WEEKLY BULLETIN

Communicable Disease Threats Report

Week 46, 13 - 19 November 2022

Today's disease topics

1. C. diphtheriae among migrants – Europe – 2022
2. COVID-19 associated with SARS-CoV-2 - Multi-country (EU/EEA) - 2019 - 2022
3. Ebola virus disease due to Sudan ebolavirus – Uganda – 2022
4. West Nile virus - Multi-country (World) - Monitoring season 2022
5. Influenza – Multi-country – Monitoring 2022/2023 season
6. Mass gathering monitoring - the FIFA World Cup 2022 Qatar
7. Poliomyelitis - Multi-country (World) - Monitoring global outbreaks
8. Human case with avian influenza A(H5) infection - Vietnam- 2022
9. Human cases with swine influenza A(H3N2)variant virus - Multi-country
10. Human cases of swine influenza A(H1N1) variant virus - Multi-country - 2022
11. Cholera - Lebanon/Syria - 2022
12. Cholera (environmental) - Israel - 2022
13. Increasing trend of infection with Respiratory Syncytial Virus (RSV) – Muti-country – 2022

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

Overview:

Summary: As of 15 November 2022, and since the last update on 9 November 2022, 66 new cases have been reported by Germany (33), Belgium (5), the Netherlands (2) and the UK (26).

Background: Since the beginning of 2022, and as of 15 November 2022, there have been 148 cases of diphtheria among migrants reported by eight EU/EEA countries: Austria (42), Germany (64), France (14), Belgium (13), 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 213.

Among these cases, the majority presented with the cutaneous form of the disease (n=147)**,** 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 eight to 49 years.

As of 15 November 2022, and according to the UK 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 getting infected with diphtheria.

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 for individuals residing in the community of developing the disease is very low, 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 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 vaccine. 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 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.
- 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.

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

Overview:

Summary:

At the end of week 45, 2022 (week ending 13 November), decreasing trends continue to be observed in EU/EEA-level COVID-19 case and death rates, including in people aged 65 years and older. Hospital and ICU indicators have either remained stable or decreased across the region in comparison to the previous week. Uptake of the second booster dose continues to be relatively low in most countries and target groups. It remains important to continue monitoring the epidemiological situation, especially considering the increasing proportion of the BQ.1 variant of interest.

The pooled EU/EEA notification rate of COVID-19 cases among people aged 65 years and older decreased by 23% compared to the previous week, with only one of the 23 countries reporting data on this indicator seeing increases over the past two weeks. Overall notification rates (all-age) decreased by 21%, albeit with one of the 30 reporting countries reporting a recent increase.

Pooled EU/EEA hospital and ICU indicators have either remained stable (hospital occupancy and ICU admission) or decreased (hospital admission and ICU occupancy) in comparison to the previous week. However, three of 24 countries reported an increasing trend in one of these indicators within the previous week. A decreasing trend continues to be observed for the pooled EU/EEA COVID-19 death rate for the previous two weeks, which remains low at 7% of the pandemic maximum.

Forecasts of cases, hospital admissions and deaths from the European COVID-19 Forecast Hub provide predictions for weeks 46 and 47. Compared with the previous week, stable trends in cases, and decreasing trends in deaths are forecast for the EU/EEA by the end of week 47. 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 43–44 (24 October to 6 November 2022), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 70.3% (49.3–98.2% from 10 countries) for BA.5, 23.3% (9.9–42.7% from seven countries) for BQ.1, 3.0% (0.6–15.1% from nine countries) for BA.2.75, 2.2% (0.4–4.5% from 10 countries) for BA.4, and 0.6% (0.2–3.9%, 227 detections from nine 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 11 November 2022, the European Medicines Agency (EMA) authorized the COVID-19 vaccine, VidPrevtyn Beta. VidPrevtyn Beta is indicated for booster doses in people aged 18 years and above, who have received an mRNA or adenoviral COVID-19 vaccine.

On 14 November 2022, the European Medicines Agency (EMA) updated the COVID-19 vaccine, Spikevax's clinical data. EMA published clinical data supporting the extension of the Spikevax indication to children aged six months to five years old.

On 17 November 2022, the German Standing Committee on Vaccination (STIKO) published a press release updating the COVID-19 vaccination recommendations for children. According to the press release, a complete COVID-19 vaccination scheme with mRNA vaccines is recommended for children aged six months to four years with underlying medical conditions. Vaccination should also be considered for premature babies under two years of age.

Weekly update on SARS-CoV-2 variants:
The case numbers, hospitalisations and deaths by COVID-19 remains at stable low levels for the EU/EEA. Two countries report slight increases or early signs of upsurges in cases and hospitalisations. The VOI BQ.1 and its sub-lineages is increasing in proportion in the EU/EEA and is currently at around 30% of all variants.

Since the last update on 26 October 2022 and as of 10 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 emergence and potential impact of the SARS-CoV-2 Omicron variant of concern in the EU/EEA, 19th update'.

Detailed country-specific COVID-19 update is 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.

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

Overview:

Overview: According to World Health Organization (WHO), as of 17 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. According to Africa Centre for Disease Control (ACDC), there have been 73 recoveries.

According to the media, as of 15 November 2022, two additional cases have been reported in Jinja district. The cases involve the daughter and granddaughter of the man who died due to Ebola in Jinja. According to the article, both cases have been admitted to Entebbe ETU and their four close contacts have been isolated.

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 majority of new cases appear to be epidemiologically linked to known cases.

According to ACDC, 4 150 contacts of cases have been identified across 15 districts, of which 3 129 contacts have completed 21 days of follow up.

Other news:
On 15 November 2022, the president of Uganda addressed the nation to say that the measures taken in Mubende and Kassanda to reduce the spread of Ebola are effective but highlighted the ongoing difficulties and issued a directive prohibiting traditional healers from carrying out their activities and prohibiting all movement of trucks in and out of the two districts. The president addressed the issue of truck and boda boda drivers smuggling people out of the districts and urged for intensified sensitisation of drivers.

The president also addressed the international community and reassured that with the measures to control the outbreak in place, Uganda is safe and open to international tourists.

As of 16 November 2022, all travellers leaving or arriving at Entebbe International Airport in Uganda will be required to complete a health declaration form.

On 16 November 2022, WHO officials announced that all three candidate vaccines should be included in the planned trials in Uganda. The Ugandan Ministry of Health have accepted WHO recommendations and the first shipment of vaccines is planned for next week. Two investigational therapeutics have also been selected for a trial, as well as a trial design that is now being submitted for approval by WHO and authorities in Uganda.

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 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 5 November 2022, there are 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 Travel Association, 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 hundreds of EU/EEA humanitarian and military personnel were deployed 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 for EU/EEA citizens living in the EU/EEA is considered low and overall, the current risk 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 apply 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 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.

Maps and graphs

Figure 1. Geographical distribution of EVD cases in Uganda, 2022

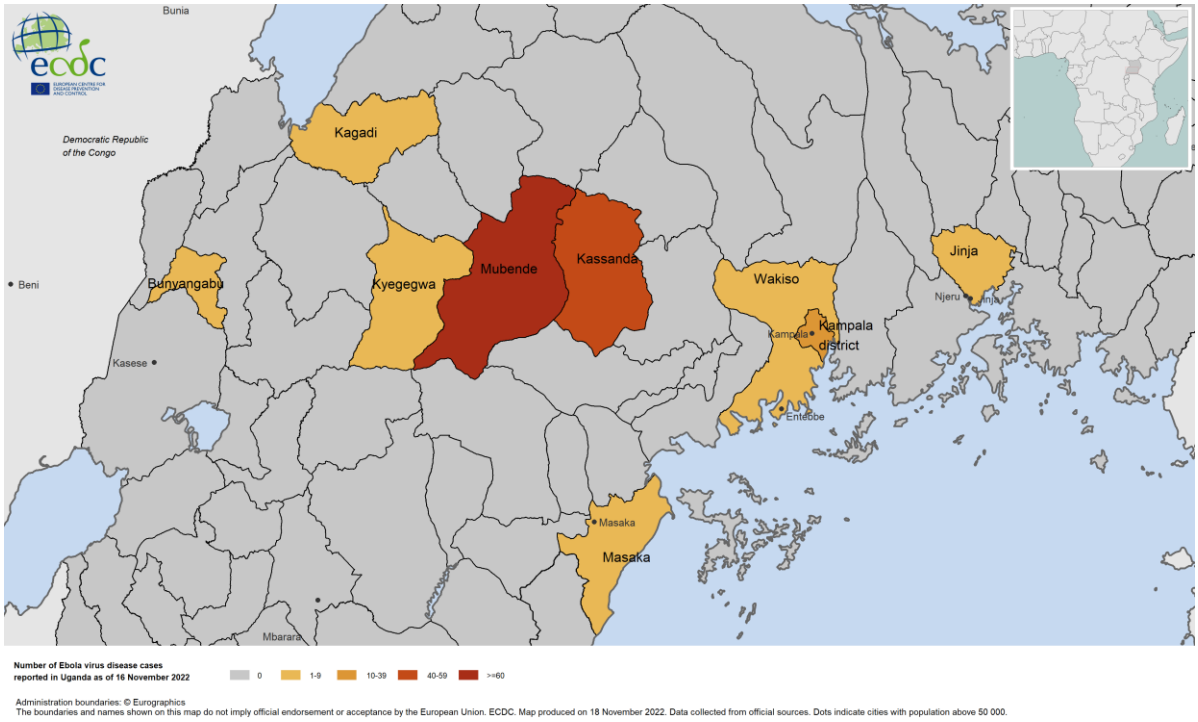
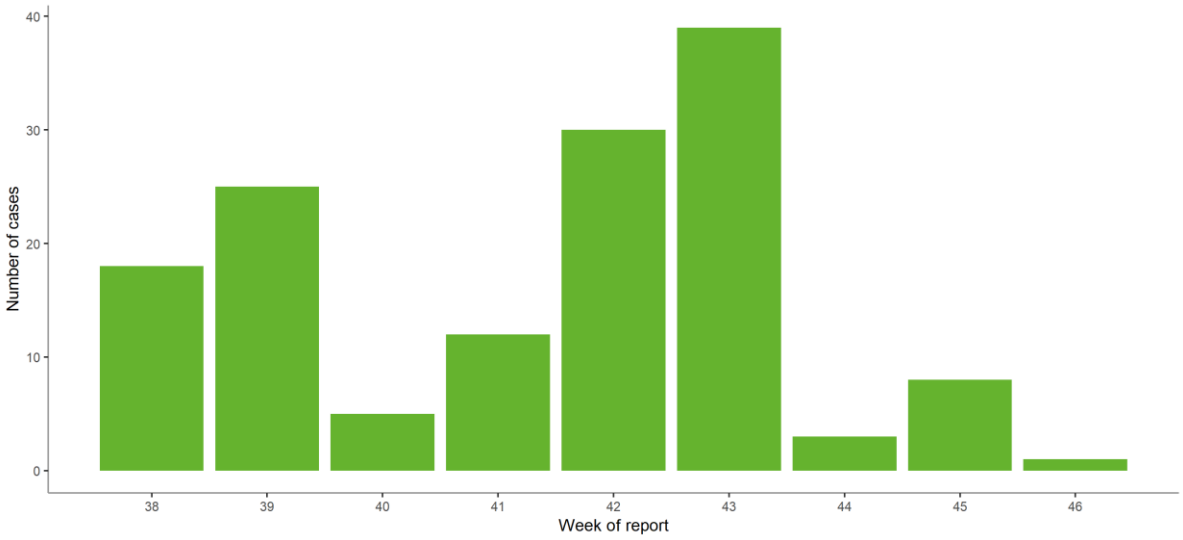


Figure 2. Ebola disease cases reported in Uganda in 2022, by week of reporting.



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

Overview:

Since last week's update, and as of 16 November 2022, European Union (EU) and European Economic Area (EEA) countries reported one human case of West Nile virus (WNV) infection and no deaths related to WNV infections. The case was reported by Germany. EU-neighbouring countries reported no human cases of WNV infection.

Since the beginning of the 2022 transmission season and as of 16 November 2022, EU/EEA countries have reported 963 human cases of WNV infection in Italy (586), Greece (283), Romania (46), Hungary (14), Germany (10), 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 in Serbia (226) and 12 deaths in Serbia (12).

During the current transmission season, within the reporting countries, human cases of WNV infection were reported from 107 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, Brasov in Romania, Moravicki in Serbia and Tarragona and Córdoba in Spain.

Since the beginning of the 2022 transmission season, 92 outbreaks among equids and 311 outbreaks among birds have been reported by EU/EEA countries. Outbreaks among equids have been reported by Italy (43), 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 (246), 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.

ECDC intends to close the 2022 WNV monitoring season on 25 November 2022

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 infection cases. 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*

***Source**: **Ministry of Health Uganda** , **OCHA**, **Africa CDC**, **Ministry of Health Kenya**, NCDC, WHO, media (**1**, **2**, **3**, **4**)*

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

Overview:

Week 45/2022 (07 November – 13 November 2022)
In the reporting period, Germany, Kazakhstan, Malta and Portugal reported widespread influenza activity and/or at least medium intensity. The percentage of all sentinel primary care specimens from patients presenting with influenza-like illness (ILI) or acute respiratory illness (ARI) symptoms that tested positive for an influenza virus was 13%, which is higher than the previous week (8%) and above the epidemic threshold set at 10%.

The start of the influenza epidemic at the Regional level is usually defined as two consecutive weeks in which ≥10% of patients in sentinel primary care settings tested positive for influenza virus infection. Germany, Georgia, Kazakhstan, Portugal 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 surveillance while similar

numbers of A(H1)pdm09 and A(H3) viruses were detected in non-sentinel surveillance.

Hospitalised cases with confirmed influenza virus infection were reported from other wards (1 type A virus) and cases of severe acute respiratory infections (SARI) surveillance (31 type B viruses, of which 28 were from Kazakhstan, and 8 type A viruses), but only one was reported from an ICU ward. When comparing the different influenza type distributions by system, it is important to consider that different sets of countries are reporting 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 Region for the first time in week 45/2021.

Overall, influenza A(H3) viruses have dominated across most surveillance systems.
For the European Region, Germany and Portugal are currently 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.

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

Overview:

The 2022 FIFA World Cup will take 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 Al Bidda Park in Doha and will be open every day of the tournament from 19 November to 18 December.

As of 17 November 2022, ECDC and networking partners, through epidemiological surveillance, have detected no events of public health concern in Qatar, neighbouring countries and countries participating in the event. Some signals that may be of interest were detected in participating countries but do not pose threat in relation to this event:

Two signals were detected regarding outbreaks of shigellosis in Tunisia and in Canada. The Tunisian Ministry of Health issued a recommendation to apply hand hygiene measures amid an upsurge of the cases (number not specified) among children since September 2022. In Canda, 163 people were diagnosed with shigellosis, 111 of which were hospitalised. The majority of cases are from the inner-city population (including homeless and vulnerable) in Edmonton, Canada.

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** 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. The country recently reviewed its COVID-19 related **travel measures** and since 1 November 2022, visitors are no longer required to present a negative COVID-19 PCR or Rapid Antigen Test result before traveling to Qatar.

MERS-CoV: no new cases have been reported 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 2003.

Monkeypox: no new cases were reported in Qatar since September 2022. Overall, five cases of **monkeypox** were reported in Qatar in 2022, the first case was an imported case.

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 illness and vaccine-preventable infections. Thus, travellers from the EU/EEA going to the event are advised to be vaccinated according to their national immunisation program and to ensure they are vaccinated against seasonal influenza and with updated boosters for COVID-19, as recommended by national authorities. It is recommended to employ standard hygiene measures including regular hand washing with soap, drinking safe water (bottled, chlorinated or boiled before consumption); eating thoroughly cooked food and carefully washing fruit and vegetables with safe drinking water before consumption; and stay at home or in a hotel room when sick. The risk for EU/EEA citizens becoming infected with communicable diseases during the FIFA World Cup 2022 Qatar is considered low if travellers apply 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.

7. Poliomyelitis - Multi-country (World) - Monitoring global outbreaks

Overview:

Global public health efforts to eradicate polio are continuing through the immunisation of every child until transmission of the virus has stopped and the world becomes polio-free. On 5 May 2014, polio was declared a public health emergency of international concern (PHEIC) by the World Health Organization (WHO) due to concerns over the increased circulation and international spread of wild poliovirus in 2014. The Emergency Committee under the International Health Regulations (2005) stated that the risk of the international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC). On 12 October 2022, the 33rd meeting of the Emergency Committee was held under the International Health Regulations (2005) (IHR) on the international spread of poliovirus.

In June 2002, WHO's European Region was officially declared polio-free.

Update:

Since the 18 October 2022 and as of 15 November 2022, the following cases have been reported:

Wild poliovirus (WPV1):

- One new case of AFP caused by WPV1 has been reported from Mozambique.

Circulating vaccine-derived poliovirus (cVDPV):

- Twenty-nine new cases of AFP caused by cVDPV1 have been reported from the Democratic Republic of the Congo (DRC) (19), Mozambique (8) and Madagascar (2).
- Forty-one new cases of AFP caused by cVDPV2 have been reported in 2022 from four countries: DRC (34), Yemen (4), Nigeria (2), and Niger (1).

- No new cases of AFP caused by cVDPV3 have been reported.

Summary:

Wild poliovirus:

In 2022, and as of 15 November 2022, 30 cases of AFP caused by WPV1 have been reported. These have been reported from the two endemic countries, Pakistan (20) and Afghanistan (2), and one non-endemic country, Mozambique (8). One associated death has been reported in Pakistan.

Circulating vaccine-derived poliovirus (cVDPV):

In 2022, and as of 15 November 2022, 76 cases of AFP caused by cVDPV1 have been reported from DRC (47), Mozambique (16), Madagascar (10), and Malawi (3).

Overall, 433 cases of AFP caused by cVDPV2 have been reported from 14 countries: DRC (188), Yemen (154), Nigeria (38), Chad (18), Niger (11), Benin (7), Mozambique (4), Somalia (4), Central African Republic (3), Ghana (2), Algeria (1), Eritrea (1), USA (1), and Togo (1).

One case of AFP caused by cVDPV3 has been reported from Israel.

Sources: Global Polio Eradication Initiative | ECDC | ECDC Polio interactive map | WHO DON | WPV3 eradication certificate

ECDC assessment:

The WHO European Region, including the EU/EEA, has remained polio-free since 2002. Inactivated polio vaccines are used in all EU/EEA countries.

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 of 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 provides updates on the polio situation on a monthly basis. The Agency also monitors polio cases worldwide through its epidemic intelligence activities in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being reintroduced into the EU/EEA.

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

8. Human case with avian influenza A(H5) infection - Vietnam- 2022

Overview:

In October 2022, a human infection with avian influenza A(H5) was reported in Vietnam in a five-year-old girl from Phu Tho. The girl developed symptoms on 5 October 2022 and was hospitalised in critical condition on 7 October 2022. Prior to symptoms' onset she had exposure to sick poultry and other domestic birds. All of the 65 identified contacts tested negative for influenza A(H5). Further investigation is ongoing; the identification of NA subtype is pending. This is the first case of avian influenza in Vietnam since 2014. Since 2003, Vietnam has recorded 128 human cases of A/H5, including 64 deaths, all of them infected with the A(H5N1) virus.

ECDC assessment:

Sporadic human cases of different avian influenza A(H5Nx) subtypes have been previously reported globally. No human-to-human transmission has been documented so far.
The use of personal protective measures for people directly exposed to potentially infected poultry and birds with avian influenza viruses will minimise the remaining risk of zoonotic transmission of these viruses. The risk associated with A(H5) viruses also circulating in birds in the EU/EEA is considered to be low for the general population and low to medium for occupationally exposed people.

Actions:

ECDC monitors avian influenza strains through its epidemic intelligence and disease network activities and collaborates with EFSA and the EU reference laboratory in order to identify significant changes in the epidemiology of the virus. ECDC, together with EFSA and the EU reference laboratory for avian influenza, produces a quarterly updated **report of the avian influenza situation**. The recent report was published on 3 October 2022.

9. Human cases with swine influenza A(H3N2)variant virus - Multi-country

Overview:

As of 16 November 2022, and since the previous update, two new human infections with swine influenza virus variant A(H3N2)v were reported from the US. One case was detected in the State of Michigan with date of onset at the beginning of September and one in New Mexico with symptom onset during mid-October 2022. Both individuals were younger than 18 years of age and both reported direct or indirect exposure to swine. No human-to-human transmission was documented.

In 2022, the US CDC reported five cases of swine A(H3N2)v in Michigan, New Mexico and West Virginia (3). No human cases of swine A(H3N2)v have been reported in the EU/EEA this year.

Source: US CDC FluView

ECDC assessment:

In the US, it is very popular to attend agricultural fairs where animals such as pigs are present and can be touched by the visitors. The fair season in the US can last into the autumn and influenza virus transmission events from pigs to humans during these fairs have been previously reported.

Sporadic transmission of swine influenza viruses from pigs or contaminated environments to humans has been observed in recent years, often related to exposure to pigs during large public agricultural fairs and/or in farms where pigs are kept in the US, and these cases are therefore not unexpected. Swine influenza virus infection should always be considered in patients with respiratory symptoms reporting prior contact to pigs. This helps to identify transmission events to humans early to initiate follow-up investigations. Unsubtypable influenza viruses should be shared with national influenza centres or reference laboratories as well as WHO Collaborating Centres for further virus characterisation.

Travellers to the US should be aware of the risk that pigs could be infected with swine influenza viruses when attending such agricultural fairs. Travellers with direct exposure to pigs and respiratory symptoms should refrain from travelling. If returning to the EU/EEA such people should be tested for swine influenza infection and isolated until final result.

Actions:

ECDC is monitoring zoonotic influenza events through its epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. Cases should be reported immediately to EWRS and IHR.

10. Human cases of swine influenza A(H1N1) variant virus - Multi-country - 2022

Overview:

In October 2022, WHO reported a new human infection with swine influenza virus variant A(H1N1)v in Brazil. The case was a 60-year-old woman from Parana state in Brazil who worked with the domestic breeding of pigs. She developed symptoms on 11 September 2022. This is the first case reported in Brazil in 2022. Since 2015 in the state of Parana, one human infection of influenza A(H1N1)v was reported in 2021 and three human infections of influenza A(H1N2)v virus were reported in 2015 (1) and 2020 (2).

Overall, in 2022, there were three cases of A(H1N1)v reported in Germany, China and Brazil and six cases of A(H2N1)v in the Netherlands (1) and the US (5).

ECDC assessment:

Sporadic human cases infected with an influenza virus of swine origin have been reported from several countries, including in the EU/EEA. Exposure to pigs represents the most common risk factor for infection. Cases have also occurred among otherwise healthy people. When a case is detected, it is necessary to perform contact tracing to exclude instances of human-to-human transmission, and to implement control measures. Influenza viruses isolated from patients experiencing a particularly severe illness should be further characterised, as well as shared with the national influenza reference laboratories and WHO Collaborating Centres.

ECDC published a Threat Assessment Brief on Eurasian avian-like A(H1N1) swine influenza viruses in July 2020.

Actions:

ECDC is monitoring zoonotic influenza events through its epidemic intelligence activities and the disease expert in order to identify significant changes in the epidemiology of the virus. Cases should be reported immediately to EWRS and IHR.

11. Cholera - Lebanon/Syria - 2022

Overview:

Lebanon

On 6 October 2022, the **Lebanese Ministry of Public Health** reported one cholera case in the country. According to the Ministry, by 13 November 2022, a total of 3 369 confirmed cases and 18 fatalities were reported in all eight governorates of Lebanon (Akkar, Baalbeck-Hermel, Beirut, Bekaa, Mount Lebanon, North Lebanon, Nabatiyeh, and South Lebanon). This is the first cholera outbreak in Lebanon since 1993.

On 24 October 2022, the Lebanese Ministry of Public Health issued a **Decision** to regulate cholera-related hospital costs. All charges for cholera treatment will be fully covered by the Lebanese Ministry of Public Health.
On 25 October 2022, the Lebanese Ministry of Public Health reported that a field hospital was deployed in the Al-Iman Medical Center in Bebnîne, Akkar. The hospital is equipped with 20 beds and resource capacities to treat 500 affected persons.

Syria

On 10 September 2022, the Syrian Ministry of Health declared an outbreak of cholera in the Aleppo Governorate.

As of 10 November 2022, UNICEF reported 35 569 suspected cholera cases including 92 cholera-related fatalities (CFR: 0.3%) in all 14 governorates of Syria. 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-Hasakeh (1,501 cases, 4.2%). Suspected cases have been reported from different displaced peoples' camps.

ECDC assessment:

Cholera cases continue to be reported in western Africa, and southeast 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, three cholera cases were reported in EU/EEA Member States, while zero and 26 cases were reported in 2020 and 2019, respectively. All cases had travel history to cholera-affected areas. According to WHO, vaccination should be considered for travellers at higher risk, such as emergency and relief workers who are likely to be directly exposed. 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 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 the proper updates to public health authorities. Reports are published on monthly basis.

12. Cholera (environmental) - Israel - 2022

Overview:

On 11 November 2022, media, quoting health authorities in Israel reported a detection of cholera in the Yarmouk river water reservoir in the north of the country. The water was chlorinated and cut off from its flow to the Kinneret – the largest freshwater lake in Israel. According to the media report, quoting the Ministry of Health of Israel, this finding does not pose a danger to the public as the river's water is not used for drinking and is rarely used for swimming. However, this water is used for irrigation. To date, no human cases of cholera have been reported by Israel.

Health authorities in Israel regularly monitor possible water contamination, particularly in the north. The water contamination likely originates from the neighbouring country of Syria, which is currently experiencing a large cholera outbreak. In addition, the Ministry of Health is following up on possible contamination of water sources from Lebanon (at the Hasbani River), which at this stage has tested negative for the toxin. Lebanon has recently reported outbreak of cholera.

ECDC assessment:

Cholera cases continue to be reported in western Africa, and southeast 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, three cholera cases were reported in the EU/EEA Member States, while zero and 26 cases were reported in 2020 and 2019, respectively. All cases had travel history to cholera-affected areas. According to WHO, vaccination should be considered for travellers at higher risk, such as emergency and relief workers who are likely to be directly exposed. 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 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 the proper updates to public health authorities. Reports are published on monthly basis.

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

Overview:

Since October 2022, rising cases of respiratory syncytial virus (RSV) infections or bronchiolitis often caused by RSV infections have been reported from 11 EU/EEA Member States (Denmark, France, Germany, Hungary, Ireland, Luxemburg, Netherlands, Portugal, Slovenia, Spain, Sweden) as well as the UK, to The European Surveillance System (TESSy).

An increase in RSV cases and hospitalisations has also been reported from northern America and WHO PAHO urged countries to remain vigilant in face of concurrent waves of RSV, COVID-19 and influenza infections. Data presented at the US CDC RSV-NET Interactive Dashboard on 9 November 2022 demonstrate an earlier than usual start of the season and higher hospitalisation rates for RSV compared to the previous pre-pandemic seasons, with the highest incidence in children 0-4 years of age. 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 a national dashboard the 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 0-4 years of age. The start of the RSV season lies after the start of the mid-pandemic season 2021-2022, but still precedes pre-pandemic seasons.

France reports as of week 45, continuation of the bronchiolitis epidemic indicative of RSV infections at a very high level in metropolitan France as well as in Guadeloupe, Martinique, and French Guiana. The epidemic threshold has also passed in Mayotte. An observed decrease in surveillance indicators in children under two years of age in most regions may be a transient effect following school holidays and the number of cases under this age group remain very high. In week 45, hospitalisations for bronchiolitis accounted for half of emergency room hospitalisations in children under two years of age for the second consecutive week.

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 for RSV of 18% in week 45 compared to 15% in week 44, with highest proportions in samples from children 0-4 years of age, while other respiratory viruses including influenza, SARS-CoV-2 and rhinoviruses were predominant in other age groups.

Ireland noted that RSV activity from non-sentinel surveillance remained at very high levels in week 44 2022 (439), these include 44% hospitalisations (192) with the highest incidence and proportion of notified RSV cases seen in children 0-4 years of age. The RSV endemic in Ireland has the same timely onset as the previous season, both being several weeks earlier than the median of seasons 2014-2020.

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 and analysis of specimens of acute respiratory infections collected from sentinel surveillance showed an overall 10% positivity proportion for RSV.

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.

Sweden has reported a continued increase of RSV infection from week 43 (80) to week 44 (147) crossing the epidemic threshold at the national level several weeks earlier than in pre-pandemic seasons but later than in the first mid-pandemic season 2021-2022. The majority of cases (72%) 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, constituting 15% of the 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.

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 an increase in contact among children as schools and nurseries re-opened following relaxation of pandemic-related non-pharmaceutical interventions. This early

increase in cases is therefore not unexpected although requires further monitoring and raised awareness among clinicians. Such large numbers of paediatric hospitalisation are putting stress on the healthcare sector in several countries.

While RSV is not a mandatory reportable infection at the EU/EEA 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 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 onward. 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 and on FluNewsEurope. ECDC continues monitoring the situation through epidemic intelligence.