GLOBAL TASK FORCE ON
CHOLERA CONTROL

2024 GTFCC SURVEILLANCE RECOMMENDATIONS

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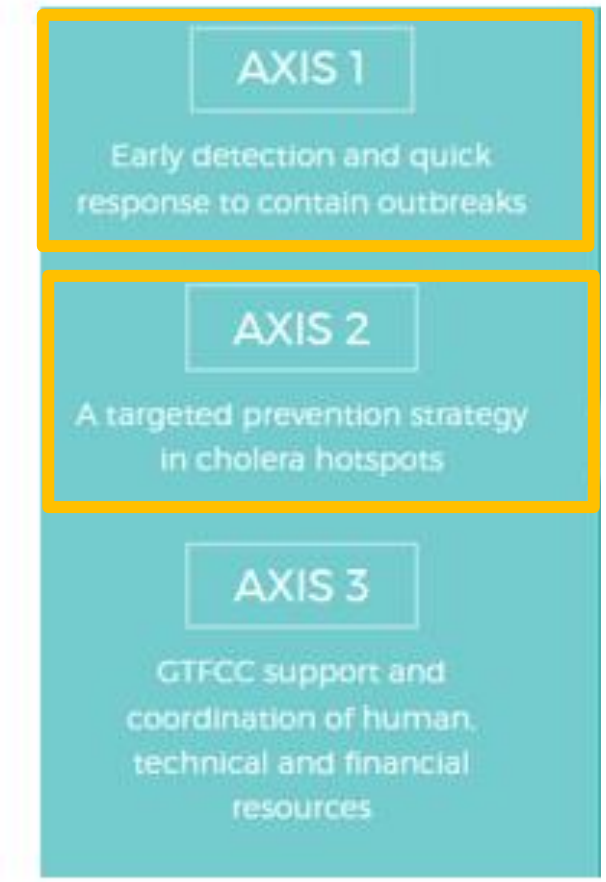
21 May 2024

ENDING CHOLERA: A global roadmap to 2030

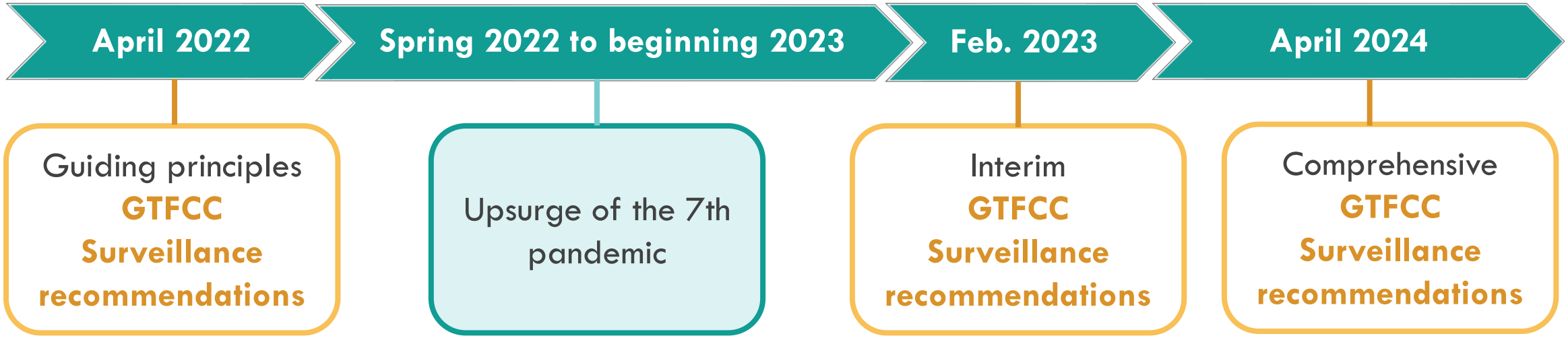


Surveillance is critical to achieve cholera control/elimination through:

- **Early detection** and **rapid response** to contain outbreaks
- **Targeting of prevention and control strategies**
- **Monitoring and evaluation** of interventions

REVISION OF GTFCC SURVEILLANCE RECOMMENDATIONS

Priority to provide guidance to generate the surveillance data needed to **better help countries achieve cholera control/elimination** in line with the Global Roadmap



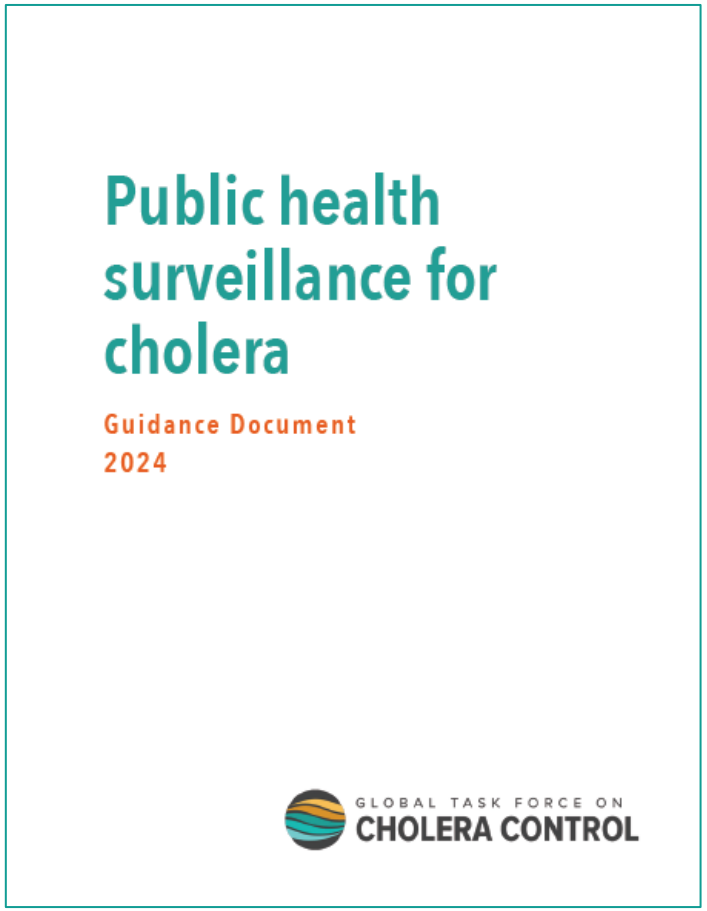
- Adaptive surveillance
- Systematic testing
- Case-based surveillance

Integration of all principles

Refinement and enrichment of recommendations

GTFCC RECOMMENDATIONS FOR CHOLERA SURVEILLANCE 2024

https://tinyurl.com/cholerasurv2024



Under translation
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BALANCING STABILITY & ADAPTABILITY OF CHOLERA SURVEILLANCE

Stability

Surveillance system **continuously** performs **core functions** regardless of the cholera situation

Adaptability

Surveillance strategies adapted to the cholera situation at the surveillance unit level (country specific level, typically Admin-2, Admin-3)

CORE FUNCTIONS OF CHOLERA SURVEILLANCE

Carried out **at all times in all surveillance units** regardless of their cholera situation

DETECTION & TESTING OF SUSPECTED CASES

- The detection of suspected cholera cases routinely integrates
  - **Health facility-based surveillance**
  - **Community-based surveillance**
  - **Event-based surveillance**

- Suspected cholera cases detected are tested according to predetermined protocols

CASE-BASED DATA COLLECTION
Health facility-based surveillance

- **Case-based**
  - **Individual information** is collected on all suspected cholera cases (case report form or linelist)

- **Standard data**
  - **Patient information:** age, sex, place of residence
  - **Clinical information:** symptom onset, inpatient/outpatient, dehydration level, outcome
  - **Tests:** tests performed, results

AGGREGATE DATA COLLECTION
Community-based surveillance

- **Aggregate data**
  - Number of cases & deaths in a day

- **Standard data**
  - Number of suspected cholera **cases** and cholera **deaths** by **sex** and **age groups:**
    - Preferred age groups: <2, 2-4, 5-14, 15-44, 45-59, or ≥60 years
    - Minimum age groups: <5 years old or ≥5 years old

ROUTINE REPORTING

- Standard data reported for all suspected cases
- Zero reporting performed
- Laboratories report case-based data on all samples received
- Clean data reported up to the next level of the surveillance system

INVESTIGATION

If an outbreak is suspected/detected, investigations should be initiated within 24 hours

- **Case investigation**
  - Collect additional information to orient field investigation:
    - geographic origin of infection
    - possible exposure(s)
    - epi links to other cases

- **Field Investigation**
  - Multidisciplinary team
  - Assess potential source(s) of contamination and risk factors to guide the response

ANALYSIS, INTERPRETATION, DISSEMINATION

- **Analysis and interpretation**
  - CBS data and health facility-based surveillance data analysed separately but interpreted jointly

- **Dissemination**
  - Outcomes disseminated to all relevant stakeholders involved in cholera prevention and control

(= beyond the health sector)

MONITORING OF SURVEILLANCE PERFORMANCE

- Relies on **weekly monitoring** of performance indicators (e.g., completeness and timeliness of reporting)
- Reporting sites should receive **feedback** on their performance, including recommendations for improvement if applicable
- Essential to **improve** how surveillance is performed in near real-time

Core surveillance functions

Key messages

Cholera surveillance should **always**

- Integrate health facility-based, community-based, event-based surveillance
- Be case-based for health facility-based surveillance
- Be aggregate for community-based surveillance
- Include testing for cholera
- Be used to inform all stakeholders involved in cholera response/control

ADAPTIVE CHOLERA SURVEILLANCE STRATEGIES

Depend on the cholera situation
in a surveillance unit

ADAPTIVE SURVEILLANCE OBJECTIVES

Where there is no probable or confirmed outbreak

Objective = Early detection

Rapidly detect, investigate, and guide rapid response to any cholera outbreak to contain its spread

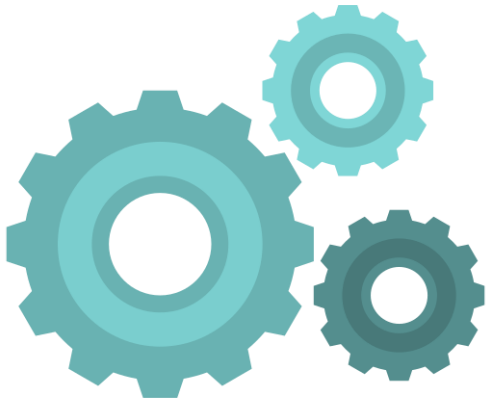
Where there is a probable or confirmed outbreak

Objective = Monitoring

Monitor key indicators to guide interventions to mitigate the impact and spread of the cholera outbreak

ADAPTIVE SURVEILLANCE STRATEGIES

- Surveillance strategies are **how surveillance is performed to reach its objective**
- The following surveillance strategies depend on the cholera situation => they are adaptive:



  - **Definitions:Who is a case?**
  - **Testing strategies: Who to test and how?**
  - **Reporting frequency: When to report?**
  - **Use of the data: How to use the data to guide interventions?**

ADPATIVE SURVEILLANCE STRATEGIES

Absence of a probable or confirmed outbreak in a surveillance unit

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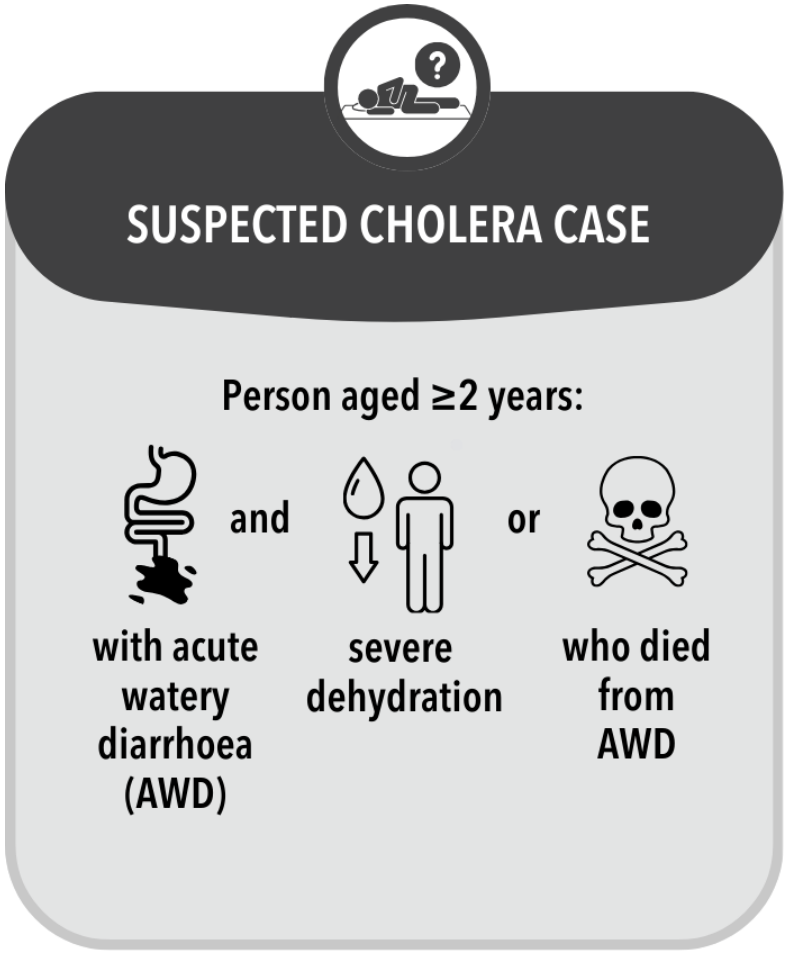
Surveillance for early detection

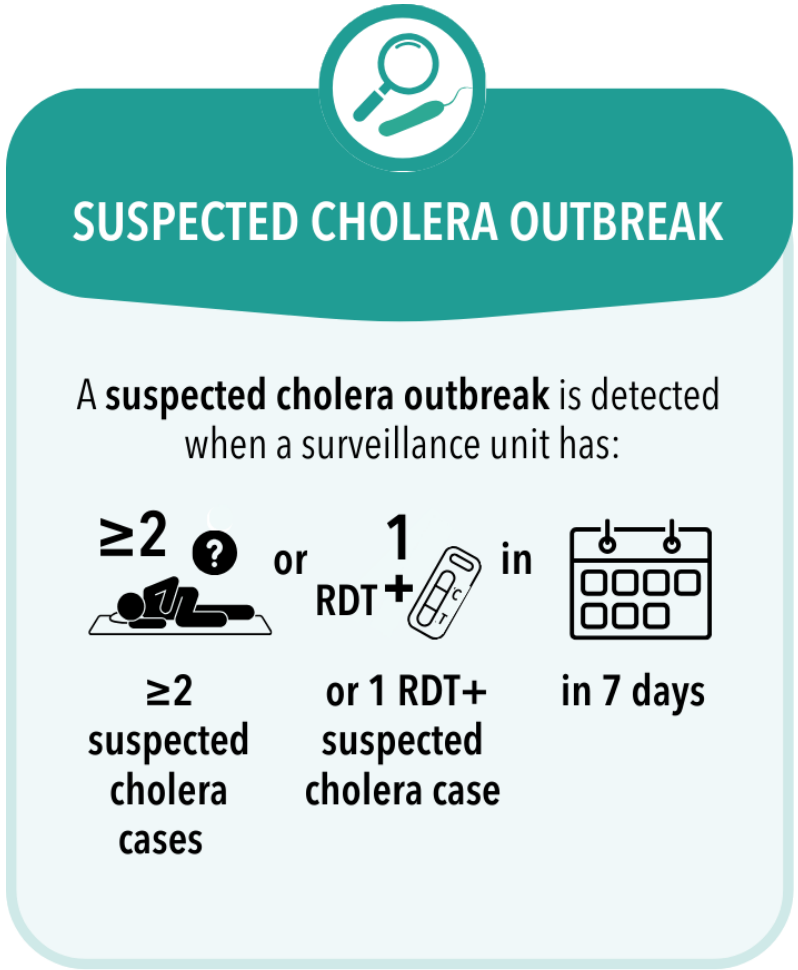
SUSPECTED CHOLERA CASE FOR EARLY DETECTION



- Criteria on age and severe dehydration **increase the specificity**

This reduces the number of false suspected cholera cases/outbreaks that could overwhelm the surveillance system and decrease effectiveness in early detection

SUSPECTED CHOLERA OUTBREAK



If a suspected cholera outbreak is detected

- Rapid public health measures for acute diarrheal diseases (**response not specific to cholera**)

PROBABLE CHOLERA OUTBREAK

Number of suspected cholera cases with a **positive RDT result** within 14 days in a surveillance unit exceeds pre-defined thresholds

- Thresholds for a probable outbreak statistically determined to provide high confidence (≥95%) that at least one suspected case with RDT+ is a true cholera case
- Maximizes use of RDT for rapid response

PROBABLE CHOLERA OUTBREAK THRESHOLDS

PROBABLE CHOLERA OUTBREAK

A **probable cholera outbreak** is detected in a surveillance unit if within 14 days:

Number of RDT +	out of # suspected cases tested
≥ 3 RDT+	3-7
≥ 4 RDT+	8-10
≥ 5 RDT+	11-14
≥ 6 RDT+	15-17
≥ 7 RDT+	18-21

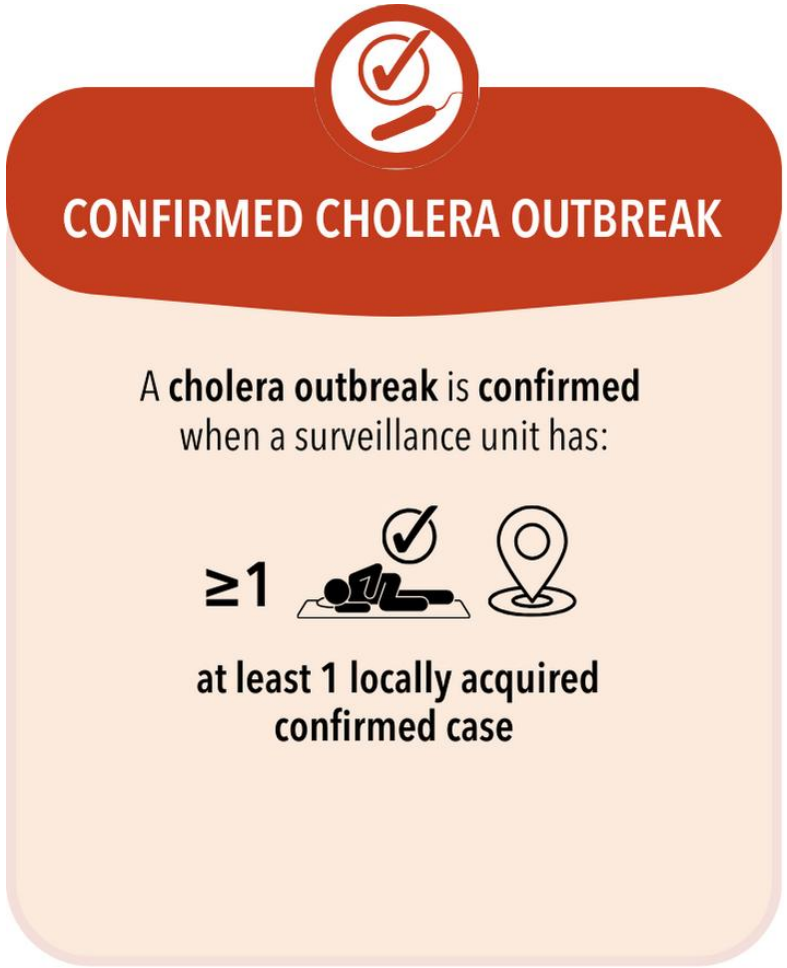
As soon as the threshold is reached, a probable cholera outbreak is detected

- Initiate rapid, extensive, and comprehensive **cholera outbreak response** without waiting for laboratory confirmation

Number of RDT+ to be analyzed daily

It is not necessary to wait 14 days if threshold is reached earlier

CONFIRMED CHOLERA OUTBREAK



If a confirmed cholera outbreak is detected

- Rapid, extensive, and comprehensive **cholera outbreak response**

TESTING FOR EARLY DETECTION

All suspected cholera cases should be tested

- **If RDTs are available**
  - Test all suspected cases by RDT
  - Test all RDT+ by culture and/or PCR

- **If RDTs are not available**
  - Test all suspected cases by culture (including seroagglutination) and/or PCR

REPORTING FOR EARLY DETECTION

Any suspected cholera case(s) should be reported **within 24 hours**

- If no suspected cholera cases are detected:
  the absence of cases should be reported weekly (i.e., zero reporting)

DATA USE

When suspected cholera cases are detected,
cholera surveillance data should be analyzed and interpreted **within 24 hours**
to verify any suspected / probable / confirmed cholera outbreak

- Upon verification of an event, the following key steps should be initiated within 24 hours:
  - **Immediate notification**
  - Initiation of **case investigations**
  - Initiation of a **field investigation** if the case investigation does not conclude with confidence that all case(s) were imported

Surveillance for EARLY DETECTION in surveillance units with no probable or confirmed outbreak

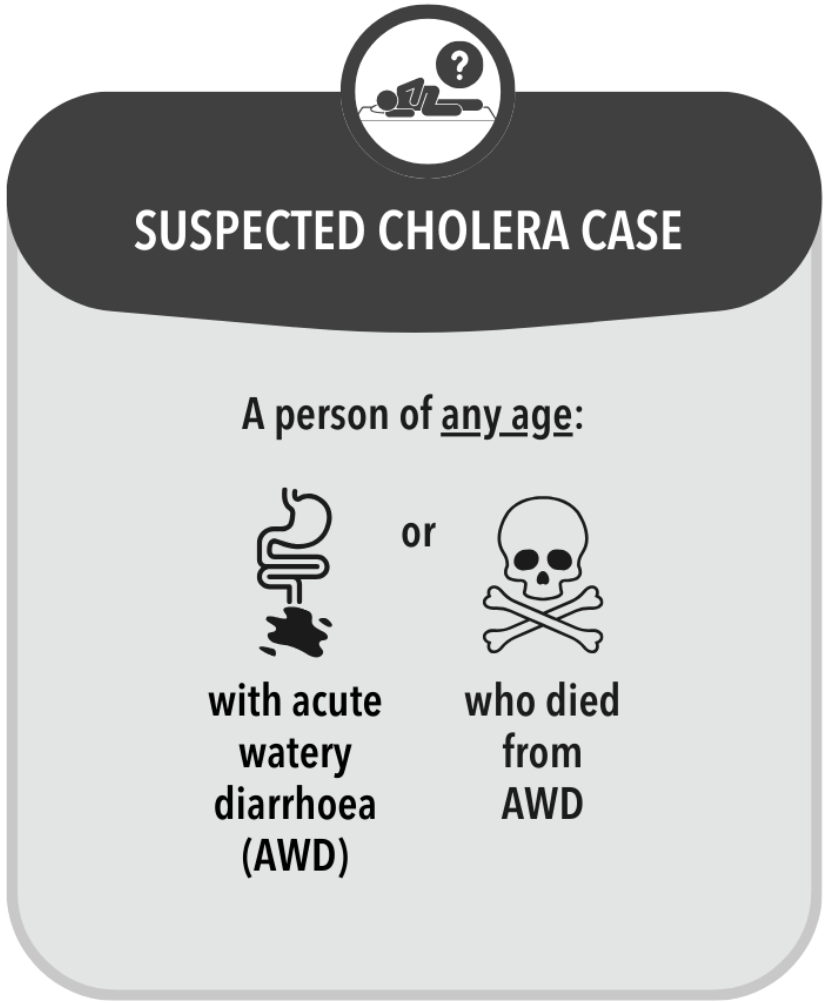
Key strategies

- **Testing of all** suspected cholera cases
- **Daily reporting** (and weekly zero reporting)
- **Daily** data **analysis + interpretation + dissemination**
- Use of data to trigger **verification, notification, and investigations within 24 hours**

ADPATIVE SURVEILLANCE STRATEGIES

Presence of a
probable or confirmed outbreak
in a surveillance unit
–
Surveillance for outbreak monitoring

SUSPECTED CHOLERA CASE FOR MONITORING



Criteria on age and severe dehydration no longer apply

TESTING STRATEGY FOR MONITORING

- **Objective**
  - Monitor the positivity rate, circulating strains, antimicrobial susceptibility

For this objective, **no need to test all suspected cholera cases**

- **Strategy**

Test a subset of suspected cholera cases according to a systematic sampling scheme

- If RDTs are available
  - Test the first 3 suspected cases per day per health facility by RDT
  - Test 3 RDT+ per week per surveillance unit by culture or PCR

- If RDTs are not available
  - Test the first 3 suspected cases per week per health facility by culture or PCR

REPORTING FOR MONITORING

Reporting of suspected cholera cases **at least weekly** and weekly zero reporting

Daily reporting of suspected cholera cases no longer required routinely
But encouraged at the beginning and towards the end of an outbreak

DATA USE

- **Analysis**
  - At least **weekly**
  - At the level of the **surveillance unit,** and where possible, at lower level (e.g., health facility catchment areas) to inform targeted interventions
  - By person/place/time and via monitoring of key indicators (*Next Presentation*)
- **Interpretation**
  - Consider contextual information
  - Formulate hypothesis for the outbreak trends and implications for interventions

DETERIORATION OF AN OUTBREAK

Worsening of a cholera outbreak detected through routine data analysis indicating that response activities are not sufficiently effective

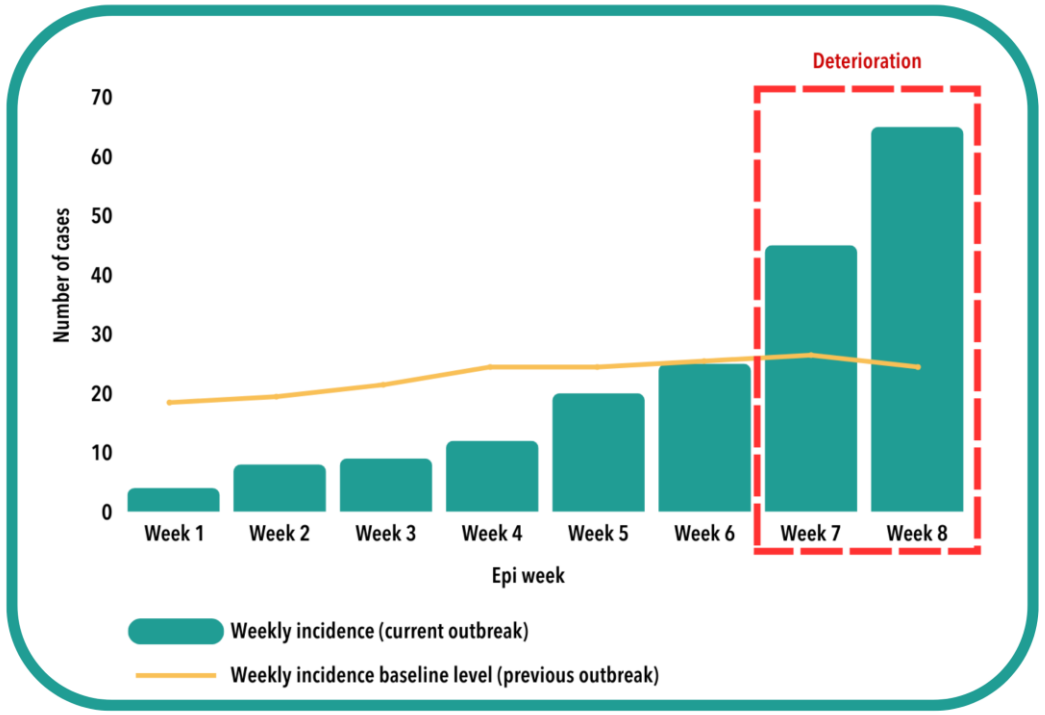
A deteriorating outbreak may be detected if, over at least two consecutive weeks, there is:

- Marked increase in weekly cholera incidence
- Spatial extension of the outbreak
- Marked increase in CFR or in number of community deaths
- Shift in the socio-demographic profile of cases

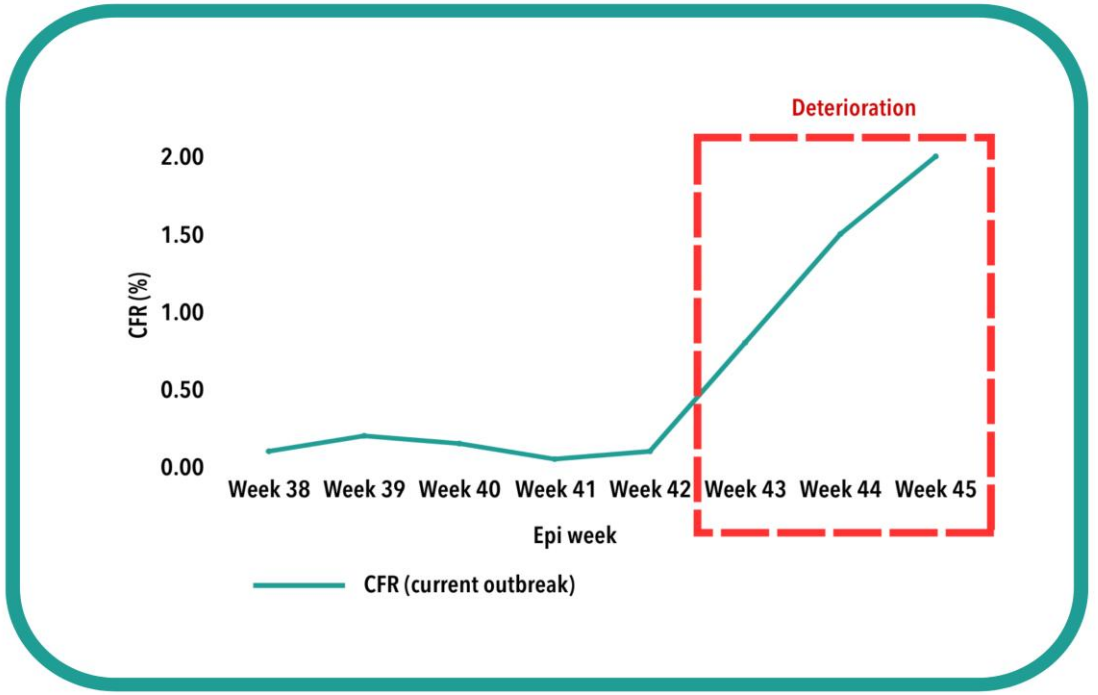
A deterioration should rapidly trigger a **field investigation**

DETECTION OF A DETERIORATING OUTBREAK

- In a **quantitative** manner in comparison with **baseline thresholds**



- In a **qualitative** manner, **visual analysis** of trends



Surveillance for MONITORING in surveillance units with a probable or confirmed outbreak

Key strategies

- **Testing** of a **subset** of suspected cholera cases with a systematic sampling scheme
- **Weekly reporting** (including zero reporting)
- Weekly data **analysis + interpretation**, and dissemination
- If the outbreak deteriorates, field **investigation**

CLUSTERED TRANSMISSION (OPTIONAL)

In **non-endemic countries** it is recommended that probable or confirmed cholera outbreaks be classified as either:

- **Clustered transmission**
  - Case investigations found that all cases were epidemiologically linked
- **Community transmission**
  - Not all cases investigated were epidemiologically linked to others
  - or not all cases were investigated

If transmission is clustered, **additional surveillance strategies** to maximize chances to **contain the outbreak before it spreads in the community**

- ✓ Testing all suspected cholera cases
- ✓ Daily reporting
- ✓ Daily analysis and interpretation
- ✓ Investigation of all suspected cholera cases

SUPPORTING MATERIALS

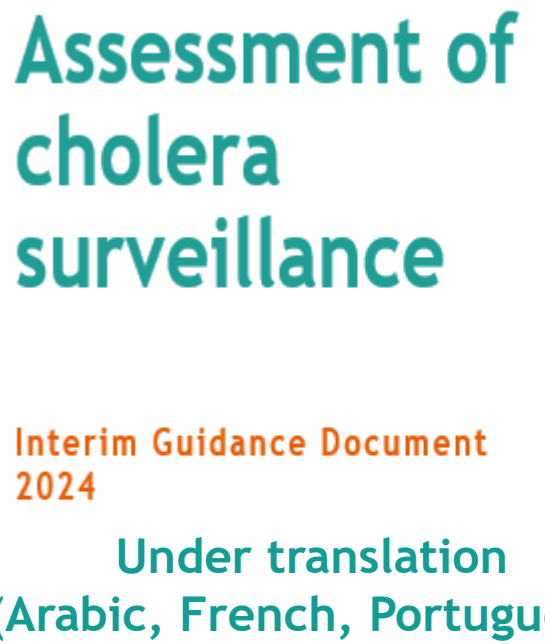
SUPPORTING MATERIALS FOR COUNTRIES

https://tinyurl.com/cholerasurvtools

- Editable template cholera **case report form**
- Example of a cholera **line list** (Excel tool)
- Editable template **community-based surveillance reporting form**
- Editable template cholera **case investigation form**
- Excel tool for calculating **weekly incidence thresholds** to identify deteriorating outbreaks
- Examples of **epidemiological reports** (surveillance unit level & national level)

SELF ASSESSMENT OF CHOLERA SURVEILLANCE

https://tinyurl.com/assessmentcholera-surv



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- Assess cholera surveillance in a country against 2024 GTFCC surveillance recommendations
- Simple method for countries to identify areas for improvement in their cholera surveillance system/strategies
- Helpful to **identify priority activities to strenghten the surveillance pillar** (e.g., in an NCP)

GLOBAL TASK FORCE ON CHOLERA CONTROL

SELF ASSESSMENT – HOW DOES IT WORK?

Surveillance component
(13 components to be assessed)

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]?

Current status	Considerations for NCP development
☐ There is no formal recommendation for testing all suspected cholera cases in surveillance units in the absence of a probable or confirmed cholera outbreak	**Critical gap** *Prioritize updating the testing recommendations for early detection in accordance with GTFCC surveillance recommendations, and support the implementation of updated recommendations*
☐ 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	**Area for improvement** *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*
☐ 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	**Capacity to be maintained** *Ensure that awareness and capacities are maintained, and that supplies and reagents are procured in sufficient quantities throughout the NCP implementation period*

Select situation in your country

Consider recommended activities to strengthen surveillance

ADDITIONAL SUPPORT THROUGH THE GTFCC NETWORK

- Additional GTFCC resources coming up
  - Information products
  - Online training modules

- Technical questions/assistance
  - Contact gtfccsecretariat@who.int


Thank you
Together we can
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