

Cholera Outbreak in Tanzania: A Wake-Up Call for National Health Security

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Abstract

The Cholera outbreak in Tanzania has raised serious concerns about the national health security of the country. The outbreak has affected several regions, causing numerous fatalities and posing a threat to public health. This commentary discusses the cholera outbreak in Tanzania and highlights the need for national health security. Presents the current epidemiological status of the outbreak, including its spread to several regions and neighboring countries. Efforts to combat the outbreak, such as community-based surveillance and the distribution of aqua-tabs and safe water, are also discussed. However, poor economic development and inadequate access to clean water and sanitation remain challenges to cholera control in Tanzania. This commentary recommends preventive measures for cholera, such as drinking and using safe water, washing hands frequently, using toilets properly, cooking foods properly, and cleaning up safely. The use of Oral Cholera Vaccine in certain conditions is also recommended. Overall, the commentary emphasizes the need for long-term solutions to improve access to clean water and sanitation to prevent future cholera outbreaks.

Introduction

Cholera is a life-threatening diarrheal disease caused by the bacterium *Vibrio cholerae*, which infects the small intestine of humans. It is a global public health concern and a major cause of morbidity and mortality, particularly in developing countries where access to clean water and sanitation is limited. Among the serogroups of *V. cholerae* only O1 and O139 are responsible for outbreaks of cholera [1]. According to the World Health Organization (WHO), there are an estimated 1.3 to 4 million cases of cholera worldwide each year, resulting in 21,000 to 143,000 deaths [2]. The bacteria is usually found in food or water contaminated with feces. Most of the sub-Saharan African countries experience a high burden of cholera due to poor access to clean water, safe sanitation infrastructures and inadequate health systems that exacerbate the spread of the disease [2].

Cholera infection is an endemic disease, most of Tanzanians face problems in accessing clean and safe drinking water, and, majority of Tanzanians lacks access to clean water and basic sanitation facilities with only 26.33% having access to safely managed sanitation and so most of them are still at risk of getting cholera infection [3]. Furthermore, most Tanzanians still live in areas with poor hygiene and so making the probability of the spread of infection

high. The presence of heavy rainfall in most parts of the country makes those parts most vulnerable to the infection [4].

Epidemiological Status

In Tanzania various attack of Cholera happens mainly in highly populated area, following the recent outbreak, the first confirmed case of Cholera was reported on 20 April 2023. The first case was registered in the Ilala district in the Dar es Salaam region on 20 April 2023. The Tanzania Ministry of Health declared the cholera outbreak on 24 April 2023 after the increase and spread of confirmed cases. The cholera outbreak, initially limited to the eastern part of the country, has now spread from Kivule wards to Ilala and Buguruni wards in the Dar es salaam region. There is also spread to neighboring Zambia, Mozambique, Malawi and Zimbabwe where outbreaks are being declared.

The currently reported cases by the Ministry of Health are 10 Cases in which 7 of them were women and 3 were men no death has been reported however eight of the ten patients have been reported to use deep well water as a water source in addition the first four cases were from one family living in the same household [5].

Current Efforts and Challenges

Following the recent outbreak, the Ministry of Health has deployed a response team to investigate the recent outbreak. The response team has conducted community-based surveillance to identify possible cases as well as sample collection of the suspected cases [4]. Also cooperating with the water supply companies of the region in the collection of samples from different water bodies for investigation. There has also been distribution of aqua-tabs at the house-holds of kivule of which more than 40,000 aqua-tabs have been distributed as well as the establishment of a cholera treatment center at the district hospital [5]. Other measures that have been conducted to address the problem include the treatment of water sources around the schools, households, and water kiosks, and collaboration with multiple sectors in the region in conducting mass chlorination and distribution of safe water [5]. However, an outbreak of cholera signifies poor; economic development and access to safe and clean drinking water, long-term solution to the control of the disease lies in economic development and universal access to safe and clean drinking water and sanitation [6]. Tanzania is still facing a challenge in the attainment of universal access to clean and safe drinking water, UNICEF estimates that about 61% of the country acquires basic drinking water services and 26% has access to safe sanitation services [7]. Furthermore, Climate change poses a challenge in controlling the outbreak in Tanzania as heavy rains are associated with flooding of water bodies that disrupts sewage systems and sanitations resulting to contamination of water sources causing the spread of infection [8].

Recommendation

Due to much effect's cholera causes, it should be highly prevented and controlled effective preventive, treatment and control measures. The prevention of cholera is dependent on access to safe water, adequate sanitation, and basic hygiene needs [9]. On top of that, there are five basic steps for cholera prevention.

- Be sure you drink and use safe water that is drinking well-boiled water, chlorinated, or filtered water for the removal of bacteria.
- Wash your hands often with soap and running water. This can be done often before, during, and after preparing food, after using the toilet, and after taking care of someone who is sick with diarrhea.
- Making good use of the toilets. This involves the use of toilets to get rid of feces and not otherwise.
- Boil it, cook it, peel it, or leave it. This includes eating peeled fruits and vegetables as well as proper cooking of foods, especially the sea foods, and keeping them covered.
- Clean up safely. This requires one to clean food preparation areas and kitchenware with soap and treated water. Also, clean and disinfect toilets and surfaces contaminated with feces.

On top of that the use of Oral Cholera Vaccine (OCV) in certain conditions like this should be also recommended and guidelines should be developed. Also, such use should be used together with other preventive strategies for cholera control [6,10].

Furthermore, from a public health view, the following recommendation must be considered, Strengthening the healthcare system in the affected regions by increasing the number of healthcare work-

ers, medical supplies, and equipment., Improving access to clean water and sanitation facilities in urban and rural areas. Conducting public awareness campaigns to educate people about the importance of hygiene and sanitation. Ensuring adequate funding is allocated to public health initiatives and programs. Strengthening disease surveillance and reporting systems to detect and respond to outbreaks more quickly.

Conclusion

The cholera outbreak in Tanzania is a wake-up call for the country to improve its health security and strengthen its healthcare system. The outbreak has highlighted the need for urgent action to control the spread of the disease and improve access to healthcare and public health education. The government, international organizations, and the public must work together to address the challenges posed by the outbreak and prevent future outbreaks from occurring. By implementing the recommended interventions, Tanzania can improve its health security and protect the health and well-being of its citizens.

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