

Africa braces against Marburg virus after Ghana cases

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The Marburg virus is transmitted to people from fruit bats and spreads among humans through direct contact with the bodily fluids of infected people, surfaces, and material. Credit: Pixabay/CC0 Public Domain



Africa must ramp up its surveillance and detection infrastructure in the light of an outbreak of the deadly Marburg virus in Ghana, public health leaders have warned.

Last month, Ghana recorded its first-ever Marburg outbreak after tests confirmed that two men had died from the disease.

The director-general of the Ghana Health Service (GHS), Patrick Kuma-Aboagye said the tests were conducted at the Noguchi Memorial Institute for Medical Research in Accra and corroborated by the Institute Pasteur in Dakar, Senegal.

On 2 August a World Health Organization (WHO) official said a child who had contracted the disease had also died, while a fourth case was also identified.

Kuma-Aboagye says community-based surveillance volunteers were deployed to help detect and report cases of the Marburg virus disease that had killed three people in Ghana's Ashanti region.

The director of public health of the GHS, Franklin Asiedu-Bekoe, told journalists that 98 people had been placed under strict surveillance and 39 had been discharged.

"Our approach is about containment. So, what we are doing is that we are making sure that we identify all contacts by involving the community members who have better knowledge so that if the case should occur, we detect and manage," he said at a press conference in July.

This is the second time the zoonotic disease has been detected in West Africa. Guinea confirmed a single case in an outbreak that was declared over on 16 September 2021, five weeks after the initial case was detected.



Before Guinea, the disease had appeared in Central and East Africa.

Marburg is transmitted to people from <u>fruit bats</u> and spreads among humans through direct contact with the bodily fluids of infected people, surfaces, and materials, according to the WHO. It is a highly infectious viral hemorrhagic fever in the same family as the better-known Ebola virus disease.

An outbreak of the disease in the Democratic Republic of Congo from 1998 to 2000 had a fatality rate of more than 83%.

Emily Lebughe Nzimo, a doctor at the Kinshasa General Hospital, DR Congo, witnessed how deadly Marburg is, particularly in an underresourced setting. She tells SciDev.Net that disease control measures must be implemented at borders.

"Faced with a lack of approved treatment and vaccine, we must develop public health mechanisms," she added. "We need to strengthen passenger control at the border."

Nzimo tells SciDev.Net that managing the Congo outbreak was difficult, particularly because drugs and protective gear for healthcare workers were limited.

"The Congo has never been prepared to face a generalized epidemic throughout the country," she said. "So, it is really not a wish that an epidemic arrives at this magnitude that we had."

Nzimo said the current Marburg outbreak must be treated as a public health problem.

"Of the 154 cases of contamination (in DR Congo), there were 128 deaths. So even though it is a rare disease, Marburg should be considered



a public health problem given its severity," she said.

Nzimo says that countries in Sub-Saharan Africa must collaborate and pool resources to fight the disease. She says lessons can be learned from DR Congo's management of the virus.

"Africa, Ghana and the DRC must collaborate on prevention. In countries where there is an outbreak, this is the best approach," she said.

"The fact that DR Congo has a history with the disease can become an asset. Now that we know how the disease presents itself and what we did to manage the disease, we can train other health workers in the region."

Ebola's 'big brother'

Titus Beyuo, general secretary of the Ghana Medical Association (GMA), told SciDev.Net that Ghana health services had acted appropriately to contain the situation.

"We must, however, be aware that this is a disease that some people have described as Ebola's senior brother," he said. "This is a disease that has high fatality."

Public health authorities in other countries have also sounded warning bells.

On 14 August, news of an outbreak of Marburg spread across Nigeria following a leaked memo from the University of Abuja Teaching hospital, titled Marburg Disease: Nigeria prepares for a possible outbreak. However, the university denies that the country has witnessed an outbreak of the disease.

The hospital's public relations officer, Sani Suleiman, tells SciDev.Net



that there has been no outbreak of Marburg virus disease in the hospital.

Suleiman said that the memo was supposed to be an internal one sent to staff to remind them to take proactive measures in case of an outbreak in Abuja or elsewhere in Nigeria.

"Unfortunately, one of our staff decided to send it to the general public, without attaching the precautionary measures that we posted on our platform. The message was meant for proactive measures in case there was an outbreak in Nigeria because Ghana recently recorded cases of the disease."

The head of communications at the Nigeria Center for Disease Control, Yahya Disu tells SciDev.Net that Nigeria has no case of Marburg virus disease.

He said the country had intensified surveillance at the point of entry, to reduce the risk of importation from Ghana.

Disu says that Nigeria can test for the virus.

"The National Reference Laboratory in Abuja and the University of Lagos Teaching Hospital laboratory Center for Human and Zoonotic Virology have the equipment to test and identify the virus. We have the human, technical and laboratory capacity to identify and manage the disease, in case it finds its way to the country," Disu explained.

Call to action

Solomon Woldetsadik, emergency response officer of the WHO's Africa Regional Office, told SciDev.Net that while Ghanaian authorities responded quickly, surveillance and detection systems must be ramped up.



"Most countries are trying to step up surveillance, especially after Ebola," he said. "There is the effort being made to identify and detect diseases like Marburg, but we are not there yet."

Woldetsadik said the WHO will continue to work with countries in the region to help identify and contain diseases.

WHO regional director for Africa Matshidiso Moeti said: "Health authorities have responded swiftly, getting a head-start preparing for a possible <u>outbreak</u>.

This is good because, without immediate and decisive action, Marburg can easily get out of hand."

Physician and project manager for the Kenya-based non-profit Amref Health Africa, Kabinet Kourouma told SciDev.Net that Ghana's neighbors must implement safety measures at borders, including screening at entry and exit points, following up with passengers to see if they develop symptoms, maintaining physical distancing and observing cough and sneezing etiquettes.

"It is necessary to reinforce measures at the various borders by controlling the temperature, controlling the symptoms," Kourouma said. "On the other hand, African countries in general and those of West Africa all have porous borders, we do not have total control of all our borders. The official ones or not. This is also a challenge."

Constantin Bashengezi, a pharmacognosy researcher and CEO of Creppat laboratories in Kinshasa, DR Congo, tells SciDev.Net that as treatment and vaccines don't yet exist, existing drugs could be adopted in the management of Marburg.

He cited locally known antivirals: the Ebanga treatment approved in



December 2020 to fight the Zaire Ebola virus and antiviral Doubase C. developed by Creppat Laboratories.

"We should extend the use of existing antiviral drugs to other types of virus such as Marburg or Ebola," he said.

Provided by SciDev.Net

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