FORUM: World Health Organization (WHO)

QUESTION OF: Supporting Cholera Outbreak Response

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INTRODUCTION

Cholera, otherwise known as the Blue Death, is a highly contagious diarrhoeal infection that is caused by the pathogen, Vibrio cholerae. It is usually found in insecure living and working conditions, as it is transmitted via contaminated food and water. It causes watery diarrhea, vomiting and severe dehydration that could easily result in death if not treated immediately. The reason as to why cholera poses a significant risk is that it can spread quickly, especially in areas with poor sanitation and lack of healthcare facilities, resulting in citizens with low immune systems. In fact, "cholera causes an estimated 3 to 5 million cases and 100 000 to 120 000 deaths every year."[1]

Figure 1: the four steps of cholera: consumption of the substance that contains the bacterium, symptoms such as diarrhea, nausea and dehydration[2]

A cholera outbreak is a sudden increase in cholera patients, in the form of an epidemic, or even a pandemic. It has been noted that it is far less likely for the bacterium to be spotted in More Economically Developed Countries (MEDCs) due to modern sewage and water treatment than in Less Economically Developed Countries (LEDCs) that do not have access to such resources. This illustrates the connection between this topic and our

[1] Administrator. "Cholera." World Health Organization - Regional Office for the Eastern Mediterranean, www.emro.who.int/health-topics/cholera-outbreak/index.html.

[2] ---. "Cholera." World Health Organization - Regional Office for the Eastern Mediterranean, www.emro.who.int/health-topics/cholera-outbreak/index.html.

conference's theme "Ethos vs Progress" since it highlights the ethical implications of this issue, like the fact that many people do not live in an adequate environment and so are prone to suffer more than those in a higher economic and political state whilst being denied basic human rights such as the right to healthcare.

Taking all of the above into consideration, various factors should be taken into consideration for an impartial and effective response to a cholera outbreak. Limiting the spread of a disease is very difficult, especially when there is not a support system that assists with such an attempt. Therefore, this study guide aims to cover as many perspectives of this topic as possible, in order to direct realistic and viable solutions on how to achieve the prevention and elimination of a cholera outbreak.

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DEFINITION OF KEY TERMS

Cholera

"Cholera is an acute diarrhoeal infection caused by the bacterium *Vibrio cholerae*, infecting people most often via contaminated water or food ingestion."[3]

Epidemic

"An occurrence in which a disease spreads very quickly and affects a large number of people in a specific area."[4]

Outbreak

"A sudden rise in the incidence of a disease."[5]

Pandemic

"Contrary to an epidemic, a pandemic is the worldwide spread of a new disease, such as a new influenza virus or the coronavirus that causes COVID-19."[6]

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[3] ---. "Cholera." *World Health Organization - Regional Office for the Eastern Mediterranean*, www.emro.who.int/health-topics/cholera-outbreak/index.html.

[4] "Epidemic Definition & Meaning | Britannica Dictionary." *Www.britannica.com*, www.britannica.com/dictionary/epidemic.

[5] "Definition of OUTBREAK." *Www.merriam-Webster.com*, www.merriam-webster.com/dictionary/outbreak.

[6] Australia, Healthdirect. "What Is a Pandemic?" *Www.healthdirect.gov.au*, 31 Mar. 2020, www.healthdirect.gov.au/what-is-a-pandemic.

Pathogen

"A pathogen is any organism that causes disease. Viruses, bacteria, fungi, and parasites are all examples of pathogens."[7]

Transmission

"The act or process by which something is spread or passed from one person or thing to another."[8]

BACKGROUND INFORMATION

Historical Background

Cholera originates from India, specifically from the Ganges Delta which is the largest river delta in the world. The first cholera pandemic broke out in 1817, spreading by trade routes from India to countries in Asia such as China, Japan and Southern Russia. It quickly died out due to severe weather conditions that burned down the virus that winter. Six years later, it finally reached Europe in 1827 where the situation exacerbated and a second pandemic took root.

The third cholera outbreak is said to have been the deadliest one. Introducing itself in 1854, London, and killing 23,000 people.[9] At the time, most citizens were under the impression that the reason behind the spread of this disease was "miasma" or in other words, poor air quality. So, an English physician named John Snow who believed otherwise, decided to investigate the truth. He traced down a great number of deaths around a water pump on Broad Street. Once disabling the pump, it was apparent that the outbreak stemmed from poor water sanitation. Through this realization, John Snow managed to change the course of medical history and emphasize on the root cause of cholera outbreaks, allowing healthcare professionals to work on medicine and methods of recovery. For example, the

[7] Santos-Longhurst, Adrienne. "What Is a Pathogen? 4 Types and How They Spread Disease." *Healthline*, 3 Apr. 2019, www.healthline.com/health/what-is-a-pathogen#:~:text=A%20pathogen%20is%20any%20organism.

[8] "Transmission Definition & Meaning | Britannica Dictionary." *Www.britannica.com*, www.britannica.com/dictionary/transmission.

[9] History.com Editors. "Cholera." *HISTORY*, A&E Television Networks, 21 Aug. 2018, www.history.com/topics/inventions/history-of-cholera.

first vaccine for cholera is called Dukoral and was introduced in Sweden in the 1980s, usually used by travelers, offering 85% of protection for the first six months.[10]

The next two outbreaks (fourth: 1863-1875, fifth: 1881-1896) were less severe because of advanced measures such as quarantine and developed water supplies. However, by the end of the sixth pandemic (1899-1923) half a million people had lost their lives to the destructive pathogen.[11]

Cholera is still active in a number of regions. Contrary to the previous outbreaks which originated from India, the seventh one was launched in Indonesia, 1961 and reached Africa in 1971. More than 90 percent of cholera outbreaks reported from WHO have been traced down to African countries ever since.[12] Currently, 120 countries have been affected by the ongoing pandemic with key targets being LEDCs. As of recently, Zimbabwe's outbreak (2008-2009) with 97,000 victims and 4,200 deaths, Haiti's outbreak (2010-2011) with 500,000 victims and Yemen's outbreak (2017) with 500,000 victims and 2,000 deaths have been the most devastating ones.[13]

Causes

Poor Water and Food Sanitation

Just as it was mentioned above, cholera is caused by an infection from the bacterium, Vibrio cholerae. Once the pathogen has entered either the human or animal body, it produces toxins that lead to serious diarrheal and dehydration symptoms. It initially targets the intestines, disrupting natural digestion and causing fast loss of fluids and electrolytes. If not treated immediately, the dehydration can become fatal in a matter of a

[10] "Cholera." *Www.who.int*, www.who.int/teams/immunization-vaccines-and-biologicals/diseases/cholera#:~:text=Dukoral%C2%AE%20is%20mainly%20used.

[11] ---. "Cholera." *HISTORY*, A&E Television Networks, 21 Aug. 2018, www.history.com/topics/inventions/history-of-cholera.

[12] ---. "Cholera." *HISTORY*, A&E Television Networks, 21 Aug. 2018, www.history.com/topics/inventions/history-of-cholera.

[13] ---. "Cholera." *HISTORY*, A&E Television Networks, 21 Aug. 2018, www.history.com/topics/inventions/history-of-cholera.

few hours. This can be supported by the statistics that "since 1 January 2024 and as of 30 June 2024, 247 071 cholera cases, including 2 121 deaths, have been reported worldwide."[14]

Cholera is usually spread through the ingestion of contaminated water or food since the pathogen can survive for a long period of time in both liquids and solids, making such necessary consumption sources highly transmissible in areas with insecure sanitation and hygiene practices. Therefore, inadequate sanitation is a major concern when it comes to cholera outbreaks since poor sanitation facilities, such as lack of clean sewage systems and waste disposal methods, can result in the contamination of direct water sources with the bacterium. When an area lacks proper waste management, feces can permeate into drinking water, leading to direct contamination. This is especially harmful towards populations that rely on open water sources like ponds or rivers which can easily be infected with infested waste. Unfortunately, such populations like Africa and Haiti which are still battling an ongoing cholera crisis[15], also happen to be the ones who lack proper healthcare responses, which instantaneously translates to the fact that they have more chances to not survive and cause a widespread of this disease. Therefore, a significant step to combatting this issue is improving sanitation infrastructure and building safe toilets alongside protected sewage systems. Last but not least, when it comes to cooking, individuals could seek to follow safe practices such as boiling water which is said to eradicate cholera, using clean utensils and maintaining proper food hygiene.

[14] "Cholera Worldwide Overview." *Www.ecdc.europa.eu*, 4 Mar. 2024, www.ecdc.europa.eu/en/all-topics-z/cholera/surveillance-and-disease-data/cholera-monthly#:~:text=Since%201%20January%202024%20and.

[15] Mayo Clinic. "Cholera - Symptoms and Causes." *Mayo Clinic*, Mayo Clinic, 9 Dec. 2022, www.mayoclinic.org/diseases-conditions/cholera/symptoms-causes/syc-20355287.

Figure 2: Open water source consumption which can lead to cholera intake[16]

Highly Populated Areas

Highly populated areas can also easily exacerbate the spread of cholera since people who live in close proximity in crowded urban slums or refugee camps can increase the likelihood that contaminated water or food will rapidly affect them. In fact, experts state that "the risk of a cholera epidemic is highest when poverty, war or natural disasters force people to live in crowded conditions without adequate sanitation."[17] Overcrowding usually negatively impacts proper sanitation and health infrastructure, making it much more difficult to sustain clean water supplies and waste disposal.

[16] Konan. "Cholera Caused by Food - Choice Care Clinic." Choice Care Clinic, 11 Aug. 2023, www.choicecareclinic.com/cholera-caused-by-food/. Accessed 16 Sept. 2024.

[17] ---. "Cholera - Symptoms and Causes." Mayo Clinic, Mayo Clinic, 9 Dec. 2022, www.mayoclinic.org/diseases-conditions/cholera/symptoms-causes/syc-20355287.

Climate Change

Another prominent cause of a cholera outbreak is climate change. Due to unnatural environmental conditions, rising temperatures can influence the growth and survival of the pathogen in water sources. Which in turn, leads to outbreaks appearing in areas that were thought to be less likely to be affected. Additionally, natural disasters that are exacerbated by climate change, such as floods, cyclones and droughts take up a lot of energy and resources, exhausting clean water and sanitation management, creating an ideal environment for the bacterium to thrive in. The WHO exemplifies this statement by claiming that "in 2022, 44 countries reported cholera cases, a 25% increase from the 35 cases in 2021. This trend continues into 2023"[18] as the recent dramatic pace and danger of the disease emphasizes its rising threat.

Impact

Health impact

Cholera primarily has a huge impact on the health of large groups of people, alongside the sustainability and stability of the healthcare system. It can be a life-threatening disease if not faced with the proper treatment and instant response. The vomiting and diarrhea that come hand in hand with the bacterium, cause severe and quick dehydration. Such a symptom requires immediate rehydration care in order to avoid electrolyte imbalance. Electrolyte imbalance is "the rapid loss of minerals in your blood that maintain the balance of fluids in your body, leading to muscle cramps, organ failure, shock and finally, death."[19] Cholera's mortality rate in areas that can not support accessible and effective medical care has a huge difference with mortality rates in areas that have a reliable healthcare system. This is because "without treatment, cholera can kill within hours. But with proper care, the death rate drops to 1% or less."[20] Which clearly highlights the necessary intervention of organizations and partnered Member States to ensure that no cholera

[18] "Cholera Upsurge." *Www.who.int*, www.who.int/emergencies/situations/cholera-upsurge#:~:text=Extreme%20climate%20events%20like%20floods.

[19] ---. "Cholera - Symptoms and Causes." *Mayo Clinic*, Mayo Clinic, 9 Dec. 2022, www.mayoclinic.org/diseases-conditions/cholera/symptoms-causes/syc-20355287.

[20] "Everything You Need to Know about Cholera." *Doctors without Borders - USA*, 2024, www.doctorswithoutborders.org/latest/everything-you-need-know-about-cholera#:~:text=Without%20treatment%2C%20cholera%20can%20kill. Accessed 16 Sept. 2024.

patients go without treatment. Finally, cholera outbreaks exhaust medical resources and divert attention away from other significant health services, assigning a great burden on the healthcare sector of the affected region.

Economic impact

Economic implications also take place where cholera outbreaks are involved. A health crisis like a cholera epidemic or pandemic has deep financial demands which include both direct and indirect costs. Direct costs are treatment expenses, medical supplies, medications and healthcare personnel. Indirect costs are the lack of productivity and labor an individual has to go through when taking care of sick family members. Communities that are struck by cholera can undergo major disruption in their local economies, especially those who rely on agriculture or tourism as their crops will be infested with the Vibrio cholerae and tourists will avoid visiting an area roaming with a lethal pathogen. Ultimately, emergency responses require great economic support which will likely paralyze and drain both local and international resources.

Social impact

The social impact of cholera brings about issues that harm vulnerable populations and isolates them from the rest of the world. Such a disease projects fear and stigma to individuals that have suffered from it and creates severe trauma and stress for the families that have lost someone close to them because of it. Cholera outbreaks could also take a toll on the daily lifestyles of civilisations, disrupting their regular schooling and working schedules and slowing down significant services.

Ethical implications

Treatment Accessibility

The most important step to curing cholera is treatment, however, its accessibility has proven to be a major ethical concern. More specifically, in 2017, WHO claimed that “at least

half the world lacks access to essential health services,"[21] and according to the World Economic Forum, in 2024, "some 4.5 billion people are currently without adequate access to essential healthcare services."[22] Limited treatment translates to higher mortality rates and deeper global impact. Addressing impartial access to healthcare services involves breaking barriers like geographical isolation, economic constraints and logistical challenges in delivering medical supplies. International operations such as alliances and partnerships should be promoted in order to combat this issue in unison and consideration, with no discrimination to who can have access to the proper survival means.

Resource Allocation

Another ethical implication is resource allocation that takes root when complicated and rapid ethical decisions must be made during cholera outbreaks. Essential resources such as funding, vaccines and medical supplies should be distributed fairly amongst the infected groups. It is significant to prioritize resources for such cholera epidemics or pandemics, although at times this could result in limited resources for other public health crises. Impartiality in resource allocation includes prioritizing individuals based on the urgency of their medical state, rather than their social status.

[21] WHO. "World Bank and WHO: Half the World Lacks Access to Essential Health Services, 100 Million Still Pushed into Extreme Poverty because of Health Expenses." World Health Organization, World Health Organization, 13 Dec. 2017, www.who.int/news/item/13-12-2017-world-bank-and-who-half-the-world-lacks-access-to-essential-health-services-100-million-still-pushed-into-extreme-poverty-because-of-health-expenses.

[22] Shyam Bishen, and World Economic Forum. "Davos 2024: What's the State of Health and Healthcare?" World Economic Forum, 26 Jan. 2024, www.weforum.org/agenda/2024/01/whats-the-state-of-health-and-healthcare-heres-what-we-learned-in-davos/.

Global responsibility

Global responsibility, which generally translates as the responsibility of Member States to take designated action towards mitigating global problems, also plays a key role in determining the direction a cholera outbreak will take. Since cholera is an international health crisis, it is of utmost importance for nations to work together in order to tackle it. This includes the obligation that the international community has to help those in need by taking matters into their own hands, and as wealthier nations, aid vulnerable areas that can not support their healthcare systems and where the impact of the disease is usually more severe. Ensuring that individuals from all countries, no matter their economic status, have access to their fundamental human rights, voices a commitment to international health equity and justice.

Ultimately, stigmatization and discrimination is a great issue that individuals or communities that have recovered or are suffering from cholera, face on a daily basis. This is because of misconceptions and misinformation that might have been spread about the disease, exacerbating their psychological and physical damage by pressuring individuals to be reluctant to seek treatment, and encouraging them to isolate themselves from the rest of society. This must be addressed through public education campaigns in order to ensure that everyone is treated compassionately and equally without prejudice or favoritism.

MAJOR COUNTRIES AND ORGANIZATIONS INVOLVED

Democratic Republic of Congo (DRC)

The DRC plays a pivotal role in the history of cholera due to the recurring epidemics and ongoing crises it has faced in the healthcare system. It has experienced a number of severe outbreaks, exacerbated by inadequate sanitation, limited access to clean water, and ongoing conflicts that damaged health services. The government and local health authorities in the DRC are central to emergency response efforts, working to manage outbreaks through treatment, public health campaigns, and improvements in water and sanitation infrastructure. International support is an essential measure that should be taken in favor of the DRC, in order to ensure that the situation does not escalate further.

Haiti

Haiti has a devastating history of cholera outbreaks which began in October 2010 due to a catastrophic earthquake. The outbreak was linked to a United Nations peacekeeping base where sanitation practices were inadequate, leading to the introduction of cholera into the country's water supply. Haiti's struggle with cholera highlights the challenges of managing outbreaks in a country with limited healthcare infrastructure and high levels of poverty. The Haitian government, along with international partners, have been working to control the outbreak by initiating vaccination campaigns, improving water and sanitation facilities, and strengthening healthcare services. The ongoing efforts to address cholera in Haiti are crucial for understanding and managing disease outbreaks in low-resource settings.

Figure 3: Cholera epidemic in Haiti[23]

International Committee of the Red Cross (ICRC)

The International Committee of the Red Cross (ICRC) is an independent human right's organization that aims to protect groups that are affected by any sort of global issue. It plays a vital role in cholera response, particularly in conflict-affected regions and areas with severe humanitarian needs. The ICRC provides emergency medical care, including treatment for cholera patients, and supports the establishment of clean water and sanitation facilities to prevent the spread of the disease. Their work often involves delivering aid in disconnected

[23] Reports, Staff. "The UN's Involvement in Haiti's Cholera Epidemic." BORGEN, 12 Aug. 2014, www.borgenmagazine.com/u-n-s-involvement-haitis-cholera-epidemic/.

and disadvantaged environments where other organizations may have limited access. The ICRC's focus on providing neutral and impartial humanitarian assistance ensures that cholera response efforts reach those most in need, regardless of the conflict or crisis situation. Their expertise in emergency response and logistics makes them an essential player in managing cholera outbreaks and mitigating their impact.

World Health Organization (WHO)

The World Health Organization (WHO) is a central global player in the fight against cholera, providing leadership and coordination in cholera prevention and response efforts worldwide. WHO develops and disseminates guidelines and strategies for managing cholera outbreaks, including recommendations for treatment protocols, vaccination campaigns, and water and sanitation improvements. The organization also supports countries with technical assistance, disease surveillance, and emergency response coordination. Through initiatives like the Global Task Force on Cholera Control and the Global Roadmap to 2030, WHO works to reduce cholera cases and deaths, promote global health security, and ensure a coordinated international response to cholera outbreaks. Their leadership and resources are crucial in shaping effective global strategies for controlling and eventually eliminating cholera.

TIMELINE OF EVENTS

Date	Description of Event
1817	The first cholera pandemic broke out.
23 May 2005	The 58th World Health Assembly adopted the IHR.
15 June 2007	Official enforcement of the IHR.
28 July 2010	Adoption of the UN General Assembly Resolution 64/292.
October 2010	Haiti faces its first cholera outbreak as an aftermath of its catastrophic earthquake.
25 September 2015	The UN SDGs are established by the UN in order to set a total of 17 goals which aim to resolve the most pressing issues our world is currently facing until the target date of 2030.
17 December 2015	Adoption of the UN General Assembly Resolution 70/169.
31 May 2017	Adoption of the WHA Resolution 70.15.

UN INVOLVEMENT: RELEVANT RESOLUTIONS, TREATIES AND EVENTS

International Health Regulations (IHR) (2005)

The IHR, adopted by the 58th World Health Assembly on 23 May 2005 and enforced on 15 June 2007,[24] are a critical framework that advocate for international health protection and play a significant role in controlling the impact of cholera outbreaks. They are a legally binding agreement that is applied to 196 countries, 194 of which are WHO member states, encouraging them to strengthen their health systems and enhance their ability to detect, assess, and respond to public health emergencies of international concern, including cholera.[25] Under the IHR, it is compulsory for member states to report cholera outbreaks to the WHO and cooperate with international response teams. By setting standards for disease surveillance and response, the IHR helps ensure that countries are better equipped to handle cholera outbreaks and prevent the global spread of the virus.

UN General Assembly Resolution 64/292 (2010)

UN General Assembly Resolution 64/292, adopted on 28 July 2010, recognized the human right to safe and clean drinking water and sanitation.[26] This resolution is especially relevant to cholera prevention and management because it acknowledges the root cause of the spread of this disease and means to tackle it. The resolution calls for global efforts such as international aid and cooperation to improve water and sanitation infrastructure, especially in LEDCs where cholera is most prevalent.

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[24] International Health Regulations (2005). 2nd ed., World Health Organization (WHO), 2008, www.afro.who.int/sites/default/files/2017-06/international_health_regulations_2005.pdf.

[25] ---. "International Health Regulations." Www.who.int, 2005, www.who.int/health-topics/international-health-regulations#tab=tab_1.

[26] UNDESA. "International Decade for Action "Water for Life" 2005-2015. Focus Areas: The Human Right to Water and Sanitation." Www.un.org, www.un.org/waterforlifedecade/human_right_to_water.shtml#:~:text=On%2028%20July%202010%2C%20through.

UN General Assembly Resolution 70/169 (2015)

UN General Assembly Resolution 70/169, adopted on 17 December 2015, highlighted the mitigation, treatment, and control of cholera. This resolution enforced a number of efforts to combat cholera, including the implementation of the Global Task Force on Cholera Control's strategies and the Global Roadmap to 2030.[27] The resolution emphasized the need for increased support for countries that have suffered from the bacterium, through means such as the provision of financial resources, technical assistance, and capacity building. It also focused on the significance of developing water and sanitation infrastructure and scaling up oral cholera vaccination campaigns. This resolution has generally played an essential role in mobilizing international support and resources to combat the disease, making it a key step in the coordinated attempt to reduce and eventually eliminate cholera.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

United Nations Sustainable Development Goals (UNSDGs)

The UNSDGs, which were established by the United Nations on 25 September 2015, consist of 17 goals that aim to be met by the agenda of 2030. They represent an international attempt to address a wide range of interconnected issues, including those that contribute to the spread of diseases such as cholera.

SDG 6 “Clean Water and Sanitation” focuses on ensuring the impartial availability and sustainable management of water and sanitation. By promoting universal access to safe and affordable drinking water and improving water quality by reducing pollution, the SDGs directly address some of the root causes of cholera. Additionally, SDG 3 “Good Health and Wellbeing” aims to ensure a healthy lifestyle and promote well-being for all, which includes reducing the number of deaths and illnesses from waterborne diseases, like cholera.

[27]Amnesty International and WASH United. “United Nations General Assembly Resolution 70/169: United Nations General Assembly Affirms That Water and Sanitation Are Distinct Rights and Confirms a Strong Definition of These Rights.” Human Rights Watch, 17 Dec. 2015, www.hrw.org/sites/default/files/supporting_resources/unga70-resolution_on_wash_-_joint_ngo_statement.pdf.

Figure 4: UN Sustainable Development Goals (UNSDGs)[28]

The UNSDGs also emphasize the need for strengthened healthcare systems, progressive disease surveillance, and developed public health education, all of which are imperative components in combating cholera. By setting these targets, the SDGs have guided global efforts, policies, and funding towards addressing the issues that lead to cholera outbreaks. This illustrates the significance of this previous attempt. However, despite some improvement, it is apparent that more persistent and continuous efforts must be made to tackle this issue. Especially since it seems nearly impossible for the UNSDGs to be met by their target date, 2030, with the pace that their progress is going.

Global Task Force on Cholera Control (GTFCC)

The Global Task Force on Cholera Control (GTFCC) is a partnership launched in 1992 by the World Health Organization (WHO) to coordinate global efforts to tackle cholera. The GTFCC brings together a wide range of stakeholders, including governments, international

[28] Team, Gtp Editing, and Gtp Editing Team. "Global Travel and Tourism Leaders Welcome New UN Sustainable Development Goals." GTP Headlines, 30 Sept. 2015, news.gtp.gr/2015/09/28/travel-tourism-welcome-new-un-sdgs.

organizations, NGOs, and research institutions, with the goal of reducing the incidence of cholera and eventually eliminating it as a public health threat. The GTFCC has developed a number of comprehensive strategies that focus on improving Water, Sanitation, and Hygiene (WASH), strengthening healthcare systems, enhancing disease surveillance, and promoting rapid response to outbreaks.

One of the key initiatives of the GTFCC is the Global Roadmap to 2030, which aims to reduce cholera deaths by 90% and eliminate the disease in 20 countries by 2030[29]. This plan emphasizes the significance of cooperation amongst Member States, the need for sustained investment in cholera prevention and control, as well as the implementation of targeted interventions in cholera hotspots. Through these efforts, the GTFCC has played an imperative role in directing and supporting global cholera control activities. Whilst it helps Member States to develop National Cholera Plans (NCPs) such as "technical support and assistance, local-level and global-level partnerships, capacity building, fundraising and development resource mobilization and operational research implementation." [30]

World Health Assembly (WHA) Resolution WHA 70.15

The WHA Resolution 70.15, adopted on May 31 2017, represents a significant international attempt to resolve the cholera crisis. This resolution, passed by the Member States of the WHO in the 140th session of WHO's executive board in January 2017[31], calls for an intensified and coordinated approach to ending cholera outbreaks. WHA 70.15 endorses

[29] "Svupporting Cholera Control and Prevention Efforts via "Ending Cholera – a Global Roadmap to 2030" | Department of Economic and Social Affairs." Sdgs.un.org, sdgs.un.org/partnerships/supporting-cholera-control-and-prevention-efforts-ending-cholera-global-roadmap-2030.

[30] "About the GTFCC – Global Task Force on Cholera Control." Www.gtfcc.org, www.gtfcc.org/about-gtfcc/#:~:text=The%20GTFCC%20provides%20countries%20with.

[31] "World Health Assembly (WHA) Resolutions and Related Documents." Who.int, 2017, www.who.int/observatories/global-observatory-on-health-research-and-development/resources/publications/world-health-assembly-(wha)-resolutions-and-related-documents. Accessed 16 Sept. 2024.

the Global Roadmap to 2030[32] by the GTFCC, and suggests stronger ideas than its previous follow-ups.

This resolution emphasizes the importance of improving WASH infrastructure in cholera infected areas, enhancing access to oral cholera vaccines, and strengthening systems to ensure a rapid response to outbreaks. It also calls for better surveillance and reporting of cholera cases to help track progress and direct resources where they are most needed. By urging countries to prioritize cholera control and elimination, WHA 70.15 has mobilized global support and funding, making it a critical previous attempt to address the ongoing challenge of cholera globally.

POSSIBLE SOLUTIONS

International Collaboration and Aid

Supporting a cholera outbreak response through international collaboration and aid is of utmost significance for controlling the spread of this lethal bacterium. By forming alliances and partnerships, Member States and Organizations can share resources, knowledge, and expertise to provide effective solutions. This approach allows for a faster response, as aid can be quickly sent to the affected areas, including medical supplies, clean water, and sanitation facilities. Also, collaborating on public health strategies helps to spread awareness and educate communities on preventing the disease, ensuring that efforts are well-coordinated and reach those in need.

The WHO can play a key role in supporting such a cholera outbreak response. As a global health leader, WHO has the expertise and resources to coordinate and supervise international efforts, ensuring that the response is both quick and effective. WHO can help by sending medical supplies, deploying health experts, and providing technical guidance to local health authorities. Additionally, WHO can support disease surveillance, helping to track the spread of cholera as well as identify areas that are most in need of intervention. By working closely with local governments and other partners, WHO can ensure that communities receive the necessary education on hygiene and sanitation practices, which are key to preventing the spread of cholera.

[32] "Ending Cholera: A Global Roadmap to 2030." Global Task Force on Cholera Control, www.gtfcc.org/wp-content/uploads/2019/10/gtfcc-ending-cholera-a-global-roadmap-to-2030.pdf.

Fast Response Teams

Deploying fast response teams is imperative during a cholera outbreak due to the disease's fast expansion and potentially deadly impact. These teams consist of healthcare experts, emergency personnel, and logistical professionals who can be quickly mobilized to reach infested areas. Their initial roles include providing immediate and accessible medical care to those infected no matter their economic and ethnic group, distributing essential supplies like rehydration salts and antibiotics, and implementing emergency stations to prevent further spread. Rapid response teams also play an important role in educating communities about how to protect themselves from cholera, such as by promoting handwashing and the safe preparation of food and water. The speed and efficiency of these teams can significantly reduce the number of cases and save lives during the early stages of an outbreak since "the quicker the response by the teams, the shorter the duration of outbreaks."[33] This is illustrated by the fact that, the United Nations Children's Fund (UNICEF) asserted that "the duration of a cholera outbreak decreased by 64 per cent where the first completed Case Area Targeted Interventions (CATIs) was completed within one day or less."[34]

The International Federation of Red Cross and Red Crescent Societies (IFRC) is exceptionally equipped to lead the deployment of fast and ethical response teams during cholera outbreaks. With a global network of more than 16 million volunteers and a strong presence in more than 191 countries.[35] The IFRC can quickly mobilize resources and personnel to the most vulnerable and prone to be infected areas. The organization's experience in emergency response and its ability to work in coordination with local health authorities render it a key player in managing such circumstances. The IFRC's focus on community-based health interventions ensures that their fast response teams not only treat

[33] Built, Gregory. "Response to Cholera Outbreaks: Case Area Targeted Interventions and Community Outbreak Response Teams." UNICEF, 2019, www.washcluster.net/sites/gwc.com/files/2022-01/Responding%20to%20Cholera%20outbreaks_CATI-CORT%20UNICEF%20Guidelines%202020.pdf.

[34](ibid 34).

[35] "Who we are." International Federation of Red Cross and Red Crescent Societies (IFRC), www.ifrc.org/who-we-are/about-ifrc#:~:text=Our%20secretariat%20supports%20local%20Red,for%20the%20good%20of%20humanity.

those who are sick but also engage with communities to prevent further infections and discrimination against infected individuals, providing a comprehensive and ethical approach to cholera outbreaks.

Policy and Regulatory Reforms

Policy and regulatory reforms are essential measures for the prevention of cholera outbreaks and ensuring that health systems are prepared to respond to them to the best of their abilities. Plausible policies can mandate improvements in water quality, sanitation standards, and public health infrastructure, which are all critical in reducing the conditions that allow cholera to spread. Regulatory reforms can also ensure that there is proper monitoring and enforcement of these standards, as well as rapid response mechanisms in place to address outbreaks. Additionally, policies that promote health education and free access to healthcare services can empower communities to protect themselves from cholera. By institutionalizing these changes, governments can create a more resilient public health environment that minimizes the risk of future cholera outbreaks.

The World Bank is a powerful contributor in supporting policy and regulatory reforms related to cholera prevention and control. This is clearly exemplified through the help that it provided to the unfortunate and disastrous cholera epidemic in Haiti, supporting projects and policies that sought to eliminate the expansion of the outbreak. It ultimately achieved a number of things such as the fact that "more than 1.5 million people benefited from the restoration of 46 healthcare facilities in areas affected by Hurricane Matthew, restoring access to vaccination to more than 300,000 children and it increased the health facilities with adequate stocks of cholera supplies from 0 to 100%."[36] Hence, with its funding and technical assistance programs, the World Bank can help governments develop and implement policies that address the root causes of cholera.

Improved Water and Sanitation Infrastructure

Improving water and sanitation infrastructure is one of the most effective ways to prevent cholera outbreaks since it has been confirmed that "contaminated water supplies

[36] "Improving Maternal and Children Health Care in Times of Cholera." World Bank, www.worldbank.org/en/results/2021/10/13/improving-maternal-and-children-health-care-in-times-of-cholera.

are the main source of cholera infection."[37] Therefore, ensuring access to clean water and adequate sanitation facilities is critical to paralyzing the spread of the bacterium. This involves building and maintaining water treatment plants, improving sewage systems, and providing public toilets in areas that lack basic sanitation. Also, communities must be provided with reliable access to clean drinking water, which can be achieved through the construction of wells, pipelines, and water filtration systems. Education on proper hygiene practices, such as handwashing and safe food preparation, is also essential to complement infrastructure improvements. By addressing the underlying environmental factors that contribute to cholera transmission, improved water and sanitation infrastructure not only controls current outbreaks but also prevents future ones.

WaterAid is a leading organization dedicated to improving access to clean water, sanitation, and hygiene, making it an ideal partner in the fight against cholera. WaterAid focuses on building sustainable water and sanitation infrastructure in some of the world's most vulnerable communities. Their projects include the construction of wells, latrines, and water filtration systems, as well as the installation of handwashing stations. WaterAid also engages in advocacy and education to promote hygiene practices that are critical for cholera prevention. By working closely with local communities and governments, WaterAid ensures that the infrastructure it builds is not only effective but also maintained over the long term. This comprehensive approach helps to create environments where cholera cannot survive and thrive in, thereby reducing the incidence of the bacterium and improving overall public health.[38]

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[37] "Cholera - Symptoms and Causes." Mayo Clinic, www.mayoclinic.org/diseases-conditions/cholera/symptoms-causes/syc-20355287#.

[38] "Cholera Cases Could Double over the next Two Decades If Action Is Not Taken Now | WaterAid UK." *Www.wateraid.org*, www.wateraid.org/uk/media/cholera-cases-could-double-over-next-two-decades.

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