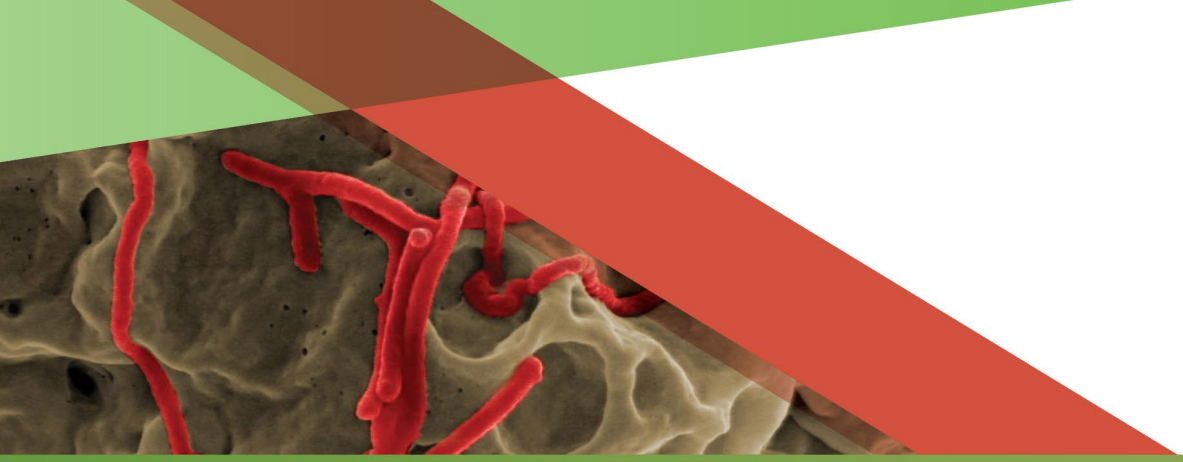


RAPID RISK ASSESSMENT

Ebola disease outbreak caused by *Sudan ebolavirus* in Uganda, 2022

9 November 2022

Summary

Since the beginning of the outbreak declared on 20 September 2022 and as of 5 November 2022, Uganda has experienced 132 confirmed cases of Ebola disease (EBOD) caused by Sudan virus (SUDV), including 53 deaths and 61 recoveries across eight districts (Bunyangabu, Kagadi, Kampala, Kassanda, Kyegegwa, Masaka, Mubende and Wakiso). Mubende and Kassanda districts have been the most heavily affected so far. The capital city, Kampala, reported its first case on 21 October 2022 and since then 18 cases have been detected. There have been 18 cases of infection among healthcare workers including seven deaths. The overall case fatality rate as of 5 November 2022 is 40% among confirmed cases. An additional 21 deaths have been classified as 'probable cases' among individuals who died before a sample could be obtained.

The current outbreak is the first outbreak of Sudan virus disease (SVD) in Uganda since 2012. With seven previous outbreaks since 2000, Uganda has experience in responding to outbreaks of *Zaire ebolavirus* and SUDV, and necessary actions in response to the current outbreak have been initiated quickly. The Ugandan Ministry of Health (MoH) has activated a national response plan to guide outbreak preparedness and response operations. Epidemiological investigations, community-based surveillance, active case finding and contact tracing are ongoing in all the affected districts. Laboratory testing is in place and efforts are being made to scale up the deployment of additional mobile laboratories to affected districts. Emergency medical teams, isolation centres, and treatment units to support case management have been established. In addition, the MoH is supporting safe and dignified burials in all high-risk districts.

In the absence of licensed vaccines and therapeutics for the prevention and treatment of SVD and considering the geographical expansion of the SVD outbreak to urban settings, the World Health Organization (WHO) assessed the current risk to be very high at the national level, high at the regional level and low at the global level.

The WHO has initiated consultations with vaccine developers to identify candidate vaccines against SUDV with potential to be tested through randomised clinical studies in Uganda. At present, three candidate vaccines are under consideration and reviews of the clinical study protocols by ethical and regulatory committees in Uganda are currently underway.

The probability of exposure to SUDV of EU/EEA citizens living and travelling in the affected areas in Uganda is very low, provided they adhere to the recommended precautionary measures. Although infection with SUDV leads to severe disease at individual level, the impact for the EU/EEA citizens living and travelling in the affected areas in Uganda considered at a population level is deemed to be low. Therefore, overall, the current risk for EU/EEA citizens living and travelling to the affected areas in Uganda is considered low.

Suggested citation: European Centre for Disease Prevention and Control. Ebola disease outbreak caused by *Sudan ebolavirus* in Uganda, 2022 – 9 November 2022. ECDC: Stockholm; 2022.

The likelihood of importation and secondary transmission of SUDV within the EU/EEA is very low as cases are likely to be promptly identified and isolated, and follow-up control measures are likely to be implemented. During the West Africa EBOD outbreak in 2013–2016, which was the largest EBOD outbreak to date, where tens of thousands of cases were reported, with transmission in large urban centres, and hundreds of EU/EEA humanitarian and military personnel deployed to the affected areas, there were eight imported cases to the EU/EEA (Italy, Spain) and the United Kingdom.

Overall, the current risk for the citizens in the EU/EEA is considered very low.

Options for response

In order to ensure, and if necessary, strengthen the preparedness and response capabilities, EU/EEA countries should consider reviewing the standard operating procedures (SOP) on isolation and treatment for EBOD cases, and on contact tracing and quarantine for contacts of cases. EU/EEA public health authorities should prioritise the following preparedness activities in view of the ongoing outbreak in Uganda:

- Increasing awareness among visitors to, and residents in affected areas, as well as returning travellers;
- Awareness activities for health professionals including awareness of the outbreak, clinical suspicion for imported cases, infection prevention and control (IPC) procedures and management of suspected or confirmed cases;
- Reviewing testing capacity and procedures, particularly as regards SUDV (most EU/EEA countries have the laboratory capability to perform ebolavirus diagnostic testing);
- Risk communication activities for the public.

Awareness activities for healthcare providers in the EU/EEA should include informing of and sensitising to:

- The possibility of SVD among travellers returning from affected areas;
- The clinical presentation of the disease and the need to enquire about the travel history and contacts of people returning from countries experiencing SVD outbreaks;
- The availability of protocols for testing possible cases and procedures for referral to healthcare facilities;
- The imperative need for strict implementation of IPC measures when providing care to patients with suspected or confirmed SVD, such as the use of personal protective measures and equipment, disinfection procedures in accordance with specific guidelines and WHO infection-control recommendations.

EU/EEA visitors and residents in affected areas in Uganda should follow the recommendations of the local health authorities on SVD prevention and control, and apply the following precautionary measures:

- Avoid contact with symptomatic patients/their bodily fluids, bodies and/or bodily fluids from deceased patients;
- Avoid consumption of bushmeat and contact with wild animals, both alive and dead;
- Wash and peel fruits and vegetables before consumption;
- Wash hands regularly using soap or antiseptics hand-rub formulations;
- Ensure safe sexual practices.

ECDC considers that travel restrictions, which usually have an adverse impact on the affected country's supply chains, as well as screening of travellers returning from Uganda would not be an effective or cost-effective measure to prevent introduction in the EU/EEA. Screening of incoming travellers is time and resource consuming and will not efficiently identify infected cases. Instead, both experience and evidence show that exit screening from affected countries can be more effective to support the containment of the disease spread. It should be noted that the positive predictive value of the detection of one individual with an SVD infection through exit screening is nevertheless rather low.

Event background

On 20 September 2022, the Ugandan Ministry of Health (MoH) and the World Health Organization – Regional Office for Africa (WHO/AFRO) confirmed an outbreak of Ebola disease (EBOD) caused by Sudan virus (SUDV) in Mubende District, Uganda, after one fatal case was confirmed [1,2].

Uganda has experienced seven outbreaks of EBOD since 2000. Most were caused by SUDV (one each in 2000 and 2011, and two in 2012), two (both in 2019) were due to the *Zaire ebolavirus* (EBOV) after importation from the Democratic Republic of the Congo (DRC), and one due to the *Bundibugyo ebolavirus* (BDBV) in 2007 [3,4]. The outbreaks ranged in size from a single case and death (SUDV outbreak in 2011) to 425 cases and 224 deaths (SUDV outbreak in 2000).

In the current outbreak, the index case was a 24-year-old man, a resident of Ngabano village of the Madudu sub-county in Mubende District [2]. The patient experienced high fever, diarrhoea, abdominal pain and started vomiting blood on 11 September 2022. Samples were collected on 17 September 2022 and infection with SUDV was confirmed on 19 September [3]. The patient died on the same day, five days after hospitalisation [5]. Retrospective investigations revealed additional suspicious deaths dating back to mid-August 2022.

By the end of September, a total of 35 confirmed cases had been detected in Mubende, Kassanda, Kyegegwa and Kagadi districts, with the focus of the outbreak being Mubende (29 confirmed cases) [6]. Cases continued to be reported and spread to additional districts including Kampala and Wakiso in the following weeks [7,8].

On 15 October 2022, the President of Uganda imposed a 21-day lockdown on Mubende and Kassanda districts in order to contain the outbreak, which by then (as of 14 October 2022) accounted for 91% of cases [9,10]. On 5 November 2022, it was announced that the measures in Mubende and Kassanda would be extended for 21 more days [11]. Measures included an overnight curfew, closing places of worship and entertainment, and restricting movement in and out of the two districts.

On 28 October 2022, the MoH issued a statement restricting the movement of contacts of confirmed SVD cases locally and internationally until the completion of their 21 days of follow up. It was also stated that the details of contacts will be shared with immigration and border control authorities to enforce adherence [12].

As of 5 November 2022, there have been 132 confirmed cases of SVD, including 53 deaths and 61 recoveries [11,13]. An additional 21 deaths have been classified as 'probable' among individuals who died before a sample could be obtained [13]. The case fatality rate (CFR) as of 5 November 2022 is 40% among confirmed cases and 48% among all cases. As of 5 November 2022, there were 18 cases of infection among healthcare workers, including seven deaths [13].

As of 5 November 2022, cases have been reported from eight districts: Bunyangabu, Kagadi, Kampala, Kassanda, Kyegegwa, Masaka, Mubende and Wakiso [11,14]. No cases with disease onset after 21 and 24 September 2022 have been reported from Bunyangabu (46 days) and Kagadi (43 days), respectively [11,14,15]. The first cases from the capital city, Kampala, were reported on 21 October 2022. To date, 18 cases have been reported in this district, including six children who attend three different schools in Kampala [7,16-18]. There has been a shift in the focus of the outbreak in recent weeks, with the majority of cases between 10 October and 5 November 2022 being reported from Kassanda (41 cases) and Kampala (18 cases) [13,14].

As of 5 November 2022, health officials have identified 3 867 contacts of cases in 14 districts, of whom 2 237 have completed the 21-days follow up [13,14]. The largest number of contacts under active follow-up on 5 November 2022, were in Kassanda (617), Mubende (351), and the Greater Kampala Metropolitan Area (256) [13,14]. In these regions, the proportion of contacts followed up on 5 November 2022 was 95%, 99% and 91% respectively [15]. Although data are incomplete, it appears that the majority of new cases in the last two weeks are epidemiologically linked to known cases.

Figure 1. Cases of SVD reported in Uganda, 2022 (by date of reporting)

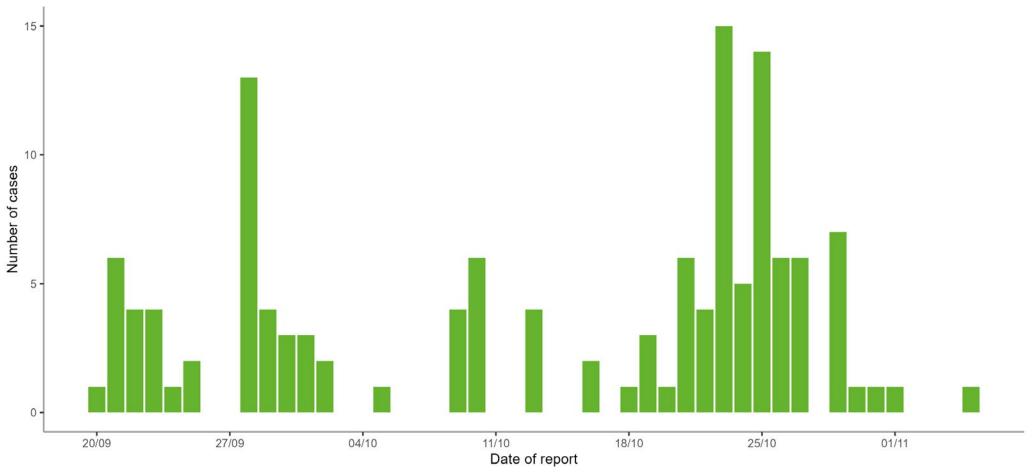
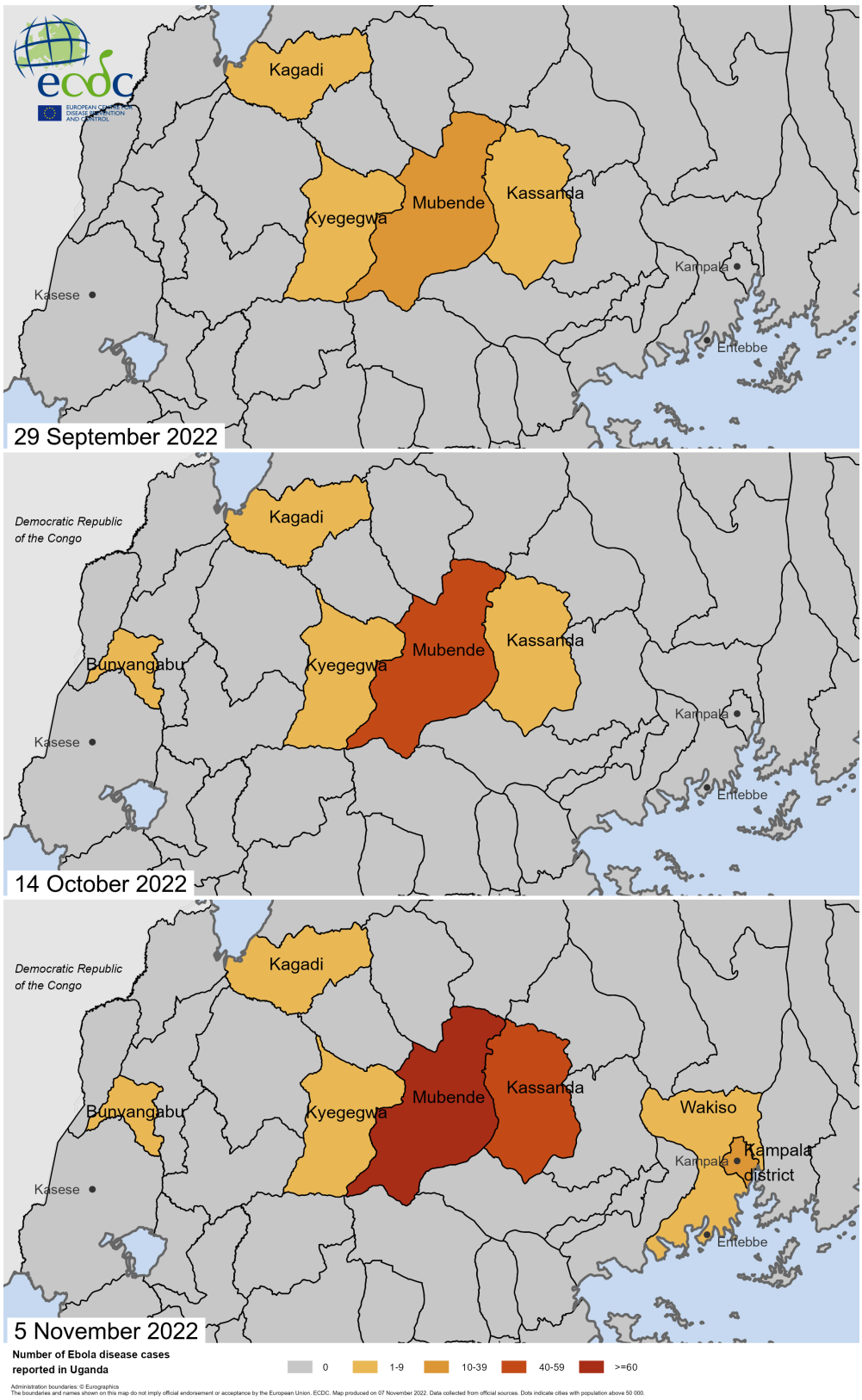


Figure 2. Progression of SVD in Uganda, from 29 September to 5 November 2022[1]



[1] Data obtained from Situation Reports published by the Ugandan MoH and WHO/AFRO (available at Publications | WHO | Regional Office for Africa)

Disease background

Classification and nomenclature

The International Classification of Diseases 11th revision (ICD-11) [19], approved in the 72nd meeting of the World Health Assembly in 2019 [20], has updated the nomenclature of Filovirus disease (FVD).

Ebola disease (EBOD) includes six subcategories:

- Bundibugyo virus disease (BVD), caused by Bundibugyo virus (BDBV, species *Bundibugyo ebolavirus*);
- Ebola virus disease (EVD), caused by Ebola virus (EBOV, species *Zaire ebolavirus*);
- Sudan virus disease (SVD), caused by Sudan virus (SUDV, species *Sudan ebolavirus*);
- Atypical Ebola disease;
- Other specified Ebola disease, caused by, for instance, Taï Forest virus (TAFV, species *Taï Forest ebolavirus*);
- Ebola disease, virus unspecified.

This is the first outbreak of SVD since the new classification.

Disease characteristics

The *Ebolavirus* genus is a member of the *Filoviridae* family. It includes four distinct species that are pathogenic to humans: *Bundibugyo ebolavirus*, *Zaire ebolavirus*, *Sudan ebolavirus* and *Taï Forest ebolavirus* .

Ebolaviruses are classified as biosafety level 4 (BSL-4) pathogens and require special containment and barrier-protection measures for laboratory personnel, as well as for any people taking care of potentially infected patients or dead bodies.

The prodromal phase lasts up to 10 days during which the infected patient experiences a sudden onset of flu-like illness, with fever, general malaise and weakness, muscle and joint pains and headache, followed by progressive weakness, anorexia, diarrhoea, nausea, and vomiting. The next stage of the disease is characterised by gastrointestinal, neurological, vascular, cutaneous, and respiratory symptoms. Haemorrhagic manifestations can also appear. Some patients develop profuse internal and external haemorrhages and disseminated intravascular coagulation.

Patients in the final stage of the disease die from a combination of multi-organ failure and hypovolemic shock due to severe fluid losses. Based on one systematic review, the weighted CFR for ebolavirus (all species included) was assessed to be 65% [95% CI (54–76%)] [21]. The CFR varies depending on the specific species of the virus, with *Zaire ebolavirus* exhibiting the highest fatality rate (75%), followed by *Sudan ebolavirus* (53%) [21].

The typical incubation period for ebolaviruses ranges from 2–21 days (mean 6.3 days) [22].

Ebolaviruses are highly transmissible by direct contact with blood (e.g. through mucous membranes or broken skin), or other bodily fluids (e.g. saliva, urine or vomit) of living or dead infected persons, or any surfaces and materials soiled by infectious fluids [23]. Transmission can also occur by contact with dead or living infected animals, including the consumption and/or handling of bushmeat (e.g. monkeys, apes, forest antelopes and bats) or by visiting caves or mines colonised by bats [24]. Healthcare workers can be infected through nosocomial transmission, which can occur when caring for infected patients without appropriate personal protective equipment, or through needlesticks, splashes, etc.

Ebolaviruses can persist in immune-privileged sites (e.g. testicles, central nervous system and aqueous humour) of certain survivors from which new transmissions can potentially arise, notably through sexual transmission [24-26].

The presence of the virus in the blood and consequently the organs and tissues of asymptomatic[2], infected or recovered individuals indicates that transmission of the virus via transfusion and transplantation is possible but has not been reported so far. More information is available on the ECDC Factsheet about Ebola virus disease [27].

Ebola disease surveillance in the EU/EEA

Ebola disease is a notifiable disease in the EU/EEA, under the category, 'Viral Haemorrhagic Fevers' [28]. Since 2014, there have been nine cases of EBOD reported in the EU/EEA, eight in 2014 and one in 2015; all cases were infected with *Zaire ebolavirus*. Eight of these nine cases were infected in West Africa, and one was a secondary case in a healthcare worker caring for an evacuated EBOD patient in Spain. Further information can be found in the online ECDC resource, *Surveillance Atlas of Infectious Diseases* [29].

[2] Although, of note, asymptomatic infections are considered a limited phenomenon and likely do not contribute significantly to human-to-human transmission.

The ongoing response

The current outbreak is the first outbreak of SVD in Uganda since 2012. Uganda has previous experience in responding to outbreaks of EVD and SVD, and necessary actions in response to this outbreak have been initiated quickly. The MoH has developed and approved a national response plan to guide outbreak preparedness and response operations, established an Incidence Management Team within the MoH, and activated both national and district task forces to coordinate the response at national and district levels [3,30].

Epidemiological investigations, community-based surveillance, active case finding and contact tracing are ongoing in all the affected districts [31,32]. Laboratory testing is currently in place at the Uganda Virus Research Institute (UVRI) and a mobile laboratory in Mubende [31,32]. Efforts are being invested to scale up laboratory testing capacity with deployment of additional mobile laboratories to the affected districts.

Ugandan health authorities, with support from international partners, have established emergency medical teams, isolation centres, and treatment units to support case management, including the training of healthcare workers and focused efforts on building health facility infection prevention and control [31,33]. The MoH is supporting safe and dignified burials, and has mandated the testing of all dead bodies regardless of the cause of death in all high-risk districts [33].

Risk communication and community engagement activities are ongoing in all affected districts. This includes the training of health promotors and key informants to counter myths and misinformation around the disease [31,32].

There is also an ongoing ecological study to determine possible reservoirs and potential sources of infection in the country.

There are no licensed vaccines or therapeutics for the prevention and treatment of SVD. Early initiation of optimised supportive treatment has been shown to significantly reduce deaths from EBOD [3]. An overview on optimised supportive care for EBOD (patient management, fluid resuscitation, hypoglycaemia, electrolyte management, treatment of co-infections, nutrition, etc.) has been published by WHO [34]. The WHO has initiated consultations with vaccine developers to identify candidate vaccines against SUDV with potential to be tested through randomised clinical studies in Uganda. Presently, three candidate vaccines are under consideration; reviews of the clinical study protocols by ethical and regulatory committees in Uganda are currently underway [35].

On 24 October 2022, the pharmaceutical company, Merck announced a planned donation of 50 000 doses of an experimental vaccine against SUDV to Uganda [36].

On 26 October 2022, the Ugandan State Minister for Health announced that the efficacy of two more candidate vaccines, apart from the one from Merck (US) – one from the University of Oxford (UK) and another from the Sabin Vaccine Institute (US) – will be evaluated in vaccinating contacts of cases [37]. According to the Ugandan State Minister for Health, Merck's vaccine will be incorporated in vaccine trials for which plans are underway [38]. The aim is to evaluate the vaccine efficacy in primary contacts of EBOD cases within 29 days of contact. Contacts of 150 cases (approximately 3 000 people) will be vaccinated initially.

The Ministries of Health in the six neighbouring countries of Uganda (Burundi, the Democratic Republic of the Congo, Kenya, Rwanda, South Sudan, and Tanzania) are conducting readiness activities in preparation for the potential importation of EBOD, including establishing coordination mechanisms and refresher trainings for technical teams, strengthening of community-based surveillance systems, risk communication and reinforcement of points of entry [3].

Ugandan authorities lead the response in the country with technical support from WHO and other aid organisations. The Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) has also been supporting the international response to the SVD outbreak. ECDC has deployed staff to provide public health and epidemiological support to the DG ECHO team.

In the absence of licensed vaccines and therapeutics for prevention and treatment of SVD and considering the geographical expansion of the SVD outbreak to urban settings, WHO (according to its Disease Outbreak News published on 28 October 2022) [35] assessed the current risk to be very high at the national level, high at the regional level, and low at the global level.

ECDC risk assessment for the EU/EEA

This assessment is based on evidence available to ECDC at the time of publication. It follows the ECDC rapid risk assessment methodology, where the overall risk is determined by a combination of the probability of infection and the impact of the disease on the affected population [39]. ECDC will continue monitoring the event and will reassess the risk depending on its evolution and the implemented response measures.

What is the risk to EU/EEA citizens living in or travelling to affected areas in Uganda?

Despite the increase in the number of cases and the transmissions reported in the densely populated capital city of Kampala, the current probability that EU/EEA citizens living in or travelling to affected areas in Uganda will be exposed to the virus is very low, provided they adhere to the recommended precautionary measures (see further information below). Transmission requires direct contact with blood, secretions, organs, or other bodily fluids of dead or living infected people or animals; all unlikely exposures for the general EU/EEA tourists or expatriates in Uganda. Also, isolation of cases and contacts is in place.

The probability of exposure of EU/EEA citizens living and travelling in affected areas in Uganda is very low, provided they adhere to the recommended precautionary measures. Although infection with SUDV leads to severe disease at an individual level, the impact for the EU/EEA citizens living and travelling in affected areas in Uganda considered at a population level is low. Therefore, overall, the current risk for EU/EEA citizens living or travelling to affected areas in Uganda is considered low.

Staff members of humanitarian, religious and other organisations, particularly healthcare workers who are in direct contact with patients and/or local communities in the affected areas, are more likely to be exposed to the virus. The likelihood of infection for this group is currently low, provided they adhere to the appropriate infection prevention and control measures. As in the previous scenario, the impact is considered low. Therefore, the overall risk for EU/EEA citizens deployed in response to the outbreak is also considered low.

What is the risk of introduction and spread of SUDV within the EU/EEA?

The most likely route by which the virus could be introduced to the EU/EEA is through infected people from affected areas travelling to the EU/EEA or medical evacuation of cases to the EU/EEA. According to the International Air Transport Association, in 2019, there were about 126 000 travellers arriving in the EU/EEA from Uganda. Two EU/EEA countries have direct flights to Uganda. During the West Africa EBOD outbreak in 2013–2016, which was the largest EBOD outbreak to date, where tens of thousands of cases were reported, with transmission in large urban centres, and hundreds of EU/EEA humanitarian and military personnel deployed to the affected areas, there were eight imported cases to the EU/EEA (Italy, Spain) and the United Kingdom. Based on this experience and considering the epidemiology of the ongoing outbreak in Uganda, the likelihood of importation of the virus into the EU/EEA is considered very low.

The likelihood of secondary transmission of SUDV within the EU/EEA and the occurrence of sustained chains of transmission within the EU/EEA is considered very low, as cases are likely to be promptly identified and isolated and recommended control measures are likely to be implemented. During the EBOD outbreak in West Africa in 2013–2016, there was one local transmission in the EU/EEA (in Spain) in a healthcare worker who had attended to an evacuated EBOD patient.

Overall, the current risk for citizens in the EU/EEA is considered very low.

Of relevance, there are established operational procedures for requesting medical evacuation in humanitarian contexts for 'Viral Haemorrhagic Fevers', covering international health and humanitarian aid workers, of any nationality. The medical evacuation is managed by WHO with support and facilitation from the Directorate-General for Health and Food Safety (DG SANTE) and DG ECHO's Emergency Response Coordination Centre (ERCC). Such procedures ensure supportive care during transit and reduce the likelihood of onward transmission during transport.

Options for response

In order to ensure, and if necessary, strengthen the preparedness and response capabilities, EU/EEA countries should consider reviewing the standard operating procedures (SOP) on isolation and treatment for EBOD cases, and on contact tracing and quarantine for contacts of cases. The countries should ensure that the procedures are updated through the integration of lessons learnt from previous EBOD outbreaks and evidence from other public health events.

EU/EEA public health authorities should prioritise the following preparedness activities in view of the ongoing outbreak in Uganda:

- Increasing awareness among visitors to, and residents in, affected areas, as well as returning travellers;
- Awareness activities for health professionals including awareness of the outbreak, clinical suspicion for imported cases, IPC procedures and management of suspected or confirmed cases;
- Reviewing testing capacity and procedures, particularly as regards SUDV;
- Risk communication activities for the public.

Increase awareness among visitors and residents in affected areas

EU/EEA visitors and residents in affected areas in Uganda should follow the recommendation of the local health authorities on EBOD prevention and control, and apply the following precautionary measures:

- Avoid contact with symptomatic patients/their bodily fluids, bodies and/or bodily fluids from deceased patients;
- Avoid consumption of meat from wild animals, and contact with wild animals, both alive and dead;
- Wash and peel fruits and vegetables before consumption;
- Wash hands regularly using soap or antiseptics hand-rub formulations;
- Ensure safe sexual practices, as evidences show the possibility of EBOV sexual transmission, long after recovery from EBOD.

Countries can provide information to departing as well as returning travellers through posters, pamphlets, or other means of communication, outlining the above advice as well as information on how to access healthcare in case they develop symptoms. At this point, ECDC does not consider travel restrictions an appropriate and effective response intervention, due to the adverse impact on the affected country's supply chains and the low risk for travellers.

Screening of travellers

ECDC considers that screening of travellers returning from Uganda would not be an effective measure to prevent the introduction of SVD in the EU/EEA. Usual screening methods include temperature screening which identifies passengers with fever (i.e. body temperature >37.5 or 38°C), either alone or with the addition of a screening questionnaire. As travellers are a low-risk and very low-prevalence population for SVD, several false alarms usually arise, demanding the activation of response mechanisms and testing. In addition, fever is a symptom that can be easily masked or is not present in all patients. To increase effectiveness of screening, health professionals need to be deployed to several points of entry, which would significantly increase demands on testing. Therefore, based on the lessons learnt and results of the large EBOD outbreak in West Africa in 2013–2016, screening incoming travellers is time- and resource-consuming and will not effectively identify infected cases [40].

Instead, both experience and evidence show that exit screening from affected countries can be a more effective measure to support the containment of the disease spread [40], where a traveller presenting with symptoms (e.g. fever >37.5 or 38°C) should not be allowed to board a flight. It should be noted that the predictive positive value of the detection of one individual with an ebolavirus infection through exit screening is nevertheless rather low. However, literature reports that exit screening may help dissuade ill persons from travelling and enhance public and stakeholder confidence, preventing excessive measures by destination countries (e.g. travel or trade restrictions) [41].

To reduce the likelihood of SUDV being introduced into the EU/EEA, the following options for response can be considered:

- A passenger who develops EBOD-compatible symptoms while on board a commercial flight should be isolated and their condition ascertained upon arrival. Should the passenger be confirmed as having SVD, contact tracing of all co-passengers should be initiated in accordance with the recommendations for aircraft contact tracing set out by ECDC in the risk assessment guidelines for infectious diseases transmitted on aircraft (RAGIDA) [42].
- Travellers who have stayed in a recently affected area should be made aware that if they develop symptoms compatible with EBOD within 21 days after arrival in an EU/EEA country, they should self-isolate, contact health services and mention potential sources of exposure to the Ebola virus. Secondary transmission to caregivers in the family and in healthcare facilities cannot be ruled out if no measures are taken for infection prevention and control.
- Healthcare and humanitarian workers returning from the affected areas should be provided with information upon their return and they should undergo an individual exposure assessment as soon as possible. Additional measures can be considered on the basis of the results of the exposure assessment [43].

Increase awareness of health professionals

Healthcare providers in the EU/EEA should be informed of and sensitised to:

- The possibility of SVD among travellers returning from affected areas;
- The clinical presentation of the disease and the need to enquire about the travel history and contacts in people returning from countries experiencing SVD outbreaks;
- The availability of protocols for the ascertainment of possible cases and procedures for referral to healthcare facilities;
- The infection prevention and control measures, such as, the use of personal protective equipment and disinfection procedures that should be implemented when providing care to SVD cases, in accordance with specific guidelines and WHO infection-control recommendations [44-47].

Countries should review their capacities and procedures for providing care to a suspected or confirmed EBOD case, such as the potential need of patient transportation, isolation rooms and medical teams, as well as access to specialised support care needed for such patients. Refreshing IPC procedures and PPE use (donning and doffing) are needed [48]. No vaccine or other pharmaceuticals are licensed against SUDV, therefore, critical care support is vital.

Review of laboratory testing capabilities

The vast majority of the EU/EEA countries have the laboratory capability to perform EBOD diagnostic testing. Polymerase chain reaction (PCR) is the most commonly used laboratory method for diagnosing ebolavirus infections. According to the EVD-LabNet directory, 25 EU/EEA countries have one or more laboratories that are able to perform either generic ebolavirus PCR or specific SUDV PCR tests. Five countries do not have the capability to perform laboratory testing for SUDV, but those countries clarified that they could either implement the techniques (PCR and/or sequencing), or they have agreements with laboratories in other countries for support, or both.

A searchable directory of ebolavirus diagnostic tests (including tests for different ebolavirus species), curated by FIND, can be found here [49].

Risk communication activities

Risk communication to the public and healthcare professionals should take into account and explain the disease, the different viral causes and their outcomes, the very low risk to EU/EEA citizens who have not visited the affected areas, and the activities undertaken by the public health authorities in preparing for a potential imported case.

Limitations

This assessment is undertaken based on facts known to ECDC at the time of publication.

Source and date of request

ECDC internal decision, 28 October 2022.

Consulted experts (in alphabetical order)

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All experts have submitted declarations of interest, and a review of these declarations did not reveal any conflict of interest.

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. 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.

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