## Explainer: Cholera rages across 9 countries in the WHO Eastern Mediterranean Region

Cholera is a global health concern, with 29 countries worldwide reporting active outbreaks in 2023. Most of these countries had already been grappling with acute or prolonged crises at the time.

On 26 January 2023, WHO classified the multi-region cholera event as a Grade 3 emergency, the highest grade. This reflects the scale of this ongoing pandemic, the potential for further international spread, the complexity of factors involved and the high urgency for action.

## What is the cholera burden in the WHO Eastern Mediterranean Region?

Cholera has become relatively overshadowed in the Eastern Mediterranean Region by the heightened scale of emerging crises and reports of other disease outbreaks. Cholera still lingers, however, as a persistent public health threat in 9 countries of the Region. These countries consistently report sporadic cases as well as explosive cholera outbreaks which occur with increasing frequency.

Afghanistan, the Islamic Republic of Iran, Iraq, Pakistan, Somalia, Sudan and Yemen have been reporting cases of acute watery diarrhoea (AWD)/cholera and related deaths since 2021. A cholera resurgence has since been seen in Lebanon and Syria – previously cholera-free for more than a decade.

Recently, cholera has come back to rage in Lebanon, Sudan, Syria and Yemen, thriving in contexts of conflict (among internally displaced people and refugees); climate change-related crises; poor water, sanitation and hygiene infrastructure; and fragile disease surveillance, detection and reporting systems.

In 2023, the Eastern Mediterranean Region reported 63 disease outbreaks in total – up from 60 outbreaks in 2022. Cholera outbreaks remain a significant contributor to the regional disease burden.

By 2 December 2023, 8 Member States of the Region had reported 403 402 cases of AWD and suspected or confirmed cholera during the year, including 344 associated deaths. Most cases were reported by Afghanistan (212 805 cases; 95 deaths), followed by Syria (161 620 cases; 7 deaths), Somalia (16 514 cases; 43 deaths), Sudan (5456 cases; 178 deaths), Yemen (3279 cases; 14 deaths), Lebanon\* (2197 cases; 0 deaths), Iraq (1332 cases; 7 deaths) and Pakistan\*\* (199 cases; 0 deaths).

Women and men are affected almost equally. In Afghanistan, Somalia and Syria, more than 50% of cases are children aged under 5 years.

\*The cholera outbreak in Lebanon was officially announced over on 5 June 2023. \*\*Pakistan only reports laboratory confirmed cholera cases.

#### Why is cholera so dangerous? How does it spread?

Cholera is a life-threatening disease that can cause AWD, leading to severe dehydration. It spreads mainly through water and food that are contaminated with the bacterium Vibrio cholerae.

Left untreated, cholera can kill within a few hours. Most people infected will have mild or no symptoms and can be treated with an oral rehydration solution. Severe cases will need rapid treatment with intravenous fluids and antibiotics.

Cholera can spread rapidly within countries and across borders, mainly when mass displacements occur.

Each year, there are 1.3 million to 4.0 million cholera cases and 21 000 to 143 000 associated deaths globally.

#### Is cholera currently driven by climate change?

Climate change is considered one of the drivers that increases the risk of emerging and re-emerging infectious diseases, especially cholera. Climate change causes droughts, flooding

and other disasters, triggering mass displacements that eventually lead to reduced access to safe water, sanitation and hygiene.

Countries hit by climate change-related crises are expected to report AWD/cholera cases and, potentially, associated deaths.

#### How can we combat cholera?

Oral vaccines exist for cholera. The cholera vaccine regimen is typically a 2-dose regimen, with the second dose given between 14 days and 6 months after the first.

A single-dose approach is currently being used in cholera outbreak response campaigns, however, owing to acute vaccine shortages. Temporary use of this single-dose strategy, as advised by the International Coordinating Group on Vaccine Provision, will allow more people to be vaccinated and provide protection in the near term.

The long-term and optimal solution for cholera control, however, lies in providing access to safe and clean water and sanitation facilities and good hygiene practices for the whole population.

Cholera must be detected and diagnosed quickly. Surveillance can be enhanced by strengthening reporting and ensuring the timeliness and quality of data, including by deploying electronic systems. Strengthening laboratory capacity and the case management of cholera cases can also save lives and reduce mortality rates.

The goal of ending cholera can only be achieved through a comprehensive approach that includes:

robust surveillance

access to clean and safe water

enhanced sanitation and hygiene

community engagement

early diagnosis and appropriate treatment

use of vaccines to respond to outbreaks.

#### How is WHO responding to cholera outbreaks?

WHO supports all countries affected by or at risk of cholera to implement multisectoral cholera response activities and level up readiness and preparedness measures. Such efforts include ensuring good coordination among response partners, technical and logistics support, provision of medical supplies, enhancement of water and sanitation conditions, and strengthening of disease early warning and response systems.

WHO also strongly supports community engagement and oral cholera vaccination campaigns, typically as a preventive measure in crisis-affected areas.

# If cholera can be easily prevented, why do we still see outbreaks in the Region?

As a result of mass displacements caused by conflicts, climate-related events and other emergencies, the Eastern Mediterranean Region hosts the most internally displaced people and refugees globally. Over 127 million people need urgent humanitarian assistance, and the Region is the source of more than 64% of the world's refugees.

Mass population movements and displacements within the Eastern Mediterranean Region put an ongoing strain on weak water, sanitation and hygiene infrastructure and health systems. This negatively affects a country's ability to restore and rehabilitate such infrastructure. Limited access to safe water and sanitation, and poor hygiene practices raise the risk of cholera introduction and spread.

Cholera outbreaks have been continuously growing in frequency and severity in contexts of protracted political instability and conflict, affecting millions of vulnerable people in the Region. Such settings lead to deteriorating water and sanitation conditions, which are compounded by poor living conditions, increased population movements, weakened health systems and low public awareness of cholera risks.

Moreover, some countries in the Region have tended to avoid declaring cholera outbreaks, instead reporting them as AWD outbreaks – if reporting them at all. This delays timely diagnosis and response to cholera outbreaks using suitable measures, both of which are vital to reduce the spread of disease.

#### What is cholera?

Cholera is an acute diarrhoeal infection caused by eating or drinking food or water that is contaminated with the bacterium Vibrio cholerae. Cholera is an extremely serious disease that can cause severe acute watery diarrhoea with severe dehydration. It takes between 12 hours and 5 days for a person to show symptoms after consuming contaminated food or water. Cholera affects both children and adults and can kill within hours if untreated.

#### More information on cholera

#### How to avoid cholera?

Use safe water for drinking and cooking.

Wash your hands with soap after using the toilet.

Wash your hands with soap before consuming food.

Ensure that vegetables and meat are washed thoroughly with safe water and that food is properly cooked.

If you do not have a safe piped water system, ensure that the water source is away (at least 30 metres) from the toilet.

#### How do I know if I have cholera?

Any person suffering from watery stool for 3 or more times, within 24 hours, with or without vomiting, might be developing cholera symptoms. Cholera symptoms also include the following:

Diarrhoea that looks like "rice water" in large amounts.

Muscles cramps .

Weaknesses (fatigue) .

Signs of dehydration.

\* If you suspect that you have cholera, consult a physician at the nearest health facility immediately and start drinking oral rehydration solution (ORS).

#### How long does it take to show cholera symptoms?

It takes between 12 hours and 5 days for a person to show cholera symptoms after ingesting contaminated food or water.

#### How is cholera treated?

Cholera is an easily treatable disease. Most people can be treated successfully through prompt administration of ORS.

If the disease is severe, hospital admission is necessary for the rapid administration of intravenous fluids and for prescribing appropriate antibiotics, as needed.

Zinc is an important adjunctive therapy for children younger than 5 years old, which also reduces the duration of diarrhoea and may prevent future episodes of other causes of acute watery diarrhoea. Breastfeeding should also be promoted for children who are suspected of having cholera symptoms.

\* If you suspect that you have cholera, consult a physician at the nearest health facility immediately and start drinking ORS.

# What is oral rehydration solution (ORS)?

ORS is sodium and glucose solution prepared by diluting one sachet of readily available ORS in one litre of clean and safe water. ORS is a special combination of dry salts that, when properly mixed with safe water, can help rehydrate the body when a lot of fluid has been lost due to diarrhoea.

#### Who can take the cholera vaccine?

The cholera vaccine is safe and effective, and the target age group is anyone above one-year-old.

Currently, there are 3 WHO pre-qualified oral cholera vaccines (OCV): Dukoral®, Shanchol™, and Euvichol®. All three vaccines require 2 doses for full protection.

More information on cholera vaccine

#### Is the cholera vaccine safe?

Yes, it is safe.

In both pre-licensure studies and post-marketing surveillance, available cholera vaccines have shown to have a good safety profile, including when used during pregnancy and in HIV-infected individuals or other immunocompromised individuals (individuals with a weak immune system). In clinical trials involving around 240 000 participants, adverse events were no more common in vaccinees than in placebo recipients.

#### More information on cholera vaccine

#### Can I take the cholera vaccine if I have cholera symptoms?

Yes.

## Can I stop cholera from spreading?

To avoid spreading cholera, take the following measures:

Boil water and bring it to a complete boil for at least one minute.

Cook food well for at least 30 minutes at 60 °C and keep it covered.

Eat the food while it is hot, and peel fruit and vegetables.

Wash your hands before eating or preparing food and before feeding your children.

Wash your hands after using latrine or toilet.

Wash your hands after taking care of someone who has diarrhoea, touching them, their stool, vomit or clothes.

Avoid defaecation in the open or near water sources and use latrines or other sanitation facilities to dispose of faeces.

Use one of the locally available water treatment products for drinking.

Add household bleach (chlorine) to the water and wait 30 minutes before using it for hand washing and cleaning surfaces or clothes.

More information on washing guidelines

#### Can cholera transmit between people?

Human beings are the only reservoir for *Vibrio cholerae*. An infected person can shed the bacteria in the environment through faeces and if these excreta are not well treated or managed it will be the source of environmental contamination and will be transmitted through the orofaecal route to other individuals.

# How can I take care of someone infected with cholera and protect myself?

If you are taking care of someone infected with cholera, make sure to take the following precautious measures:

Always wear gloves whenever you are in direct contact with the patient's vomit or stool.

Always wash your hands with soap and safe and clean water, after being in direct contact with the patient, and always clean the surface and clothes with safe chlorinated water.

Always properly and thoroughly clean and wash raw vegetables and fruit before consumption.

Always wash your hands with soap and safe and clean water before preparing food, eating or feeding others.

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