

Cholera surveillance for health care workers

Module 1



GLOBAL TASK FORCE ON
CHOLERA CONTROL

Cholera surveillance for health care workers

Frontline role



What will you learn?

- **Objectives** of cholera surveillance in different situations
- **Key role** of health care workers in cholera surveillance

Background



Cholera



Photo adapted from: WHO/Mulugeta Ayene

- **Acute diarrhoeal infection**
- Spread through contaminated food and water
- Caused by the **bacterium *Vibrio cholerae*** (toxigenic, serogroup O1 or O139)
- Can **spread rapidly** and cause large outbreaks
- 5 • Severe forms of the disease can lead **to severe dehydration** and **death** within hours if not treated
- It is **preventable** and **easily treatable** (rehydration)

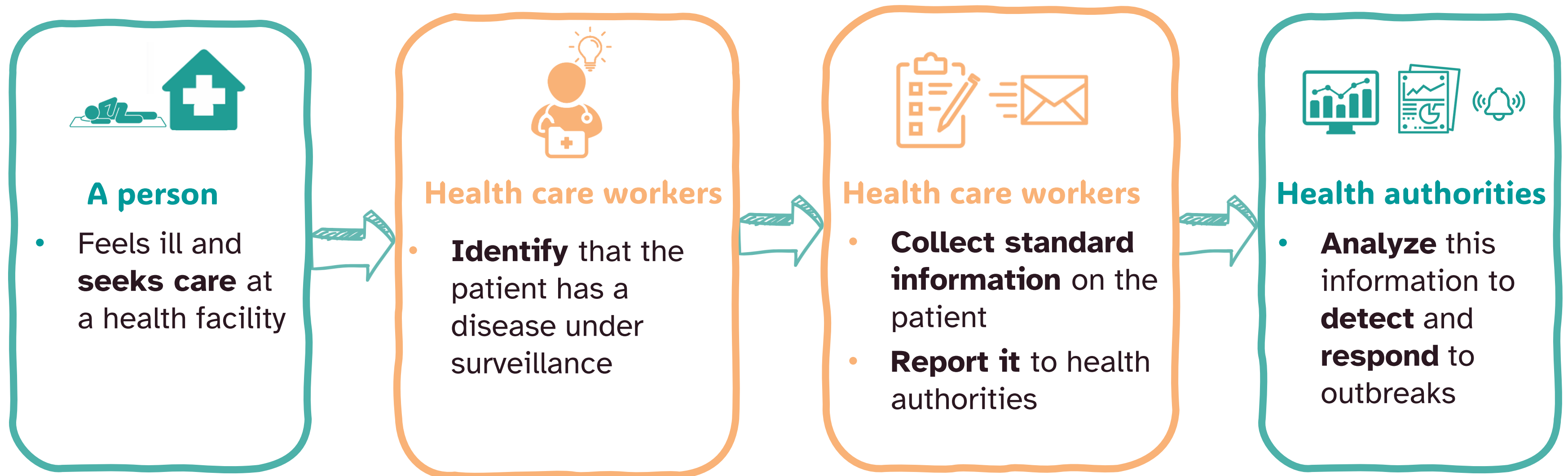
Disease surveillance

Continuous and systematic **collection, analysis, and interpretation** of health-related data with prompt dissemination of results to **guide public health response**

- Essential to
 - **Understand outbreak** dynamics (who is affected, where, when)
 - **Design effective control interventions**

Health workers & surveillance

Health care workers play a frontline role in surveillance by **identifying and reporting patients** that have a disease under surveillance





Objectives
of cholera
surveillance

Overview

Cholera surveillance generates information to guide an effective response to reduce the number of cholera cases and deaths, and limit the spread of the disease

Depending on the **cholera situation** in an area, the **surveillance objective** evolves

- ➡ In geographic **areas without an outbreak**
 - Surveillance is for the **early detection** of any new outbreak **for rapid response**
- ➡ In geographic **areas with an outbreak that is not yet widespread** (“cases in cluster”)
 - Surveillance is to **track clusters to stop transmission** with targeted interventions
- ➡ In geographic **areas with an outbreak**
 - Surveillance is to **monitor the outbreak to guide the response**

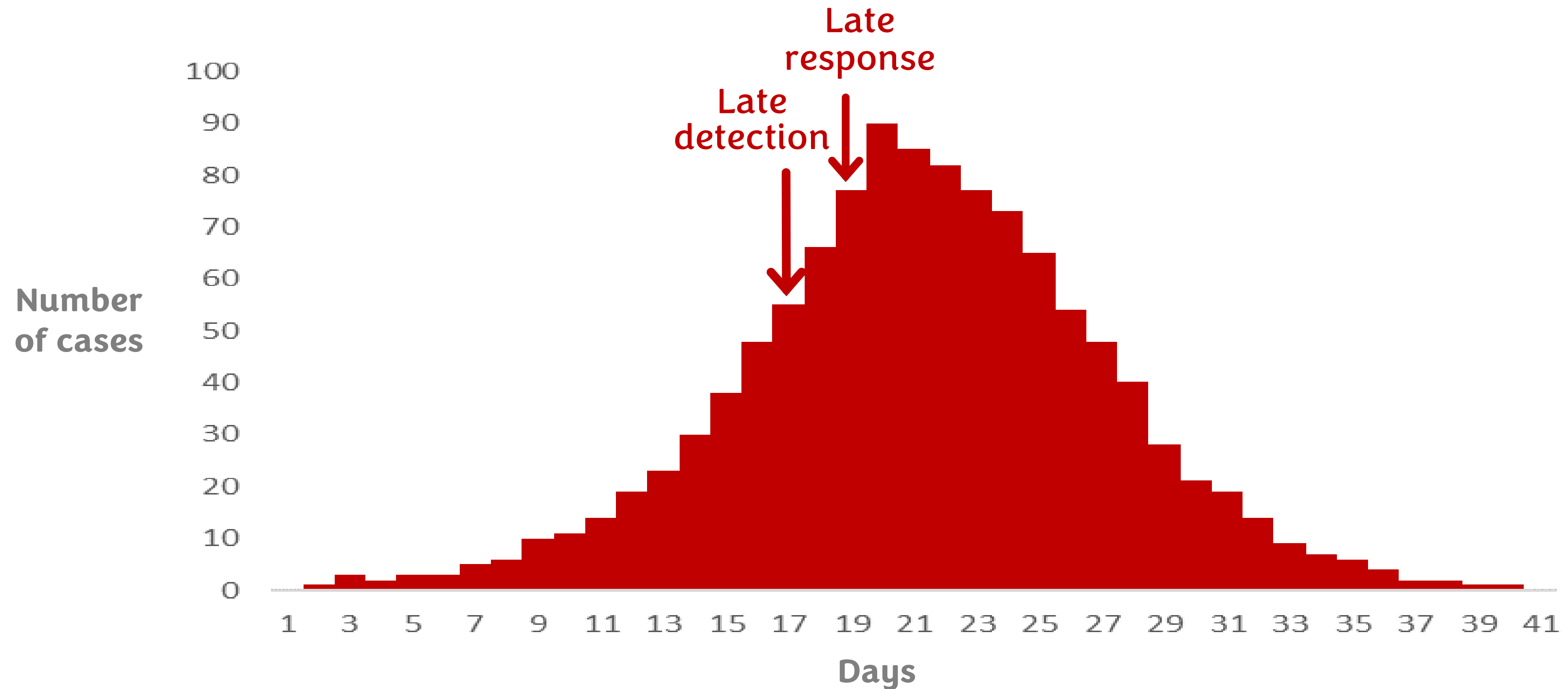
Early detection

Outbreaks detected early can be controlled rapidly

➔ **Spread & impact mitigated**

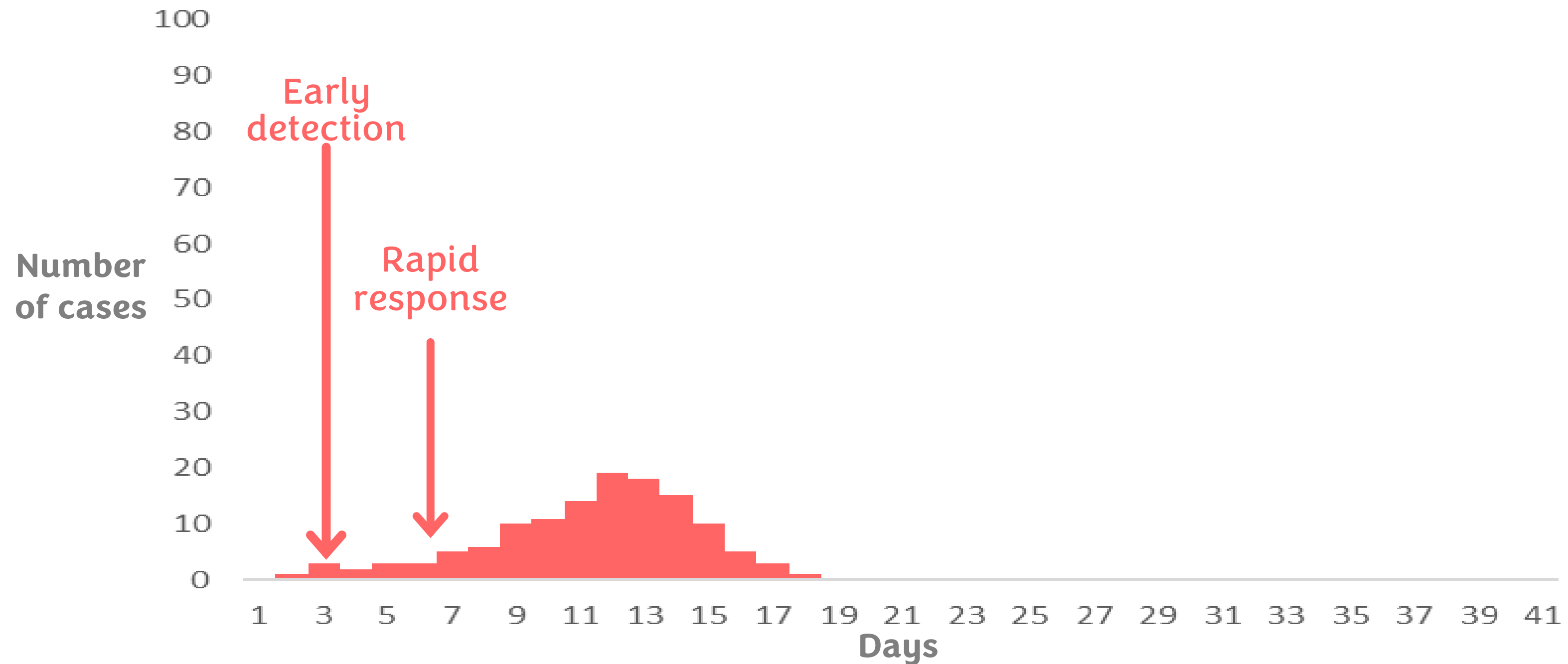
Early detection

Illustration



Early detection

Illustration



Early detection

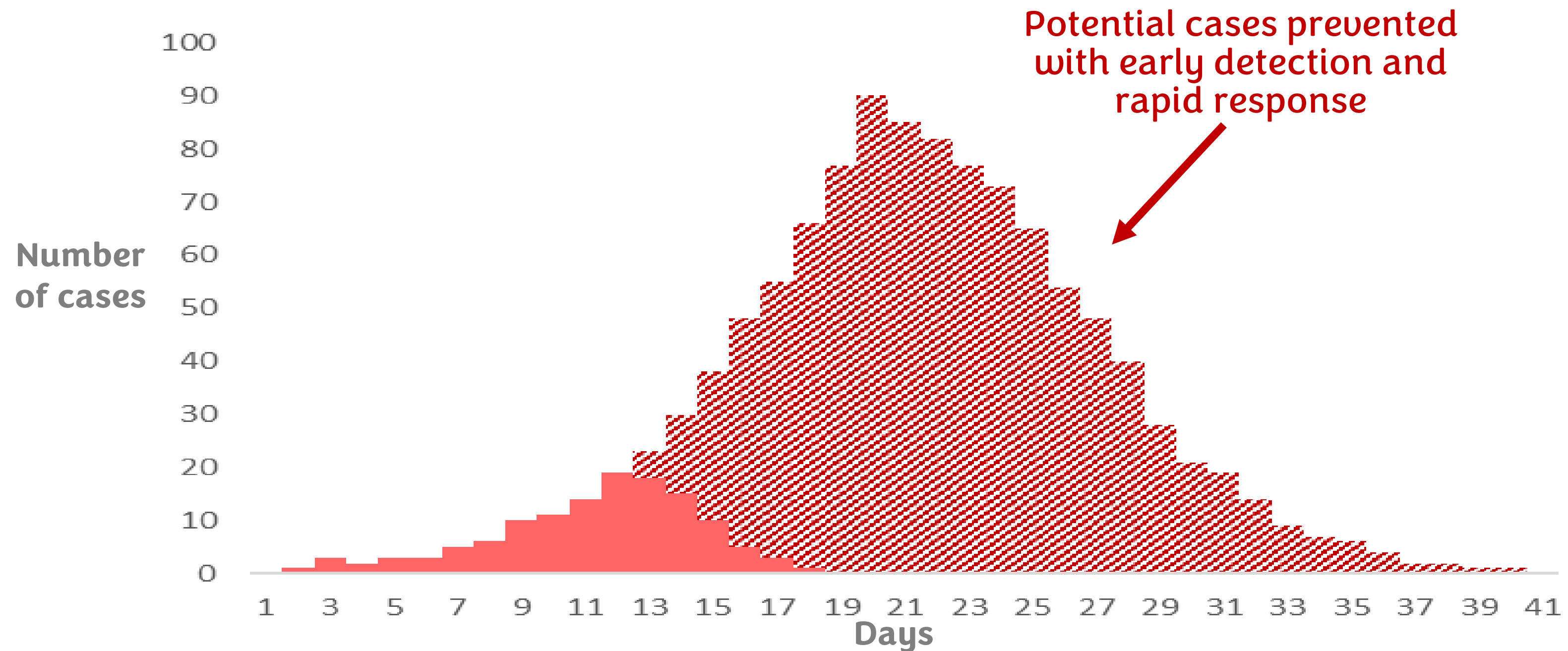
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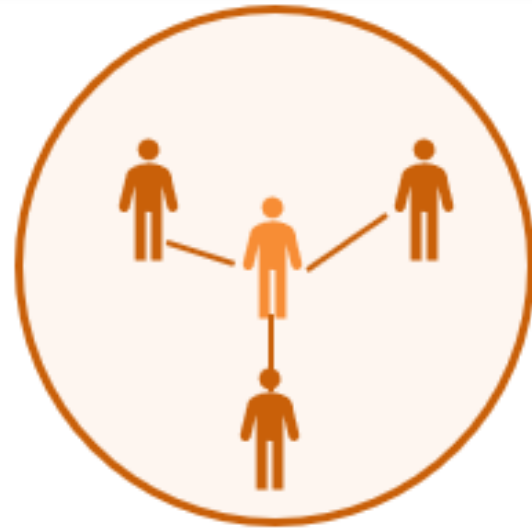
Early



Delayed



Tracking clusters



Cluster



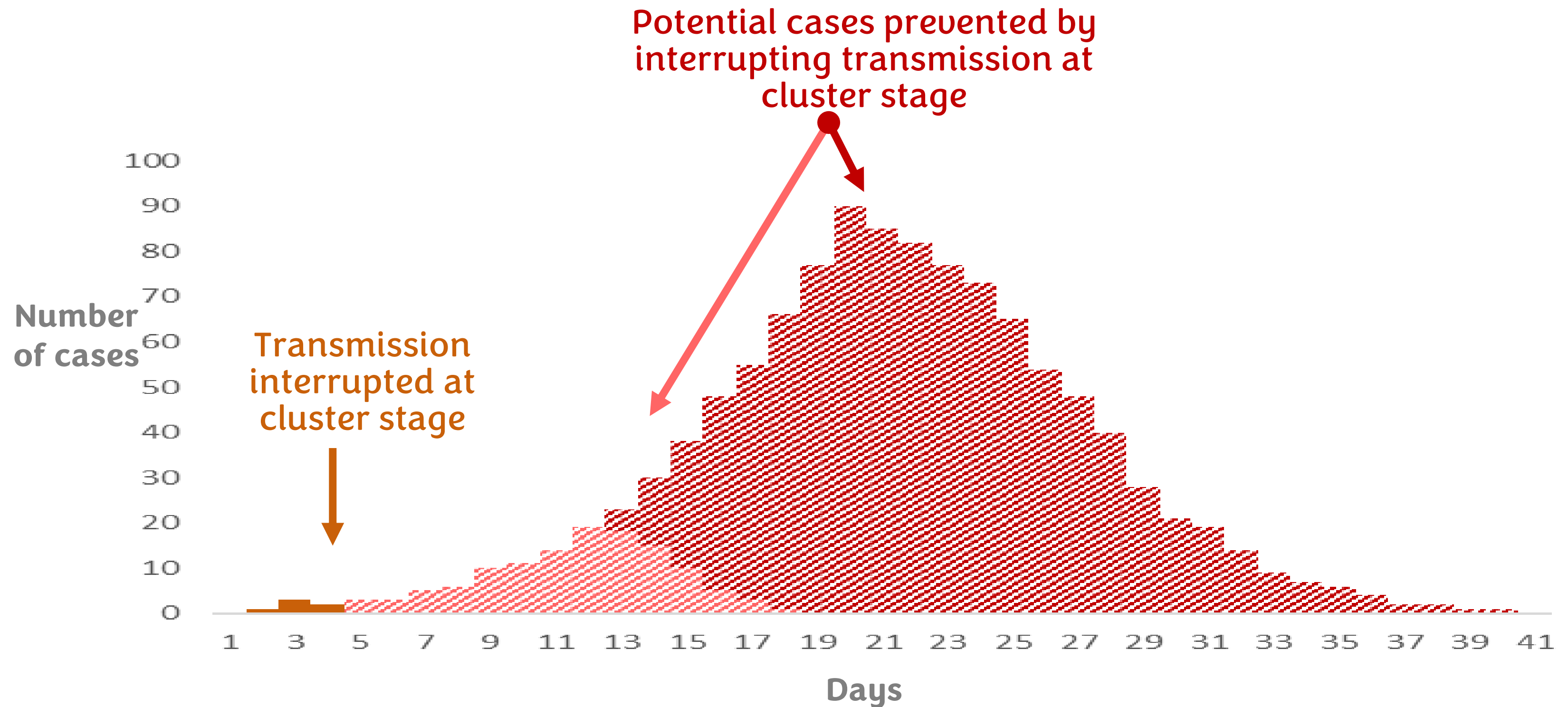
Widespread outbreak in the community

- ➡ When a group of cases infected one another or got infected by the same source this is called a “**cluster**”
- ➡ Usually at the **very early stages following the introduction of cholera in a new geographic area**

With robust surveillance and highly targeted interventions, it is possible to **interrupt transmission at cluster stage before it spreads in the community**

Tracking clusters

Illustration



Monitoring outbreaks

During an outbreak, the information generated by surveillance is used to **target multisectoral strategies to control the outbreak**

- ➡ Surveillance **guides all interventions** from vaccination campaigns, to water, sanitation and hygiene efforts, community engagement, and case management



- ➡ For example, for **case management**

- Identify locations where cholera **treatment facilities and referral system** need to be set up
- Quantify needs for **treatment supplies**
- Identify potential issues with **access to health care** or **treatment of patients**



Role of health care workers in cholera surveillance

Key surveillance role

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



Photo adapted from: Raissa Karama Rwizibuka/Wellcome Trust

➡ Health facility workers are at the frontline to:

- **Identify patients** with suspected cholera
- **Collect standard information** on these patients
- **Report** this information
- **Collect samples**
 - Test them by **rapid diagnostic tests** (RDT)
 - And/or **send samples** to a laboratory for testing

Learn more

**In the next modules, you will learn
how to contribute to cholera surveillance as a health care worker**

*How to identify, record, and test
patients with suspected cholera?*

- **Module 2.** General **principles**
(independent of the cholera situation)

*How to implement cholera surveillance
in different situations?*

- **Module 3.** Surveillance for **early detection**
- **Module 4.** Surveillance to **monitor** outbreaks
- **Module 5.** Surveillance to **track clusters**

Wrap up

- ➡ Cholera can cause large outbreaks and lead to deaths
- ➡ The role of health facility workers goes **beyond treating patients with cholera**
- ➡ They also **identify, record, report and ensure the testing** of patients with suspected cholera
- ➡ By contributing to cholera surveillance, they contribute to:
 - **Detecting outbreaks early** so that they can be controlled rapidly
 - **Tracking clusters** to interrupt transmission before cholera spreads in the community
 - **Monitoring outbreaks** to generate information to design effective control strategies



Question 1



► **Beyond treating patients with suspected cholera, health care workers are also at the frontline to:**
(Select all that apply)

- 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

Question 1 – Answers



- **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**

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

Question 2 – Answers



► 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

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

Question 3 – Answers



► 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

Question 4



► 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

Question 4 – Answers



► 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

Together we can
#Endcholera



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