

WEEKLY BULLETIN

Communicable Disease Threats Report Week 1, 2–8 January 2023

Today's disease topics

1. COVID-19 associated with SARS-CoV-2 - Multi-country (EU/EEA) - 2019 - 2023
2. Mpox - Multi-country - 2022
3. Ebola virus disease due to Sudan ebolavirus – Uganda – 2022

1. COVID-19 associated with SARS-CoV-2 - Multi-country (EU/EEA) - 2019–2023

Overview:

Summary:

Other News

On 22 December 2022, the Swedish Public Health Agency (Folkhälsomyndigheten) published a [news item](#) on the COVID-19 vaccination strategy that they will continue to follow in 2023. According to this news item, people aged 80 years and above and people living in special housing for the elderly (SÄBO) are recommended to have two COVID-19 booster doses in 2023, one in spring and one in autumn/winter, with a six-month interval between the doses. People aged 65–79 years and younger individuals with risk factors are recommended to have a COVID-19 booster dose for the autumn/winter season in 2023. These recommendations will apply from 1 March 2023 until further notice.

Weekly update on SARS-CoV-2 variants:

ECDC assessment on the XBB.1.5 sub-lineage

XBB.1.5 is a sub-lineage of XBB with an additional spike RBD mutation S486P. This lineage was first detected in United States in samples collected from 22 October 2022 onwards, and detections of this lineage has been increasing since then. As of 3 January 2023, 3 456 sequences had been deposited in GISAID EpiCoV belonging to XBB.1.5 with the mutational profile in Spike region - Q183E, F486P and F490S. Most of these submissions are from the United States (3 080 sequences), and the United Kingdom (106 sequences), and the variant has also been detected in several other countries including EU/EEA countries – Denmark, France, Austria, Netherlands, Germany, Italy, Spain, Sweden, Iceland, Belgium, Czechia, Portugal, and Ireland.

This lineage is currently estimated to have a large growth advantage over previously circulating lineages in North America (139%) and Europe (137%), although these estimates are associated with significant uncertainty. The US Centers for Disease Prevention and Control (US CDC) report a doubling time of nine days for the proportion of XBB.1.5 and the [US-CDC nowcast system](#) estimates the current proportion of the variant to be around 40% in the USA, with the variant likely to become dominant within a week. The US CDC also presented growth data comparing

XBB.1.5 to previously successful variants, indicating that XBB 1.5 exhibits the second highest growth advantage to date, second only to BA.1 (the original Omicron lineage). This does not necessarily mean that the variant will become dominant in the EU/EEA, since major differences in variant circulation have been observed between North America and Europe several times before during the pandemic.

The most likely explanation for the growth advantage is the already high level of immune escape demonstrated by XBB, combined with the effect of the spike change S486P which could provide either a transmissibility advantage, additional immune escape, or both. This mutation has previously been rare during the pandemic, probably due to it requiring two amino acid substitutions in the same codon to change from phenylalanine to proline. In fact, other variants with this change have emerged before without becoming successful. Further laboratory and epidemiological investigations are required to elucidate the mechanism of the growth advantage conferred by this change in the XBB variant specifically. There is currently not enough information available to assess any change in infection severity associated with the variant.

There is a possibility that this variant could have an increasing effect on the number of COVID-19 cases in the EU/EEA, but not within the coming month as the variant is currently only present in the EU/EEA at very low levels.

For the latest information on variants, please see [ECDC's webpage on variants](#).

Public Health Emergency of International Concern (PHEIC):

On 30 January 2020, the World Health Organization (WHO) declared that the outbreak of COVID-19 constitutes a PHEIC. On 11 March 2020, the Director-General of WHO declared the COVID-19 outbreak a pandemic.

The [third](#), [fourth](#), [fifth](#), [sixth](#), [seventh](#), [eighth](#), [ninth](#), [tenth](#), [eleventh](#), [twelfth](#), and [thirteenth](#) International Health Regulations (IHR) Emergency Committee meetings for COVID-19 were held in Geneva on 30 April 2020, 31 July 2020, 29 October 2020, 14 January 2021, 15 April 2021, 14 July 2021, 22 October 2021, 13 January 2022, 11 April 2022, 8 July 2022, and 13 October 2022 respectively. The Committee concluded during these meetings that the COVID-19 pandemic continues to constitute a PHEIC.

As of 20 June 2022, ECDC discontinued the data collection and publication of the number of COVID-19 cases and deaths worldwide. Please refer to [World Health Organization \(WHO\) data](#) on COVID-19 and [WHO's Weekly Epidemiological Updates and Monthly Operational Updates](#) page for non-EU/EEA countries.

For the latest COVID-19 country overviews, please see the [dedicated web page](#).

ECDC assessment:

For the most recent risk assessment, please visit [ECDC's dedicated webpage](#).

Actions:

On 27 January 2022, ECDC published its Rapid Risk Assessment, '[Assessment of the further spread and potential impact of the SARS-CoV-2 Omicron variant of concern in the EU/EEA, 19th update](#)'.

Detailed country-specific COVID-19 updates are available on ECDC's [website](#). For the latest update on SARS-CoV-2 variants of concern, please see [ECDC's webpage on variants](#).

ECDC invites countries to use the EpiPulse event (2022-IRV-00008) on BQ.1 and sub-lineages to discuss and share information on this variant as it becomes available. Of particular interest is information on virus characterisation and evidence regarding changes in disease severity, virus transmissibility, immune evasion, and effects on diagnostics and therapeutics. Case reporting should continue through TESSy.

Further information:

COVID-19 associated with SARS-CoV-2 – China – 2022 - 2023

Sources: [China CDC](#), [media](#), [media](#), [media](#), [media](#), [GISAID](#)

Update

On 4 January 2023, China [reported](#) 9 308 new confirmed cases and one associated fatality. There are 85 498 current cases, being 4 509 of those severe cases. Since the start of the pandemic, a total of 461 825 confirmed cases and a total of 5 259 associated fatalities have been reported in mainland China.

Information on variants from public sources

From 1 December 2022 to 5 January 2023, China has deposited 800 sequences, out of which 783 sequences were being deposited since 25 December 2022. As of 5 January 2023, of the total 800 sequences submitted from China, 591 had recent sample collection dates between 1 and 31 December 2022 in GISAID EpiCoV. These sequences mainly belonged to the lineages (including their sub-lineages) BA.5.2 (37%), BF.7 (32%), BQ.1 (14%), BA.2.75 (5%), XBB (3%), BA.2 (1%). No new variant has been detected. On 4 January 2023, a [statement](#) of the Technical Advisory Group on Virus Evolution (TAG-VE) that met on 3 January 2023 was published.

Other news

On 4 January 2023, the Swedish Presidency of the Council of the European Union published a [statement](#) on the coordination of COVID-19 Travel measures. According to the statement, the Member States agreed on a coordinated precautionary approach due to the recent surge of COVID-19 cases in China. The agreement includes:

- The Member States agree to recommend to all passengers on flights to and from China to wear a medical mask, or FFP2/N95/KN95 respirators.
- The Member States agree to issue advice to incoming and outgoing international travellers coming from or destined for China, as well as to aircraft and airport personnel, regarding personal hygiene and health measures.
- The Member States are strongly encouraged to introduce, for all passengers departing from China to Member States, the requirement for a negative COVID-19 test taken not more than 48 hours prior to departure from China.
- The Member States are encouraged to complement these measures with:
 - Random testing of passengers arriving from China on arrival in the Member States, as appropriate, and the sequencing of all positive results to strengthen surveillance of the epidemiological situation.
 - Testing and sequencing of wastewater from airports with international flights and aircraft arriving from China.
 - Continuing to promote vaccine sharing and the uptake of vaccines, including booster doses, particularly among vulnerable groups.

On 4 January 2023, WHO Director-General in a [press briefing](#) noted that the Organization is still asking China for more timely data on indicators such as hospitalisations and deaths and real-time sequencing. The head of the WHO Health Emergencies Program noted in the same briefing that the definition of COVID-19 deaths used in China is too narrow and that the current numbers underrepresent the impact of COVID-19 in the country in terms of hospitalizations, ICU admissions and death ([WHO Media briefing on global health issues 4/1/2023](#) – min 20).

On 4 January 2023, Chinese [media](#) quoting Chinese health authorities informed about a call to increase coordination among medical facilities. According to the news, major hospitals in China have expanded their capacities to treat mild COVID-19 patients.

On 3 January 2023, the British Medical Journal (BMJ) published a [news item](#) about the current COVID-19 situation in China. According to the news, recent changes in the criteria to count COVID-19 fatalities might be causing an underreport in the country.

Summary

The number of COVID-19 cases reached record levels in mainland China. There continues to be limited data on COVID-19 cases, hospital admissions, deaths as well as ICU capacity and occupancy in China. High levels of SARS-CoV-2 infections and increased pressure on healthcare services in China are anticipated due to low population immunity and the relaxation of non-pharmaceutical interventions. Projection models published by the Institute for Health Metrics and Evaluation at the University of Washington anticipate steep increases in infections, hospitalisations, and deaths through April 2023. However, in the absence of more detailed and timely data from official sources on epidemiological indicators and sequencing, the public health impact, and the size and severity of the current surge of COVID-19 cases are difficult to assess.

Assessment

ECDC Assessment for the European Union (EU) / European Economic Area (EEA)

Given the higher population immunity in the EU/EEA, and the available information that the variants currently circulating in China have already been circulating in the EU/EEA, the current surge in cases of these variants in China is not expected to have any significant impact on the COVID-19 epidemiological situation in the EU/EEA. There is currently no data suggesting the emergence of new variants of concern in China. The ECDC assessment is based on the information currently available. ECDC will revisit its assessments as new information becomes available.

ECDC Actions

ECDC liaises on a regular basis with the European Commission and the Member States in the Health Security Committee.

ECDC is in contact with China CDC on a regular basis to receive updated information on the epidemiological situation. ECDC is also in contact with the Public Health Agency of Canada (PHAC), the Japanese CDC, the Australian CDC, the US CDC as well as with WHO/Headquarters and WHO/Europe to cross-check and validate data and assessments with partners outside China, including on sequencing data from Chinese travellers.

ECDC continues to routinely monitor and report on emerging SARS-CoV-2 variant threats via its Strategic Analysis of Variants in Europe (SAVE) Working Group, where variants and epidemiological trends in the EU/EEA as well as worldwide will continue to be evaluated. ECDC participates in the global WHO Technical Advisory Group on SARS-CoV-2 Virus Evolution (TAG-VE).

2. Mpox - Multi-country - 2022

Overview:

Update:

Since the last update on 20 December 2022, and as of 3 January 2023, 21 mpox cases have been reported from seven EU/EEA countries: Italy (11), Spain (3), Croatia (2), Ireland (2), Netherlands (1), Norway (1) and Sweden (1).

Summary:

EU/EEA

Since the start of the mpox outbreak and as of 3 January 2023, 21 094 confirmed cases of mpox have been reported from 29 EU/EEA countries: Spain (7 500), France (4 114), Germany (3 675), Netherlands (1 259), Italy (951), Portugal (943), Belgium (790), Austria (327), Sweden (253), Ireland (227), Poland (214), Denmark (192), Norway (94), Greece (85), Hungary (80), Czechia (71), Luxembourg (57), Slovenia (47), Romania (46), Finland (42), Malta (33), Croatia (31), Iceland (16), Slovakia (14), Estonia (11), Bulgaria (6), Latvia (6), Cyprus (5) and Lithuania (5).

Deaths have been reported from: Spain (3), Belgium (1) and Czechia (1).

Western Balkans and Türkiye:

Since the start of the mpox outbreak and as of 3 January 2023, the following Western Balkan countries have reported confirmed cases of mpox: Serbia (40), Bosnia and Herzegovina (9) and Montenegro (2). In addition, 12 cases have been reported from Türkiye.

Disclaimer: data presented in this update are compiled from TESSy.

A detailed summary and analysis of data reported to TESSy can be found in the [Joint ECDC-WHO Regional Office for Europe Mpox Surveillance Bulletin](#) published weekly.

Public Health Emergency of International Concern (PHEIC): On 23 July 2022, the Director-General of the World Health Organization (WHO) [declared](#) the global mpox outbreak a Public Health Emergency of International Concern (PHEIC). On 1 November 2022, [WHO](#) advised that the multi-country outbreak of mpox still met the criteria included in the definition of a PHEIC, as set out in Article 1 of the International Health Regulations (2005) (IHR).

ECDC assessment:

The weekly number of mpox cases reported in the EU/EEA peaked in July 2022, and a steady declining trend has been observed since then. Multiple factors have probably contributed to the decline of this outbreak, including efforts in risk communication and community engagement resulting in behavioural changes, increasing immunity in the most affected population groups due to natural immunity and vaccination, and a decrease in the number of large cultural and social events after the summer, frequented by the main risk groups for this outbreak.

Mpox continues to primarily affect young men who have sex with men (MSM), between 18 and 50 years (87%). Mass gatherings in summer and specific sexual practices facilitated the transmission of mpox among MSM groups. Sporadic cases in women and children have also been reported.

Cases in the current outbreak continue to present with a spectrum of symptoms and signs that differ from what has been described in past outbreaks of mpox in endemic countries, where symptoms were mainly mild. Only a few severe cases (including encephalitis) leading to hospitalisations and five deaths have been reported by Spain (3), Belgium (1), and Czechia (1).

Based on evidence from the current outbreak and the declining number of new infections, the overall risk of mpox infection is assessed as moderate for MSM and low for the broader population in the EU/EEA.

Response options for EU/EEA countries include: creating awareness among health professionals and supporting sexual health services to continue case detection, contact tracing, and management of cases; continuing to offer testing for orthopoxvirus; vaccination strategy; and continuing risk communication and community engagement, despite the decreasing number of cases.

Given the limitations in vaccine supplies, primary preventive vaccination (PPV) and post-exposure preventive vaccination (PEPV) strategies may be combined to focus on individuals at substantially higher risk of exposure and close contacts of cases, respectively. PPV strategies should prioritise gay, bisexual, or other men or transgender people who have sex with men, who are at higher risk of exposure as well as individuals at risk of occupational exposure, based on epidemiological or behavioural criteria. Health promotion interventions and community engagement are also critical to ensure effective outreach and high vaccine acceptance and uptake among those most at risk of exposure.

Actions:

ECDC continues to monitor this event through its epidemic intelligence activities and reports relevant news on an ad-hoc basis. Multilateral meetings between affected countries, the WHO Regional Office for Europe and ECDC have taken place to share information and coordinate responses. A process in EpiPulse has been created to allow countries to share information with one another, WHO and ECDC.

A [rapid risk assessment](#), 'Mpox multi-country outbreak', was published on 23 May 2022, the [first update](#) was published on 8 July 2022 and a [second update](#) was published on 18 October 2022. For the latest updates, visit [ECDC's mpox page](#).

ECDC offers laboratory support to Member States and collaborates with stakeholders on risk communication activities, such as targeted messaging for the general public and MSM communities. ECDC provided guidance to countries hosting events during the summer as well. ECDC also provides guidance on clinical sample storage and transport, case and contact management and contact tracing, IPC guidance, cleaning and disinfection in healthcare settings and households, and vaccination approaches.

3. Ebola virus disease due to Sudan ebolavirus – Uganda – 2022

Overview:

Overview: Since the last update on 22 December 2022 and as of 4 January 2023, no new cases of Sudan virus disease (SVD) have been reported.

According to the World Health Organization and the Ugandan Ministry of Health ([Situation report 87](#)), as of 3 January 2023, there have been 142 confirmed cases of SVD, 55 of which have died (CFR: 39%), and 87 recovered. In addition, 22 deaths among probable cases have been [reported](#) in individuals who died before a sample was taken. At least 19 healthcare workers have been infected and seven of them have died.

As of 2 January 2023, there are no active contacts under follow-up. If no new cases are reported by 11 January 2023, the outbreak will be declared over ([WHO press briefing 5/1/23](#)).

The last reported case was a stillborn 32-week-old male delivered on 27 November 2022 to a woman who survived SVD late in her pregnancy. This case was confirmed after a period of 13 days with no confirmed cases.

Overall, there have been nine Ugandan districts affected by this outbreak: Bunyangabu, Jinja, Kagadi, Kampala, Kassanda, Kyegegwa, Masaka, Mubende, and Wakiso. All districts except Kassanda have completed two incubation cycles of the virus without reporting any cases. Since the last reported case and by 2 January 2023, 36 days had passed ([Situation report 86](#)).

On 17 December 2022, all the preventive measures and restrictions that were applied on [15 October](#) in the Kassanda and Mubende districts to curb the spread of SVD were lifted, as [announced](#) by the Ugandan Vice President.

Background: on 20 September 2022, the Ministry of Health in Uganda, together with the World Health Organization Regional Office for Africa, confirmed an outbreak of SVD in Mubende District, Uganda, after one fatal case was confirmed.

The index case was a 24-year-old man, a resident of Ngabano village in the Madudu sub-county in Mubende District. The patient experienced high fever, diarrhoea, abdominal pain, and began vomiting blood on 11 September 2022. Samples were collected on 17 September 2022 and SVD was laboratory-confirmed on 19 September. The patient died on the same day, five days after hospitalisation.

The Ugandan government is carrying out community-based surveillance and active case finding. An on-site [mobile laboratory](#) has been established in Mubende and risk communication activities are ongoing in all affected districts. Africa CDC, WHO, GOARN and other partners have teams in Uganda to support the coordination of the response.

As of [16 November 2022](#), all travellers departing from or arriving at the Entebbe International Airport in Uganda are required to complete a health declaration form.

On 8 December 2020, the [Ministry of Health of Uganda](#) announced that 1 200 doses of vaccine had arrived in the country which would be used in the Tokomeza Ebola vaccine trial. This was the first batch of one of three vaccine candidates. The [Sabin Vaccine Institute](#), which made the vaccine, announced that it would make another 8 500 doses available to WHO on a rolling basis through January.

SVD outbreaks have previously occurred in Uganda (four outbreaks) and Sudan (three outbreaks). The last SVD outbreak in Uganda was in 2012.

ECDC assessment:

Risk to EU/EEA citizens living in or travelling to affected areas in Uganda

The current probability that EU/EEA citizens living in or travelling to SVD-affected areas of Uganda will be exposed to the virus is very low, provided that they adhere to the recommended precautionary measures. Transmission requires direct contact with blood, secretions, organs or other bodily fluids of dead or living infected people or animals; all of which are unlikely for EU/EEA tourists or expatriates in Uganda.

Given that infection with Sudan ebolavirus leads to severe disease but that the probability of exposure for EU/EEA citizens is very low, the impact for EU/EEA citizens living and travelling in affected areas of Uganda is considered low. Overall, the current risk for EU/EEA citizens living in or travelling to affected areas in Uganda is considered low.

Risk of introduction and spread 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 (IATA), in 2019, there were about 126 000 travellers arriving in the EU/EEA from Uganda. However, importation of cases by travellers is considered unlikely, based on previous experience from the largest Ebola disease outbreak in West Africa to date (2013–2016, due to Zaire ebolavirus), where thousands of cases were reported, with transmission in large urban centres, and the deployment of hundreds of EU/EEA humanitarian and military personnel to the affected areas.

The likelihood of secondary transmission of Sudan ebolavirus within the EU/EEA and the implementation of sustained chains of transmission within the EU/EEA is very low, as cases will be promptly identified and isolated, with follow-up control measures implemented. During the large Ebola disease outbreak in West Africa in 2013–2016, there was only one local transmission in the EU/EEA (in Spain), in a healthcare worker who had cared for an evacuated patient. The impact of SVD for EU/EEA citizens living in the EU/EEA is considered low, and overall the current risk of SVD for the citizens in the EU/EEA is considered very low.

Actions:

ECDC is monitoring this situation through its epidemic intelligence activities, and will report relevant updates weekly. On 12 October 2022, ECDC published a [news item](#) on the Ebola outbreak in Uganda. ECDC provides a weekly epidemiological update on the outbreak on its [website](#). On 3 November 2022, ECDC deployed an expert to Uganda to support the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) country office and the overall outbreak response.

On 9 November 2022, ECDC published a rapid risk assessment, '[Risk of Sudan virus to EU/EEA citizens considered very low](#)'.

Further information:

EU/EEA visitors and residents in affected areas of Uganda should observe the following precautionary measures:

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

ECDC considers that the screening of travellers returning from Uganda would not be an effective measure to prevent introduction of the disease into Europe. Screening incoming travellers is time- and resource-consuming and will not effectively identify infected cases. Both experience and evidence show that exit screening from affected regions/countries can be an effective measure to support the containment of disease spread.

WHO advises against any restrictions on travel and/or trade to/with Uganda, based on available information for the current outbreak.

The licensed vaccines available protect against Ebola disease resulting from Zaire ebolavirus. There are no licensed vaccines against SVD, and there are no data available on the level of cross-protections. The availability of a vaccine was proven to be very helpful in the control of the recent outbreaks in the Democratic Republic of the Congo. The unavailability of vaccines is an additional challenge in the control of this outbreak.

Maps and graphs

Figure 1. Ebola disease cases reported in Uganda in 2022, by week of reporting

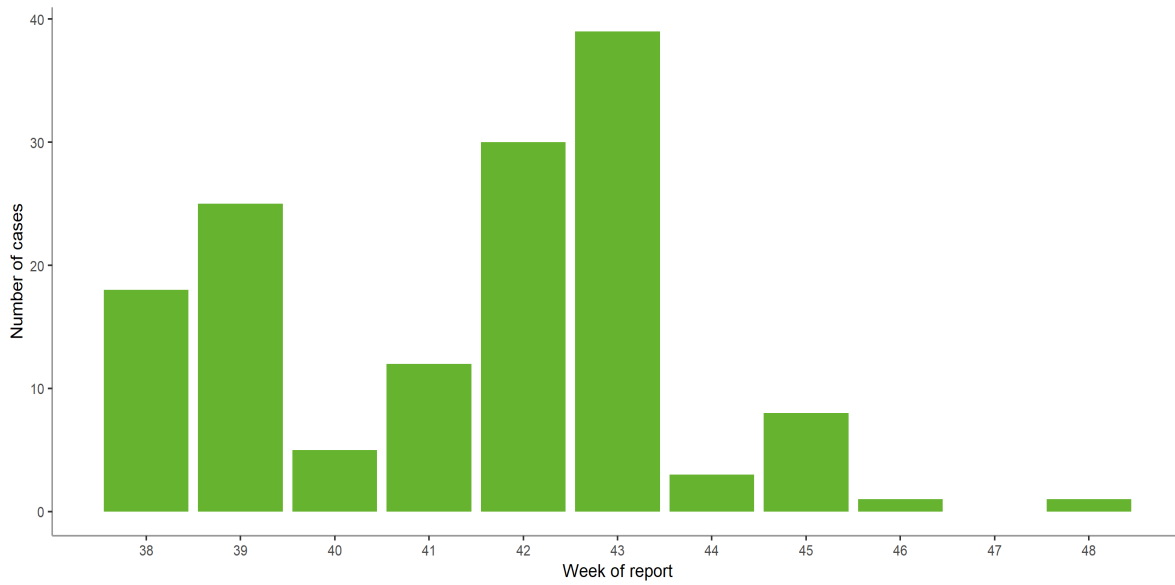
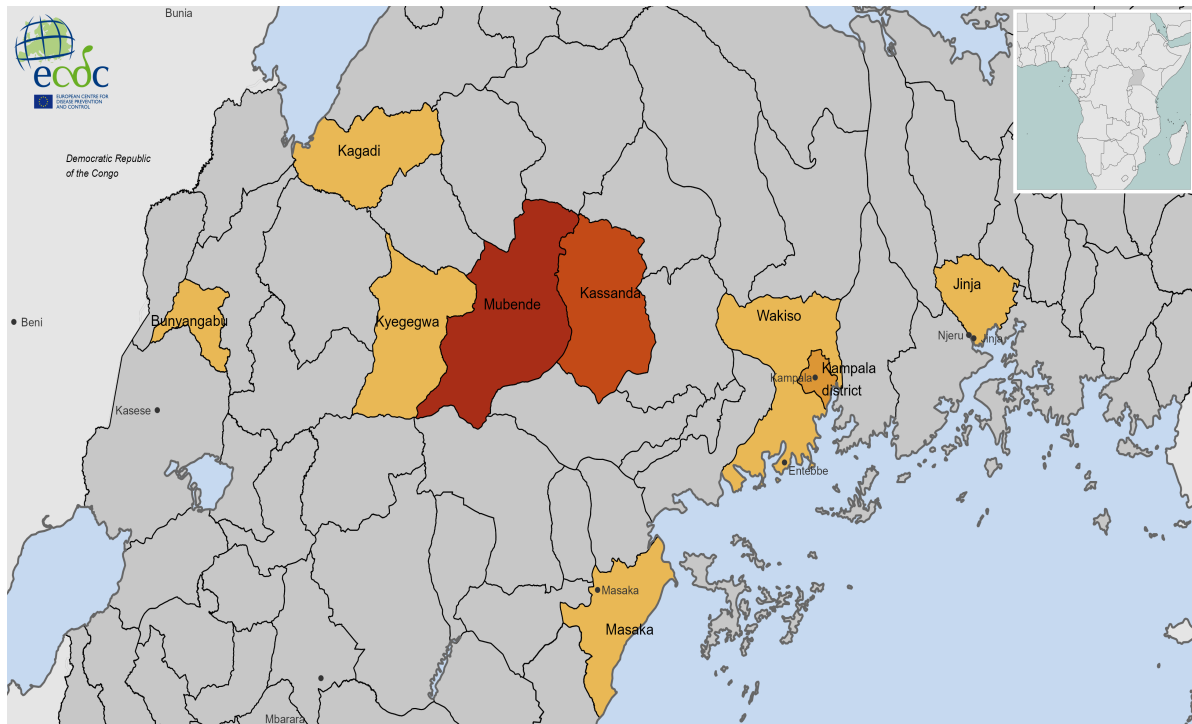


Figure 2. Geographical distribution of EVD cases in Uganda, 2022



Administration boundaries: © Eurogeographics
The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. ECDC. Map produced on 04 January 2023. Data collected from official sources. Dots indicate cities with population above 50 000.