

# Cholera surveillance for health care workers

## Transcript of online course

### MODULE 1

#### Frontline role of health care workers in cholera surveillance

##### Slide 1

Welcome to Module 1 of the GTFCC online course on cholera surveillance for health care workers.

##### Slide 2

In this module, we will walk you through the objectives of cholera surveillance and the reasons why health care workers play such an essential role in cholera surveillance.

##### Slide 3

After completing this module, you will be familiar with the objectives of cholera surveillance in different situations and you will be aware of the key role that health care workers play in cholera surveillance.

##### Slide 4

Before we dive in, let us remind you what cholera is and what surveillance is.

##### Slide 5

Cholera is an acute diarrheal infection which spreads through contaminated food and water.

It is caused by the bacterium toxigenic *Vibrio cholerae*, serogroup O1 and O139.

Cholera can spread rapidly and cause large outbreaks.

Severe forms of the disease can lead to severe dehydration and death within hours if not treated. However, it is preventable and easily treatable with rehydration protocols.

## Slide 6

Surveillance is the continuous and systematic collection, analysis and interpretation of health-related data with prompt dissemination of results to guide public health response.

Surveillance is essential to understand the dynamics of disease outbreaks by describing who is affected, where and when. This understanding is critical to design effective interventions to control outbreaks.

## Slide 7

Health care workers play an essential role in disease surveillance. They are at the frontline to identify and report patients that have a disease under surveillance.

Here is how the surveillance process goes.

A person feels ill and go to a health facility to seek care.

At this facility, health care workers identify that the patient has a disease under surveillance.

They collect standard information about this patient and report it to their health authority.

Health authorities then analyze this information to detect and respond to disease outbreaks.

## Slide 8

Let's look into the objectives of cholera surveillance more specifically.

## Slide 9

The general objective of cholera surveillance is always to generate information to guide an effective public health response in order to reduce the number of cholera cases and cholera deaths and limit the spread of cholera.

Depending on the cholera situation in a local geographic area, the specific objectives of cholera surveillance evolve.

In geographic areas where there is no ongoing cholera outbreak, surveillance aims to detect any cholera outbreak early so that it can be responded to rapidly.

In geographic areas where a cholera outbreak is starting but has not yet spread in the community and cholera cases are occurring in clusters, surveillance aims to track the clusters in order to interrupt transmission with highly targeted interventions around the cases.

Lastly, in geographic areas where there is an ongoing cholera outbreak, surveillance aims to monitor the outbreak in order to guide the public health response.

## Slide 10

Early detection is an essential surveillance objective because when outbreaks are detected early, they can be controlled rapidly which is critical to mitigate their spread and their impact.

### Slide 11

Let's illustrate the importance of early detection with a fictive example.

This chart represents the potential number of cholera cases by day if a cholera outbreak was detected with delay which would result in a delayed public health response.

### Slide 12

On the other hand, this chart represents the potential number of cholera cases by day if an outbreak was detected early which would enable a rapid public health response.

### Slide 13

If we compare the number of cases by day in these two situations, we can see that with early detection and rapid response, the number of cholera cases remained much lower compared to if the outbreak would have been detected and responded to with delay. This illustrates that early detection and rapid response help prevent further cholera cases.

### Slide 14

Moving on to cholera clusters and the surveillance objective in that situation.

There is a cholera cluster when a group of cases infected one another or got infected by the same source. Clusters are more likely to occur at the very early stages following the introduction of cholera in a new geographic area.

If clustered transmission is not interrupted rapidly, cholera might spread in the community and cause a large outbreak that would be more challenging to control.

With robust surveillance that can guide highly targeted interventions around cases, it is possible to interrupt transmission at cluster stage before it spreads in the community.

### Slide 15

Going back to our previous example, if surveillance is sufficiently performant to track clusters in order to guide highly targeted interventions around cases, then the number of cholera cases that can be prevented is even higher.

### Slide 16

As the last surveillance objective, during an outbreak, if cholera has spread in the community, surveillance continuously generates information that is used to target effective multisectoral strategies to control and end the outbreak.

Surveillance is pivotal to guide interventions across all cholera control and prevention pillars from vaccination campaigns, to water, sanitation and hygiene efforts, community engagement, and case management.

For example, regarding case management, surveillance provides information to identify locations where cholera treatment facilities and referral system need to be set up, to quantify the needs for treatment

supplies as well as to identify potential issues with access to health care or treatment of patients in order to fix them.

### Slide 17

Health care workers are instrumental in cholera surveillance. Let's see what their key role is.

### Slide 18

Beyond treating patients with cholera, health care workers also contribute to preventing further cholera cases and deaths by contributing to cholera surveillance.

Health care workers contribute to cholera surveillance by identifying patients with suspected cholera, collecting standard information on these patients and reporting this information. They also collect samples on patients with suspected cholera and test them by rapid diagnostic tests and send samples to a laboratory for testing.

### Slide 19

In the next modules, you will learn more about how health care workers contribute to cholera surveillance.

In module 2, we will walk you through general principles to identify patients with suspected cholera, record standard information on these patients, and test them. These principles always apply, regardless of the ongoing cholera situation.

Then, in modules 3 to 5, we will walk you through specificities to implement cholera surveillance depending on the ongoing cholera situation and the corresponding surveillance objective. In Module 3, we will focus on surveillance for the early detection of cholera outbreaks. In module 4, we will address surveillance to monitor cholera outbreaks. Lastly, in module 5, we will cover surveillance to track cholera clusters.

### Slide 20

As we wrap up this module, here are the important points to remember.

Cholera can cause large outbreaks and be deadly.

Health care workers play a critical role beyond treating cholera patients. They are at the frontline to identify, record, report and ensure the testing of patients with suspected cholera.

By contributing to cholera surveillance, health care workers contribute to detecting cholera outbreaks early so that they can be controlled rapidly; tracking clusters to interrupt transmission before cholera spreads in the community; monitoring cholera outbreaks to generate information to design effective strategies to control outbreaks.

### Slide 21

Before moving on to the next module, we encourage you to take a short quiz. There are four questions in this quiz.

### Slide 22

Question 1. Select all that apply. Beyond treating patients with suspected cholera, health care workers are also at the frontline to:

- a) Identify patients with suspected cholera
- b) Record information on patients with suspected cholera
- c) Report information on patients with suspected cholera
- d) Collect samples for testing on patients with suspected cholera

### Slide 23

All answers apply. Beyond treating patients with suspected cholera, health care workers are also at the frontline to identify patients with suspected cholera, record and report information on these patients, and collect samples for testing on these patients.

### Slide 24

Question 2. In geographic areas where there is no cholera outbreak, surveillance is for the:

- a) Early detection of outbreaks
- b) Monitoring of outbreaks
- c) Tracking of clusters

This is critical to:

- d) Generate information to guide effective interventions across all cholera control pillars
- e) Interrupt transmission before cholera spreads in the community and becomes more challenging to control
- f) Respond rapidly to any new outbreak to mitigate its spread and impact

### Slide 25

The correct answers are a and f. In geographic areas where there is no cholera outbreak, surveillance is for the early detection of outbreaks, this is critical to respond rapidly to any new outbreak to mitigate its spread and impact.

### Slide 26

Question 3. In geographic areas where there is a cholera outbreak, surveillance is for the:

- a) Early detection of outbreaks
- b) Monitoring of outbreaks
- c) Tracking of clusters

This is critical to:

- d) Generate information to guide effective interventions across all cholera control pillars
- e) Interrupt transmission before cholera spreads in the community and becomes more challenging to control
- f) Respond rapidly to any new outbreak to mitigate its spread and impact

### Slide 27

The correct answers are b and d. In geographic areas where there is a cholera outbreak, surveillance is for the monitoring of the outbreak. This is critical to generate information to guide effective interventions across all cholera control pillars.

### Slide 28

Question 4. This is the last question. In geographic areas where cholera has just been introduced and hasn't yet spread in the community, surveillance is for the:

- a) Early detection of outbreaks
- b) Monitoring of outbreaks
- c) Tracking of clusters

This is critical to:

- d) Generate information to guide effective interventions across all cholera control pillars
- e) Interrupt transmission before cholera spreads in the community and becomes more challenging to control
- f) Respond rapidly to any new outbreak to mitigate its spread and impact

### Slide 29

The correct answers are c and e. In geographic areas where cholera has just been introduced and hasn't yet spread in the community, surveillance is for the tracking of clusters. This is critical to interrupt transmission before cholera spreads in the community and becomes more challenging to control.

### Slide 30

We have now completed this module.