

WEEKLY BULLETIN

Communicable Disease Threats Report

Week 47, 20 - 26 November 2022

Today's disease topics

1. COVID-19 associated with SARS-CoV-2 - Multi-country (EU/EEA) - 2019 - 2022
2. Ebola virus disease due to Sudan ebolavirus – Uganda – 2022
3. C. diphtheriae among migrants – Europe – 2022
4. Influenza – Multi-country – Monitoring 2022/2023 season
5. Increasing trend of infection with Respiratory Syncytial Virus (RSV) – Multi-country – 2022
6. West Nile virus - Multi-country (World) - Monitoring season 2022
7. Monkeypox - Multi-country - 2022
8. Mass gathering monitoring - the FIFA World Cup 2022 Qatar
9. Cholera - Multi-country (World) - Monitoring global outbreaks
10. Poliovirus - Indonesia - 2022

1. COVID-19 associated with SARS-CoV-2 - Multi-country (EU/EEA) - 2019 - 2022

Overview:

Summary:

At the end of week 46, 2022 (week ending 20 November), EU/EEA-level COVID-19 case rates in people aged 65 years and older continued to decrease (-13% compared to the previous week). Overall (all ages) EU/EEA COVID-19 case and death rates also continue to decrease and are at low levels compared to the pandemic maximum (6% and 7% respectively). Hospital and ICU admissions continue to decrease while occupancy currently remains stable. As the proportions of BQ.1 variant of concern continue to increase, it remains important to continue monitoring the epidemiological situation.

The pooled EU/EEA notification rate of COVID-19 cases among people aged 65 years and older has not increased in any of the 25 countries reporting data on this indicator. Overall notification rates (all ages) increased in three countries over the past week, albeit the overall rate remaining below 10% of the pandemic maximum in all three countries.

Pooled EU/EEA hospital and ICU admissions continued to decrease (by 19% and 33% respectively, compared to the previous week). However, six countries reported an increase in either hospital or ICU admissions compared to the previous week. Hospital and ICU occupancy at the EU/EEA level has remained stable, with two countries reporting increases compared to the previous week. A decreasing trend continues to be observed for the pooled EU/EEA COVID-19 death rate, with no country in the EU/EEA reporting increases in the past week.

Forecasts of cases, hospital admissions and deaths from the [European COVID-19 Forecast Hub](#) provide predictions for weeks 47 and 48. Compared with the previous week, increasing trends in cases, decreasing trends in hospital admissions, and stable trends in deaths are forecast for the EU/EEA overall by the end of week 48. Forecasts for individual countries may differ from those for the EU/EEA as a whole. It should be noted that forecasts of cases are considered to be increasingly unreliable due to changes in testing criteria and reporting procedures. All current forecasts, in particular case forecasts, should be treated with caution.

The cumulative uptake of a first booster was 65.5% (country range: 11.2–86.8%) among adults aged 18 years and older, 84.5% (country range: 13.3–100.0%) among individuals aged 60 years and older, and 54.5% (country range: 9.2–75.6%) in the total population. The cumulative uptake of a second booster was 13.5% (country range: 0.1–40.3%) among adults aged 18 years and older, 28.6% (country range: 0.3–81.9%) among individuals aged 60 years and older, and 11.0% (country range: 0.1–32.3%) in the total population.

Among the 10 countries with an adequate volume of sequencing or genotyping for weeks 44–45 (31 October to 13 November 2022), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 61.2% (45.8–98.7% from 10 countries) for BA.5, 30.8% (13.4–47.6% from 7 countries) for BQ.1, 2.5% (0.5–18.6% from 9 countries) for BA.2.75, 2.0% (0.3–3.7% from 10 countries) for BA.4, and 0.8% (0.1–4.3%, 308 detections from 10 countries) for BA.2.

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 and Weekly Operational Updates](#) page for non-EU/EEA countries.

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

Other news:

On 22 November 2022, [media](#) quoting Japan's health ministry reported that Japan has granted emergency regulatory approval for its first domestically developed antiviral drug Xocova (ensitrelvir fumaric acid), for treating COVID-19 patients who are 12 years old and above. The drug is an oral antiviral agent administered once daily for five days that suppresses the replication of SARS-CoV-2 by selectively inhibiting the viral 3CL protease. This is the third antiviral drug approved in Japan for treating COVID-19 patients.

On 21 November 2022, the National Health Commission of the People's Republic of China [reported](#) two COVID-19-related deaths in Beijing. This is the first time the country has reported COVID-19-related deaths in nearly six months. According to [media](#), China is still enforcing strict 'zero Covid' measures. However, in recent days the country has experienced a surge in COVID-19 cases across multiple cities.

On 18 November 2022, the Norwegian Institute of Public Health published a [press release](#) informing that all people aged between 18 and 64 years can now take a booster dose of COVID-19 vaccine if they wish to do so. Before this new announcement, a booster dose of COVID-19 vaccine was only recommended for people over 65 years old, people aged between 12–64 years with an underlying health condition, and pregnant women. However, the institute also says that it doesn't believe that everyone in this target group should take a new booster dose, but this new offering makes it possible for those who want to take it to choose to do so.

Weekly update on SARS-CoV-2 variants:

Since the last update on 10 November 2022 and as of 24 November 2022, no changes have been made to ECDC variant classifications for variants of concern (VOC), variants of interest (VOI), variants under monitoring, and de-escalated variants.

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.

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 they become available. Of particular interest is information on virus characterisation and evidence on changes in disease severity, virus transmissibility, immune evasion and effects on diagnostics and therapeutics. Case reporting should continue through TESSy.

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

Overview:

Overview: According to the World Health Organization ([WHO](#)), as of 22 November 2022, there have been 141 confirmed cases of Ebola virus disease (EVD), including 55 deaths (CFR: 39%). 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 died. There have been 79 recoveries. The weekly number of confirmed cases reported has decreased for the third consecutive week after the peak observed in the week 43, and no new cases have been reported in week 47.

Currently, there are seven Ugandan districts affected by this outbreak: Jinja, Kampala, Kassanda, Kyegegwa, Masaka, Mubende and Wakiso. Bunyangabu and Kagadi have not reported any cases since 21 and 24 September 2022, respectively, and as two incubation cycles of the virus have been completed, the districts have been removed from the list. Although data are incomplete, the last reported cases appear to be epidemiologically linked to known cases.

According to [WHO](#), 4 654 contacts of cases have been identified across 15 districts, of which 3 636 contacts have completed 21 days of follow up.

Other news:

On [21 November 2022](#), the Ugandan Ministry of Health issued a statement informing that the marathon held in Kampala on 20 November 2022 did not pose a risk of transmission of Ebola disease. According to the statement, no participants experienced any symptoms of Ebola and that prior to the event, a risk assessment was performed. Based on this assessment, the Ministry cleared and authorised the event.

According to the [WHO Disease Outbreak News](#) on 24 November 2022, experts recommended that three candidate vaccines should be included in the planned ring vaccination trial: VSV-SUDV from Merck/IAVI, ChAd3-SUDV from the Sabin Institute, and biEBOV from Oxford University/Jenner Institute. The first doses of one of these candidate vaccines are expected to arrive in the country soon.

Background: On 20 September 2022, the Ministry of Health in Uganda, together with WHO AFRO, confirmed an outbreak of EVD due to Sudan ebolavirus in Mubende District, Uganda, after one fatal case was confirmed. The index case was a 24-year-old man, a resident of Ngabano village of 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 EVD was laboratory-confirmed on 19 September. The patient died on the same day, five days after hospitalisation.

On 15 October 2022, the [President of Uganda](#) imposed a 21-day lockdown on the Mubende and Kassanda districts to contain the outbreak of EVD. 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 [Ministry of Health](#) in Uganda implemented measures to restrict travel for contacts of confirmed Ebola cases during the follow-up period (21 days). On [5 November 2022](#), these measures were extended for further 21 days. Additionally, on [8 November 2022](#), the Ministry of Education and Sports directed schools across Uganda to finish the school term on 25 November 2022, two weeks earlier than planned.

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 leaving or arriving at Entebbe International Airport in Uganda are required to complete a health declaration form.

As of [5 November 2022](#), there were five Ebola treatment units (ETUs) between Mubende, Kampala and Kabarole districts. A new ETU is being established in Kassanda in response to an increase in reported cases from the region.

Previously, EVD was reported in Uganda 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 Sudan (three outbreaks). The last outbreak of EVD due to Sudan ebolavirus in Uganda was reported in 2012.

ECDC assessment:**Risk to EU/EEA citizens living in or travelling to affected areas in Uganda**

Despite the increase in the number of cases and the transmission reported in the densely populated capital city of Kampala, the current probability that EU/EEA citizens living in or travelling to EVD-affected areas of 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 general EU/EEA tourists or expatriates in Uganda.

Considering that infection with Sudan ebolavirus leads to severe disease but that the probability of exposure of EU/EEA citizens is very low, the impact for the 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 Ebola 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. Based on experience from the largest EVD outbreak in West Africa to date (2013–2016), 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, importation of cases by travellers is considered unlikely.

The likelihood of secondary transmission of Ebola virus within the EU/EEA and the implementation of sustained chains of transmission within the EU/EEA is very low, as cases are likely to be promptly identified and isolated and follow-up control measures implemented. During the large EVD 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 EVD patient. The impact of EVD for EU/EEA citizens living in the EU/EEA is considered low and overall, the current risk of EVD for the citizens in the EU/EEA is considered very low.

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

- the possibility of EVD among travellers returning from affected areas;
- the clinical presentation of the disease and the need to enquire about travel history and contacts in people returning from EVD-affected countries;
- the availability of protocols for the ascertainment of possible cases and procedures for referral to healthcare facilities;
- the imperative need for strict implementation of barrier management, use of personal protective measures and equipment and disinfection procedures in accordance with specific guidelines and WHO infection-control recommendations when providing care for EVD cases.

Actions:

ECDC is monitoring this situation through its epidemic intelligence activities and will report relevant updates twice a week. 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 DG ECHO country office and the overall outbreak response.

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

Further information:

EU/EEA visitors and residents in affected areas in 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 in 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 EVD resulting from Zaire ebolavirus. There are no licensed vaccines against EVD resulting from Sudan ebolavirus, and there are no available data 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 will be an additional challenge in the control of this outbreak.

Source: [Ministry of Health Uganda](#) , [Africa CDC](#), [WHO](#).

Maps and graphs

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

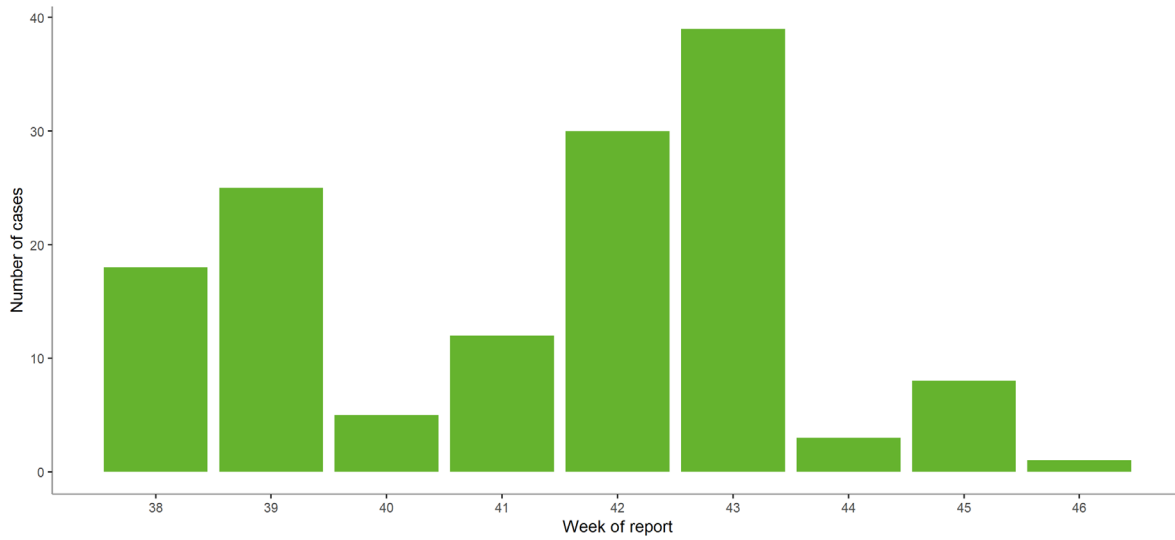
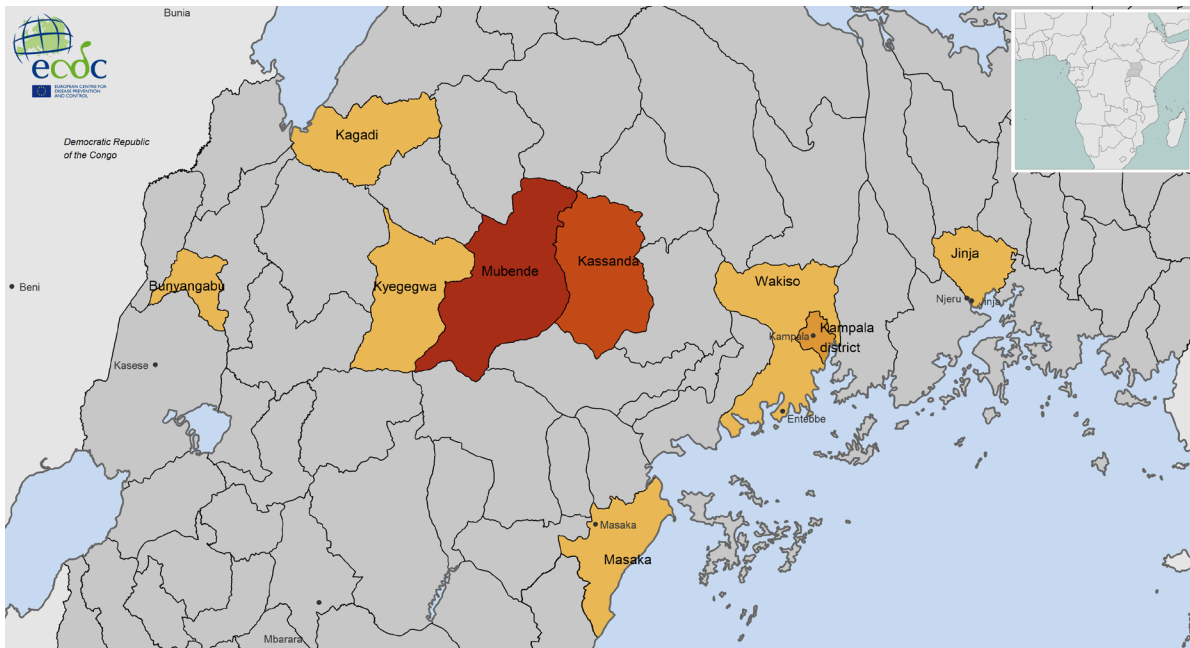


Figure 2. Geographical distribution of EVD cases in Uganda, 2022.



3. *C. diphtheriae* among migrants – Europe – 2022

Overview:

Summary: As of 22 November 2022, and since the last update on 15 November 2022, two new cases of diphtheria have been reported by Belgium.

Background: Since the beginning of 2022, and as of 22 November 2022, there have been 150 cases of diphtheria among migrants reported by eight EU/EEA countries: Austria (42), Germany (64), France (14), Belgium (15), Norway (7), Italy (3), the Netherlands (4), and Spain (1). Cases have also been reported in Switzerland (25) and the United Kingdom (40), bringing the overall number for Europe to 215.

Among these cases, the majority presented with the cutaneous form of the disease (n=149), 30 cases had respiratory diphtheria, five cases had both respiratory and cutaneous presentations, 18 cases were asymptomatic, and information was missing for 13 cases. All cases were caused by toxigenic *C. diphtheriae*, and the majority were detected in male migrants aged 8–49 years.

As of 15 November 2022, and according to the United Kingdom Health Security Agency (UKHSA), all asylum seekers arriving in the UK are currently being offered diphtheria vaccines and a prophylactic course of antibiotics (azithromycin) to reduce the risk of diphtheria infection.

On 11 November 2022, the UKHSA published updated guidelines on the [control and management of diphtheria in England](#) as well as a [supplementary guidance](#) document for cases and outbreaks in asylum-seeker accommodation settings.

ECDC assessment:

Diphtheria is a rare disease in EU/EEA countries. According to [WHO/UNICEF](#), the immunisation coverage estimates for DTP3 in 2021 in the EU/EEA varied across Member States, ranging from 85% (Austria) to 99% (Greece, Hungary, Luxembourg, Malta and Portugal). Universal immunisation is the only effective method for preventing the toxin-mediated disease. This includes the administration of a booster dose of diphtheria toxoid if more than 10 years have passed since the last dose. The occurrence of the disease in fully vaccinated individuals is very rare.

Reports of diphtheria cases among migrants are not unexpected and [similar events](#) have been seen in Europe in recent years. However, the increase in cases reported among this group and the occurrence of similar outbreaks in several EU/EEA countries recently is unusual and needs to be carefully monitored, alongside the implementation of necessary public health measures to avoid the occurrence of more cases and further spread.

In this context, the probability of developing the disease is very low for individuals residing in the community, provided they have completed a full diphtheria vaccination series and have an up-to-date immunisation status. The impact of this outbreak is therefore expected to be very low for the broader EU/EEA population. Nevertheless, the possibility of secondary infections in the community cannot be excluded and severe clinical diphtheria is possible in unvaccinated or immunosuppressed individuals.

In exposed unvaccinated or immunosuppressed individuals in migrant centres, a severe outcome following a diphtheria infection is possible. The impact of an outbreak in this setting would therefore be higher than in the broader population, especially if vaccination uptake is incomplete among those residing or working within settings where there is an increased risk of exposure. Nevertheless, the impact of the disease for individuals with a completed course of diphtheria vaccination is considered to be low. Given the moderate probability of exposure and the potential individual impact as described above, the risk is considered to be moderate for unvaccinated or immunosuppressed individuals in migrant reception centres or other similar crowded settings in the EU/EEA, but low for fully vaccinated individuals in those settings.

On 6 October 2022, ECDC published a [Rapid Risk Assessment \(RRA\)](#) on the increase of reported diphtheria cases among migrants in Europe due to *Corynebacterium diphtheriae*, stressing the importance of universal immunisation with diphtheria toxoid-containing vaccines. Options for responses recommended in this RRA included:

- Identification and vaccination of individuals residing in migrant centres who have incomplete vaccination status.
- Provision of information to migrant centres' health service providers for the rapid identification and isolation of possible cases pending diagnostic confirmation.
- Respiratory droplet isolation of all confirmed or suspected cases with respiratory diphtheria.
- Contact precautions, such as avoiding contact with wounds and the dressing of wounds, for confirmed and suspected cases of cutaneous diphtheria.
- Isolation of all confirmed cases (respiratory and cutaneous presentation) until the elimination of the organism is demonstrated by two negative cultures obtained at least 24 hours apart after the completion of antimicrobial treatment.
- Identification of close contacts, including the personnel providing assistance, especially if they have performed procedures without appropriate personal protective equipment (PPE).

- Antimicrobial post-exposure prophylaxis and vaccination of incompletely vaccinated or unvaccinated close contacts.
- Alerting clinicians to the possibility of cutaneous and/or respiratory diphtheria among migrants and travellers returning from endemic areas.
- Collection of data on the country of origin and migratory route from all suspected diphtheria cases.
- Up-to-date vaccination status for all personnel working in reception centres for migrants.
- Limiting situations of overcrowding in migrant centres, verification of the availability of laboratory diagnostics in each country.
- Timely reporting to authorities of cases confirmed according to the EU case definition for diphtheria.
- Enhanced surveillance, including molecular typing and whole genome sequencing of patient isolates to improve the understanding and monitoring of transmission patterns.

Additional ECDC tools, such as the [Expert Opinion on the public health needs of irregular migrants, refugees or asylum seekers across the EU's southern and south-eastern borders](#), the [Handbook on implementing syndromic surveillance in migrant reception/detention centres and other refugee settings](#) and the [Handbook on using the ECDC preparedness checklist tool to strengthen preparedness against communicable disease outbreaks at migrant reception/detention centres](#) may be of relevance during outbreak investigation activities.

Actions:

ECDC continues to monitor this event through Epidemic Intelligence activities and will provide weekly updates. The latest information can be found on EpiPulse.

4. Influenza – Multi-country – Monitoring 2022/2023 season

Overview:

Week 46, 2022 (14 November–20 November 2022)

Germany, Kazakhstan, Malta, Romania and United Kingdom (Scotland) reported widespread influenza activity and/or at least medium intensity.

The percentage of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms that tested positive for an influenza virus remained stable at 12%.

France, Germany, Greece, Israel, Kazakhstan, Kyrgyzstan, the Netherlands, Portugal, Spain and United Kingdom (Scotland) reported seasonal influenza activity above 10% positivity in sentinel primary care.

Both influenza type A and type B viruses were detected among all monitoring systems, with influenza A(H3) viruses being dominant in sentinel and non-sentinel surveillance systems.

Hospitalised cases with confirmed influenza virus infection were reported from ICU wards (2 type A viruses and 1 type B virus), other wards (63 type A viruses and 3 type B viruses) and SARI surveillance (33 type B viruses, of which 19 were from Kazakhstan, and 19 type A viruses). When comparing the different influenza type distributions by system, it is important to consider that different sets of countries report to each system.

Source: [Flu News Europe](#)

ECDC assessment:

Influenza activity, based on patients in sentinel primary care settings testing positive for influenza virus infection, crossed the epidemic threshold of 10% set for the European Region for the first time in week 45, 2021.

For the European Region, influenza virus positivity in sentinel primary care specimens remained stable at 12% in week 46, 2022. This is the second consecutive week above the epidemic threshold, indicating the start of the influenza epidemic at the European Regional level. This is an earlier start to the influenza epidemic than in the four previous seasons: ranging from week 47 (2019/2020 season) to week 49 (2021/2022 season).

Overall, influenza A(H3) viruses have dominated across most surveillance systems.

France, Greece, Germany, the Netherlands, Portugal and Spain are the European countries experiencing seasonal influenza activity above 10% positivity in sentinel primary care, with A(H3) being the dominant virus.

Actions:

ECDC and WHO monitor influenza activity in the WHO European Region. Data are available on the [Flu News Europe](#) website.

5. Increasing trend of infection with Respiratory Syncytial Virus (RSV) – Multi-country – 2022

Overview:

Since October 2022 and as of week 45 (7 November–13 November 2022), rising cases of respiratory syncytial virus (RSV) infections have been reported from 13 EU/EEA Member States (Denmark, France, Germany, Croatia, Iceland, Ireland, Latvia, Luxembourg, the Netherlands, Portugal, Slovenia, Spain, Sweden) as well as the United Kingdom (UK), to The European Surveillance System (TESSy).

Similarly, an increase in RSV cases and hospitalisations has been reported from northern America and [PAHO/WHO](#) has urged countries to remain vigilant in the face of concurrent waves of RSV, COVID-19 and influenza infections. Data presented at the [US CDC RSV-NET Interactive Dashboard](#) from 18 November 2022 demonstrate an earlier-than-usual start of the season and higher hospitalisation rates for RSV compared to pre-pandemic seasons, with the highest incidence in children aged 0–4 years (54/100 000 for week 44, decreasing to 45/100 000 children aged 0–4yrs, for week 45). In [Canada](#), as of week 45, the reported RSV activity is similar to previous weeks but remains above expected levels for this time of year.

More detailed information on EU/EEA countries from national surveillance include:

[Denmark](#) reports on the [national dashboard](#), a continued increase of RSV cases from week 44 (891) to week 45 (979) as well as hospitalisations from week 44 (339) to week 45 (376). The majority of cases have been detected in children aged 0–4 years. The RSV season this year has started later than in the mid-pandemic season 2021–2022, but still precedes pre-pandemic seasons.

[France](#) reports that as of week 46, visits to emergency departments for bronchiolitis increased again after a short decrease in the school holidays, particularly as regards children below two years of age. In week 46 for the third week in a row, bronchiolitis was the major reason for hospitalisation following an emergency department visit for children below two years of age. The intensity of the epidemic is very high in metropolitan France and in Guadeloupe.

[Germany](#) reports case numbers for acute respiratory infections detected through sentinel surveillance in the upper range of pre-pandemic levels. Testing of a sub-sample of specimens showed a positivity rate of 18% for RSV in week 45, compared to 15% in week 44, with the highest proportions in samples from children aged 0–4 years, while other respiratory viruses including influenza, SARS-CoV-2 and rhinoviruses were predominant in other age groups.

[Ireland](#) reports that RSV activity remained at very high levels and case numbers from non-sentinel surveillance increased further during week 45 (648) compared to week 44 (439). Hospitalisations increased in week 45 (282, 44%) compared to week 44 (192, 44%). The highest incidence and proportion of notified RSV cases was seen in children aged 0–4 years. The RSV epidemic in Ireland has the same early onset as in the previous season, several weeks earlier than the median of seasons from 2014–2020.

[Latvia](#) reports in the Epidemiological Bulletin for seasonal influenza and respiratory viruses for [week 46](#) that according to laboratory data from the reference laboratory, 14% of the samples from weeks 40–46 were positive for RSV, compared to 5.6% of the samples in the same period in 2021. None of the SARI patients hospitalised were positive for RSV.

[Luxembourg](#) reports in the bulletin Respiratory Viruses in Luxembourg (ReViLux) of [week 44](#) an increasing proportion and number of RSV-positive specimens in their ILI/ARI sentinel surveillance.

[Netherlands](#) reports slowly increasing numbers of RSV detections, which are at the previous year's level, but the increase is observed earlier in time compared to the pre-pandemic seasons. Hospital admissions of children below 2 years of age due to RSV are increasing.

[Portugal](#) reports a continued higher-than-expected number of hospitalisations due to RSV infection in week 44. RSV infections accounted for 61–73% of hospitalised acute respiratory infections in weeks 40–44. Analysis of specimens of acute respiratory infections collected from sentinel surveillance showed an overall 10% positivity proportion for RSV.

[Slovenia](#) reports small increases of RSV-positive specimens from mostly hospital surveillance from week 43 (89/1 386, 6%), week 44 (123/1 329, 9%) and week 45 (138/1 442, 10%).

[Spain](#) reported in week 43 an increase in the number of cases of RSV in primary care and hospitals, and a positivity rate of 3.6%. The highest incidence was found in children between 0–4 years of age, according to the sentinel surveillance of respiratory acute infections. The Spanish Society of Paediatric Emergency Medicine has published a [statement](#) expressing their concern on the increase care volume in emergency departments.

[Sweden](#) has reported a continued increase of RSV infections from week 44 (147) to week 45 (182), which has been above the epidemic threshold at the national level, since week 44. The epidemic threshold has been reached several weeks earlier than in pre-pandemic seasons but later than in the first mid-pandemic season 2021–2022.

The majority of cases (71%) are found in children between 0–4 years of age. Consistent with known age distributions, the elderly from 65 years of age remain at increased risk and constitute 15% of cases.

ECDC assessment:

RSV is a common respiratory virus that generally leads to mild respiratory symptoms. It can, however, lead to severe illness among infants and the elderly and is a main cause of bronchiolitis and pneumonia in infants. Therapeutics against severe RSV infection have been approved by European Medicines Agency (EMA) and researchers are in the process of developing vaccines.

A number of countries have reported an increase in RSV detections very early during the season, with reports of increasing paediatric hospital admissions in France, Ireland, Spain, Sweden and the United States. The RSV season also started earlier than in pre-pandemic seasons, likely due to a combination of increased contact among children in day-care centres and schools following the full relaxation of pandemic-related non-pharmaceutical interventions, and competition of a number of respiratory viruses (RSV, SARS-CoV-2 and influenza) for circulation this season. The early increase in cases is not fully unexpected although requires further monitoring and raised awareness among clinicians. Such large numbers of paediatric hospitalisation are putting stress on the paediatric healthcare sectors in several countries.

While RSV is not a mandatory reportable disease at the EU level, many EU/EEA Member States have strong laboratory and sentinel surveillance systems in place. There are limitations to the RSV data that ECDC collects through The European Surveillance System (TESSy). ECDC collects numbers of detections of laboratory-confirmed RSV cases from sentinel and non-sentinel surveillance systems based on voluntary reporting. The data do not include age or hospitalisation information. ECDC has started a new integrated respiratory surveillance system, where more details can be collected from this season onwards. Countries can also share available data or assessments through EpiPulse.

Actions:

ECDC monitors and collects available data on RSV through TESSy and reports on it regularly in the [Surveillance Atlas of Infectious Diseases](#) and on [FluNewsEurope](#). ECDC published [a news item](#) on the current situation on 23 November 2022 and continues monitoring the situation through epidemic intelligence.

Additional Sources:

Media reports from Spain and France mention increased burden of paediatric patients in the emergency departments, and even shortages of [paracetamol](#) and [amoxicillin](#) in the market.

6. West Nile virus - Multi-country (World) - Monitoring season 2022

Overview:

Since last week's update, and as of 23 November 2022, European Union (EU) and European Economic Area (EEA) countries reported two human cases of West Nile virus (WNV) infection and no deaths related to WNV infection. Cases were reported by Germany (1) and Greece (1). EU-neighbouring countries reported no human cases of WNV infection and no deaths related to WNV infection.

This week, among the reporting countries, the following NUTS 3 or GAUL 1 region has reported human cases of WNV infection for the first time since the start of this season: Halle (Saale) Kreisfreie Stadt in Germany.

Since the beginning of the 2022 transmission season and as of 23 November 2022, EU/EEA countries have reported 965 human cases of WNV infection in Italy (586), Greece (284), Romania (46), Hungary (14), Germany (11), Croatia (8), Austria (6), Spain (5), France (4) and Slovakia (1). EU/EEA countries have reported 73 deaths in Italy (37), Greece (31) and Romania (5). EU-neighbouring countries have reported 226 human cases of WNV infection and 12 deaths (all in Serbia).

During the current transmission season, within the reporting countries, human cases of WNV infection were reported from 108 different NUTS 3 or GAUL 1 regions, of which the following regions reported human cases of WNV infection for the first time ever: Bouches-du-Rhône in France, Harz, Vogtlandkreis and Salzlandkreis in Germany, Pistoia, Lucca, Monza e della Brianza, Biella, Cagliari and Catania in Italy, Braşov in Romania, Moravički in Serbia and Tarragona and Córdoba in Spain.

Since the beginning of the 2022 transmission season, 93 outbreaks among equids and 314 outbreaks among birds have been reported by EU/EEA countries. Outbreaks among equids have been reported by Italy (44), Germany (15), Greece (9), Croatia (8), Spain (6), France (5), Hungary (3), Portugal (2) and Austria (1). Outbreaks among birds have been reported by Italy (249), Germany (51), Spain (9), Austria (2), Croatia (2) and Hungary (1).

Please note that for technical reasons no static maps will be published this week. Please refer to the [WNV dashboard](#) instead.

This is the last weekly update of the 2022 WNV monitoring season.

ECDC links: [West Nile virus infection webpage](#)

Sources: TESSy | Animal Disease Information System

ECDC assessment:

During the current transmission season, human cases of WNV infection have been reported from countries that had reported WNV infections in previous years.

Two EU countries and one EU-neighbouring country have reported relatively high numbers of human WNV cases of infection. The number of cases in Italy and Greece are comparable with those observed in the peak epidemic year, 2018. The number of cases in Serbia is lower than in the 2018 season, but higher than in other years during the past decade.

In accordance with [Commission Directive 2014/110/EU](#), prospective blood donors should be deferred for 28 days after leaving a risk area for locally acquired WNV infection, unless the result of an individual nucleic acid test is negative.

Actions:

During transmission seasons, ECDC publishes a dashboard and an epidemiological summary every Friday.

Further information:

Data on human cases are collected via The European Surveillance System (TESSy) managed by ECDC. Only locally acquired cases with known places of infection are included in this report. The following EU-neighbouring countries report human cases of WNV infection to ECDC: Albania, Kosovo*, Montenegro, North Macedonia, Serbia and Türkiye.

Animal data (i.e. outbreaks among equids and birds) are collected through the Animal Disease Information System (ADIS) of the European Commission. Reporting of WNV in equids and birds is mandatory at the EU/EEA level.

The distribution of human infections covers EU/EEA and EU-neighbouring countries, whereas the distribution of outbreaks among equids and birds only relates to EU/EEA countries.

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

7. Monkeypox - Multi-country - 2022

Overview:

Update:

Since the last update on 8 November 2022 and as of 22 November 2022, 42 monkeypox (MPX) cases have been reported from 10 EU/EEA countries: Spain (13), Ireland (7), Sweden (7), Belgium (4), Italy (3), the Netherlands (3), Luxembourg (2), Germany (1), Greece (1) and Poland (1). Since 8 November 2022, one death was reported by Spain.

Global update

According to the 2022 [MPX WHO Outbreak report](#), there is a decreasing trend in the number of new MPX cases reported globally, with a decrease of 3.7% in the number of reported cases in week 46 (14–20 November 2022) compared to week 45 (7–13 November 2022). According to the report, globally, the majority of cases (91.9%) were reported in the Region of the Americas.

Summary:

EU/EEA

Since the start of the monkeypox outbreak and as of 22 November 2022, 20 887 confirmed cases of monkeypox (MPX) have been reported from 29 EU/EEA countries: Spain (7 405), France (4 104), Germany (3 671), the Netherlands (1 248), Portugal (942), Italy (917), Belgium (789), Austria (326), Sweden (220), Ireland (217), Poland (213), Denmark (191), Norway (93), Greece (85), Hungary (80), Czechia (70), Luxembourg (57), Slovenia (47), Romania (45), Finland (42), Malta (33), Croatia (29), 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 monkeypox outbreak and as of 22 November 2022, the following Western Balkan countries have reported confirmed cases of monkeypox: Serbia (40), Bosnia and Herzegovina (9) and Montenegro (2). In addition, 11 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 Surveillance Bulletin](#) published weekly.

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

ECDC assessment:

The weekly number of MPX 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 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.

MPX 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 MPX 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 MPX in endemic countries, where symptoms were mainly mild. Only a few severe cases (including encephalitis) leading to hospitalisations and four deaths have been reported by Spain (2), Belgium (1), and Czechia (1).

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

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 and 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](#), 'Monkeypox 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 monkeypox page](#).

ECDC is also offering laboratory support to Member States and collaborating 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 is also providing 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.

8. Mass gathering monitoring - the FIFA World Cup 2022 Qatar

Overview:

The 2022 FIFA World Cup is taking place between 20 November and 18 December 2022 in Qatar. Thirty-two countries are participating in this event, including nine EU Member States: Belgium, Croatia, Denmark, France, Germany, the Netherlands, Poland, Portugal, and Spain. A total of 64 matches will take place in eight stadiums spread across five Qatari cities. It is expected that approximately [1.5 million](#) football fans from around the world will travel to Qatar during this event, some of them staying outside of the country. The [FIFA Fan Festival](#) will take place at the Al Bidda Park in Doha, and will be open every day of the tournament from 19 November to 18 December.

As of 24 November 2022, ECDC and networking partners, through epidemiological surveillance, have detected no events of public health concern in Qatar, its neighbouring countries and the countries participating in the 2022 FIFA World Cup. Four retrospective cases of MERS-CoV were reported in Saudi Arabia. One signal that may be of interest was detected in a country participating in the World Cup, but does not pose a threat in relation to this event: on 23 November 2022, a fatality related to the ongoing shigellosis outbreak in Tunisia was [reported](#). Previously, the Tunisian Ministry of Health issued a recommendation to apply hand-hygiene measures amid an upsurge of shigellosis cases (number not specified) among children since September 2022. Here we provide a short epidemiological summary related to global or regional public health threats from infectious diseases:

COVID-19: Since the beginning of the pandemic and as of 17 November 2022, the [Qatar Ministry of Public Health](#) (Qatar MoPH) has reported 474 883 SARS-CoV-2 positive cases including 684 deaths. Qatar has a relatively high vaccination rate for COVID-19 with 98.86% of eligible individuals being fully vaccinated with the primary series ([Qatar MoPH](#), [WHO](#)), and there is a decreasing trend in the number of COVID-19 cases in Qatar since late September 2022. From 1 November 2022, visitors are no longer required to present a negative [COVID-19](#) PCR or rapid antigen test result before travelling to Qatar.

MERS-CoV: No new cases have been reported in Qatar during the monitoring week 14–17 November 2022. Overall in 2022, there were two cases of MERS-CoV reported in Qatar, and 25 cases since 2012.

WHO [reported](#) four additional MERS-CoV cases in Saudi Arabia, detected from 29 December 2021 to 31 October 2022. The most recent case was reported on 9 November 2022. Overall, globally over 2 600 cases of MERS-CoV have been reported since 2012.

Monkeypox: No new cases have been reported in Qatar since September 2022. Overall, five cases of [monkeypox](#) were reported in Qatar in 2022, and the first case was imported.

ECDC assessment:

As is often the case with mass gathering events, during the 2022 FIFA World Cup in Qatar visitors may be most at risk of gastrointestinal illnesses and vaccine-preventable infections. Thus, travellers from the EU/EEA going to the event are advised to be vaccinated according to their national immunisation programme, and to ensure that they are vaccinated against seasonal influenza and have taken updated boosters for COVID-19, as recommended by respective national authorities. It is recommended to employ standard hygiene measures including regular handwashing with soap, drinking safe water (bottled, chlorinated or boiled before consumption), eating thoroughly cooked food and carefully washing fruits and vegetables with safe drinking water before consumption; and staying at home or in a hotel room when sick. The risk for EU/EEA citizens becoming infected with communicable diseases during the 2022 FIFA World Cup in Qatar is considered low if travellers observe the suggested measures before, during and after the event.

Actions:

The ECDC Epidemic Intelligence team is monitoring this event in collaboration with global partners between 14 November and 22 December 2022.

9. Cholera - Multi-country (World) - Monitoring global outbreaks

Overview:

Summary

Since the last update on 27 October 2022, approximately 115 238 suspected cholera cases including 480 deaths have been reported worldwide.

Countries and territories reporting new cases since the previous update are Afghanistan, Bangladesh, Cameroon, the Democratic Republic of the Congo, Haiti, Kenya, Lebanon, Malawi, Mozambique, Niger, Nigeria, the Philippines, South Sudan, Syria, and Taiwan.

A list of all countries reporting new cases since our previous update can be found below.

Americas

[Haiti:](#) Since the last update, 7 638 suspected cholera cases including 129 deaths have been reported in Haiti. In 2022 and as of 12 November, a total of 8 059 suspected cholera cases including 151 deaths have been reported in the country.

No additional cholera cases have been reported in other regions of the Americas in 2022.

Africa

Cameroon: Since the last update, 650 suspected cholera cases including 18 deaths have been reported in Cameroon. In 2022 and as of 13 October, a total of 12 258 suspected cases including 245 deaths have been reported in the country.

The **Democratic Republic of the Congo (DRC):** Since the last update, 1 751 suspected cholera cases including 28 deaths have been reported in DRC. In 2022, and as of 16 October, a total of 11 456 suspected cholera cases including 211 deaths (CFR: 1.8%) have been reported in 77 health zones across 15 provinces of the Democratic Republic of the Congo. According to World Health Organization (WHO) Regional Office for Africa, the most affected provinces are South Kivu, Haut-Lomami, Tanganyika, and North Kivu.

Kenya: Since the last update, 94 suspected cases including two deaths have been reported in Kenya. In 2022, and as of 16 October, a total of 413 cases including four deaths (CFR 1.0%) have been reported in the country.

Malawi: Since the last update, Malawi has reported 4 204 confirmed cholera cases, including 136 deaths. In 2022, and as of 15 November, a total of 8 374 cholera cases including 252 deaths (CFR 3.0%) have been reported in the country. According to the Malawian Ministry of Health, 29 districts have reported cholera cases since March 2022. So far, the outbreak has been controlled in three health districts but is still ongoing in 26 districts. The most affected districts are Nkhata Bay, Mangochi, Nkhotakota, Rumphu, and Karonga.

Mozambique: Since the last update, 215 suspected cholera cases including four deaths have been reported in Mozambique. In 2022 and as of 28 September, a total of 3 685 suspected cholera cases including 19 fatalities (CFR 0.5%) have been reported in the country.

Niger: Since the last update, 46 cholera cases including one death have been reported in Niger. In 2022 and as of 7 October, a total of 72 suspected cases including one death have been reported in the country.

Nigeria: Since the last update, 5 303 suspected cases including 107 deaths have been reported in Nigeria. In 2022 and as of 2 October, a total of 10 754 cases including 256 deaths (CFR 2.4%) have been reported from 31 Nigerian states. According to the [Nigeria Centre for Disease Control and Prevention](#), the country is experiencing an increase of cholera cases in recent reporting weeks. Eleven states – Borno (3 663 cases), Yobe (1 632 cases), Katsina (767 cases), Taraba (675 cases), Cross River (649 cases), Gombe (470 cases), Jigawa (417 cases) and Bauchi (304 cases) account for 86% of all cases.

Somalia: Since the last update no new cholera cases have been reported in Somalia. In 2022 and as of 18 September, a total of 11 300 suspected cholera cases, including 44 deaths have been reported in the country.

South Sudan: Since the last update, five suspected cholera cases have been reported from South Sudan. In 2022 and as of 18 September, a total of 337 suspected cholera cases, including one death have been reported in the country.

Tanzania: Since the last update, no new cholera cases have been reported in Tanzania. In 2022 and as of 7 August, a total of 341 cases and six deaths (CFR: 1.8%) have been reported in the country.

Asia

Afghanistan: Since the last update, 36 143 suspected cholera cases, including 14 deaths have been reported in Afghanistan. In 2022 and as of 5 November, a total of 214 155 suspected cholera cases including 77 deaths have been reported. According to [WHO](#), approximately 55% of all reported cases were children below five years of age. The most affected provinces are Kabul (47 273, 22.1%), Helmand (37 618, 17.6%), Baghlan (14 191, 6.6%), Nangarhar (11 941, 5.6%), and Kandahar (11 566, 5.4%).

Bangladesh: Since the last update, 35 710 suspected cholera cases have been reported in the Rohingya Refugee Camp in Bangladesh. In 2022 and as of 5 November, a total of 590 208 suspected cholera cases including 29 deaths have been reported from the country. Among these cases, 461 611 cases including 29 deaths have been reported from different parts of the country between January and April this year. The remaining 128 597 cases have been reported in the Rohingya Refugee Camps in Cox's Bazar between January and November 2022.

Iraq: Since the last update, no new cholera cases have been reported in Iraq. In 2022, and as of 23 August, a total of 1 008 confirmed cholera cases and five associated fatalities have been reported in the country.

Lebanon: Since the last update, 3 520 confirmed cholera cases including 17 deaths have been reported from Lebanon. So far cases have been reported from all eight governorates (Akkar, Baalbek-Hermel, Beirut, Beqaa, Mount Lebanon, North Lebanon, Nabatiyé, and South Lebanon). This is the first cholera outbreak in the country since 1993. In 2022, and as of 15 November, a total of 3 563 confirmed cholera cases and 19 associated fatalities have been reported in the country. According to [WHO](#), Lebanon has received 600 000 doses of cholera vaccine from the International Coordination Group (ICG) and has started a vaccination campaign on 12 November 2022. The campaign will target all refugees and host communities aged one year and above, aiming to reach 70% of the target population with a weekly target of administering 200 000 doses over the coming three weeks.

Nepal: Since the last update, no cholera cases have been reported in Nepal. In 2022, and as of 5 September, 76 cholera cases have been reported in the Kathmandu valley.

Pakistan: Since the last update, no new cholera cases have been reported in Pakistan. In 2022, and as of 18 August, a total of 258 139 cholera cases including 30 deaths have been reported in the country.

The Philippines: Since the last update, 212 suspected cholera cases have been reported in the Philippines. In 2022 and as of 2 November, 4 102 cholera cases and 37 associated fatalities have been reported in the country.

Syria: Since the last update, 19 746 suspected cholera cases including 24 deaths have been reported in Syria. Between 25 August and 9 November 2022, a total of 35 569 suspected cholera cases including 92 fatalities have been reported in the country. According to the [United Nations Children's Fund \(UNICEF\)](#), the most affected governorates to date are Deir-ez-Zor (15 885 cases, 44.7%), ar-Raqqa (8 420 cases, 23.6%), Aleppo (5 996 cases, 16.9%), Idlib (3 305, 9.3%) Al-Hasakah (1 501 cases, 4.2%).

Taiwan: On 4 November 2022, Taiwan reported its first domestic cholera case in 2022. The case is a female in her 40s and most likely contracted the disease from seafood, which she prepared and ate at home. According to [media](#), she was hospitalised with symptoms and fully recovered after a few days.

No updates were available on previous outbreaks reported in [Benin](#), [Burkina Faso](#), [Ethiopia](#), [India](#), [Togo](#), [Uganda](#), [Zambia](#), and [Zimbabwe](#).

Disclaimer: *Data presented in this report originate from several sources, both official public health authorities and non-official, such as the media. Data completeness depends on the availability of reports from surveillance systems and their accuracy, which varies between countries. All data should be interpreted with caution as there may be areas of underreporting and figures may not reflect the actual epidemiological situation.*

ECDC assessment:

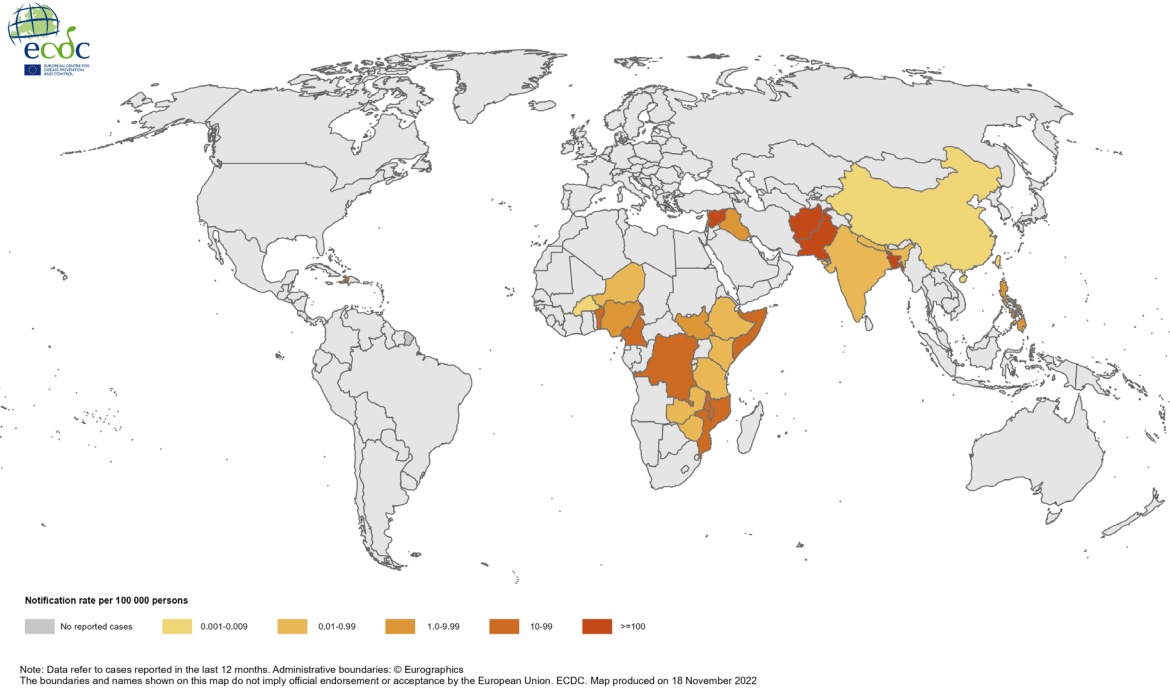
Cholera cases continue to be reported in western Africa, and south-east Asia over the past months. Cholera outbreaks have also been notified in the eastern and southern parts of Africa as well as in some parts of the Middle East. Despite the number of cholera outbreaks reported worldwide, few cases are reported each year among returning EU/EEA travellers. In this context, the risk of cholera infection in travellers visiting these countries remains low, even though sporadic importation of cases in the EU/EEA remains possible. In 2021, two cases were reported in EU/EEA Member States, while three and 26 cases were reported in 2020 and 2019 respectively. All cases had travel history to cholera-affected areas. According to the WHO, vaccination should be considered for travellers at higher risk, such as emergency and relief workers who are likely to be directly exposed to cholera. Vaccination is generally not recommended for other travellers. Travellers to cholera-endemic areas should seek advice from travel health clinics to assess their personal risk and apply precautionary sanitary and hygiene measures to prevent infection. These can include drinking bottled water or water treated with chlorine, carefully washing fruits and vegetables with bottled or chlorinated water before consumption, regularly washing hands with soap, eating thoroughly cooked food, and avoiding the consumption of raw seafood products.

Actions:

ECDC continues to monitor cholera outbreaks globally through its epidemic intelligence activities in order to identify significant changes in epidemiology and to facilitate updates to public health authorities. Reports are published on a monthly basis. The worldwide overview of cholera outbreaks is available on [ECDC's website](#).

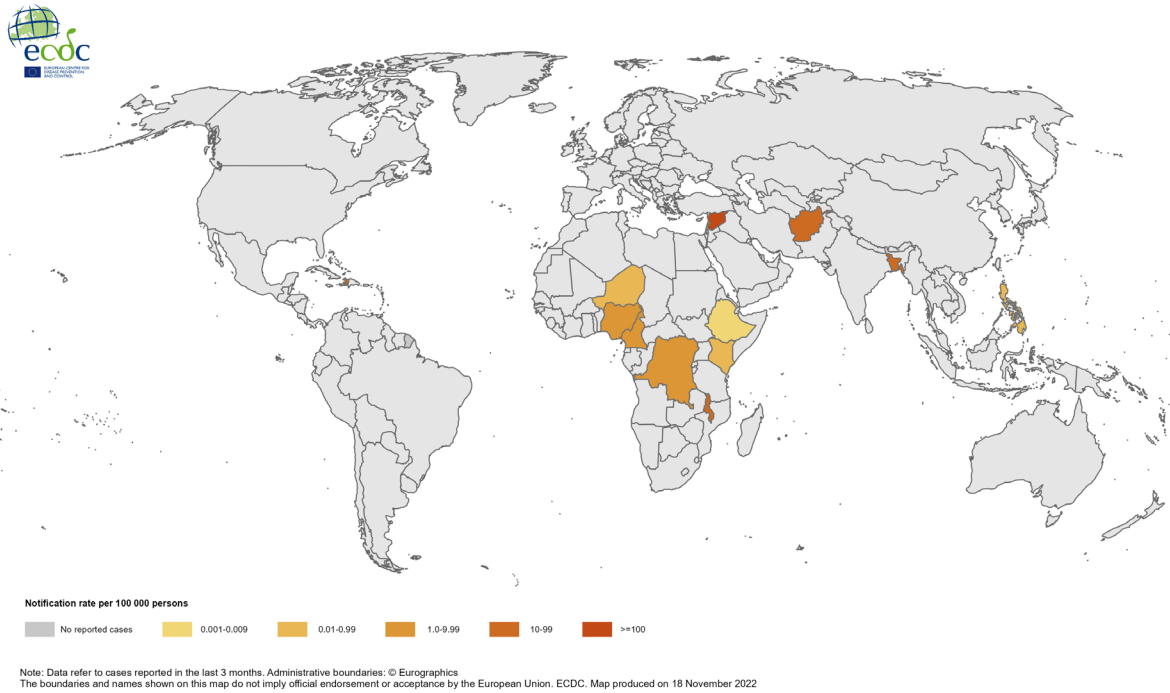
Maps and graphs

Figure 3. Geographical distribution of cholera cases reported worldwide from December 2021 to November 2022



Source: ECDC

Figure 4. Geographical distribution of cholera cases reported worldwide from September to November 2022



Source: ECDC

10. Poliovirus - Indonesia - 2022

Overview:

On 20 November 2022, the Indonesian Ministry of Health [reported](#) one case of VDPV2 in the Pidie Regency, Aceh Province. The case is a [seven-year-old child](#) with symptoms of paralysis of the left leg who was hospitalised in 18 October 2022, and suspected of polio a few days later. On 7 November 2022, the RT-PCR results came out with polio type 2 confirmation. According to health authorities, the child was not immunised against polio and had no travel history.

Indonesian health authorities will [conduct](#) a vaccination campaign against poliovirus for children aged 0–13 years from 28 November–5 December 2022 in all regions of Aceh. In addition, the Pidie District Health Office Team together with the Aceh Provincial Health Office, the Indonesian Ministry of Health, the WHO, and UNICEF have taken a number of actions including tracking to find other cases of paralysis around the case's residence, stool sampling in affected areas for examination, and examining water samples at landfills and rapid surveys of immunisation coverage.

ECDC assessment:

As long as there are non-vaccinated or under-vaccinated population groups in European countries and poliomyelitis is not eradicated globally, the risk of the virus being reintroduced in Europe remains. Two EU/EEA countries (Poland and Romania) and one neighbouring country (Ukraine) remain at high risk of a sustained polio outbreak following wild poliovirus importation or the emergence of cVDPV, due to sub-optimal programme performance and low population immunity, according to the [European Regional Certification Commission for Poliomyelitis Eradication \(RCC\) report](#) from the September 2021 assessment, referring to data from 2020. According to the same report, 11 EU/EEA countries are at an intermediate risk of sustained polio outbreaks. The continuing circulation of wild poliovirus type 1 (WPV1) in Pakistan and Afghanistan and detection of four WPV1 cases in Mozambique in 2022, genetically linked to a strain from Pakistan, show that there is still a risk of the disease being imported into the EU/EEA. Furthermore, the worrying occurrence of outbreaks of circulating vaccine-derived poliovirus (cVDPV), which emerges and circulates due to lack of polio immunity in the population, shows the potential risk for further international spread.

To limit the risk of reintroduction and sustained transmission of WPV and cVDPV in the EU/EEA, it is crucial to maintain high vaccine coverage in the general population and increase vaccination uptake in pockets of under-immunised populations. EU/EEA countries should review their polio vaccination coverage data and ensure there are no immunity gaps in the population and that there is capacity to identify virus circulation through well-performing surveillance systems.

ECDC endorses WHO's temporary recommendations for EU/EEA citizens who are residents or long-term visitors (>4 weeks) in countries categorised by [WHO](#) as having the potential risk for the international spread of polio: an additional dose of poliovirus vaccine should be administered between four weeks and 12 months prior to international travel.

ECDC links: [ECDC comment on risk of polio in Europe](#) | [ECDC risk assessment](#)

Actions:

ECDC is monitoring the event through epidemic intelligence activities. ECDC monitors any report of polio cases worldwide in order to highlight polio eradication efforts and to identify events that may increase the risk of reintroducing poliovirus into the EU.

ECDC maintains an [interactive map](#) showing countries that are still endemic for polio and that have ongoing outbreaks of cVDPV.