

## RAPID RISK ASSESSMENT

# Ebola virus disease outbreak in Equateur Province, Democratic Republic of the Congo – 2018

15 May 2018

### Main conclusions and options for response

This is the ninth Ebola virus disease (EVD) outbreak in Democratic Republic of the Congo (DRC) since the discovery of the virus in 1976; DRC has experience in responding to such outbreaks. Rapid public health response measures were implemented, and the WHO, together with its partners from the Global Outbreak Alert and Response Network (GOARN), are supporting the national health authorities in the response.

Despite the fact that the outbreak is in a remote area, the proximity to the Congo River increases the risk that the virus will spread to neighbouring regions and countries.

For European Union/European Economic Area (EU/EEA) citizens living in, or travelling through, DRC, the risk of exposure is extremely low. The overall risk of introduction and further spread of Ebola virus within the EU/EEA is currently considered to be extremely low.

Information about the extent of the outbreak is still limited, and investigations are ongoing. ECDC is closely monitoring this outbreak and will re-evaluate the risk for EU/EEA citizens if the epidemiological situation changes.

### Source and date of request

ECDC internal decision, 15 May 2018.

### Public health issue

This rapid risk assessment reviews the following risks:

- Risk of further spread of the outbreak in neighbouring regions in DRC
- Risk of further spread of the outbreak in neighbouring countries
- Risk to EU/EEA citizens living or travelling in DRC
- Risk of introduction and further spread within the EU/EEA.

### Consulted experts

ECDC experts: Alice Friaux, Céline Gossner and Johanna Young

## Disease background information

Infections with Ebola viruses originating from Africa cause a severe disease in humans called Ebola virus disease. There are five species of the genus *Ebolavirus* (Filoviridae family): *Zaire ebolavirus*, *Sudan ebolavirus*, *Reston ebolavirus*, *Tai Forest ebolavirus*, and *Bundibugyo ebolavirus* [1-3].

Ebola viruses are biosafety level-4 pathogens (BSL-4; risk group 4) and require special containment measures and barrier protection, particularly for healthcare workers. The incubation period is usually four to ten days but can be as short as two days and as long as 21 days. The case–fatality ratio for Zaire ebolavirus infections is estimated to be between 44% and 90% [4].

Ebola viruses are highly transmissible through direct contact with infected blood, secretions, tissues, organs and other bodily fluids from dead or living infected persons. Transmission via objects contaminated with infected bodily fluids (fomites) is possible. The principal mode of transmission in human outbreaks is person-to-person through direct contact with a symptomatic or dead case. Airborne transmission has not been documented. The risk of transmission is considered low in the early phase of human disease. Burial ceremonies and the handling of dead bodies play an important role in transmission.

More information about EVD is available at: <https://www.ecdc.europa.eu/en/ebola-and-marburg-fevers/facts/factsheet>

## Event background information

On 8 May 2018, the ministry of health of the DRC declared an outbreak of EVD in Bikoro health zone, Equateur Province, western DRC. The province shares borders with the Republic of the Congo and is crossed by the Congo River which links the region to the capital cities of the Republic of the Congo, the Central African Republic and DRC [5].

As of 13 May 2018, 39 cases of EVD have been recorded: two confirmed cases, 12 suspected cases and 25 probable cases. Samples were sent for laboratory analysis to Kinshasa, DRC, and two tested positive for Zaire ebolavirus species. Of the 39 cases, 19 were fatal (case fatality ratio of 49%); three of these 39 cases were health workers.

So far, all cases have been reported from three neighbouring districts: Bikoro, Iboko and Wangata health zones. Both confirmed cases were reported from the Bikoro health zone. Wangata health zone borders with the provincial port city of Mbandaka (population 1.2 million) [6]. All cases were reported from remote and hard-to-reach areas.

A rapid public health response was implemented, including ring vaccination with the experimental vaccine V920 (rVSV-ZEBOV), active case finding, contact tracing, case management, community engagement, and safe and dignified burials [6]. To support the DRC ministry of health in its outbreak response efforts, the World Health Organization is deploying public health experts.

This is the ninth Ebola virus disease outbreak in DRC since the discovery of the virus in 1976. The last outbreak in the Equateur province was in 2014 and affected 66 people (case fatality ratio: 74%). The most recent outbreak in DRC occurred in May 2017 in Bas Uele province with 21 suspected cases [7].

## ECDC threat assessment for the EU

Despite the fact that the outbreak is occurring in a remote area, the proximity to the Congo River increases the risk that the virus will spread to neighbouring regions and countries.

The risk of exposure of EU/EEA citizens living in or travelling through DRC is extremely low because cases have so far only been reported from remote areas. For people entering the affected area, for example healthcare workers supporting the outbreak response, the risk of infection remains very low, assuming they follow the recommended precautions [8].

The risk of introduction into the EU/EEA would most probably be related to an infected traveller coming from the affected area. Given the remote location of the outbreak, this is unlikely but cannot be excluded. The overall risk of introduction and further spread of Ebola virus within the EU/EEA is currently considered to be extremely low.

## Disclaimer

ECDC issues this risk assessment document based on an internal decision and in accordance with Article 10 of Decision No 1082/13/EC and Article 7(1) of Regulation (EC) No 851/2004 establishing a European centre for disease prevention and control (ECDC). In the framework of ECDC's mandate, the specific purpose of an ECDC risk assessment is to present different options on a certain matter with their respective advantages and disadvantages. The responsibility on the choice of which option to pursue and which actions to take, including the adoption of mandatory rules or guidelines, lies exclusively with the EU/EEA Member States. In its activities, ECDC strives to ensure its independence, high scientific quality, transparency and efficiency.

This report was written with the coordination and assistance of an Internal Response Team at the European Centre for Disease Prevention and Control. All data published in this risk assessment are correct to the best of our knowledge at the time of publication. Maps and figures published do not represent a statement on the part of ECDC or its partners on the legal or border status of the countries and territories shown.

## References

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