Risk Assessment Group

CONSULTATIVE SIGNAL ASSESSMENT
PRIMARY RISK ASSESSMENT
EVIDENCE BASED RISK ASSESSMENT
PUBLIC HEALTH EVENT ASSESSMENT

OUTBREAK OF EBOLA VIRUS DISEASE IN UGANDA

Date of the signal	Date of the PRA	Signal provider	Experts consultation	Method
20 September 2022	**3 October 2022**	**ECDC**	**Permanent experts:** Karin Cormann (DGOV), Achille Djiena (AViQ), Tinne Lernout (Sciensano), Romain Mahieu (COCOM), Stefaan Van der Borght (FOD), Dirk Wildemeersch (AZG) **Specific experts :** Nathalie Bossuyt (Sciensano), Emmanuel Bottieau (ITG), Natalia Bustos Sierra (Sciensano), Sophie Quoilin (CHU St Pierre), (ITG), Erika Vlieghe (UZA)	Email consultation
Date of update	**Closing date**			

RAG persons of contact:
Tinne Lernout (tinne.lernout@sciensano.be)
Javiera Rebolledo (javiera.rebolledogonzalez@sciensano.be)
Valeska Laisnez (valeska.laisnez@sciensano.be)
rag@sciensano.be

Signal	On 20 September 2022, the Ministry of Health in Uganda, together with WHO AFRO, confirmed an outbreak of Ebola virus disease (EVD) due to *Sudan ebolavirus* in Mubende District, Uganda, after one fatal case was confirmed. On 3 October, three new locations reported cases (Kyegegwa, Kassandra and Kagadi). The outbreak location poses a risk of further spread, because it is on a busy road that leads to the Democratic Republic of the Congo and the area contains gold mines that attract people from within and outside of Uganda. On 3 October, 62 cases were reported (43 confirmed and 19 probable) with 27 deaths (9 confirmed and 18 probable). 6 Health care workers were infected, 2 died and 65 are in quarantine. 882 contacts are being followed-up.

Description	
Cause known?	Ebola virus disease (EVD) first appeared in 1976 in 2 simultaneous outbreaks, one in South Sudan, and the other in the Democratic Republic of Congo. Five species of Ebolavirus have been identified: Zaire, Bundibugyo, Sudan, Reston and Taï Forest. The first three, have been associated with large outbreaks in Africa. The current outbreak is caused by Sudan ebolavirus, with laboratory confirmation by the Uganda Virus Research Institute, on samples collected on 18 Sept 2022.
Unexpected/unusual	Unusual but in an endemic area. Previously, EVD in Uganda was reported in 2019 due to Zaire ebolavirus, which was imported from the Democratic Republic of the Congo. EVD outbreaks caused by Sudan ebolavirus have previously occurred in Uganda (four outbreaks) and in Sudan (three outbreaks). The last outbreak of EVD due to Sudan ebolavirus in Uganda was reported in 2012.
Severity	The case fatality ratio of EVD is usually between 41% and 100%. As there is no approved vaccine against disease caused by Sudan ebolavirus, the control of the outbreak should focus on the early detection and isolation of cases. It is unclear if and how much cross-protection the vaccine against EVD due to Zaire ebolavirus would provide against EVD due to Sudan ebolavirus.
Dissemination (Low/Medium/High)	The risk of dissemination within Uganda is high, since there is no vaccine, and the outbreak may have started 3 weeks before the 1st case was detected, raising the possibility of several undetected transmission chains. The patients who died earlier were buried with traditional practices and ceremonies involving large gatherings. On 3 October, four districts are concerned : Mubende (the epicentre), Kyegegwa (3 confirmed cases), Kassanda (1 confirmed case) and Kagadi (4 confirmed cases) (see Annex). The area is not far from Kampala, connected with a fairly good road, and from the DRC border. As of 1 October, no cases have been reported in the capital city of Kampala. However, The Ugandan government has activated a national task force and dispatched a Rapid Response Team to Mubende, Kiboga and Mityana districts and is exercising vigilance in border areas to curb the spread of the disease. An MSF team traveled to Mubende on 21 Sep 2022 to assess the situation and a treatment center was set up in the Mubende hospital on 25/09.
Risk of (inter)national spread	The risk of introduction of the virus into the EU/Belgium would most probably be related to an infected traveller coming from the affected area. Despite uncertainties about the extent of the outbreak, the risk of infection for EU/EEA citizens in relation to this event is considered to be very low at this stage. No travel-associated EVD cases have been reported among travellers returning to Europe during recent outbreaks in Africa (2018-2021).
Preparedness and response	
Preparedness	ECDC monitors this situation through its epidemic intelligence activities and will report when relevant updates are available.

	In Belgium: • Laboratory capacity for diagnostic of Ebola virus exists (at ITM). • Isolation and case management of suspected cases is possible at UZA Antwerp. However, there is nothing really set for the evacuation and repatriation of an infected/sick national from the affected country to Belgium. • Procedures and guidelines have been developed during/after the Ebola outbreak in west Africa, and are available here: https://www.info-ebola.be/en/. However they need to be revised and possibly updated.
Specific control measures (surveillance, control, communication)	Surveillance through mandatory notification of suspected cases to federated entities.
Public health impact	
Public health impact in Belgium Very low	The risk of importation of a case into Belgium is currently very low, but should be reconsidered in the light of a confirmed case in the capital city of Kampala and/or spread to DRC. With appropriate measures taken for a suspected/confirmed case in Belgium, further spread within Belgium, leading to a cluster or epidemic, is estimated to be almost nihil.
Recommendations (surveillance, control, communication)	Follow-up of humanitarian staff returning from affected areas (contact MSF-Belgium). Check if procedures on Ebola-website are still relevant/up to date. Knowledge of procedures by key players (PHE, regional health authorities, defence, first line health care services,..) should be tested. No additional measures at the points of entry needed at this stage. However, the sanitary service of Brussels Airport and of Brussels Airlines should be contacted to evaluate the current state of knowledge of the flying staff. If cases in Kampala or spread to DRC, information/training of airport staff (for incoming flights) would be useful.
Actions	Follow-up of the epidemiological situation and update of the risk assessment if needed → Sciensano/RAG. Info to health care professionals through the monthly Flash → Sciensano. Info to hygiene teams in hospitals and emergency wards about the outbreak. Contact MSF to have an update on staff working in Uganda/the affected areas → FOD/SPF. Contact Brussels airport and Brussels Airlines (and other airports/companies if direct flights from Uganda, such as Liège) → FOD/SPF. Update (if relevant) of Ebola procedures and evaluate the need for a new exercise → FOD/SPF.

REFERENCES

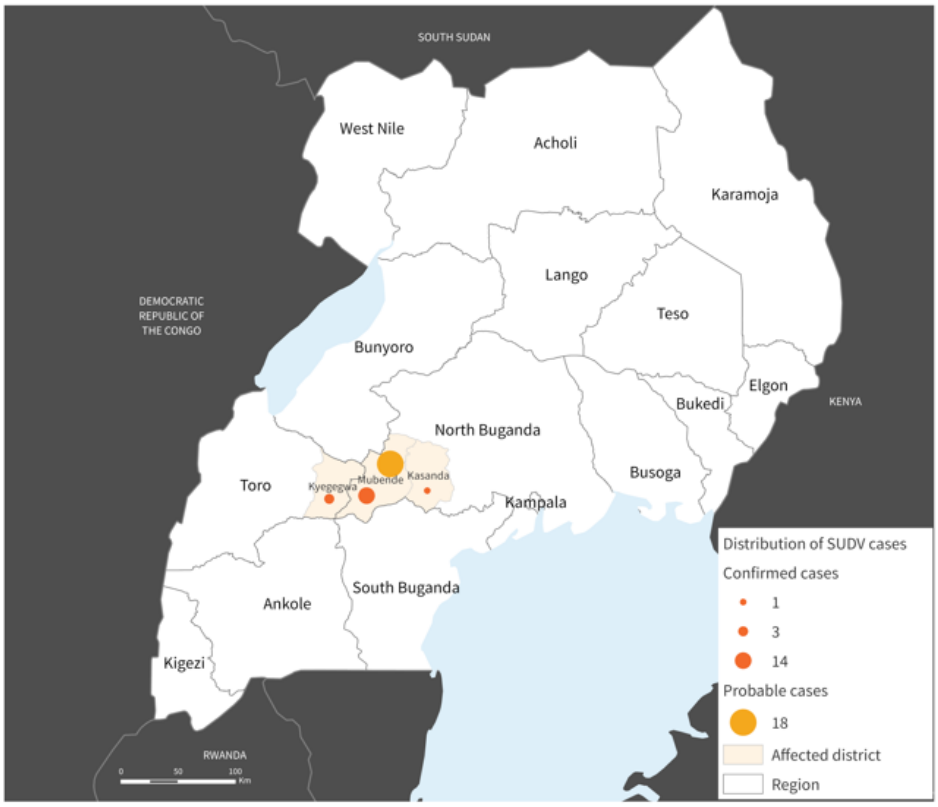
WHO Africa. Outbreaks and Emergencies bulletin, week 39: 19-25 September 2022. https://extranet.who.int/iris/restricted/bitstream/handle/10665/363303/OEW39-1925092022.pdf

ProMED. International society for infectious diseases. https://promedmail.org/

ECDC Epipulse. Epidemiological surveillance.

ANNEXES

Map of confirmed (n=18) and suspected (n=18) cases of Ebola disease caused by Sudan virus, by district, Uganda (as of 25 September 2022).



The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Ministry of Public Health, Uganda, World Health Organization
Map Production: WHO Health Emergencies Programme
Request ID: RITM00064
Map date: 26 September 2022

World Health Organization

© WHO 2022, All rights reserved.

Distribution of Ebola Virus Disease by subcounty in the affected districts in Uganda, as of 25 September 2022