The Weekly Our Environment, Our Future June 9, 2014 Vol.27

# The Weekly

## Information Resource Bulletin

Climate change Focus

Rapid population growth is one of the factors leading to climate change today and Malawi and other countries are facing the impact of climate change.

It is believed that global warming can have several harmful effects on human health, both directly and indirectly.

One such is effect is the outbreak of cholera. Climate change can increase the spread of cholera by creating patterns of rainfall that favour the disease's transmission, a study of Bangladeshi medical records has found.

Even though Malawi has not had any reported cases of cholera for the past two years, statistics from the Ministry of Health show that three years ago, the water-borne disease killed 24 out of the 2,000 people infected.

### The goals of the Weekly Bulletin are:

- To discuss about the link between climate change and cholera
- To clearly explain how climate change leads to the prevalence of cholera
- To encourage listeners to find solutions on how they can play a role in ending cholera

### The Problem: Climate Change Impact on Cholera

As already said, climate change can increase the spread of cholera by creating patterns of rainfall that favour the disease's transmission.

This is because these extreme climate conditions enable the waterborne bacterium *Vibrio cholerae* to be spread more easily.

Floods caused by heavy rains can contaminate drinking water with the bacterium. In droughts, the bacterium can grow more easily in stagnating water in ponds and rivers.

A study published by the Transactions of the Royal Society of Tropical Medicine and Hygiene, in the UK, has also shown that there is a link between higher temperature and rainfall and the incidence of cholera.

For example, in Zambia, there were cholera outbreaks between 2003 and 2006. The study notes that there was a one-degree Celsius rise in temperature six weeks before an outbreak of cholera began. The study suggests that this allowed the bacteria to multiply in enhanced conditions, leading to almost 5 percent more cholera cases. It also suggests that a 50 millimeter increase in rainfall three weeks ahead of an outbreak pushed up the number of cases by more than two percent.

This study suggests that changes in the global climate have contributed to the spread of cholera -- stemming from increases in the frequency of heavy rain, floods and periods of drought.

Cholera is an extremely infectious disease. It affects both children and adults and can kill within hours.

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# Activities for Journalists

Use your radio station to help your community understand the link between climate change and cholera. You can use the following points to help your listeners understand better how climate change can lead to a cholera outbreak.

Flooded areas and ditches, latrines and septic tanks are key reservoirs that perpetuate cholera, malaria, and yellow fever. Infectious disease outbreaks like cholera are also precipitated by the high population density found in some areas.

Floods may cause the overflow of wastewater treatment plants, failure of septic systems, or combined sewer overflows, which can contaminate nearby surface water or wells, and when people use this contaminated water they can contract cholera.

Maintaining sanitary water conditions is also an issue during drought conditions, when contaminants are more likely to seep into drinking water. Also, during droughts, people may use the drinking water supply to bathe themselves or wash their clothes. This increases the risk of contamination and exposure to cholera and other diseases.

Let the listeners know that most of people infected with *Vibrio cholerae* do not develop any symptoms, although the bacteria are present in their feces for 7–14 days after infection. This can lead to other becoming infected, as well.

Among people who develop symptoms, 80% have mild or moderate symptoms, while around 20% develop acute watery diarrhoea with severe dehydration. This can lead to death if untreated.

Do a vox pop with people and ask them what they know about cholera. Then, dispel any misconceptions with a talk show or program discussing the facts about cholera.

Talk to someone who contracted cholera. What happened to them?  Do they still feel like they could get cholera again?

What are they doing to avoid suffering from cholera again? (Treating water with chlorine or water guard, Getting rid of stagnant water around their homes or water sources?)

Interview the District Environmental officer from your district and ask him/her to clearly explain the link between climate change and cholera – and what can be done to reduce the risk of cholera in the community.

Talk to health activists – is enough being done by the government to protect citizens from cholera?

**Useful Contacts**

- PRB- Contact person; Sandra Mapemba: +265-99-921-9789
- Ministry of Health-Contact person; Henry Chimbali: +265-88-889-0047
- http://www.scidev.net/global/water/news/climate-change-increases-cholera-spread.html
- http://www.who.int/mediacentre/factsheets/fs107/en/

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