

# Assessment of cholera surveillance

Interim Guidance Document  
2024



GLOBAL TASK FORCE ON  
**CHOLERA CONTROL**

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# Contents

<b>I.</b>	<b>Introduction .....</b>	<b>4</b>
▪	Scope .....	4
▪	Principles .....	4
▪	Assessment of surveillance and identification of PAMIs .....	6
<b>II.</b>	<b>Self-assessment: national cholera surveillance system and strategies.....</b>	<b>7</b>
▪	Surveillance components to be assessed .....	7
▪	Self-assessment template .....	8
<b>III.</b>	<b>Assessment of cholera surveillance performance at the local level .....</b>	<b>24</b>
<b>IV.</b>	<b>Next steps and continuous improvement of cholera surveillance .....</b>	<b>25</b>
<b>V.</b>	<b>References.....</b>	<b>26</b>

# I. Introduction

## ▪ Scope

This guidance document describes the Global Taskforce on Cholera Control's (GTFCC) recommended method for assessing public health surveillance<sup>1</sup> for cholera, and for planning priority activities to strengthen it, including (but not limited to) through National Cholera Plans (NCPs) for cholera control or elimination.

This assessment is to be performed as a self-assessment by countries. It should be conducted at a minimum when a new version of an NCP is developed. Additional periodic assessments are encouraged, in particular if there are significant changes in the cholera situation or in the surveillance system strategies or performance.

The [2024 GTFCC guidance on public health surveillance for cholera](#) should be considered when assessing cholera surveillance (i.e., hereafter, “GTFCC surveillance recommendations”) [1].

## ▪ Principles

### ○ Two-step assessment

The **first part** of the assessment aims to assess the country's cholera surveillance strategies and cholera surveillance system. The areas of improvement identified by this assessment should be considered in updating/revising the country's cholera surveillance system/strategies. The resulting updates should apply in **all geographic units** of the country.

The **second part** of the assessment aims to identify NCP operational geographic units where some cholera surveillance activities underperform, in order to plan targeted measures to improve their performance. The resulting activities should be carried out in **specific geographic units**.

The principles of this two-step assessment are outlined in Table 1.

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<sup>1</sup> Environmental surveillance is out of the scope of this assessment

**Table 1. Overview of the GTFCC recommended method for assessing cholera surveillance and identifying activities to improve cholera surveillance**

Assessment of cholera surveillance			
	Objective	Method	Outcome
<b>Part I</b>  <b>Assessment of the country's cholera surveillance system/strategies</b>	Identify areas for improvement in the country's cholera surveillance system/strategies	Assess the country's surveillance system/strategies against GTFCC surveillance recommendations using the GTFCC self-assessment template	Identify priority activities to strengthen the country's cholera surveillance system/strategies (i.e., in all geographic units)
<b>Part II</b>  <b>Assessment of cholera surveillance performance at the local level</b>	Identify geographic units where some cholera surveillance activities underperform	Review cholera surveillance performance against the performance indicators and targets defined in GTFCC surveillance recommendations	Identify targeted activities to improve cholera surveillance in specific geographic units
Next steps			
<ul style="list-style-type: none"> <li>Plan the implementation (and monitoring of the implementation) of the activities resulting from the two-step assessment</li> <li>Implement and monitor the implementation of the corresponding activities and resulting improvements to cholera surveillance</li> </ul>			

#### Reasons for the second part of the assessment

Unlike most cholera prevention and control pillars, planned interventions to improve cholera surveillance should not be limited to Priority Areas for Multisectoral Interventions (PAMIs) or a subset of PAMIs for the following reasons:

- **for countries developing an NCP for cholera control:** the identification of PAMIs primarily relies on an assessment of epidemiological and laboratory indicators derived from cholera surveillance. Geographic units where cholera surveillance underperforms may not be identified as PAMIs due to the underreporting of cholera, and may still benefit from interventions to strengthen cholera surveillance;
- **for countries developing an NCP for cholera elimination:** the identification of PAMIs relies on the assessment of vulnerability factors to identify geographic units considered at higher risk for the reemergence of cholera outbreaks. Nonetheless, cholera may be introduced in any geographic unit, therefore interventions to strengthen cholera surveillance and early detection capacities should be considered for both PAMIs and non-PAMIs to support nationwide and sustainable cholera elimination.

▪ **Assessment of surveillance and identification of PAMIs**

If the assessment of cholera surveillance is performed as part of developing an NCP, it can be undertaken before or after the identification of PAMIs [2][3].

It is preferable to assess the cholera surveillance system/strategies before identifying PAMIs if:

- i) a cholera control objective is set for the NCP; **and**
- ii) surveillance performance indicators are monitored; **and**
- iii) the country wishes to undertake a vulnerability assessment as part of identifying PAMIs for cholera control (an optional step).

In those circumstances, assessing surveillance before PAMI identification will help to identify NCP operational geographic units that could then be selected for the vulnerability assessment step of PAMI identification for cholera control. The surveillance assessment will also be used after PAMI identification to inform the development of the NCP (i.e., to plan NCP interventions to strengthen the surveillance pillar).

## II. Self-assessment: national cholera surveillance system and strategies

### ▪ Surveillance components to be assessed

The first part of the cholera surveillance assessment aims to identify areas for improvement in a country's cholera surveillance system/strategies.

At a minimum, the following surveillance practices should be assessed against GTFCC surveillance recommendations:

1. Adaptive cholera surveillance strategies at the local level
2. Cholera surveillance methods (health facility-based, community-based, event-based)
3. Case and outbreak definitions for cholera surveillance
4. Laboratory capacity
5. Testing recommendations for the early detection of cholera outbreaks
6. Testing recommendations for the monitoring of probable or confirmed cholera outbreaks
7. Use of Rapid Diagnostic Tests (RDTs)
8. Collection and reporting of case-based cholera data
9. Centralization and integration of case-based epidemiological and laboratory data
10. Data analysis, interpretation, and dissemination
11. Monitoring of surveillance performance
12. Reporting to the international level
13. Investigation and classification of cholera cases (if an NCP for cholera elimination is being developed)

A template for assessing each of these surveillance components is provided below. Countries may include additional surveillance components and criteria in their assessment.

In order to: i) document the assessment, and ii) measure progress in improving the cholera surveillance system/strategies over time, it is recommended that countries include supporting material and evidence as an annex for future reference.

Of note, if in your country there are different cholera surveillance systems in different locations (for example in different provinces/states), it is recommended that you consider integrating cholera surveillance into a unified strategy, taking into account the applicable GTFCC recommendations [1].

- **Self-assessment template**

Describe the national cholera surveillance system and strategies employed in your country with an emphasis on: the epidemiological situations considered for adaptive cholera surveillance, cholera surveillance methods, definitions, laboratory capacity, strategies for cholera testing and testing methods used, data collection, reporting and centralization, data analysis and dissemination, monitoring of surveillance performance, and reporting to the international level.

Then, assess the routine practices for cholera surveillance in your country using the self-assessment grid provided below. Focus on the most common practices in your country and select the applicable status (i.e., the cholera surveillance strategies/methods “routinely” implemented). Surveillance performance indicators routinely monitored at the national level may help inform this assessment step.

**An editable version of the self-assessment template is available [here](#) [4].**



## 1. ADAPTIVE CHOLERA SURVEILLANCE STRATEGIES AT THE LOCAL LEVEL

**In your country, are cholera surveillance strategies adapted dynamically at the local\* level depending on the prevailing cholera epidemiological situation?**

If an NCP for **cholera control** is developed, the following cholera epidemiological situations should be considered:

- absence of a probable or confirmed cholera outbreak
- presence of a probable or confirmed cholera outbreak.

If an NCP for **cholera elimination** is developed, the following cholera epidemiological situations should be considered:

- absence of a probable or confirmed cholera outbreak
- presence of probable or confirmed clustered transmission
- presence of probable or confirmed community transmission.

*Include an annex or references to supporting legislation, regulations, or directives.*

Current status	Considerations for NCP development
<input type="checkbox"/> The same cholera surveillance strategies are used at all times throughout the territory regardless of the local* cholera situation	<p><b>Critical gap</b></p> <p><i>Prioritize transitioning to adaptive cholera surveillance strategies at the local* level in accordance with GTFCC surveillance recommendations</i></p>
<input type="checkbox"/> Cholera surveillance strategies are adaptive at the local* level, however not all are in accordance with GTFCC surveillance recommendations	<p><b>Area for improvement</b></p> <p><i>Consider updating cholera surveillance strategies early in the NCP implementation period to ensure compliance with GTFCC surveillance recommendations</i></p>
<input type="checkbox"/> Cholera surveillance strategies are adaptive at the local* level and are in full compliance with GTFCC surveillance recommendations	<p><b>Capacity to be maintained</b></p> <p><i>Ensure continuous awareness of adaptive cholera surveillance strategies and secure resources for their implementation throughout the NCP implementation period</i></p>

\*local: NCP operational geographic unit or smaller unit (surveillance unit)

## 2. CHOLERA SURVEILLANCE METHODS (HEALTH FACILITY-BASED, COMMUNITY-BASED, EVENT-BASED)

In your country, does cholera surveillance include systematic health facility-based surveillance (i.e., not sentinel surveillance), community-based surveillance, and event-based surveillance?

*Include an annex or references to supporting legislation, regulations, or directives.*

Current status	Considerations for NCP development
<input type="checkbox"/> Not all surveillance methods listed above are routinely conducted for cholera surveillance	<p><b>Critical gap</b></p> <p><i>Prioritize complementing existing cholera surveillance with methods not currently employed, in accordance with GTFCC surveillance recommendations</i></p>
<input type="checkbox"/> Systematic health facility-based surveillance, community-based surveillance and event-based surveillance are routinely conducted for cholera	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that all surveillance methods are maintained throughout the NCP implementation period</i></p>

### 3. CASE AND OUTBREAK DEFINITIONS FOR CHOLERA SURVEILLANCE

In your country, are all GTFCC recommended definitions used [1]?

For all countries developing an NCP, the following GTFCC definitions are recommended:

- suspected cholera case in the absence of a probable or confirmed cholera outbreak
- suspected cholera case in the presence of a probable or confirmed cholera outbreak
- confirmed cholera case
- suspected cholera outbreak
- probable cholera outbreak (if cholera Rapid Diagnostic Tests (RDTs) are used for early detection in your country)
- confirmed cholera outbreak

In addition, for countries developing an NCP for cholera elimination, the following GTFCC definitions are recommended:

- community cholera transmission
- clustered cholera transmission

Include an annex or references to the corresponding definitions used in your country.

Current status	Considerations for NCP development
<input type="checkbox"/> At least one of the GTFCC recommended definitions is not used  Specify: _____ _____ _____	<p><b>Critical gap</b></p> <p><i>Prioritize using all GTFCC recommended definitions and undertake communication/training/awareness activities to promote the updated definitions</i></p>
<input type="checkbox"/> All GTFCC recommended definitions are used	<p><b>Capacity to be maintained</b></p> <p><i>Ensure continuous awareness of these definitions throughout the NCP implementation period</i></p>

#### 4. LABORATORY CAPACITY

**In your country, are the National Cholera Reference Laboratory and the national laboratory system up to standard with the capacity described in GTFCC surveillance recommendations [1] and listed below?**

##### Reference laboratory capacity

At least one in-country reference laboratory:

- has the capacity to isolate and identify *Vibrio cholerae* by culture
- has the capacity to perform PCR (at least for toxin testing) or have established collaboration with international reference laboratories to temporarily offset the lack of capacity for PCR toxin testing
- has the capacity to perform antimicrobial susceptibility testing
- supports the analysis, interpretation, and reporting of laboratory results at a national level and monitors reporting (regularity and accuracy) from laboratories at other levels
- supports sample collection and transport (e.g., through training of field staff)
- ensures the initial training and ongoing competency of technicians
- monitors laboratory testing quality (e.g., through external quality assessment (EQA) or proficiency testing)
- if applicable, ensures that all laboratories under its supervision are provided with the necessary materials and supplies for sample collection, preparation, and transport, as well as the reagents and supplies needed for confirmation of *Vibrio cholerae*

##### Capacity of the national laboratory system

The national laboratory system includes:

- an adequate sample transport system to ensure that samples are received by laboratories within 6 days of sample collection from patients
- established collaborations with international reference laboratories for external quality assurance purposes and, if necessary, to support whole genome sequencing (WGS) and WGS data analysis

##### Additional recommended capacity (decentralization)

Testing capacity to confirm, or at minimum to perform the first steps of isolation of *Vibrio cholerae* (i.e., plating and incubation of the sample on Thiosulfate Citrate Bile Salts Sucrose (TCBS) for culture or deoxyribonucleic acid (DNA) extraction for PCR) is decentralized throughout the territory

*Include an annex or references providing a description of your country's laboratory capacity.*

Current status	Considerations for NCP development
<input type="checkbox"/> At least one of the reference laboratory capacities listed above is not met. Specify: _____	<b>Critical gap</b> <i>Prioritize strengthening any reference laboratory capacities that are not in accordance with GTFCC surveillance recommendations</i>
<input type="checkbox"/> At least one of the national laboratory system capacities listed above is not met. Specify: _____	<b>Critical gap</b> <i>Prioritize strengthening any national laboratory system capacities that are not in accordance with GTFCC surveillance recommendations</i>
<input type="checkbox"/> All reference laboratory and national laboratory system capacities listed above are met, but there is no decentralized testing capacity.	<b>Area for improvement</b> <i>Consider strengthening peripheral testing capacities to confirm, or at least to perform the first steps of cholera confirmation, throughout the territory</i>
<input type="checkbox"/> All reference laboratory and national laboratory system capacities listed above are met and there is adequate decentralized testing capacity throughout the territory	<b>Capacity to be maintained</b> <i>Ensure that capacities are maintained</i>

## 5. TESTING RECOMMENDATIONS FOR THE EARLY DETECTION OF CHOLERA OUTBREAKS

Are there formal recommendations to test all suspected cholera cases in surveillance units in the absence of a probable or confirmed cholera outbreak, in accordance with GTFCC recommended protocols [1]?

Include an annex or references to supporting directives/policies.

Current status	Considerations for NCP development
<input type="checkbox"/> There is no formal recommendation for testing all suspected cholera cases in surveillance units in the absence of a probable or confirmed cholera outbreak	<p><b>Critical gap</b></p> <p><i>Prioritize updating the testing recommendations for early detection in accordance with GTFCC surveillance recommendations, and support the implementation of updated recommendations</i></p>
<input type="checkbox"/> There are formal recommendations for testing all suspected cholera cases in surveillance units in the absence of a probable or confirmed cholera outbreak, however the recommended tests are not all in accordance with GTFCC surveillance recommendations	<p><b>Area for improvement</b></p> <p><i>Consider updating the testing recommendations in accordance with GTFCC surveillance recommendations early in the NCP implementation period, and support capacity building for performing the recommended tests</i></p>
<input type="checkbox"/> There are formal recommendations for testing all suspected cholera cases in surveillance units in the absence of a probable or confirmed cholera outbreak, and the tests performed are in full compliance with GTFCC surveillance recommendations	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that awareness and capacities are maintained, and that supplies and reagents are procured in sufficient quantities throughout the NCP implementation period</i></p>

## 6. TESTING RECOMMENDATIONS FOR MONITORING PROBABLE OR CONFIRMED CHOLERA OUTBREAKS

**6.a) For all countries developing an NCP: In your country, are there formal recommendations for testing suspected cholera cases through a systematic sampling protocol in surveillance units with a probable or confirmed cholera outbreak (demonstrated to be or considered community transmission by default)?**

Note: a systematic sampling protocol refers to a sampling protocol that is predetermined, reproducible, and applied in a consistent manner over space and time.

Include an annex or references to supporting directives/policies.

Current status	Considerations for NCP development
For boxes that correspond to areas for improvement, select all that describe the current status in your country	
<input type="checkbox"/> There is no formal recommendation for testing suspected cholera cases through a systematic sampling protocol in surveillance units with a probable or confirmed cholera outbreak (demonstrated to be or considered community transmission by default)	<b>Critical gap</b> <i>Prioritize updating the testing recommendations for outbreak monitoring in accordance with GTFCC surveillance recommendations, and support the implementation of the updated recommendations</i>
<input type="checkbox"/> There are formal recommendations for testing suspected cholera cases through a systematic sampling protocol in surveillance units with a probable or confirmed cholera outbreak (demonstrated to be or is considered community transmission by default), however the corresponding <b>sampling schemes</b> are not in accordance with GTFCC surveillance recommendations	<b>Area for improvement</b> <i>Consider updating the recommended sampling schemes early in the NCP implementation period, and undertake communication/training/awareness-raising activities to promote the updated recommendations</i>
<input type="checkbox"/> There are formal recommendations for testing suspected cholera cases through a systematic sampling protocol in surveillance units with a probable or confirmed cholera outbreak (demonstrated to be or considered community transmission by default), however the <b>testing methods</b> are not in accordance with GTFCC surveillance recommendations	<b>Area for improvement</b> <i>Consider updating the recommended testing methods, build capacity for their implementation early in the NCP implementation period, and undertake communication/training/awareness-raising activities to promote the updated recommendations</i>
<input type="checkbox"/> There are formal recommendations for testing suspected cholera cases through a systematic sampling protocol in surveillance units with a probable or confirmed cholera outbreak (demonstrated to be or considered community transmission by default), and the <b>sampling schemes and testing methods</b> are in full compliance with GTFCC surveillance recommendations	<b>Capacity to be maintained</b> <i>Ensure that awareness and capacities are maintained, that supplies and reagents are stored in adequate conditions (considering expiry dates and needs for cold chain), and that these are procured in sufficient quantities throughout the NCP implementation period</i>

**6.b) Only for countries developing an NCP for cholera elimination: Are there formal recommendations for testing all suspected cholera cases in accordance with GTFCC recommended protocols in surveillance units with clustered cholera transmission?**

*Include an annex or references to supporting directives/policies.*

Current status	Considerations for NCP development
<input type="checkbox"/> There is no formal recommendation for testing all suspected cholera cases in surveillance units with clustered transmission	<p><b>Critical gap</b></p> <p><i>Prioritize updating the testing recommendations for monitoring clustered transmission in accordance with GTFCC surveillance recommendations, and support the implementation of the updated recommendations</i></p>
<input type="checkbox"/> There are formal recommendations for testing all suspected cholera cases in surveillance units with clustered transmission, however the recommended tests are not all in accordance with GTFCC surveillance recommendations	<p><b>Area for improvement</b></p> <p><i>Consider updating the testing recommendations in accordance with GTFCC surveillance recommendations early in the NCP implementation period, and support capacity building for performing the recommended tests</i></p>
<input type="checkbox"/> There are formal recommendations for testing all suspected cholera cases in surveillance units with clustered transmission, and the recommended tests are in full compliance with GTFCC surveillance recommendations	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that awareness of testing recommendations and testing capacities are maintained, and that supplies and reagents are procured in sufficient quantities throughout the NCP implementation period</i></p>

## 7. USE OF RAPID DIAGNOSTIC TESTS (RDTs)

### 7.a) Are cholera RDTs routinely used for cholera surveillance in your country?

Current status	Considerations for NCP development
<input type="checkbox"/> Cholera RDTs are not routinely used	<b>Critical gap</b> <i>Address any barriers to routine RDT use early in the NCP implementation period</i>
<input type="checkbox"/> Cholera RDTs are routinely used for either early detection <u>or</u> for outbreak monitoring, but not both	<b>Area for improvement</b> <i>Consider addressing barriers to routine RDT use for all surveillance objectives</i>
<input type="checkbox"/> Cholera RDTs are routinely used for both early detection <u>and</u> outbreak monitoring	<b>Capacity to be maintained</b> <i>Ensure that RDTs are procured in sufficient quantities throughout the NCP implementation period</i>

### 7.b) In your country, are there formal protocols/recommendations for using cholera RDTs in accordance with GTFCC surveillance recommendations [1]?

Include an annex or references that describe how RDTs are used.

Current status	Considerations for NCP development
<i>For boxes that correspond to a critical gap or area for improvement, select all that describe the current status in your country</i>	
<input type="checkbox"/> Protocols in place do not call for testing all suspected cholera cases by RDT in the absence of a probable or confirmed outbreak	<b>Critical gap</b> <i>Consider updating the recommendations for RDT use for early outbreak detection in accordance with GTFCC surveillance recommendations</i>
<input type="checkbox"/> Protocols in place do not call for testing a subset of suspected cases by RDT as part of a systematic sampling scheme* in surveillance units with a probable or confirmed outbreak (demonstrated to be or considered community transmission by default)	<b>Area for improvement</b> <i>Consider updating the recommendations for RDT use for outbreak monitoring in accordance with GTFCC surveillance recommendations</i>
<input type="checkbox"/> Protocols in place call for testing all suspected cases by RDT in the absence of a probable or confirmed outbreak, and testing a subset of suspected cases by RDT according to a systematic sampling scheme* in the presence of a probable or confirmed outbreak (demonstrated to be or considered community transmission by default)	<b>Capacity to be maintained</b> <i>Ensure that testing capacities and awareness of testing protocols are maintained</i>

\* a systematic sampling scheme refers to a sampling protocol that is predetermined, reproducible, and applied in a consistent manner over space and time.



## 8. COLLECTION AND REPORTING OF CASE-BASED CHOLERA DATA

Are (epidemiological and laboratory) case-based data on suspected cholera cases collected through health facility-based surveillance and routinely reported to health authorities in your country?

Include an annex or references describing and defining the variables reported.

Current status	Considerations for NCP development
<input type="checkbox"/> Aggregate data are reported from health facilities to health authorities	<p><b>Critical gap</b></p> <p><i>Prioritize collecting and reporting case-based data through health facility-based surveillance in accordance with GTFCC surveillance recommendations, and support the implementation of case-based data collection and reporting</i></p>
<input type="checkbox"/> Case-based data are reported from health facilities to health authorities, however this does not include all "standard case-based data" to be collected on suspected cholera cases as defined in GTFCC surveillance recommendations	<p><b>Area for improvement</b></p> <p><i>Consider updating the data collected and reported on suspected cholera cases through health facility-based surveillance in accordance with GTFCC surveillance recommendations early in the NCP implementation period</i></p>
<input type="checkbox"/> Case-based data are reported from health facilities to health authorities and include all "standard case-based data" to be collected on suspected cholera cases' as defined in GTFCC surveillance recommendations	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that case-based reporting is maintained throughout the NCP implementation period and that the quality/completeness of the data collected and reported is periodically assessed</i></p>

## 9. CENTRALIZATION AND INTEGRATION OF CASE-BASED EPIDEMIOLOGICAL AND LABORATORY DATA

In your country, is there a national cholera database that integrates epidemiological and laboratory case-based data on cholera in accordance with GTFCC surveillance recommendations [1]? Do the data meet the GTFCC minimum standards for completeness?

Current status	Considerations for NCP development
<b>9.a) Architecture of the cholera information system</b>	
<input type="checkbox"/> There is no centralized cholera database or only aggregate (epidemiological and/or laboratory) data are available in the national cholera database	<p><b>Critical gap</b></p> <p><i>Prioritize updating the country's cholera information system</i></p>
<input type="checkbox"/> There are distinct centralized cholera databases with epidemiological case-based data and laboratory case-based data respectively	<p><b>Area for improvement</b></p> <p><i>Consider integrating the epidemiological and laboratory databases and <a href="#">Go to section 9.b)</a></i></p>
<input type="checkbox"/> There is a centralized cholera database that integrates case-based epidemiological and laboratory case-based data	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that the resources and capacity for maintaining the database are secured throughout the NCP implementation period and <a href="#">Go to section 9.c)</a></i></p>
<b>9.b) If your country has distinct centralized cholera databases for epidemiological case-based data and laboratory case-based data respectively</b>	
<p><i>Include an annex or references describing the database fields and documenting data completeness. Completeness of data should be assessed for each case, taking into account the fact that the collection of some variables may be conditional on the value of other variables (e.g., date of specimen collection will only be collected if a specimen was collected).</i></p>	
<b>i. Epidemiological database: inclusion of GTFCC-recommended variables</b>	
<input type="checkbox"/> The centralized cholera case-based epidemiological database does not include all epidemiological variables listed as "standard case-based data" in GTFCC surveillance recommendations	<p><b>Area for improvement</b></p> <p><i>Consider expanding the variables recorded in accordance with GTFCC surveillance recommendations early in the NCP implementation period</i></p>
<input type="checkbox"/> The centralized cholera case-based epidemiological database includes all epidemiological variables listed as "standard case-based data" in GTFCC surveillance recommendations	<p><b>Capacity to be maintained</b></p>
<b>ii. Epidemiological database: data completeness</b>	
<input type="checkbox"/> The proportion of cases with all relevant epidemiological variables complete is less than 80%	<p><b>Area for improvement</b></p> <p><i>Consider training activities to improve the completeness of data collection and data recording</i></p>
<input type="checkbox"/> The proportion of cases with all relevant epidemiological variables complete is $\geq 80\%$	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that data quality and completeness is periodically assessed, and corrective measures are taken if a decrease in data quality or completeness is identified</i></p>

<b>iii. Laboratory database: inclusion of GTFCC-recommended variables</b>	
<input type="checkbox"/> The centralized cholera case-based laboratory database does not include all testing variables listed as "standard case-based data" in GTFCC surveillance recommendations	<b>Area for improvement</b> <i>Consider expanding the variables recorded in accordance with GTFCC surveillance recommendations early in the NCP implementation period</i>
<input type="checkbox"/> The centralized cholera case-based laboratory database includes all testing variables listed as "standard case-based data" in GTFCC surveillance recommendations	<b>Capacity to be maintained</b>
<b>iv. Laboratory database: data completeness</b>	
<input type="checkbox"/> The proportion of cases with all relevant testing variables complete is less than 80%	<b>Area for improvement</b> <i>Consider training, supportive supervision, or other activities aimed at improving the completeness of data collection and recording</i>
<input type="checkbox"/> The proportion of cases with all relevant testing variables complete is $\geq 80\%$	<b>Capacity to be maintained</b> <i>Ensure that data quality and completeness is periodically assessed, and corrective measures are taken if a decrease in data quality or completeness is identified</i>
<b>9.c) If your country has a centralized cholera database that integrates epidemiological case-based data and laboratory case-based data</b>	
<i>Annex or reference a description of the database fields and document the measured completeness of data. Completeness of data should be assessed for each case taking into account relevant variables and considering the conditional nature of some variables.</i>	
<b>i. Epidemiological-laboratory database: inclusion of GTFCC-recommended variables</b>	
<input type="checkbox"/> The centralized cholera case-based database does not include all variables listed as "standard case-based data" in GTFCC surveillance recommendations	<b>Area for improvement</b> <i>Consider expanding the variables recorded in accordance with GTFCC surveillance recommendations early in the NCP implementation period</i>
<input type="checkbox"/> The centralized cholera case-based database includes all variables listed as "standard case-based data" in GTFCC surveillance recommendations	<b>Capacity to be maintained</b>
<b>ii. Epidemiological-laboratory database: data completeness</b>	
<input type="checkbox"/> The proportion of cases with all relevant variables complete is less than 80%	<b>Area for improvement</b> <i>Consider training, supportive supervision, or other activities aimed at improving the completeness of data collection and recording</i>
<input type="checkbox"/> The proportion of cases with all relevant variables complete is $\geq 80\%$	<b>Capacity to be maintained</b> <i>Ensure that data quality and completeness is periodically assessed, and corrective measures are taken if a decrease in data quality or completeness is identified</i>

## 10. DATA ANALYSIS, INTERPRETATION, AND DISSEMINATION

**In your country, are national cholera epidemiological reports routinely\* prepared, disseminated and discussed with stakeholders representing the various cholera prevention and control pillars to orient outbreak response strategies and activities?**

*Assess this component based on the completeness of the publication of national cholera epidemiological reports.*

*Include an annex or reference to the latest report and describe the distribution channels.*

Current status	Considerations for NCP development
<input type="checkbox"/> Cholera epidemiological reports are not routinely* prepared	<p><b>Critical gap</b></p> <p><i>Address any challenges preventing routine preparation of epidemiological reports as a matter of priority</i></p>
<input type="checkbox"/> Cholera epidemiological reports are routinely* prepared but their dissemination is mostly limited to stakeholders involved in the health sector, or discussion with stakeholders is limited/does not occur	<p><b>Area for improvement</b></p> <p><i>Consider expanding the distribution channels of cholera epidemiological reports early in the NCP implementation period, and organize routine multistakeholder meetings to maximize the operational use of cholera surveillance data</i></p>
<input type="checkbox"/> Cholera epidemiological reports are routinely* prepared, broadly disseminated, and regularly discussed with stakeholders representing all cholera prevention and control pillars	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that this is maintained throughout the NCP implementation period, and that stakeholder feedback from all levels and sectors is regularly invited and taken into consideration to continuously improve epidemiological reports and their usefulness in guiding the response across all sectors</i></p>

\*Publication of national cholera epidemiological reports is considered **routine** when done for at least 80 % of weeks when there was a probable or confirmed cholera outbreak in at least one NCP operational geographic unit of the country, in accordance with GTFCC surveillance recommendations.

## 11. MONITORING OF SURVEILLANCE PERFORMANCE

**In your country, are cholera surveillance performance indicators routinely monitored (i.e., weekly) at the surveillance-unit level?**

*Include an annex or reference to the definition and target for each cholera surveillance performance indicator that is routinely monitored.*

Current status	Considerations for NCP development
<i>For boxes that correspond to areas for improvement, select all that describe the current status in your country</i>	
<input type="checkbox"/> Cholera surveillance performance indicators are not routinely monitored	<p><b>Critical gap</b></p> <p><i>Prioritize the routine monitoring of cholera surveillance performance in accordance with GTFCC surveillance recommendations</i></p>
<input type="checkbox"/> Cholera surveillance performance indicators are routinely monitored, but not at the surveillance-unit level	<p><b>Area for improvement</b></p> <p><i>Consider revising procedures for the routine monitoring of cholera surveillance performance at the surveillance-unit level early in the NCP implementation period</i></p>
<input type="checkbox"/> Cholera surveillance performance indicators are routinely monitored, but the indicators monitored are not in accordance with GTFCC surveillance recommendations	<p><b>Area for improvement</b></p> <p><i>Consider updating cholera surveillance performance indicators (definitions, targets) in accordance with GTFCC surveillance recommendations early in the NCP implementation period</i></p>
<input type="checkbox"/> Cholera surveillance performance indicators are routinely monitored, however these are not used to trigger timely corrective/supportive measures when targets are not met	<p><b>Area for improvement</b></p> <p><i>Early in the NCP implementation period, consider revising procedures to improve the timely operational use of cholera surveillance performance indicators</i></p>
<input type="checkbox"/> Cholera surveillance performance indicators are routinely monitored at a spatial resolution no bigger than NCP operational geographic units, the performance indicators are in full compliance with GTFCC surveillance recommendations, and procedures are in place so that indicators trigger timely corrective/supportive measures when targets are not met	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that this is maintained throughout the NCP implementation period and that the monitoring of performance indicators continues to trigger timely corrective measures as necessary according to established procedures</i></p>

## 12. REPORTING TO THE INTERNATIONAL LEVEL

**Does your country regularly\* report cholera surveillance findings (i.e., weekly) to the international level?**

*Assess this component based on the completeness of reporting to the international level.*

*Include an annex or references to examples documenting practices.*

Current status	Considerations for NCP development
<input type="checkbox"/> Cholera surveillance findings are not regularly* reported to the regional or global levels	<b>Critical gap</b> <i>Prioritize regular* cholera reporting to the regional or global levels</i>
<input type="checkbox"/> Cholera surveillance findings are regularly* reported to (or made available to) the regional or global levels, however only in the form of information products (sitreps, bulletins, dashboards)	<b>Area for improvement</b> <i>Ensure that this is maintained throughout the NCP implementation period, and consider complementing this with automated data transfers beginning early in the NCP implementation period</i>
<input type="checkbox"/> Cholera surveillance findings are regularly* reported to the regional or global levels through established automated data transfers complemented by the sharing of information products	<b>Capacity to be maintained</b> <i>Ensure that resources and capacity for data transfer are maintained throughout the NCP implementation period</i>
*Regularly: ≥ 80% of weeks	

### 13. INVESTIGATION AND CLASSIFICATION OF CHOLERA CASES (if an NCP for cholera elimination is being developed)

**Only for countries developing an NCP for cholera elimination: Are all cholera cases investigated until it is established that community transmission of cholera is occurring at the surveillance-unit level, or clustered cholera transmission has ended?**

*Include an annex or references to supporting legislation, regulations, and directives.*

Current status	Considerations for NCP development
<input type="checkbox"/> The investigation and classification of cholera cases is undertaken at the onset phase of a suspected, probable, or confirmed cholera outbreak regardless of the occurrence of clustered or community transmission	<p><b>Area for improvement</b></p> <p><i>If an NCP for cholera elimination is being developed, consider updating the recommendations for the investigation and classification of cholera cases to differentiate between clustered transmission and community transmission, and support the implementation of the updated recommendations</i></p>
<input type="checkbox"/> The investigation and classification of cholera cases is undertaken until there is community transmission of cholera or clustered cholera transmission has ended	<p><b>Capacity to be maintained</b></p> <p><i>Ensure that this is maintained and documented throughout the NCP implementation period</i></p>
<input type="checkbox"/> The investigation and classification of cholera cases is not undertaken in at least 80% of cases in the situations described above	<p><b>Priority gap</b></p> <p><i>Address any challenges that prevent the investigation of cholera cases as a matter of priority</i></p>

### III. Assessment of cholera surveillance performance at the local level

This part of the assessment aims to identify geographic units where cholera surveillance is underperforming. It aims to support the planning of targeted activities to improve the performance of cholera surveillance in the corresponding geographic units.

This assessment should be based on an analysis of surveillance performance indicators over at least a 12-month period. The performance indicators are defined in GTFCC surveillance recommendations, and this assessment complements routine monitoring by identifying geographic units where corrective/supportive measures were not implemented or were not effective in meeting performance targets.

Consistent with GTFCC surveillance recommendations, at a minimum, the following performance indicators should be considered (with a performance target  $\geq 80\%$ ):

- **Health facility-based surveillance**
  - Completeness of reporting
  - Timeliness of reporting
- **Community-based surveillance**
  - Completeness of reporting
  - Timeliness of reporting
- **Investigation**
  - Completeness of case investigation
  - Timeliness of field investigation
- **Testing**
  - Adherence to testing strategy (RDT, if applicable)
  - Adherence to testing strategy (culture and/or PCR)
  - Timeliness of sample receipt at the laboratory

If additional surveillance performance indicators are routinely monitored at the local level, they should also be considered in the assessment.

If surveillance performance indicators are not yet routinely monitored at the local level, it may not be possible to perform this assessment in the initial NCP development phase. In this situation, it is recommended that routine monitoring of surveillance performance indicators be initiated in accordance with GTFCC surveillance recommendations [1]. After one year of implementation, this part of the assessment should be undertaken.



## IV. Next steps and continuous improvement of cholera surveillance

By assessing their national cholera surveillance system and strategies, and surveillance performance at the local level, countries can identify priority activities for improving cholera surveillance through their NCP.

Importantly, all cholera surveillance improvements planned in an NCP should be associated with timelines, responsible stakeholders, budget/resources, and indicators to monitor their implementation, including targets and milestones [5]. These indicators should be reviewed at least annually to monitor and evaluate their implementation, and trigger corrective measures as appropriate.

In parallel, the routine monitoring of cholera surveillance performance indicators in accordance with GT FCC surveillance recommendations should be performed on a weekly basis to trigger timely corrective/supportive measures when performance targets are not met [1].

## V. References

- [1] GTFCC. Guidance on public health surveillance for cholera [Online]. 2024. Available at: <https://www.gtfcc.org/wp-content/uploads/2024/04/public-health-surveillance-for-cholera-guidance-document-2024.pdf>
- [2] GTFCC. Identification of PAMIs for cholera control [Online]. 2023. Available at: <https://www.gtfcc.org/resources/identification-of-priority-areas-for-multisectoral-interventions-pamis-for-cholera-control/>
- [3] GTFCC. Identification of PAMIs for cholera elimination [Online]. 2023. Available at: <https://www.gtfcc.org/resources/identification-of-priority-areas-for-multisectoral-interventions-pamis-for-cholera-elimination/>
- [4] GTFCC. Editable template for the self-assessment of cholera surveillance [Online]. 2024. Available at: <https://www.gtfcc.org/wp-content/uploads/2024/05/gtfcc-assessment-of-cholera-surveillance-editable-template-en.docx>
- [5] GTFCC. Interim guiding document to support countries for the development of their National Cholera Plan [Online]. 2020. Available at: <https://www.gtfcc.org/wp-content/uploads/2020/11/gtfcc-interim-guiding-document-to-support-countries-for-the-development-of-their-national-cholera-plan.pdf>