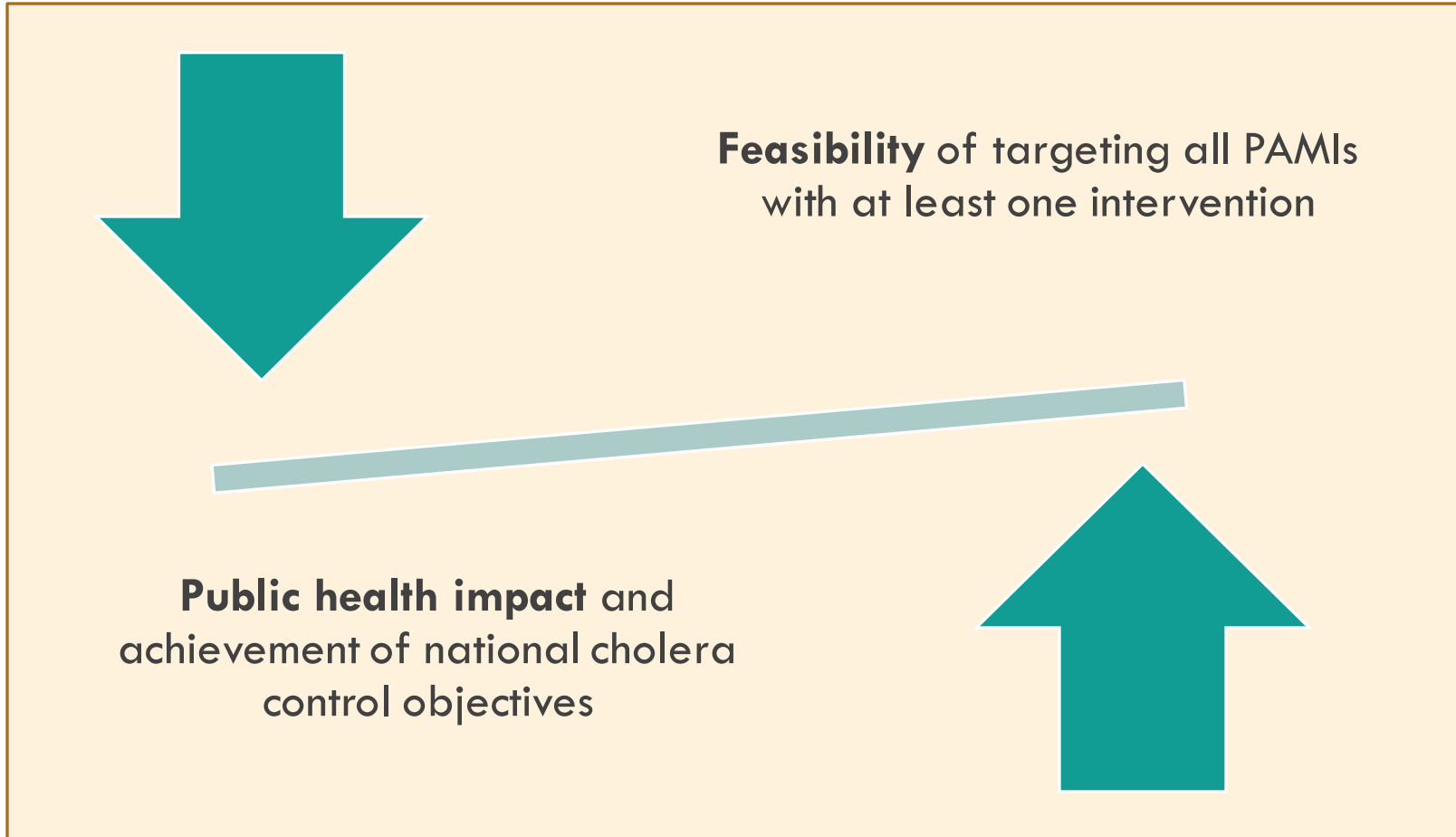
SELECTING A PRIORITY INDEX THRESHOLD VALUE

SETTING THE PRIORITY INDEX THRESHOLD VALUE
Example where threshold = 10

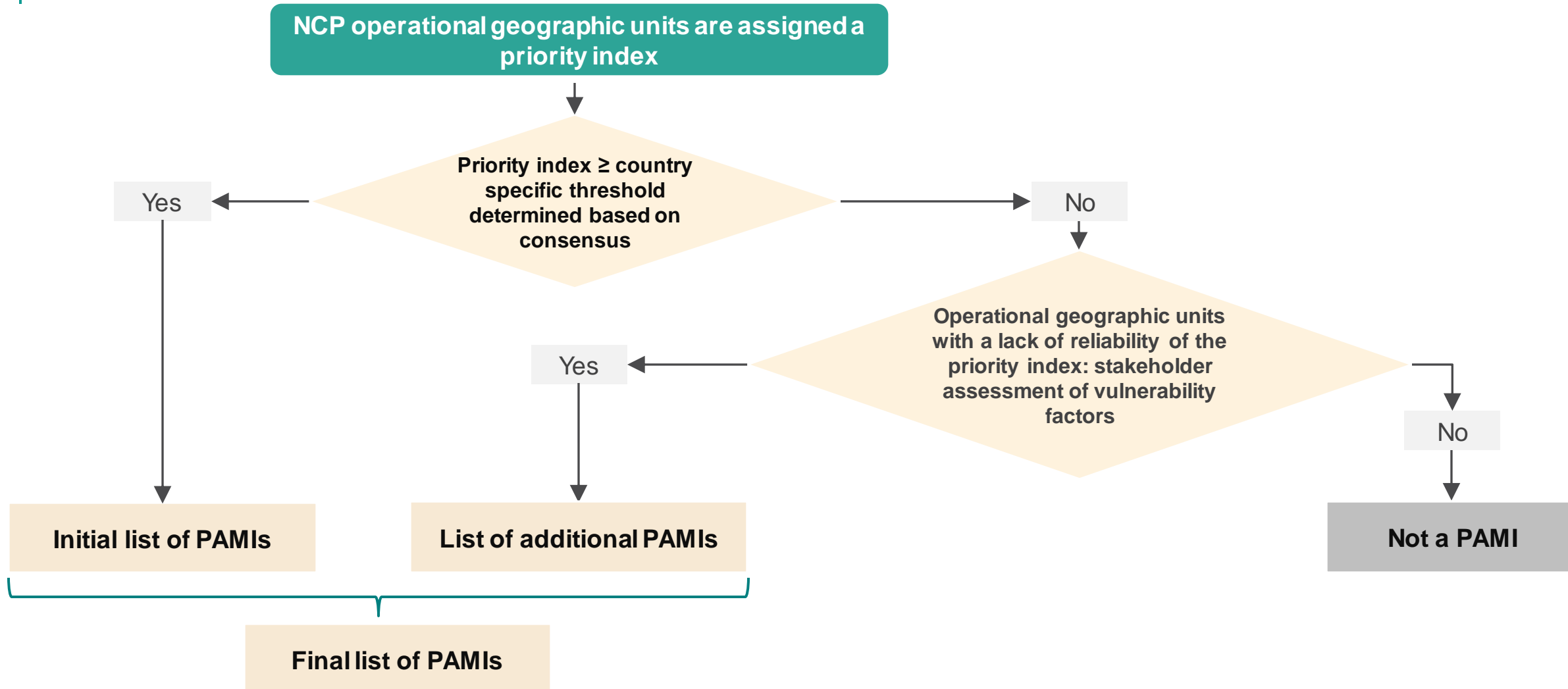| Priority Index values	Cumulative number of geographic units	Cumulative % of population	Cumulative % of cases	Cumulative % of deaths
12	2	2	16	10
11	7	8	40	26
10	20	25	81	47
9	35	37	93	81
8	37	39	94	84
7	47	50	98	93
6	58	60	100	98
5	63	64	100	99
4	67	69	100	100
3	72	73	100	100
2	78	79	100	100
0	100	100	100	100

ASSESSMENT OF VULNERABILITY FACTORS
Optional

- Use only for geographic unit(s) with:
  - ✓ **Significant missing data or known surveillance gaps**
  - ✓ **Recent OCV campaign(s)** (temporarily lowers the cholera priority index)
- Additional PAMIS (if any) shall remain **limited and well-documented**

INDICATIVE LIST OF VULNERABILITY FACTORS

- Location adjacent to **cross-border cholera-affected areas or identified PAMIs**

- Location along **major travel routes with transportation hubs**

- Major **population gatherings**

- Areas with **high population density or overcrowded settings**

- Areas with **high-risk populations**

- **Hard-to-access populations**

- **Population received OCV more than three years ago** (two-doses with a coverage >70%)

- Areas at **high-risk for extreme climate and weather conditions**

- Areas affected by **complex humanitarian emergencies**

- Areas with more than 30% of the population using **unimproved water facility** type

- Areas with more than 50% of the population using **unimproved sanitation facility** type

- Areas with more than 50% of the population with **no handwashing facility on premises**

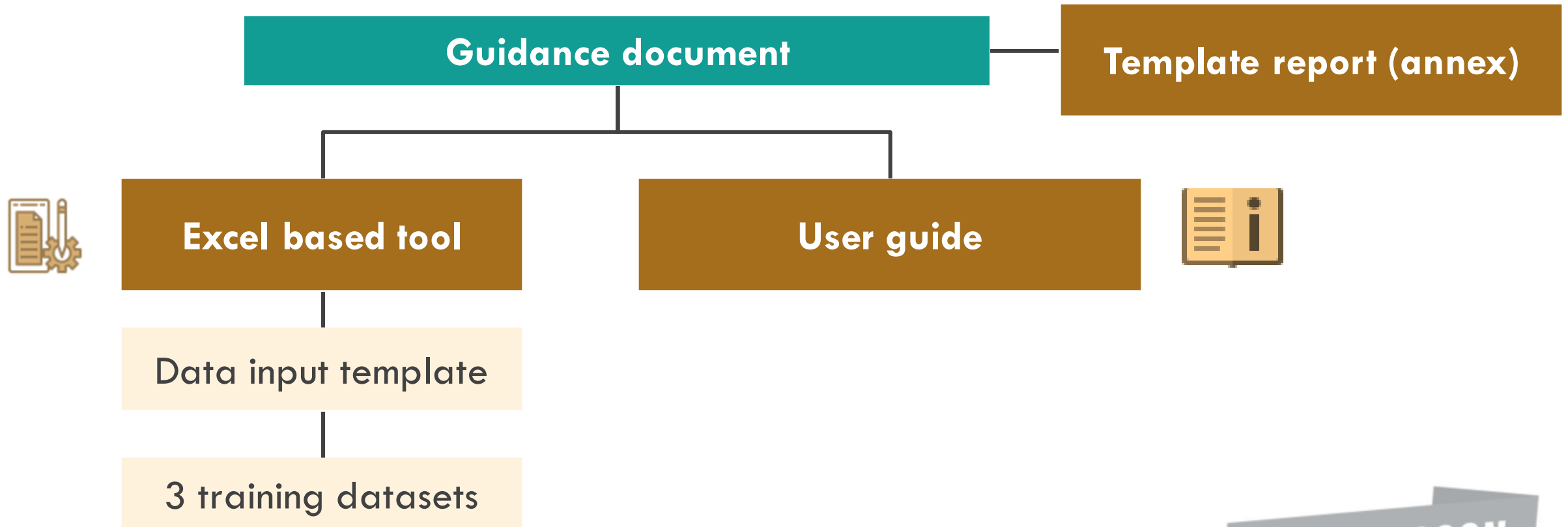# IDENTIFYING THE FINAL LIST OF PAMIS

RESOURCES

PAMIS FOR CHOLERA CONTROL: GTFCC RESOURCES

https://tinyurl.com/gtfcc-pamis

Guidance document

Template report (annex)

Excel based tool

User guide

Data input template

3 training datasets

French versions **COMING SOON**

SUMMARY

The new recommended method …

- ✓ Considers **additional indicators** (mortality, test positivity)

- ✓ Provides harmonized **scoring rules**

- ✓ Guides selection of **country-specific threshold**

- ✓ Emphasizes consensus building among **multisectoral stakeholders**

- ✓ Allows selection of **additional PAMIs** based on vulnerability factors

- ✓ Includes **package of resources and tools**

PAMI IDENTIFICATION RELIES ON ROBUST SURVEILLANCE AND TESTING

Wednesday morning session
Cholera surveillance at country level

Thursday morning session
Testing and confirmation of cholera

Thanks!

Subgroup members

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1 NCP INCEPTION

Identify PAMIs

- Step 1. Calculate numeric **priority index** to rank all NCP operational geographic units
- Step 2. **Stakeholder validation**
  - Priority index threshold
  - Additional factors

Conduct situational analysis

Define multisectoral leadership and coordination mechanism

Formulate the overarching goal for the NCP

2 NCP DEVELOPMENT

Formulate and prioritize activities for each pillar* in priority areas

- Define and prioritize activities for **each pillar***
- Develop **operational plans** for each pillar* with budgeted activities targeted at PAMIs as identified at the inception phase