

INFECTIOUS DISEASES

August 21-23, 2017 San Francisco, USA

Cholera outbreak among residents of Bunyala in Busia County 2016

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Background: Cholera is an acute enteric infection caused by the bacterium *Vibrio cholera* of serogroup 01 or 0139. It is water borne disease of public health importance with an estimated number of 3-5 million cases annually and 100,000 to 150,000 deaths yearly. Outbreaks are linked to consumption of unsafe water and food, poor hygiene and sanitation. Overflowing of latrines and contamination of wells and surface water, seasonal modification of water sources for consumption and human behavior may play a role in the occurrence of cholera outbreaks. Failure to control local outbreaks and prevention of between-region transmission could result in spread of cholera outbreaks to neighboring regions or countries. The latest Cholera outbreak in Bunyala -Busia County is dated from 21st February to 11th March 2016 through on the 1st January 2017 there were five confirmed cases reported in Uganda (Lumino village) who sought treatment at our County Referral hospital Busia being at the border and then later transferred back to Uganda for further management. Cholera is one of three diseases requiring notification to WHO under the International Health Regulations

Objective: The objective of the study is to describe cholera outbreak by time, person and place.

Methodology: We conducted retrospective analysis of line lists obtained from county disease surveillance co-ordinator in Busia country. Data was analyzed using Microsoft Excel 2010.

Results: In 2016, 52 villages in Bunyala sub-county and 1 village in Samia Sub-County reported cholera outbreaks with a total of 107 cases including 6 deaths. This gave an overall case fatality rate of 5.6% exceeding the mean CFR of 1% which is acceptable by WHO. Out of the 53 villages, Khainga recorded the highest number of cases 9 (8.4%), Lunyofu 6 (5.6%), Siginga 6 (5.6%) and Khukunda 5 (4.6%). The age specific attack rate was highest among individuals 14 years of age and above 62 (58%), 5-14 years 32 (29%) and 13 (12%) cases respectively. Females were the most affected than Males 59 (55%) and 48 (45%) cases respectively. The epidemiological curve showed peaks on the 4th Feb (18cases) and 6th (10 cases).

Conclusion: Our study showed a cholera outbreak that grew in magnitude and spread to involve Bunyala North, West and Magombe central in Bunyala sub-county. It also showed potential endemicity of cholera in the villages bordering water bodies i.e. Khainga, Siginga, Lunyofu and Khukunda. Therefore there is need for a harmonized, Co-ordinated approach to cholera outbreaks through effective surveillance and response with emphasis on training and motivating frontline HealthCare workers towards timely detection and response as well as proper documentation.

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