

WEEKLY BULLETIN

Communicable Disease Threats Report

Week 51, 17–23 December 2023

This week's topics

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7. Cluster of extensively drug resistant *Shigella Sonnei* among men who have sex with men - multi-country (EU/EEA and the UK) - 2023
8. Season's greetings.

Executive summary

Cholera – Multi-country (World) – Monitoring global outbreaks

- Since 20 November 2023 and as of 18 December 2023, 14 092 new cholera cases, including 269 new deaths, have been reported worldwide.
- New cases have been reported from Bangladesh, Cameroon, China, Democratic Republic of the Congo, Ethiopia, Haiti, India, Kenya, Malawi, Mozambique, Philippines, Somalia, Sudan, Syria, Thailand, United Republic of Tanzania, Zambia, and Zimbabwe.
- In recent months, cholera cases have continued to be reported in western, eastern and southern parts of Africa, some parts of the Middle East, South East Asia and the Americas. The risk of cholera infection in travellers visiting these countries remains low, even though sporadic importation of cases to the EU/EEA remains possible.

SARS-CoV-2 variant classification

- ECDC classified **BA.2.86** as a variant of interest (VOI) on 24 November 2023. As of 18 December 2023, BA.2.86 is the dominating lineage in EU/EEA countries and continues to increase rapidly, with a median proportion for week 48 (27 November 2023 to 3 December 2023) of 46% (range:16–68%).
- A large proportion of the BA.2.86 sequences belong to the sub-lineage **JN.1**. As of 19 December 2023, due to its rapid increase in proportion, [WHO classified](#) JN.1 as a separate variant of interest from the parent lineage BA.2.86. The most likely driver of the success of BA.2.86-descendant lineages is immune escape in a population where immunity is increasingly derived from XBB-variants.

- **XBB.1.5-like+F456L** lineages are circulating with a median proportion of 43% in EU/EEA countries (range: 21–83%). The overall proportion of XBB.1.5-like+F456L variants appears to be declining in the EU/EEA.
- **XBB.1.5-like+L455F+F456L** variants have been increasing, but are now displaying an unclear trend in the EU/EEA, with a median proportion of 25% (range: 3–47%). The lineages present in this umbrella are mainly HK.3, JD.1.1 and JG.3.
- **BA.2.75** lineages are circulating in very low proportions and are declining in the EU/EEA, with a median proportion of 0.6% (range: 0–2.4%).

Avian influenza in fur farms – Finland – 2023

- Since 13 July 2023 and as of 21 December 2023, avian influenza A(H5N1) virus has been detected in 71 fur farms in the Ostrobothnia, Satakunta and Southwest regions of Finland.
- Avian influenza virus was detected at three of 111 mink farms and in 10 of 38 fox and racoon dog farms.
- To date, no human cases have been detected among farm workers and their close contacts.
- The introduction of avian influenza into fur farms is not unexpected. Similar events have been observed in the past. Transmission between foxes and other infected mammals and humans has not been observed so far. It is crucial to identify infected mammals and exposed individuals. According to the [Finnish Institute for Health and Welfare \(THL\)](#), exposed individuals should be monitored for 10–14 days, and tested if symptoms occur.
- ECDC assesses the current risk of infection for the general population as low, and the risk of infection for people who are occupationally or otherwise exposed to avian influenza virus-infected animals as low-to-moderate.

Outbreak of Hepatitis A - Slovakia - 2023

- On 6 October 2023, the public health authorities in Slovakia reported a large ongoing outbreak of viral hepatitis A (VHA), with most cases reported in the east of Slovakia in the Košice and Prešov regions.
- A total of 27 active outbreaks are currently recorded.
- Most of the cases are among children under ten years of age.
- The majority of cases are from the Roma communities.
- Vaccination in the affected areas is ongoing.

Increase of cases of pertussis - Multi-country - 2023

- In recent months, several EU/EEA Member States have reported an increase in the number of pertussis cases compared to pre-pandemic time periods, potentially linked to lower circulation during COVID-19 pandemic, and a consequence of suboptimal vaccination uptake in certain groups during the COVID-19 pandemic.
- According to available data, the age groups mostly affected are children and younger adolescents. In addition, infants and young children who are too young to be fully vaccinated have also been affected.
- Pertussis is an endemic disease worldwide, even in the presence of a programme with high vaccination coverage, with peaks in disease spread every three-to-five years.
- Infants are those at greatest risk of severe disease and death, with virtually all deaths observed in infants under three months in the EU/EEA.
- Protecting infants from severe disease and death remains the main objective of the vaccination programmes and response actions. Timely vaccination and high uptake of the first dose of pertussis containing vaccine remains a key intervention; maternal vaccination programmes have also been shown to be effective.

Overview of respiratory virus epidemiology in the EU/EEA

- By the end of week 50 (ending 17 December 2023), rates of respiratory illness (influenza-like illness (ILI) and/or acute respiratory infection (ARI)) in the community continue to increase in most EU/EEA countries. Rates of severe acute respiratory infection (SARI) cases presenting to secondary care were at a level comparable to the same time last year and are now notably increasing in one of the four reporting countries.
- SARS-CoV-2 and seasonal influenza are currently co-circulating and detectable at comparable levels in primary care. Influenza has rapidly increased in the past two weeks from a median test positivity of 10% (pooled country data 10%) in week 49/2023 to 18% (pooled country data 15%) for week 50/2023. Of 25 countries reporting data, 14 reported seasonal influenza activity above the 10% positivity threshold in sentinel primary care. Concurrently, a large number of countries report an increased geographic spread, indicating that influenza activity is intensifying. Both in week 49 and week 50, the pooled positivity at EU/EEA level was at or above 10% for influenza virus infection in sentinel primary care settings, marking the start of the seasonal influenza epidemic in week 50/2023. The epidemiological picture for SARS-CoV-2 remains similar as that observed over the past weeks. Countries report a mix of increasing and decreasing trends in activity, COVID-19 hospitalisations, ICU admissions and deaths, with those aged 65 years and above predominantly experiencing severe outcomes. For RSV, countries continue to report a mix of increasing and decreasing trends for activity and severity indicators. The highest impact of RSV continues to be among children aged 0–4 years.

Cluster of extensively drug resistant *Shigella Sonnei* among men who have sex with men - multi-country (EU/EEA and the UK) - 2023

- A cluster of 169 cases infected with an extensively drug-resistant *Shigella sonnei* strain is evolving in the EU/EEA and the United Kingdom (UK), with cases reported in the Netherlands (65), Norway (2), Portugal (1) and the UK (101).
- Cases are reported mainly among men who have sex with men (MSM).
- The *S. sonnei* strain is extensively drug-resistant with non-susceptibility to penicillins, third-generation cephalosporins (CTX-M-15), aminoglycosides, tetracycline, sulphonamides, quinolones, and azithromycin, leaving very limited treatment options for severe infections.
- New cases are likely to occur, particularly among MSM.
- The outbreak is microbiologically linked to a cluster of *S. sonnei* cases, which was reported by the Netherlands in June 2023.

1. Cholera – Multi-country (World) – Monitoring global outbreaks

Overview

Data presented in this report originate from several sources, both official public health authorities and non-official sources, such as the media. Case definitions, testing strategies and surveillance systems vary between countries. In addition, data completeness and levels of under-reporting vary between countries. All data should therefore be interpreted with caution. Refer to the original sources for more information regarding the case definitions in use and for details on the epidemiological situation.

Summary

Since 20 November 2023 and as of 18 December 2023, 14 092 new cholera cases, including 269 new deaths, have been reported worldwide. The five countries reporting most cases are Democratic Republic of the Congo (3 554), Zimbabwe (2 740), Ethiopia (1 992), Mozambique (1 846) and Somalia (1 147). The five countries reporting most new deaths are Democratic Republic of the Congo (112), Zimbabwe (55), Ethiopia (36), Cameroon (16) and United Republic of Tanzania (15). In addition, 95 621 new cases were reported or collected retrospectively from before 20 November 2023.

New cases have been reported from Bangladesh, Cameroon, China, Democratic Republic of the Congo, Ethiopia, Haiti, India, Kenya, Malawi, Mozambique, Philippines, Somalia, Sudan, Syria, Thailand, United Republic of Tanzania, Zambia, and Zimbabwe.

Since 1 January 2023 and as of 18 December 2023, 879 177 cholera cases, including 5 045 deaths, have been reported worldwide. In comparison, between 1 January 2022 and 18 December 2022, 1 242 466 cholera cases, including 2 050 deaths, were reported worldwide.

Since the last update, new cases and new deaths have been reported from:

Asia:

Bangladesh: since 13 August 2023 and as of 28 October 2023, 35 157 new cases have been reported. Since 1 January 2023 and as of 28 October 2023, 111 510 cases have been reported. In comparison, in 2022 up to 3 December 2022, 601 638 cases, including 29 deaths were reported.

China: since 30 September 2023 and as of 31 October 2023, 2 new cases have been reported. Since 1 January 2023 and as of 31 October 2023, 29 cases have been reported. In comparison, in 2022 up to 31 October 2022, eight cases were reported.

India: since 16 July 2023 and as of 1 October 2023, 68 new cases have been reported. Since 1 January 2023 and as of 1 October 2023, 1 113 cases have been reported. In comparison, in 2022 up to 29 July 2022, 617 cases, including 19 deaths were reported.

Philippines: since 19 August 2023 and as of 14 October 2023, 550 new cases, including two new deaths have been reported. Since 1 January 2023 and as of 14 October 2023, 3 282 cases, including 18 deaths, have been reported. In comparison, in 2022 up to 10 December 2022, 6 126 cases, including 74 deaths were reported.

Syria: since 12 August 2023 and as of 18 November 2023, 52 881 new cases have been reported. Since 1 January 2023 and as of 18 November 2023, 280 913 cases, including 952 deaths, have been reported. In comparison, in 2022 up to 13 December 2022, 46 409 cases, including 97 deaths were reported.

Thailand: since 27 August 2023 and as of 26 November 2023, two new cases have been reported. Since 1 January 2023 and as of 26 November 2023, six cases have been reported. In comparison, in 2022 up to 18 December 2022, no cases were reported.

Africa:

Cameroon: since 28 October 2023 and as of 26 November 2023, 357 new cases, including 16 new deaths have been reported. Since 1 January 2023 and as of 26 November 2023, 21 199 cases, including 507 deaths, have been reported. In comparison, in 2022 up to 8 December 2022, 15 003 cases, including 298 deaths, were reported.

Democratic Republic of the Congo: since 28 October 2023 and as of 26 November 2023, 3 554 new cases, including 112 new deaths have been reported. Since 1 January 2023 and as of 26 November 2023, 39 638 cases, including 342 deaths, have been reported. In comparison, in 2022 up to 27 November 2022, 14 290 cases, including 262 deaths were reported.

Ethiopia: since 28 October 2023 and as of 26 November 2023, 1 992 new cases, including 36 new deaths have been reported. Since 1 January 2023 and as of 26 November 2023, 26 551 cases, including 357 deaths, have been reported. In comparison, in 2022 up to 29 October 2022, 1 005 cases, including 24 deaths, were reported.

Kenya: since 28 October 2023 and as of 26 November 2023, three new cases have been reported. Since 1 January 2023 and as of 26 November 2023, 8 817 cases, including 145 deaths have been reported. In comparison, in 2022 up to 18 December 2022, 2 959 cases, including 55 deaths were reported.

Malawi: since 28 October 2023 and as of 26 November 2023, 35 new cases have been reported. Since 1 January 2023 and as of 26 November 2023, 43 006 cases, including 1 261 deaths have been reported. In comparison, in 2022 up to 29 November 2022, 10 652 cases, including 310 deaths, were reported.

Mozambique: since 28 October 2023 and as of 26 November 2023, 1 846 new cases, including three new deaths have been reported. Since 1 January 2023 and as of 26 November 2023, 36 991 cases, including 150 deaths, have been reported. In comparison, in 2022 up to 13 November 2022, 3 858 cases, including 19 deaths, were reported.

Somalia: since 28 October 2023 and as of 26 November 2023, 1 147 new cases, including five new deaths have been reported. Since 1 January 2023 and as of 26 November 2023, 15 554 cases, including 43 deaths, have been reported. In comparison, in 2022 up to 27 November 2022, 13 383 cases, including 71 deaths, were reported.

Sudan: since 28 October 2023 and as of 26 November 2023, 990 new cases, including 14 new deaths have been reported. Since 1 January 2023 and as of 26 November 2023, 2 525 cases, including 78 deaths, have been reported. In comparison, in 2022 up to 18 December 2022, no cases were reported.

United Republic of Tanzania: since 30 July 2023 and as of 26 November 2023, 642 new cases, including 15 new deaths, have been reported. Since 1 January 2023 and as of 26 November 2023, 729 cases, including 18 deaths, have been reported. In comparison, in 2022 up to 17 November 2022, 359 cases, including seven deaths, were reported.

Zambia: since 28 October 2023 and as of 26 November 2023, 784 new cases, including 13 new deaths have been reported. Since 1 January 2023 and as of 26 November 2023, 1 722 cases, including 33 deaths, have been reported. In comparison, in 2022 up to 31 July 2022, 160 cases were reported.

Zimbabwe: since 28 October 2023 and as of 26 November 2023, 2 740 new cases, including 55 new deaths, have been reported. Since 1 January 2023 and as of 26 November 2023, 8 235 cases, including 206 deaths, have been reported. In comparison, in 2022 up to 18 July 2022, 135 cases were reported.

America:

Haiti: since 30 October 2023 and as of 6 November 2023, 878 new cases, including one new death, have been reported. Since 1 January 2023 and as of 6 November 2023, 49 399 cases, including 672 deaths, have been reported. In comparison, in 2022 up to 18 December 2022, 17 140 cases, including 311 deaths, were reported.

ECDC assessment

Cholera cases have continued to be reported on the African continent and in South East Asia in recent months. Cholera outbreaks have also been reported in parts of the Middle East and in two countries in the Americas. Despite the number of cholera outbreaks reported worldwide, few cases are reported each year among travellers returning to the EU/EEA.

In this context, the risk of cholera infection in travellers visiting these countries remains low, even though sporadic importation of cases to the EU/EEA remains possible.

In 2022, 29 cases were [reported by nine EU/EEA countries](#), while two were reported in 2021 and none in 2020. In 2019, 25 cases were reported in EU/EEA countries. All cases had a travel history to cholera-affected areas.

According to the World Health Organization (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. Such measures can include drinking bottled water or water treated with chlorine, carefully washing fruit 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.

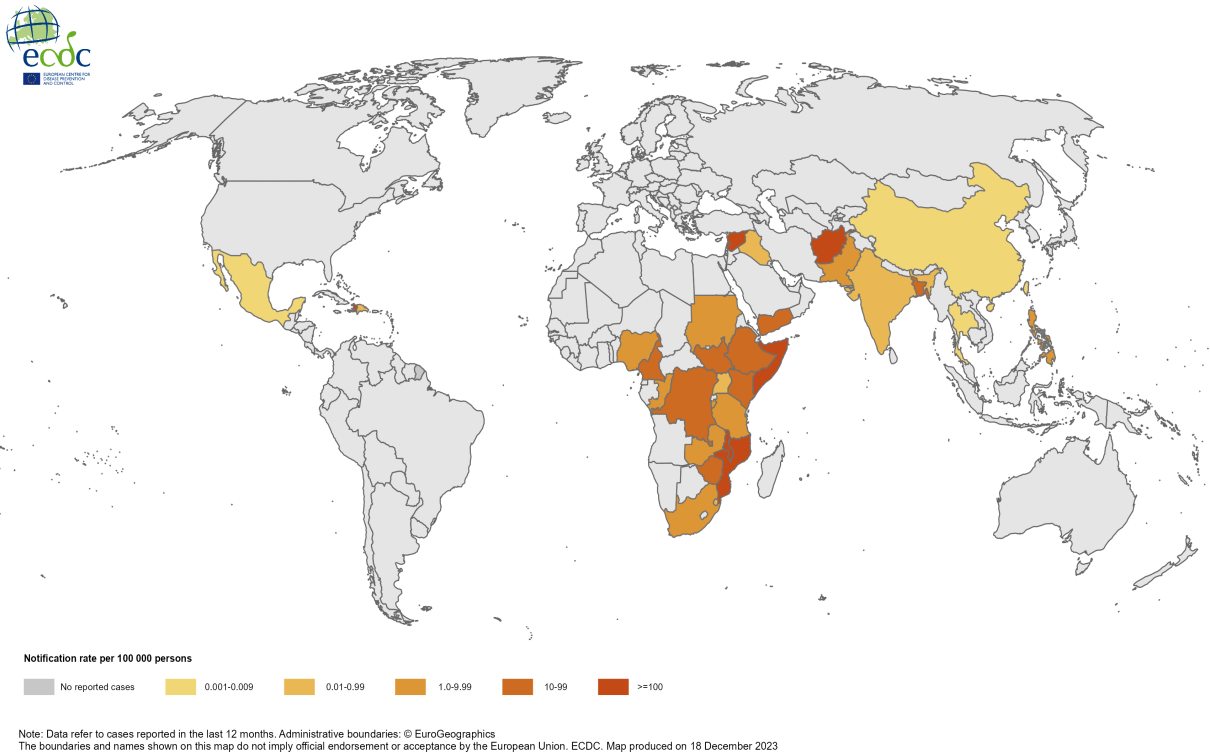
Actions

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

Last time this event was included in the Weekly CDTR: 24 November 2023.

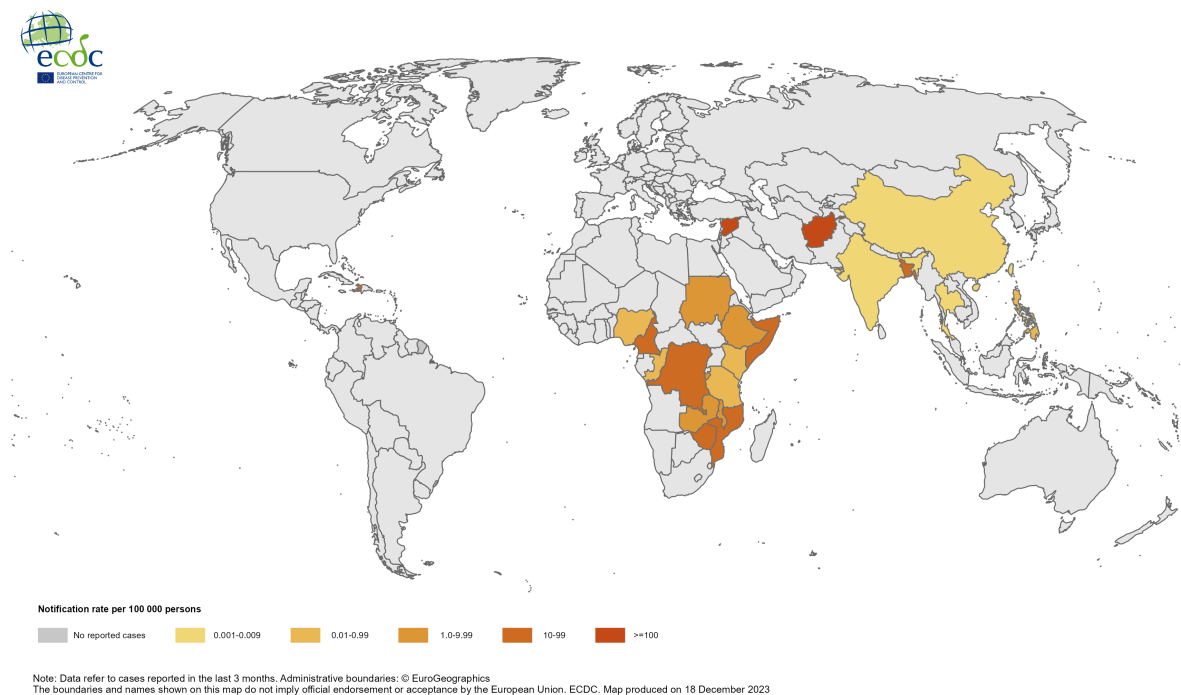
Maps and graphs

Figure 1. Geographical distribution of cholera cases reported worldwide from December 2022 to November 2023



Source: ECDC

Figure 2. Geographical distribution of cholera cases reported worldwide from September to November 2023



Source: ECDC

2. SARS-CoV-2 variant classification

Overview

Weekly update on SARS-CoV-2 variants

As of 24 November 2023, **BA.2.86** was reclassified from a variant under monitoring (VUM) to a **variant of interest (VOI)** due to increasing proportions in the EU/EEA. In addition, the genetic distance between BA.2.86 and other currently circulating variants may have a potential impact on [immunity](#) and [transmissibility](#). Among the 14 EU/EEA countries reporting at least 20 sequences to GISAID EpiCoV for week 48 (27 November 2023 to 3 December 2023), the proportions of BA.2.86 lineages were as follows: Austria (28.3%), Belgium (62.0%), Denmark (15.6%), Finland (24.8%), France (52.3%), Germany (50.8%), Ireland (47.8%), Italy (25.2%), Luxembourg (83.3%), Netherlands (61.4%), Norway (46.2%), Poland (18.5%), Spain (67.8%) and Sweden (43.3%). This overall increasing trend has been observed for BA.2.86 in recent weeks (Figure 1).

A large proportion of the BA.2.86 sequences belong to the sub-lineage **JN.1**. As of 19 December 2023, due to its rapid increase in proportion, [WHO classified](#) JN.1 as a separate variant of interest from the parent lineage BA.2.86. The most likely driver of the success of BA.2.86-descendant lineages is immune escape in a population where immunity is increasingly derived from XBB-variants.

The variant proportions listed below are reported for week 48 (27 November 2023 to 3 December 2023) and as of 18 December 2023.

XBB.1.5-like+F456L variants currently dominate the global and EU/EEA SARS-CoV-2 variant landscape. As of 18 December 2023, for week 48, XBB.1.5-like + F456L lineages are circulating with a median proportion of 43% in EU/EEA countries (range: 21–83%). The overall proportion of XBB.1.5-like+F456L variants appears to be declining in the EU/EEA.

XBB.1.5-like+L455F+F456L variants have been increasing but now display an unclear trend in the EU/EEA, with a median proportion of 25% (range: 3–47%). The lineages mainly present in this umbrella are HK.3, JD.1.1 and JG.3 lineages. [Preliminary studies](#) indicate that XBB.1.5-like+L455F+F456L variants may bind more efficiently to human ACE-2 and have similar immune evasive properties to XBB.1.5-like+F456L variants and XBB.1.5-like+L455F variants. Virtually all the lineages are already included in the existing VOIs XBB.1.5-like+F456L, but are being monitored specifically as VUMs.

The combination of these mutations (L455F and F456L) has also been increasing in BA.2.75 lineages. The **DV.7.1** variants that carry these mutations are circulating at very low proportions, with a median of 0.6% in the EU/EEA (range: 0–1.9%).

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

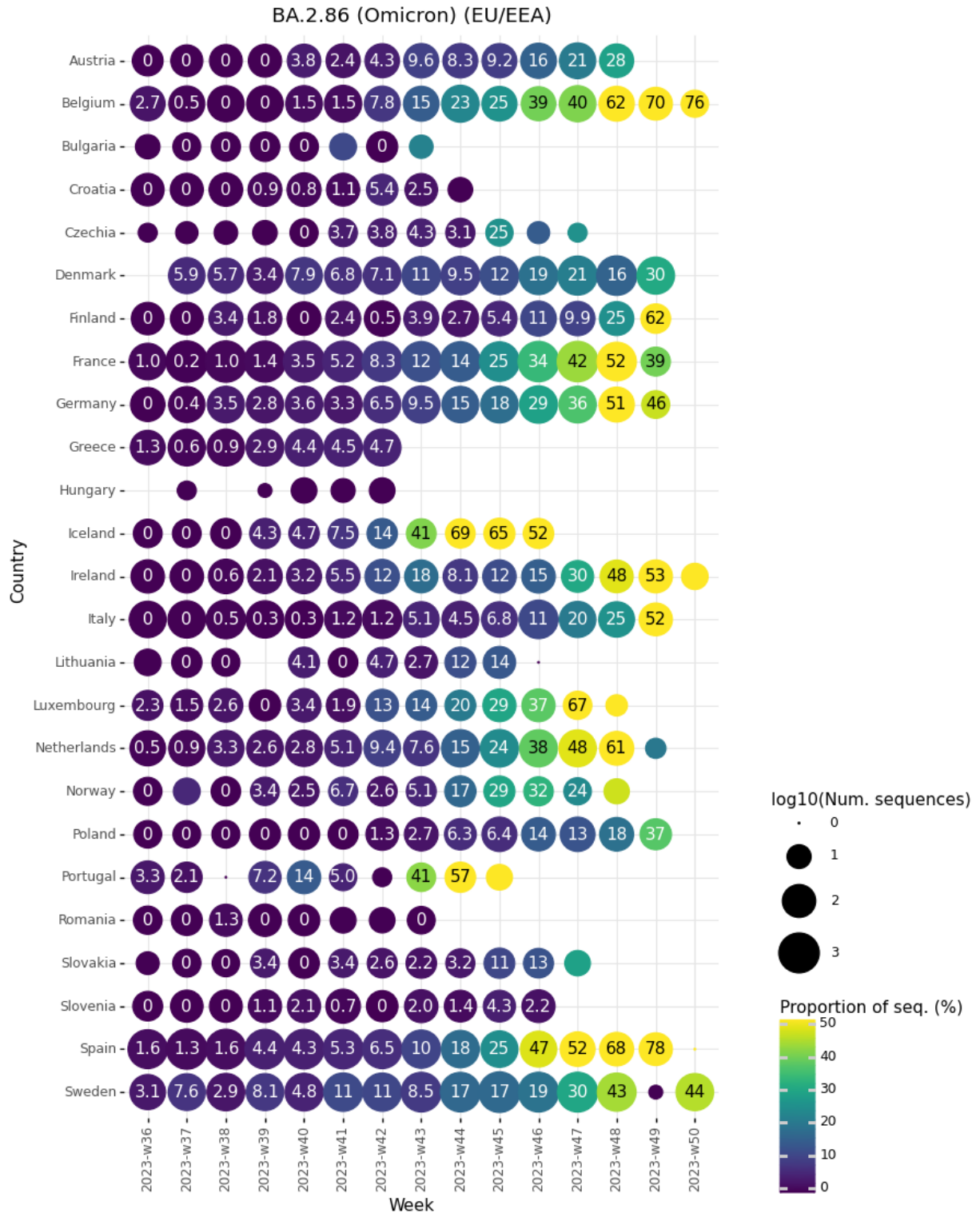
Actions

For the latest update on SARS-CoV-2 variant classifications, please see [ECDC's webpage on variants](#). Variant surveillance data, including the distribution of VOC and VOI variant proportions in the EU/EEA, and detailed country-specific COVID-19 updates are available as part of the [European Respiratory Virus Surveillance Summary \(ERVISS\)](#).

Last time this event was included in the Weekly CDTR: 15 December 2023.

Maps and graphs

Figure 1. Proportion of sequences belonging to BA.2.86 lineages per sample collection week, reported by EU/EEA countries to GISAID EpiCoV as of 18 December 2023.



Source: GISAID EpiCoV as of 2023-12-18

3. Avian influenza in fur farms – Finland – 2023

Overview

Update

Between 13 July and 21 December 2023, avian influenza A(H5N1) virus has been detected in 71 fur farms (an increase of 15 fur farms since 17 November 2023) in the Ostrobothnia, Satakunta and Southwest regions of Finland. Of the 15 farms detected in the past month, 14 were detected in municipalities of Ostrobothnia region and one in Southwest Finland.

Of these, 27 fur farms tested positive for avian influenza virus by PCR and 44 farms as a result of serological testing. The last PCR positive farm was reported on 27 September 2023.

The active surveillance programme for avian influenza in fur farms in Finland continues. As of 1 December 2023, 216 fur farms in Finland had been tested for the presence of antibodies against avian influenza virus, with approximately 80 farms remaining.

To date, no human cases of avian influenza A(H5N1) virus infection have been detected among farm workers and their close contacts.

Summary

Since 13 July 2023 and as of 21 December 2023, avian influenza A(H5N1) virus has been detected in 71 fur farms in Finland, according to [updates by the Finnish Food Authority](#). Most of the affected farms (n=67) are in the region of Ostrobothnia, affecting areas of Alavieska, Halsua, Kaustinen, Evijärvi, Kalajoki, Kannus, Kauhava, Kristiinakaupunki, Kruunupyy, Kokkola (new), Lappajärvi, Mustasaari, Pedersöre, Pietarsaari, Pyhäjoki, Uusikaarlepyy, Veteli and Vöyri. Avian influenza A(H5N1) virus was detected at three farms in the Satakunta region, affecting areas of Eurajoki and Merikarvia and one farm in Pyhäranta (new) in the Southwest region of Finland. The affected fur farms contain mainly foxes (blue, silver and mixed-breed), but also raccoon dogs and mink.

On 3 November, the Finnish Food Authority [reported](#) that avian influenza was detected in mink at three of the 111 mink farms tested earlier this autumn as part of the [survey](#). Blood from the animals at the fur farms was tested using the ELISA method. Positive samples were then tested using the hemagglutinin inhibition method. In addition, on 10 November, the Authority [reported](#) the detection of avian influenza in 10 of the 38 fur farms investigated (of the 330 targeted for the survey) containing foxes and raccoon dogs in the Ostrobothnia and Satakunta regions. More positive samples have been detected at fox and raccoon dog farms than mink farms. This suggests several hypotheses, such as possibly higher sensitivity of foxes to the virus than mink, that fox and raccoon dog farms are less protected from birds than mink or that there have been more avian influenza infections in wild birds in the areas with infected fox farms.

On 21 July 2023, the Finnish Food Authority [reported](#) that, based on preliminary analysis, the lineage of the virus collected from the animals matches the lineage of the virus circulating among gulls, and there are indications that it has a mutation that promotes replication in mammalian cells. Sequences of the viruses collected from mink, foxes and seagulls in Finland have been posted in the [GISAID EpiFlu](#) database.

Virus [mutation](#) has been found at five fur farms.

At the beginning of September 2023, the [Finnish Food Authority](#) established a system for avian influenza monitoring at all fur farms in the country. In the first phase of monitoring, the presence of avian influenza was investigated in mink farms. In the second phase, monitoring and sampling was implemented at fox and raccoon dog fur farms. Blood samples are being collected from dead animals (culled or those that died naturally) for antibody testing to detect avian influenza and SARS-CoV-2. The samples are being taken by municipal veterinarians and authorised samplers and examined by the Finnish Food Authority.

On 13 September 2023, the [Finnish Food Authority](#) ordered the euthanasia of all foxes and raccoon dogs in farms with confirmed avian influenza A(H5N1) virus. Orders had previously been issued to euthanise all mink at affected farms, whereas for foxes and raccoon dogs farms this was decided on a case-by-case basis.

Sequencing analyses of avian influenza virus isolated from fur farms suggest a possible spread from birds to animals, but also potentially between mammals at affected fur farms via contact through animal secretions, feed or contaminated bedding and care equipment. The laboratory investigation is ongoing.

The new orders concern 115 000 animals in Ostrobothnia, including 109 000 foxes and 6 000 raccoon dogs, affecting 11 farms where all animals have to be euthanised and five where some of the animals have to be euthanised. Ten more farms have not been closed yet. Previously, 135 000 animals were euthanised, including all farmed mink (50 000), foxes (79 000) and raccoon dogs (6 000) at infected farms.

According to the [Finnish Food Authority](#), this is the first time avian influenza has been detected in farmed fur animals in Finland. Two infections were previously detected in wild foxes in Finland.

ECDC assessment

The introduction of avian influenza into fur farms is not unexpected if infected wild birds are observed in the area and measures to prevent contact between infected birds or their droppings and the farmed animals are not in place. A previous [event](#) was observed at a mink farm in Spain. Transmission from foxes or other infected mammals to humans has not been observed to date.

ECDC assesses the current risk of infection to the general population as low and the risk of infection to people who are occupationally or otherwise exposed to avian influenza-infected animals as low-to-moderate.

People exposed to infected mammals should be monitored for 10–14 days, and testing should be initiated if symptoms occur. In addition, it is crucial to perform virus analyses and share sequence data from detections in animals for the analysis of markers relevant for mammalian adaptation.

Actions

ECDC is following up with the Finnish authorities and other relevant agencies.

Further information

The Finnish authorities have published [advice](#) for the general public on the prevention of avian influenza virus infections and issued [guidelines](#) for public health professionals, including recommendations for testing. ECDC's testing guidance on avian influenza viruses in humans is available on our [website](#).

On 1 August 2023, the Finnish Food Authority published [criteria for culling fur animals](#) to prevent the spread of avian influenza.

On 8 August 2023, the Finnish Institute for Health and Welfare (THL) published a [statement](#) on how to stop the circulation of avian influenza in farmed fur animals and the use of personal protective equipment for farm workers.

Last time this event was included in the Weekly CDTR: 24 November 2023.

4. Outbreak of hepatitis A - Slovakia - 2023

Overview

Update

In Slovakia, a total of 1 789 cases of viral hepatitis A (VHA) have been reported since the beginning 2023 (as of 13 December 2023), morbidity 32.92 cases per 100 000. The majority of cases (95.5%) were recorded in the east of Slovakia, with 1 160 cases reported in the Košice region (148.66 cases per 100 000) and 548 cases in the Prešov region (67.85 cases per 100 000). There are currently a total of 27 active outbreaks reported. Most of the cases are among children in the age groups 5-9 years (41.9%) and 1-4 years (19.9%). The majority of cases are from the Roma communities. Vaccination in the affected areas is ongoing. Slovakian public health authorities consider the main cause of the ongoing transmission and spread of the disease to be non-compliance with the mandatory anti-epidemic measures put in place and low hygiene standards in those groups at risk.

Previously reported:

On 6 October 2023, the [public health authorities](#) in Slovakia reported an ongoing outbreak of viral hepatitis A. Although the Košice district is the most affected area, cases have also been reported in the Presov, Michalovce, Vranov, and Toplou districts. Between January 2023 and 5 October 2023, 1 017 cases had been reported. Between 2 and 8 October 2023, 136 new cases of viral hepatitis A were reported. Most cases are among children in the age groups 5-9 years (44 %) and 1-4 years (21%).

On 4 October 2023, the public health authorities in Slovakia implemented the following additional measures:

- Vaccination of individuals in affected areas, including staff in health and education facilities;
- Limiting of visits to cases admitted to hospitals.

The following measures have been implemented since August:

- Information made available to the public on hepatitis A virus and its prevention through leaflets and local radio.
- Mandatory medical surveillance and active immunisation of those aged 1-15 years.
- Organisation and holding of mass events (sports, cultural, social, etc.) prohibited in the villages.
- Information to local authorities, food outlets, bus carriers, educational sites and Slovak Post about the situation, and instructions on the need to disinfect surfaces and practise hand hygiene.

ECDC assessment

This is a large and prolonged outbreak of hepatitis A in Slovakia. There are a total of 27 active outbreaks currently recorded. Most cases are among children under ten years of age. Vaccination in the affected areas is ongoing. There is a risk of further cases among susceptible individuals until the transmission of infection is controlled.

Actions

ECDC, through the EU Health Task Force, has offered support to public health authorities in Slovakia.

Last time this event was included in the Weekly CDTR: 13 October 2023.

5. Increase of cases of pertussis - Multi-country - 2023

Overview

Epidemiological summary for EU/EEA countries with epidemic intelligence updates:

On 5 July 2023, public health authorities in Denmark published a [press release](#) on the observed increase in pertussis (whooping cough) cases. Since then, several EU/EEA countries have reported a higher-than-usual number of pertussis cases compared to previous years.

In 2023 in Denmark, with data as of October, [3 169 cases and one death](#) have been reported, with [an average of 227 cases](#) per week being reported between weeks 37 and 41 of 2023. The largest annual number of whooping cough cases during the past decade was recorded in 2019, with a total of 3 696 cases. The age groups most affected by pertussis in Denmark in 2023 are 5-14 years (859 cases) and 15-24 years old (807 cases).

According to the [risk assessment](#) produced by Belgium in September 2023, until August 2023, 767 pertussis notifications were reported in Flanders and 418 confirmed cases by the National Reference Centre. Most cases were reported in the age groups 5-9 and 10-14 years. Communications to raise awareness of pertussis have been sent out to physicians and efforts are being made to improve the coverage of maternal vaccination. The risk for Belgium was assessed as low ([Primary risk assessment: Increase in cases of pertussis, Belgium, September 2023](#)).

On 20 October 2023, public health authorities in Czechia published a [press release](#) detailing an increase in pertussis in the Czech Republic. According to the State Health Institute of the Czech Republic, there were 127 cases of pertussis reported between January and September 2023. This is a significant increase on the previous year, when only 67 cases were reported during the same period.

On 11 October 2023, authorities in Norway [reported](#) 500 cases, mainly in the 15-to-19 year age group. These case numbers are higher than those reported during the years of the COVID-19 pandemic (in 2021 and 2022, there were 38 and 44 cases reported respectively). For reference, in the years 2015-2019, between 1 904 and 2 534 cases of pertussis were reported annually. In response, this year Norway proposed to introduce vaccination for pregnant women.

On 13 November 2023, the National Institute of Public Health in Sweden published a [report](#) stating that the number of pertussis cases had been low during the COVID-19 pandemic years (only 11 and 13 cases in 2021 and 2022, while in 2019 there had been more than 120 cases reported). By 13 November 2023, a total of 91 pertussis cases had been reported in Sweden, with 43 cases in October alone, including four cases under one year of age.

On 8 December 2023, public health authorities in Croatia published the [weekly pertussis report](#) which included 2 250 cases. The age group most affected was those 10-to-14 years old.

An increase in pertussis cases has also been [reported in Spain in 2023 \(up to 19 November \(week 46\)\)](#) compared to the cases reported for the same period in 2022, in 2023 1 578 pertussis cases were reported versus 204 reported in 2022.

ECDC assessment

Pertussis is an endemic disease in the EU/EEA and worldwide, with peaks every 3-5 years even in the presence of high vaccination coverage. The objective of the pertussis vaccination programmes is to protect infants from severe disease and adherence to vaccination programme is important, including on the timely administration of the first dose of a pertussis containing vaccine. Maternal vaccination programmes have also been associated to a reduction of disease in infants in several countries when implemented.

Notification in older age groups is affected by different level of implementation of laboratory diagnosis as well as clinical suspicion. The observed increase in notifications may be temporary as a result of lower circulation during

the COVID-19 pandemic as well as a consequence of suboptimal vaccination uptake in certain groups during the COVID-19 pandemic.

The situation is not unexpected but will require further efforts at country level to identify and vaccinate those with no or incomplete vaccination history as well as enforce timely infant vaccination to protect those most vulnerable according to national guidelines and recommendations.

In addition, as pertussis can have atypical presentations in children below the age of 3 months, communication campaigns should aim to raise awareness among paediatricians and neonatologists on ongoing outbreaks to suspect and test for pertussis and initiate adapted treatment early among cases and contacts according to national guidelines and recommendations.

Actions

ECDC continues to monitor the situation through epidemic intelligence activities.

6. Overview of respiratory virus epidemiology in the EU/EEA

Overview

Respiratory virus activity

- Consultation rates of patients presenting to general practitioners with respiratory illness (ILI and/or ARI) were reported by 18 EU/EEA countries up to week 50. Moving epidemic method (MEM) thresholds were available for eight countries for ARI and 17 countries for ILI. While many of the EU/EEA countries still report baseline levels, for ARI, two report high activity and one reports medium activity, and for ILI, two report medium activity and seven report low activity levels, thus indicating a substantial increase in acute respiratory infections presenting in primary care in EU/EEA countries.
- Among countries reporting data on testing in primary care sentinel settings for influenza, RSV or SARS-CoV-2, median test positivity at the EU/EEA level remained highest for SARS-CoV-2 at 20% (pooled country data: 20%; IQR of country values: 13-28%). A continuous increase of the overall median SARS-CoV-2 positivity was observed from week 44 to week 49, followed by a slight decrease in positivity in week 50. At the country level, both increasing and decreasing trends for SARS-CoV-2 test positivity were observed during this period. SARS-CoV-2 detections in non-sentinel data were similar to those reported for sentinel data, with most countries reporting an increasing trend.
- RSV detections in sentinel primary care were reported by 16 countries and median test positivity showed a slight decrease for the past week. Median test positivity for RSV was 6% (pooled: 11%; IQR: 1.1-12%) in week 50. A mix of increasing and decreasing trends was observed in test positivity at country level. RSV detections in non-sentinel data were reported by 18 countries in week 50. Non-sentinel detections showed a similar pattern to sentinel detections.
- Seasonal influenza activity is now increasing with a median test positivity of 18% (pooled: 15%; IQR: 8-20%) for week 50. Fourteen countries reported positivity above 10% in sentinel primary care. Concurrently, the qualitative indicators reported for seasonal influenza confirm increased influenza activity and geographic spread in the EU/EEA. Of 23 countries reporting qualitative indicators, 19 countries reported levels above the baseline for seasonal influenza activity (low: 10 countries, medium: seven countries, and high: two countries) and 21 countries report geographical spread of seasonal influenza (widespread: eight countries, regional: four countries, local: three countries, and sporadic: six countries). Seasonal influenza detections in non-sentinel data continue to increase. This is the second consecutive week in which $\geq 10\%$ of patients in sentinel primary care settings tested positive for influenza virus infection, thus marking the start of the seasonal influenza epidemic in the EU/EEA.
- Among the 526 sentinel primary care detections of seasonal influenza, 511 were typed as influenza virus type A and 15 were typed as influenza virus type B. Of the influenza type A detections, 72% (n=367) were further subtyped as either A(H1)pdm09 (n = 296) or A(H3) (n = 71). Four of the influenza type B detections were further subtypes as B/Vic.

Severe disease

- Rates of severe acute respiratory infection (SARI) cases are increasing compared to previous weeks in one of the four countries reporting data. Reported rates remain comparable to the same time last year.
- Pooled SARS-CoV-2 test positivity in SARI cases have decreased in recent weeks in people aged 15–64 years and appear to have plateaued in those aged 65 years and above, with a mixed picture at the country level. Overall, non-sentinel hospital admissions and ICU rates gradually increased from week 36, especially in the age group 65 years and above. However, rates have plateaued over the past three weeks, with the decrease in week 50 likely attributable, at least in part, to reporting delays. COVID-19 death rate appears to have peaked in week 45 and are now gradually decreasing.

- In recent weeks, increasing trends in RSV test positivity were observed in two of four countries reporting RSV data from SARI systems. The test positivity plateaued from week 47 to week 49, although a slight increase in positivity was observed for this week in the 0–4-years age group (pooled test positivity 65.6%). The second highest test positivity was in the 5–14-years age group (22.4%). Non-sentinel RSV hospital admissions remained high in two counties for the 0–4-years age group but continued to decrease.
- Pooled test positivity for seasonal influenza for SARI cases has increased from 6% in week 49 to 10% this week. Increases were highest in the 15–64-years age group with a pooled test positivity of 22%. Non-sentinel detections of seasonal influenza in the ICU remained low, however an increasing trend in detections in hospital settings was observed.
- [EuroMOMO](#) pooled estimates of weekly excess all-cause mortality showed an elevated level of mortality in the age groups of 65 years and above.

Virus characterisation

SARS-CoV-2 variants for weeks 48–49 (3 to 10 December 2023)

- The estimated distribution (median and IQR of proportions from 16 countries) of variants of concern (VOCs) or variants of interest (VOIs) was 46% (32–56%) for BA.2.86, 42% (32–46%) for XBB.1.5+F456L, 5.5% (4–9%) for XBB.1.5, and 1% (0–1%) for BA.2.75. The proportion of BA.2.86 continues to grow, with XBB.1.5-like+F456L and XBB.1.5 showing a decreasing trend.

Influenza

- WHO recommends that trivalent vaccines for use in the 2023–2024 influenza season in the northern hemisphere contain the following (egg-based and cell culture or recombinant-based vaccines respectively): an A/Victoria/4897/2022 or A/Wisconsin/67/2022 (H1N1)pdm09-like virus (subclade 5a.2a.1); an A/Darwin/9/2021 or A/Darwin/6/2021 (H3N2)-like virus (clade 2a); and a B/Austria/1359417/2021 (B/Victoria lineage)-like virus (subclade V1A.3a.2).
- During weeks 40–50, 2023, 182 A(H1)pdm09, 77 A(H3) and eight B/Victoria viruses from sentinel and non-sentinel sources were genetically characterised. Of the A(H1)pdm09 viruses, 77 were reported as clade 5a.2a and 105 were subclade 5a.2a.1. Of the A(H3) viruses, two were reported as clade 2a.3a and 75 were subclade 2a.3a.1. All of the B/Victoria viruses were reported as subclade V1A.3a.2.

Period overview (weeks 25–50, 2023)

Following relatively low respiratory illness activity over the summer period, consultation rates have been increasing in primary care settings since September. Transmission of SARS-CoV-2 began increasing in late summer with clear increases observed at the EU/EEA level up to week 49. At country level, both increasing and decreasing trends are reported in activity, COVID-19 hospitalisations, ICU admissions, and deaths. SARS-CoV-2 continues to predominantly impact individuals 65 years and above. RSV activity has been increasing since approximately week 41. In recent weeks, a mixed epidemiological picture with increasing and decreasing trends at a country level has been observed. The highest impact of RSV continues to be among children aged 0–4 years. Influenza activity started to increase notably in week 49. Week 50 marks the start of the seasonal influenza epidemic for the current period, following two consecutive weeks with the pooled positivity at EU/EEA level at or above 10% for influenza virus infection in sentinel primary care settings. Test positivity for influenza among SARI cases also increased in week 50 to above 10%, with levels comparable to previous years at the start of the seasonal epidemic. Both influenza type A and type B viruses were detected, with a dominance of A(H1)pdm09 viruses in sentinel and non-sentinel virological surveillance data.

ECDC assessment

SARS-CoV-2 and seasonal influenza are currently co-circulating and detectable at comparable levels in primary care. Influenza activity notably increased in week 49. This increasing trend continued in week 50, marking the start of the influenza epidemic in the EU/EEA, with two consecutive weeks of influenza test positivity at or above 10% in sentinel primary care settings. With high circulation of SARS-CoV-2, RSV and seasonal influenza, it remains essential to continue to monitor the impact on hospital and ICU admissions closely. The combined effect of co-circulating acute respiratory pathogens is likely to convey an increased burden of severe respiratory disease in the EU/EEA which may result in a significant pressure on healthcare systems in the coming weeks. Additionally, increased inter-generational mixing during the year-end holiday period is likely to result in increased exposure of vulnerable groups to respiratory viruses. The holiday period will also result in changes in reporting, testing, and healthcare-seeking behaviour, which may complicate the interpretation of epidemiological data submitted in the coming weeks. ECDC will update ERVISS again on 5 January 2024 (with data reported up to week 52, 2023).

Actions

ECDC monitors rates of respiratory illness presentation and respiratory virus activity in the EU/EEA, presenting findings in the European Respiratory Virus Surveillance Summary ([ERVISS.org](#)). y virus activity in the EU/EEA, presenting findings in the European Respiratory Virus Surveillance Summary ([ERVISS.org](#)). Updated weekly, ERVISS describes the epidemiological and virological situation for respiratory virus infections across the EU/EEA and follows the principles of integrated respiratory virus surveillance outlined in [Operational considerations for respiratory virus surveillance in Europe](#).

ECDC has published an epidemiological [update](#) which describes the epidemiological situation of acute respiratory infections in the EU/EEA countries and provides updated ECDC recommendations for mitigating their impact.

ECDC has published guidance on [vaccination roll-out for autumn/winter 2023](#), which stresses the importance of influenza and COVID-19 vaccination to protect individuals at increased risk of severe disease, e.g. people aged over 60 years and other vulnerable individuals (such as those with underlying comorbidities), irrespective of age.

Sources: [ERVISS](#)

Last time this event was included in the Weekly CDTR: 15 December 2023.

7. Cluster of extensively drug resistant *Shigella Sonnei* among men who have sex with men - multi-country (EU/EEA and the UK) - 2023

Overview

In December 2023, the UK notified ECDC of an extensively drug resistant cluster of 97 cases of *Shigella sonnei* which has been occurring during 2023, identified using whole genome sequencing, involving mostly (90%) adult males. Cases are distributed across all regions of England and reports increased in frequency from May 2023. An additional four cases occurred as single cases during 2022. The outbreak strain is extensively drug-resistant with non-susceptibility to penicillins, third-generation cephalosporins (CTX-M-15), aminoglycosides, tetracycline, sulphonamides, quinolones, and azithromycin, leaving very limited treatment options for severe infections. The associated Enterobase cluster profile is HC5_194512.

Following this notification, several EU/EEA countries reported additional cases:

Norway has reported two cases, both male, with sampling dates in August and October 2023. Strains from both cases are closely related to the previously reported outbreak strains from the Netherlands in June 2023 (≤ 5 AD) and from the ongoing outbreak in the UK (≤ 6 AD). Both cases reported travel prior to infection (one to Spain). Isolates carried a wide range of resistance determinants (*bla*CTX-M-15, *aadA1*, *aadA5*, *sul1*, *sul2*, *sat2*, *tet(B)*, *dfrA17* and mutations in *parC* and *gyrA*).

Portugal has reported a single male case belonging to the same cluster HC5_194512. The case did not have any travel history and did not report sexual risk behaviour. The isolate is resistant to penicillins, third- and fourth-generation cephalosporins (*bla*CTX-M-15), aminoglycosides, tetracyclines, quinolones, sulfonamides and azithromycin. The strain was isolated on 17 July 2023.

The Netherlands has reported a total of 65 cases, predominately affecting MSM (61 males and six females) with sample dates between January and November 2023; all cases are part of the cluster reported earlier in June 2023. Among 51 cases with known travel information, 46 are domestically-acquired infections.

Seventeen of these 65 cases from the Netherlands and the two cases from Norway were already part of an earlier cluster of *S. sonnei* cases, reported by the Netherlands in June 2023, with a total of 49 cases in the EU/EEA during 2022 and 2023 from Belgium, Denmark, Germany, Ireland, the Netherlands, Norway and Spain. This earlier event also included 96 cases from the United States. The representative outbreak strains from the earlier cluster and the newly reported cases are microbiologically linked with isolates within five allelic distances (ADs) in ECDC's centralised single-linkage cluster analysis.

In February 2022, ECDC published a Rapid Risk Assessment '[Increase in extensively-drug resistant *Shigella sonnei* infections among men who have sex with men](#)'. However, the strains described in that risk assessment do not seem to be related to the present outbreak strain.

ECDC assessment

This is an evolving cluster of *Shigella sonnei* infections among MSM, with 169 cases reported in the Netherlands (65), Norway (2), Portugal (1) and the United Kingdom (101) and, given its close microbiological links to an earlier cluster, it is likely that transmission has been going on since January 2022. The *S. sonnei* strain shows extensive drug resistance with non-susceptibility to penicillins, third-generation cephalosporins (CTX-M-15), aminoglycosides, tetracycline, sulphonamides, quinolones, and azithromycin, leaving very limited treatment options for severe infections. Further cases are very likely to occur, particularly among MSM, not only in the affected countries but also in other Member States, given the interconnected nature of MSM sexual networks in Europe. It is also likely that cases may already be present in other Member States but have not yet been detected.

Actions

It is recommended that Member States increase awareness among clinicians and microbiology laboratories of the international spread of this new strain of extensively drug-resistant *Shigella* bacteria and ensure antimicrobial susceptibility testing of *Shigella* for cases of gastroenteritis in MSM, in order to guide antimicrobial treatment.

Physicians should be aware that among young adult males the route of acquisition can be sexual (especially among those without travel history to a country with known increased risk of shigellosis). It is essential to report shigellosis cases to public health authorities and send *Shigella* isolates to national reference laboratories in order to monitor the development of antimicrobial resistance and enable the early detection and investigation of treatment failures. These should be reflected in updates of national and international treatment guidelines.

In general, it could be challenging to retrieve an isolate of *Shigella* from the clinical specimen and for a confirmed case, an isolate is needed. If PCR is used as first line analysis for diagnosis using the target gene *ipaH*, but the specimen is negative for isolation, the PCR finding in patients can still yield important information for the outbreak investigation, even though the case cannot be confirmed. However, it is still important to try and retrieve an isolate for antimicrobial susceptibility testing.

ECDC encourages countries to sequence available isolates of *S. sonnei* displaying multidrug resistance and having a possible association with MSM.

It is recommended that public health authorities collaborate with civil society organisations that work with MSM in order to increase awareness in this population of how to protect themselves and the importance of seeking care if symptomatic. This includes informing the physician that the infection may have been acquired through sexual activity. Sexual partners of patients diagnosed with shigellosis should be notified and encouraged to contact a healthcare provider, particularly if they work in settings requiring close interaction with the general public (e.g. healthcare, child-care, food catering establishments) or if they develop symptoms of infection.

Further details on recommended actions and specific prevention messages can be found in the 2022 ECDC Risk Assessment '[Increase in extensively-drug resistant *Shigella sonnei* infections among men who have sex with men](#)' and in the July 2023 ECDC news item '[Spread of multidrug-resistant *Shigella* in EU/EEA among gay, bisexual and other men who have sex with men](#)'.

8. Season's greetings

With this last weekly CDTR of 2023, ECDC would like to wish you happy holidays and a healthy New Year 2024! The first weekly CDTR of 2024 will be published on 5 January 2024.



Source: ECDC