



Make plans to eliminate cholera outbreaks

Governments must stop denying the occurrence of cholera and unite in long-term prevention strategies, says Anita Zaidi.

As a medical student in Karachi in the 1980s, I saw cholera all the time. We had a dedicated diarrhoea ward in the hospital, and if there was an increase in diarrhoea cases in children aged over 3, we knew we had a cholera outbreak. Over the past decades, the world has become much better equipped to fight cholera, yet the disease continues to spread across sub-Saharan Africa, Asia and the Caribbean.

In Yemen, cholera has killed more than 2,000 people and infected nearly 700,000 in the past 5 months alone, eclipsing the post-earthquake outbreak in Haiti. Haiti still battles with the disease 7 years after its reintroduction. Meanwhile, Somalia is experiencing its worst outbreak in five years. South Sudan continues to fight its worst outbreak since it gained independence in 2011. If nothing changes, cholera will continue to claim some 100,000 lives a year and afflict around 3 million people, many of them children.

This week, the World Health Organization (WHO) launches a campaign to eliminate cholera outbreaks by 2030. The plan could move countries beyond ad hoc reactions, to sustainable prevention.

The disease is caused by the bacterium *Vibrio cholerae* and spreads mainly through contaminated water. Infection usually causes no or mild symptoms, but in approximately one-tenth of cases it swiftly leads to watery diarrhoea, vomiting and cramps. Rapid loss of fluid can result in dehydration and death within hours. An oral rehydration solution that costs cents can reduce fatality from a high of 50% to under 1%. Every year, it still fails to reach tens of thousands of victims in time.

Clean water, improved sanitation and better access to treatment have been game-changing for much of the world, but cholera is still thought to be endemic in 69 countries, including most of sub-Saharan Africa.

In the twenty-first century, no one should die from this disease. We have treatments and prevention strategies that work, including sufficient cholera-vaccine stocks. We know where outbreaks are most likely to start. To spread, cholera needs estuaries, rivers or coastal waters that are contaminated with faeces, and susceptible people living nearby; it has clear patterns of recurrence. What we need to do is get there first.

What's stopping us? One barrier is stigma. Many national and regional governments don't want to admit that their territory harbours cholera. Rather than controlling it, they hide it. The stigma goes back hundreds of years, to when ships with sick passengers were not allowed to dock and people feared being put in quarantine. Now the fears are public anger and loss of economic opportunities. Many countries with known endemic cholera in Asia and Africa report to the WHO that they have no cases, and in the face of an outbreak do not request cholera vaccines. In 2010, during the massive floods in Pakistan, my colleagues and I saw hundreds of cases of acute watery

diarrhoea in Sindh that we confirmed to be cholera in our laboratory, but national health officials told us to keep it quiet.

Too many countries act only after a crisis has emerged: then they request vaccine campaigns, set up makeshift cholera clinics and urgently mobilize supplies.

These tactics can quell an outbreak and dampen transmission in the short term, but they don't stop outbreaks from happening again. For that, governments must intervene preemptively to control cholera in places where it recurs frequently. Since the WHO cholera-vaccine stockpile was established in 2013, almost 13 million doses have been delivered. Millions more doses should have been requested.

To truly stop cholera outbreaks, countries must do two things: deploy vaccines where cholera is endemic and strengthen the infra-

structure that provides clean water and good sanitation.

Events in Malawi give reason for optimism. In April this year, the country adopted a national plan to control and prevent cholera that directs vaccines to affected communities identified by geo-spatial mapping. More than 2 million citizens have been vaccinated ad hoc since 2015. The new plan, made possible by strong political commitment at the Ministry of Health, collates two decades' worth of information to better estimate cholera burden, identify hotspots and support early intervention. At the same time, Malawi is planning to strengthen water and sanitation infrastructure. Experts are hopeful that this will reduce the country's cholera burden to

its lowest level in years.

Similarly, the WHO Global Task Force on Cholera Control is launching a renewed strategy to eliminate cholera outbreaks worldwide. Unlike past efforts, this plan goes beyond responding to cholera flare-ups: it encourages countries to invest in protecting people from cholera over the short and long term.

The success of the WHO's plan ultimately depends on the commitment of governments worldwide. All governments, whether or not they are directly affected by cholera, must unite and increase their political and financial investment in cholera prevention and control.

The first cholera pandemic, in 1817, swept across South Asia, East Africa, the Middle East and Europe, claiming hundreds of thousands of lives. Back then, we had no vaccine and a limited understanding of transmission. It is unacceptable that, now, in that pandemic's 200th anniversary year, a disease we know how to fight remains out of control. ■

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