

WEEKLY BULLETIN

Communicable Disease Threats Report

Week 41, 8 – 14 October 2023

Today's disease topics

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Executive Summary

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, with most cases reported in the Kosice district.
- Most clusters involved human-to-human transmission among children living in poor hygienic conditions.
- The area's residents have been offered hepatitis A vaccination.
- The risk of further cases among susceptible children living in sub-optimal sanitation conditions is considered moderate due to a high probability of infection and low impact of such infection.

Influenza A(H5N1) - Multi-country (World) - Monitoring human cases

Summary:

- Two new fatal cases of avian influenza A(H5N1) infection were reported in Cambodia.
- No human-to-human transmission was reported associated with this event.
- The ECDC risk assessment remains unchanged.
- Worldwide, 880 human cases with avian influenza A(H5N1), including 460 deaths (CFR: 52.3%), have been reported in 23 countries since 2004.
- The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be low. The risk to occupationally exposed groups, such as cullers, has been assessed as low-to-medium.

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

- By the end of week 40 (ending 8 October 2023), rates of respiratory illness in the community remained elevated, driven in part by SARS-CoV-2 transmission. Increases in case counts continued to be reported, most notably among older age groups. This has translated into relatively small increases in hospital or ICU admissions and deaths in some EU/EEA countries.
- Since the last update on 28 September 2023, and as of 13 October 2023, no changes have been made to ECDC's classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs) or de-escalated variants.
- **XBB.1.5-like+F456L** variants currently dominate the global and EU/EEA SARS-CoV-2 variant landscape. As of 9 October 2023, XBB.1.5-like lineages are circulating in median 64% in EU/EEA countries, with range from 43–98%. The overall proportion of XBB.1.5-like + F456L lineages plateaued in the EU/EEA with slower increasing trends observed in the past weeks.
- **XBB.1.5-like+L455F+F456L** variants show increasing trends with median proportion of 4.95% in EU/EEA countries (range:0-13%). The lineages mainly present in this umbrella are HK.3 lineages, GK* lineages.
- **BA.2.86** is an emerging SARS-CoV-2 lineage characterised by a high number of spike mutations that are distinct from ancestral BA.2 and currently circulating XBB-derived variants. BA.2.86 is circulating in low proportions in the EU/EEA, (median 0.3% in EU/EEA countries and up to 6% in Denmark). In the last two weeks a slight increase in **JN.1** sequences, a sub-lineage of BA.2.86 has been observed, although the numbers have been low. JN.1 sequences carry an additional Spike L455S mutation compared to BA.2.86.

Mass gathering monitoring – Rugby World Cup 2023, France

- ECDC is monitoring infectious disease events possibly associated with the Rugby World Cup in 2023.
- An ongoing measles outbreak in the town of Guilherand Granges, Ardèche department, France, has led to 44 cases reported, as of 10 October 2023.
- Although no cross-border events have been reported to date, ECDC does not yet have the full information to assess the risk of spread into the larger community of attendants to the sporting events.

West Nile virus One Health seasonal surveillance – 2023

- Since the last update, and as of 11 October 2023, 33 human cases of West Nile virus (WNV) infection have been reported by EU/EEA countries and three by an EU-neighbouring country.
- The following areas reported autochthonous human cases of WNV infection for the first time: Toledo in Spain and Gorj in Romania.
- Since the beginning of the 2023 transmission season, 632 human cases of WNV infection have been reported by EU/EEA countries and 88 by EU-neighbouring countries.
- There have been 93 outbreaks among equids and 209 outbreaks among birds reported by EU/EEA countries since the beginning of the 2023 WNV transmission season, as of 11 October 2023.

Measles – Multi-country (World) – Monitoring European outbreaks

- In August 2023, 38 confirmed cases of measles were reported by 12 countries. Between January and August 2023, 721 cases of measles were reported in The European Surveillance System (TESSy) by 19 countries.
- Some 595 new measles cases have been detected by epidemic intelligence in 10 EU/EEA countries, including reports on new or ongoing outbreaks reported in Austria, Germany, France, and Romania.
- Measles transmission is currently low in the EU/EEA.
- Relevant updates for outside the EU/EEA are available for Switzerland, Ukraine, and the WHO Regions: EUROPE, AFRO, PAHO, and SDEARO (no update for WHO regions EMRO and WPRO).

Monthly diphtheria epidemiological monitoring in the EU/EEA - 2023

- Since the beginning of 2023, and as of 10 October, 92 cases of diphtheria have been reported in the EU/EEA through The European Surveillance System (TESSy). Cases have been reported in Germany (57), the Netherlands (13), Belgium (6), Czechia (6), Latvia (3), Slovenia (3), Norway (1), Slovakia (1), Spain (1), and Sweden (1). This represents 18 additional cases since the previous update on 10 September.
- Among the 92 cases reported, 12 presented with respiratory disease, 78 with cutaneous disease, and two with respiratory and cutaneous disease.
- Two of the cases died, one in Belgium and one in Latvia.
- One additional EU/EEA country (Spain) has reported diphtheria cases (n=1) in 2023 since the previous update in September.
- Since September 2022, and as of 10 October 2023, there have been 279 cases of diphtheria including three deaths in the EU/EEA reported to TESSy.
- ECDC has no data indicating instances of community transmission or clusters of *Corynebacterium (C.) diphtheriae* as a result of the increased number of sporadic cases observed since the second half of 2022.
- Clinicians should continue to be aware of the clinical features of diphtheria and ensure timely diagnosis and treatment of cases according to existing clinical guidelines.

- An unusually broad predicted resistance of *C. diphtheriae* isolates to common oral and parenteral antibiotics has been reported. As a precautionary measure, ECDC recommends that antimicrobial susceptibility testing is performed on all *C. diphtheriae* isolates.

1. Outbreak of Hepatitis A - Slovakia - 2023

Overview:

On 6 October 2023 the [public health authorities](#) in Slovakia reported an ongoing outbreak of viral hepatitis A. Although the Kosice district is the most affected area, cases have also been reported in the Presov, Michalovce, Vranov, and Toplou districts. As of 5 October 2023, 1 017 cases have been reported since January 2023. Between 2 and 8 October 2023, 136 new cases of viral hepatitis A were reported. Most cases are among children in the age groups of 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 visits to cases admitted to hospitals.

The following measures have been implemented since August:

- Information to the public on hepatitis A virus and its prevention through leaflets or local radio;
- Mandating persons aged 1-15 years to undergo medical surveillance and active immunisation;
- Prohibition of organising and holding mass events (sports, cultural, social, etc.) 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, with several clusters reported in Kosice and Presov. Most clusters appear associated with person-to-person transmission, mostly amongst susceptible children in areas with sub-optimal sanitation. One news article reported that regional and local hospitals have a high number of hospitalised hepatitis A patients.

With the limited information available, ECDC considers the risk for susceptible children living in areas with sub-optimal sanitation in Slovakia as moderate. This is based on the high probability of infection and a low impact of HAV infection which is often asymptomatic or very mild in children.

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 CDTR: 10 October 2023

2. Influenza A(H5N1) – Multi-country (World) – Monitoring human cases

Overview:

Update: Two new human deaths due to avian influenza A(H5N1) infection were reported in Cambodia by the Ministry of Health on [8 October](#) and [9 October](#) 2023. One of the deceased cases is a 50-year-old man from Mreak Teab village, Romeas Haek district, Svay Rieng province, and the second case is a two-year-old girl from Chhmar Lot village, Kamchay Mear district, Prey Veng province. According to the MoH reports, dead backyard poultry were reported in the residential area of both cases, which are approximately 30 kilometres apart. There is no information on relation between the two cases available so far.

According to [media](#) reporting, the 50-year-old man and his neighbours have shred and consumed dead backyard poultry (50 chickens have died recently).

Contact tracing and laboratory investigation is ongoing.

This year Cambodia reported four cases, including three deaths due to A(H5N1). To date, there is no information regarding the clade of the virus. The previous two cases reported in February 2023 were in a child (death) and her father (recovered) after exposure to infected poultry with confirmed clade 2.3.2.1c. Overall, since 2005, Cambodia has reported 60 cases with avian influenza A(H5N1) infection, including 41 deaths.

Summary:

Globally, as of 10 October 2023, there have been 880 human cases*, including 460 deaths (case-fatality rate: 52.3%), of human infection with avian influenza A(H5N1) reported in 23 countries since 2004. To date, no human-to-human transmission has been detected.

**Note: includes six detections due to suspected environmental contamination and no evidence of infection reported in 2022 from Spain (2) and the United States (1) and in 2023 from the United Kingdom (3).*

Sources: [Facebook account of the MoH of Cambodia](#), [ECDC Avian influenza](#), [ECDC Avian influenza overview: Latest situation update of the avian influenza in EU/EEA](#), [MoH of Cambodia](#), [media report](#)

ECDC assessment:

Sporadic human cases of different avian influenza A(H5Nx) subtypes have previously been reported globally. Current epidemiological and virological evidence suggests that A(H5N1) viruses remain avian-like. Transmission to humans remains a rare event and no sustained transmission between humans has been observed.

Overall, the risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be low. The risk to occupationally exposed groups such as cullers has been assessed as low-to-medium. Direct contact with infected birds or a contaminated environment is the most likely source of infection, and the use of personal protective measures for people exposed to dead birds or their droppings will minimise the remaining risk. The recent severe cases in Asia and South America in children and people exposed to infected sick and dead backyard poultry underline the risk associated with unprotected contacts with infected birds in backyard farm settings. This would also suggest the expedience of using appropriate personal protective equipment.

Actions:

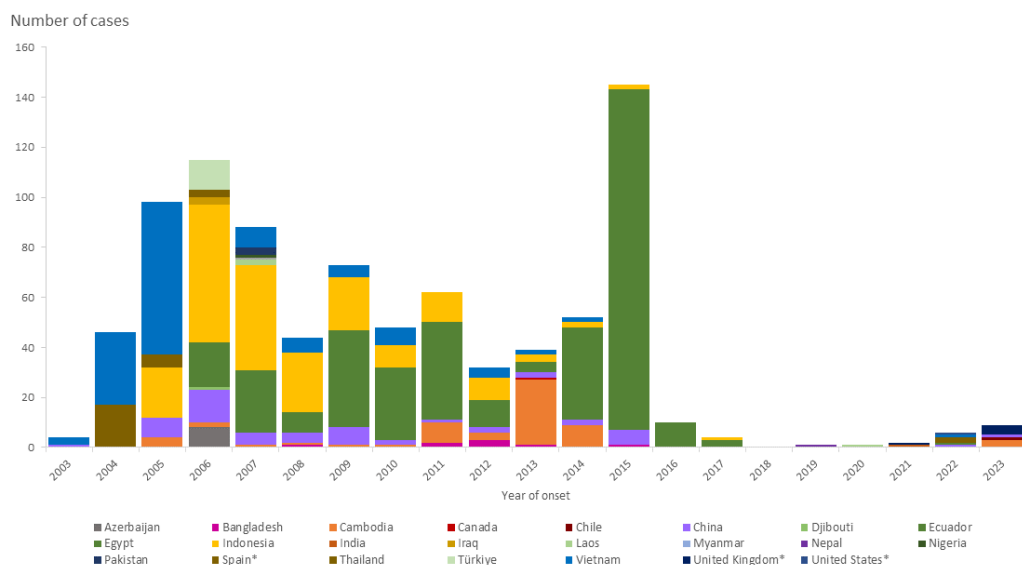
ECDC monitors avian influenza strains through its influenza surveillance programme and epidemic intelligence activities in collaboration with the European Food Safety Authority (EFSA) and the EU reference laboratory for avian influenza in order to identify significant changes in the virological characteristics and 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](#).

Further information:

Sources: [42877](#) | [_2023-E000065](#)

Last time this event was included in the CDTR: 10 October 2023

Figure 1. Distribution of confirmed human cases of avian influenza A(H5N1) virus infection by year of onset and country, 2003–2023 (updated on 10 October 2023, n=880)



*Includes six detections due to suspected environmental contamination and no evidence of infection reported in 2022 from Spain (2) and the United States (1) and in 2023 from the United Kingdom (3).

Source: ECDC

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

Overview:

Summary:

By the end of week 40 (ending 8 October 2023), rates of respiratory illness in the community remained elevated, driven in part by SARS-CoV-2 transmission. Increases in case counts continued to be reported, most notably among older age groups. This has translated into relatively small increases in hospital or ICU admissions and deaths in some EU/EEA countries.

Consultation rates of patients presenting to sentinel general practitioners with respiratory illness (influenza-like illness (ILI)/acute respiratory infection (ARI)) increased overall in over half of reporting countries. The increases observed among young children in recent weeks appear to be slowing. In general, rates remain at similar levels to those observed in the same period last year. In the past two weeks, eight countries reported at least 10 weekly sentinel tests, with an average weekly SARS-CoV-2 positivity between 4.4% and 33.6%.

Data from 18 countries reporting age-specific data on positive COVID-19 tests taken outside sentinel systems indicate increases in transmission affecting all age groups, with the most affected being those aged 65 years and above. Increases for up to 12 weeks were observed by seven of 18 countries reporting data. As the oldest age groups have the highest risk of severe disease, these figures highlight the importance of continuing to monitor disease and implement protective measures in older age groups.

The impact on severe disease remained quite limited. Of 12 countries with data on hospital or ICU admissions/occupancy up to week 40, two reported an increasing trend in at least one of these indicators compared with the previous week. Although levels remain relatively low, increases in death rates for up to five weeks were reported in those aged 65 years and above by five of 13 countries with age-specific death data.

Among the 17 countries reporting at least 10 results from SARS-CoV-2 sequencing or genotyping for weeks 38–39 (18 September to 1 October 2023), the estimated distribution of variants of concern (VOCs) or variants of interest (VOIs) was 66.2% (7.1–98.0% from 17 countries) for XBB.1.5+F456L, 29.9% (2.0–92.9% from 17 countries) for XBB.1.5, 2.6% (0.3–7.4% from 15 countries) for BA.2.75 and 1.9% (0.5–7.3% from 5 countries) for XBB.

Weekly update on SARS-CoV-2 variants:

Since the last update on 28 September 2023, and as of 13 October 2023, no changes have been made to ECDC's classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs) or de-escalated variants.

XBB.1.5-like + F456L lineages currently dominate the global and EU/EEA SARS-CoV-2 variant landscape. As of 9 October 2023, the 14 EU/EEA countries reporting at least 10 sequences to GISAID EpiCoV for week 38 (18–24 September 2023) showed the following proportions of XBB.1.5-like + F456L lineages: Austria (68%), Belgium (61%), Denmark (62%), Finland (58%), France (59%), Germany (69%), Iceland (98%), Ireland (73%), Italy (66%), the Netherlands (53%), Norway (61%), Slovenia (43%), Spain (68%) and Sweden (68%). The overall proportion of XBB.1.5-like + F456L lineages plateaued in the EU/EEA with slower increasing trends observed in the past weeks.

XBB.1.5-like+L455F+F456L variants show increasing trends with median proportion of 4,95% in EU/EEA countries (range:0-13%). The lineages mainly present in this umbrella are HK.3 lineages, GK* 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 compared to XBB.1.5-like+F456L variants and XBB.1.5-like+L455F variants. Virtually all of the lineages are already included in the existing VOIs XBB.1.5-like+F456L and BA.2.75 but monitoring specifically as VUM.

The combination of these mutations is also seen increasing in BA.2.75 background, **DV.7.1** variants that carry these mutations, L455F and F456L have seen with increased detections. These are circulating in the median 2,55% (range: 0-8,8%).

BA.2.86 is an emerging SARS-CoV-2 lineage characterised by a high number of spike mutations that are distinct from ancestral BA.2 and currently circulating XBB-derived variants. BA.2.86 is circulating in low proportions in the EU/EEA, (median 0.3% in EU/EEA countries and up to 6% in Denmark). In the last two weeks a slight increase in **JN.1** sequences, a sub-lineage of BA.2.86 has been observed, although the numbers have been low. JN.1 sequences carry an additional Spike L455S mutation compared to BA.2.86

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 constituted 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](#), [thirteenth](#) and [fourteenth](#) 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, 13 October 2022 and 27 January 2023, respectively. The Committee concluded during these meetings that the COVID-19 pandemic continues to constitute a PHEIC.

In the [fifteenth](#) IHR Emergency Committee meeting held in Geneva on 4 May 2023, the Director-General of WHO agreed with the [advice](#) offered by the Committee and determined that COVID-19 is no longer a public health emergency of international concern (PHEIC).

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

Please refer to the [data reported by the World Health Organization \(WHO\)](#) on COVID-19 and [WHO's Weekly Epidemiological Updates and Monthly Operational Updates](#) page for non-EU/EEA countries.

ECDC assessment:

SARS-CoV-2 continues to circulate in the EU/EEA with varying intensity. The epidemiological picture in the EU/EEA over the past 12 months has been characterised by periodic waves of infection, approximately every two to three months, with an overall downward trend in the height of the associated peaks in reported cases, hospitalisations, ICU admissions and deaths during this period. The emergence of new variants of concern or population immunity waning over time may have an impact on the epidemiological situation in the future.

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

Actions:

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

For EU/EEA- and country-specific epidemiological trends and forecasts, visit ECDC's [Country Overview Report](#) (updated on Fridays). In addition to the actions described in the latest [COVID-19 risk assessments](#), ECDC published guidance entitled [Interim public health considerations for COVID-19 vaccination roll-out during 2023](#) on 5 April 2023 to support countries with vaccination strategy decision-making. This guidance aims to offer advice on the optimal timing and targeting of vaccination campaigns in order to limit the continuing burden of disease experienced by older population groups (those aged 60 years and above), individuals with underlying medical conditions and other selected groups. It complements the previous guidance, [Long-term qualitative scenarios and considerations of their implications for preparedness and response to the COVID-19 pandemic in the EU/EEA](#), published in August 2022, to support country preparedness activities in the post-acute phase of the COVID-19 pandemic.

Last time this event was included in the CDTR: 6 October 2023

4. Mass gathering monitoring – Rugby World Cup 2023, France

Overview:

The [Rugby World Cup 2023](#) (RWC) is taking place in France from 8 September to 28 October 2023, with matches played in nine venues across 10 host cities. In total, 20 teams are participating, including teams from four EU/EEA countries, and there will be 48 matches. The participating teams are from France, New Zealand, Italy, Uruguay, Namibia, South Africa, Ireland, Scotland, Tonga, Romania, Wales, Australia, Fiji, Georgia, Portugal, England, Japan, Argentina, Samoa, and Chile. The games are taking place in nine stadiums across the country in Bordeaux, Lille, Lyon, Marseille, Nantes, Nice, Saint Denis, Saint-Saint-Étienne, and Toulouse. The capacity of the stadiums ranges from 33 103 in Stadium de Toulouse to 80 023 in Stade de France, Saint Denis, where the final matches will be played.

More than 600 000 international visitors are expected to visit France for the Rugby World Cup, with over 2.5 million tickets sold, according to a [media report](#). Over half the international visitors are from the United Kingdom (UK), followed by Australia, the Netherlands, New Zealand, and other countries.

As with other sporting events and large gatherings, crowding and high-risk behaviour with prolonged close contact may occur both inside and outside of the hosting venues. Participants and spectators are therefore encouraged to follow a list of recommendations, as described in [ECDC's weekly CDTR report for week 36](#).

Weekly monitoring update

On 10 October 2023, the Auvergne-Rhône-Alpes Regional Health Agency [reported](#) 13 additional cases of measles detected in the past week. Overall, 44 persons have been diagnosed with measles, including one hospitalisation, between 19 September and 10 October 2023. Most of the cases are students in the middle school in Guilhaud-Granges (Ardèche) and several students from three primary schools. Outbreak investigation is ongoing. More details are provided under monthly measles overview this week.

Although no cross-border measles transmission events have been reported related to this outbreak to date, ECDC does not yet have the full information to assess the risk of spread into the larger community of attendants to the sporting events.

No new cross-border public health events related to the RWC have been detected between 7 and 13 October 2023.

Other events of interest

No other events of interest have been detected this week.

ECDC assessment:

The risk for EU/EEA citizens of infection with communicable diseases during the Rugby World Cup 2023 is considered low if preventive measures are applied. As with other mass gathering events, the risk of communicable disease outbreaks is greatest for respiratory, food- and waterborne diseases, and vector-borne diseases.

Actions:

ECDC is monitoring this event through its epidemic intelligence activities for mass gatherings between 4 September and 3 November 2023 in collaboration with the French authorities, and will include weekly updates in the Communicable Disease Threats Report (CDTR).

Last time this event was included in the CDTR: 6 October 2023

5. West Nile virus One Health seasonal surveillance – 2023

Overview:

This is the 20th weekly update of the 2023 West Nile virus (WNV) monitoring season.

Since last week's update, and as of 11 October 2023, European Union (EU) and European Economic Area (EEA) countries reported 33 human cases of West Nile virus (WNV) infection and three deaths related to WNV infections. Cases were reported by Romania (13), Italy (12, of which 1 with unknown place of infection), Greece (4), Spain (3), and Hungary (1). Deaths were reported by Greece (1), Romania (1) and Spain (1). Three human cases of WNV infection were reported from EU-neighbouring countries (all three by Serbia). No deaths related to WNV infections were reported by EU-neighbouring countries.

This week, among the reporting countries, the following NUTS 3 or GAUL1 regions have reported autochthonous human cases of WNV infection for the first time: Toledo in Spain and Gorj in Romania.

This week, among the reporting countries, the following NUTS 3 or GAUL1 regions have reported autochthonous human cases of WNV infection for the first time since the start of this season: Toledo in Spain, Békés in Hungary, Pordenone in Italy, and Gorj in Romania.

Since the beginning of the 2023 transmission season, and as of 11 October 2023, EU/EEA countries have reported 632 human cases of WNV infection in Italy (307, of which 1 with unknown place of infection), Greece (157, of which one with unknown place of infection), Romania (81), France (33), Hungary (29), Spain (14), Croatia (6), Germany (4) and Cyprus (1). EU/EEA countries have reported 50 deaths, in Greece (20), Italy (18), Romania (10), and Spain (2). EU-neighbouring countries have reported 88 human cases of WNV infection, in Serbia (87) and North Macedonia (1). No deaths related to WNV infections were reported by EU-neighbouring countries.

During the current transmission season, within the reporting countries, autochthonous human cases of WNV infection were reported from 128 different NUTS 3 or GAUL 1 regions, of which the following regions reported autochthonous human cases of WNV infection for the first time ever: Gironde, Charente-Maritime, Alpes-Maritimes, Charente and Haute-Corse in France, Sömmerda in Germany, Kastoria and Ioannina in Greece, Imperia, Taranto, Lecce, Cosenza and Bari in Italy, Gorj in Romania, and Huelva, Valencia/València, Barcelona, Cáceres, and Toledo in Spain.

Since the beginning of the 2023 transmission season, 93 outbreaks among equids and 209 outbreaks among birds have been reported by EU/EEA countries. Outbreaks among equids have been reported by Spain (32), Hungary (25), Italy (17), France (10), Germany (7), Austria (1) and Portugal (1). Outbreaks among birds have been reported by Italy (161), Germany (18), Spain (17), Bulgaria (6), Hungary (3), France (2), Austria (1), and Greece (1).

Please refer to the [West Nile virus infection webpage](#) for maps and a dashboard.

Sources: The European Surveillance System (TESSy), Animal Disease Information System (ADIS)

ECDC assessment:

Toledo in Spain and Gorj in Romania reported cases among humans for the first time. Neighbouring regions to these had reported cases in humans in the current or past years.

As the weather conditions are becoming less favourable for vector-borne transmission in most of the affected areas, the intensity of WNV circulation is expected to decrease in the coming weeks.

The combined totals from Italy and Greece account for 73% of all reported autochthonous cases. This follows the trend observed in 2022 when Italy and Greece reported the highest number of cases.

In accordance with the [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 WNV transmission seasons, ECDC publishes a dashboard and an epidemiological summary every Friday.

Further information:

Data on human cases of WNV are collected via The European Surveillance System (TESSy), managed by ECDC. Imported cases are not included in this report. The following EU-neighbouring countries reported 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.*

Last time this event was included in the CDTR: 6 October 2023

6. Measles – Multi-country (World) – Monitoring European outbreaks

Overview:

From 1 January to 31 August 2023, a total of 721 measles cases were reported by 19 countries to The European Surveillance System (TESSy), with the majority of cases being reported by Romania (402), Austria (154), Belgium (32), Germany (28), Poland (28), France (25), Italy (11), and Sweden (11). The remaining countries with reported cases (Denmark, Estonia, Finland, Hungary, Ireland, Latvia, Liechtenstein, the Netherlands, Norway, Slovakia, and Spain) have reported fewer than 10 cases in 2023. Eleven countries have reported zero measles cases in 2023. Detailed data are available in [ECDC's Surveillance Atlas of Infectious Diseases](#).

Complementary epidemic intelligence surveillance data collected between 9 and 10 October 2023 from official public and media sources detected 595 new suspected and/or confirmed cases of measles. These were reported in 10 EU/EEA countries over the past months: Austria (3), France (44), Germany (9), Hungary (1), Ireland (2), Italy (11), Poland (5), Romania (513), Sweden (5), and Norway (2). New or ongoing outbreaks have been reported in Austria, France, Germany, and Romania. No other countries reported new cases or provided updates for previous periods.

To date in 2023, no measles-related deaths have been reported in the EU/EEA.

Relevant updates for outside the EU/EEA are available for England (the UK), Switzerland, Ukraine, and all the WHO Regions.

Disclaimer: *The [monthly measles report published in the CDTR](#) provides the most recent data on cases and outbreaks based on information made publicly available by the national public health authorities or the media. This report is a supplement to [ECDC's monthly measles and rubella monitoring report](#), based on data routinely submitted by 29 EU/EEA countries to TESSy. Data presented in the two monthly reports may differ.*

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

Austria reported 157 cases of measles in 2023, according to national report data as of 9 October 2023, an increase of three cases since the CDTR report on 5 September 2023. The recent cases have been reported from Vienna, which reported 37 cases this year. Styria has been the mostly affected region, with 105 cases reported

since the beginning of the outbreak in week 4 2023. However, since week 26, an outbreak with 37 cases has been reported in Vienna. The most recent measles case in Austria was reported in week 37.

France: the **Regional Health Agency of Auvergne-Rhône-Alpes** has reported an ongoing outbreak of measles in Guilhaud-Granges, Ardèche. Since the first reports involving several students in a secondary school in Guilhaud-Granges on 19 September 2023, and as of 10 October 2023, 44 cases, mainly children, have confirmed measles diagnosis. Of the reported cases, majority are from the same secondary school, other children are from three primary schools in the area. One child was hospitalised. The children from secondary school are from different classes, and some attend several sport clubs in the surroundings of the Ardèche and Drôme departments. The local authorities have implemented active contact tracing, raised awareness among the general public in affected areas, and are informing different stakeholders on preventive measures, including the monitoring of symptoms and checking of vaccination status. According to TESSy data, France reported 25 measles cases from January to August 2023.

Vaccination coverage for measles containing vaccine in the **Ardèche department** (07) has been around 85% for the first dose and lower for the second dose. Two doses of MMR-containing vaccine are compulsory in France for children born on and after 1 January 2018. The first dose is injected at 12 months of age and the second dose between 16 and 18 months.

Germany has reported 107 suspected and confirmed cases as of 10 October 2023, an increase of nine cases since week 35 (ending 3 September 2023). In addition, according to a **media report** on 27 September 2023, an outbreak of measles was reported in a refugee center in Berlin, resulting in a quarantine for three weeks of about 600 asylum-seekers after two children were diagnosed with measles. Other measures included mask-wearing, regular medical check-ups, and vaccination.

Hungary has reported four cases in 2023 as of 9 October 2023, an increase of one case since 4 August 2023.

Ireland has reported eight cases as of week 39 (ending 30 September 2023), an increase of two cases since the report for week 34 (ending 27 August 2023).

Italy: since January 2023, and as of 10 October 2023, 11 cases of measles were reported from Italy, nine of which were laboratory-confirmed and two classified as possible cases. The 11 cases were reported by nine Regions/Autonomous Provinces.

Poland reported 30 cases in 2023 as of 30 September, an increase of five cases since 31 July 2023.

Romania is experiencing an ongoing outbreak of measles. Between 1 January and 5 October 2023, 920 confirmed measles cases and no deaths have been reported in 18 counties and the Municipality of Bucharest. Most of the cases are reported in Mureş county (48%, n=445), followed by Cluj (n=171) and Braşov (n=110) counties. The vast majority of the cases are in unvaccinated children from 0 to 19 years of age (83.6%, n=769), including 112 children under one year old (12%) who are not eligible for vaccination. Overall, 57 cases received one dose, and two-dose vaccination was reported in 24 cases. Vaccination status was unknown for eight cases. The peak of the outbreak with over 80 cases was reported in week 34 (ending 27 August 2023). **A recent publication** provides a description of the outbreak in which a D8 virus genotype was identified – different from the variants detected in Romania before the COVID-19 pandemic. Vaccination coverage in Romania with MMR was low in the recent years – MMR coverage with first dose reaching 62% in 2022 and 78% in 2023.

Sweden has reported 11 cases as of 10 October 2023, an increase of five cases since 6 September 2023. Of the reported cases, six cases were imported.

Norway has reported two cases in 2023 as of 10 October.

Relevant epidemiological summary for countries outside the EU/EEA:

England (the UK) has reported 141 laboratory confirmed measles cases in England from 1 January to 31 July 2023. Of the reported cases, 60% (n=85) have been in London. At least one case has been reported in all regions. Children under 10 years of age accounted for 58% of the cases and 23% of the cases were in teenagers and young people aged 15 to 34 years. Thirty-two cases (23%) were imported and other cases were locally acquired.

Ukraine has reported 13 new cases in August 2023 based on the most recent **report**. Overall, 43 cases have been reported in Ukraine in 2023.

According to the **WHO provisional monthly** reporting data for January to August* 2023 (data access 10 October 2023), in Regional Office for Europe (WHO EUROPE) overall 12 314 cases were reported in the region, of which 11

632 were in the following non-EU/EEA countries: Albania (3), Armenia (373), Azerbaijan (4), Belarus (35), Bosnia and Herzegovina (3), Georgia (13), Israel (2), Kazakhstan (2 881), Kyrgyzstan (1 527), the Republic of Moldova (1), North Macedonia (1), Russia (2 858), Tajikistan (482), Türkiye (2 901), Ukraine (31), Serbia (48), Switzerland (29), the United Kingdom (129), and Uzbekistan (311).

**data are incomplete*

The numbers provided to WHO for EU/EEA countries are from TESSy data, updated monthly are partially described in this report and are available in [ECDC Surveillance Atlas of Infectious Diseases](#).

According to the World Health Organization Regional Office for Africa ([WHO AFRO](#)), as of 17 September (week 37, 2023), cases and outbreaks of measles in 2023 were reported in the following countries: Cameroon, the Central African Republic, Chad, the Democratic Republic of the Congo (DRC), Ethiopia, Kenya, Liberia, Mali, Mauritania, Niger, Senegal, South Africa, South Sudan, and Zambia. Due to varying reporting periods by the countries, please visit the latest available weekly bulletin.

A measles outbreak is ongoing in DRC with 234 825 suspected measles cases, including 4 415 deaths (CFR 1.9%) reported in 2023 as of 3 September.

South Africa has reported a total of 1 171 laboratory-confirmed cases from 8 October 2022 to 18 September 2023. The cases have been reported from eight provinces with declared measles outbreaks in Limpopo (523 cases), Mpumalanga (115 cases), North West (221 cases), Gauteng (206 cases), KwaZulu-Natal (39), Free State (33 cases), Western Cape (18), and Northern Cape (7).

South Sudan has reported 5 774 suspected measles cases, including 436 laboratory-confirmed cases and 142 deaths (CFR 2.5%) in 2023 as of week 33 (ending 20 August). These cases represent the continuation of the outbreak that was officially declared by health authorities on 23 February 2022. Zambia has continuing outbreaks in Lusaka, North-western and Southern provinces affecting several districts, with 3 715 measles cases reported overall, including 31 deaths, as of 12 August 2023.

In addition, the [media](#) reports increased child mortality in Sudan in the past two months following outbreaks of measles, especially affecting southern refugee camps. Measles cases have been reported in eight states. Vaccination campaigns are ongoing in the country.

According to the WHO Pan American Health Organization ([WHO PAHO](#)) report in 1-38 week 2023 ([ending 23 September 2023](#)), 30 cases were reported by three countries: Canada (7), the United States (22), and Chile (1).

According to a WHO Western Pacific Region ([WPRO](#)) report for August 2023 ([Vol 17, Issue 9](#)), overall, 2 374 confirmed and clinically compatible cases (including 1 077 laboratory-confirmed cases), and no deaths have been reported by:

Australia (18), Hong Kong SAR (2), Japan (24), New Zealand (3), the Republic of Korea (2), Singapore (8), Cambodia (8), China (424), Laos (1), Malaysia (574), Papua New Guinea (12), the Philippines (1 238), and Vietnam (59).

According to the updated data in the [WHO Provisional monthly measles and rubella data](#) from January to August (data access on 10 October 2023), the WHO Eastern Mediterranean region (EMRO) reported an overall 50 928 cases across all 21 countries. Most of the cases were reported in the following five countries: Yemen (26 652), Pakistan (11 557), Iraq (3 751), Somalia (2 711), and Afghanistan (2 051). WHO South-East Asia region (SEARO) reported 69 681 cases of measles in 10 countries: India (61 555), Indonesia (6 847), Nepal (1 013), Bangladesh (139), Thailand (57), Sri Lanka (49), Myanmar (11), Bhutan (6), Maldives (3), and Timor-Leste (1).

ECDC assessment:

Since 1 January 2023, EU/EEA countries have reported either sporadic cases or outbreaks of measles, following a period of unusually low activity during the COVID-19 pandemic. The substantial decline in cases of measles reported by EU/EEA countries from March 2020 until the end of 2022 is in contrast to the usual annual and seasonal pattern for measles, which peaks during the spring in temperate climates.

Despite some measles outbreaks being reported in 2023 (in Austria and Romania), the majority of EU/EEA countries are still reporting only sporadic measles cases and the overall number of measles cases in the EU/EEA in 2023 remains low.

Active measles surveillance and public health measures, including high vaccination uptake, provide the foundation for a proper response to possible increases in the number of cases/outbreaks.

Actions:

ECDC is monitoring the measles situation through its epidemic intelligence activities, which supplement monthly outputs with measles surveillance data from TESSy routinely submitted by 29 EU/EEA countries. ECDC's latest advice on measles, '[Who is at risk of measles in the EU/EEA?](#)', was published on 28 May 2019.

Last time this event was included in the CDTR: 11 October 2023

7. Monthly diphtheria epidemiological monitoring in the EU/EEA – 2023

Overview:

Summary: From the beginning of 2023, and as of 10 October 2023, 92 cases of diphtheria have been reported in the EU/EEA through The European Surveillance System (TESSy). Cases have been reported in Germany (57), the Netherlands (13), Belgium (6), Czechia (6), Latvia (3), Slovenia (3), Norway (1), Slovakia (1), Spain (1), and Sweden (1).

Since the previous update on 10 September 2023, one additional Member State (Spain) has reported confirmed diphtheria cases for the first time in 2023 (n=1).

This represents an increase of 18 cases since the previous update on 10 September 2023. The new cases have been reported from Germany (13), the Netherlands (3), Czechia (1), and Spain (1).

Among all the cases reported in 2023, 66 cases were caused by *Corynebacterium (C.) diphtheriae* and the remaining 26 cases were caused by *Corynebacterium (C.) ulcerans*. Seventy-eight of the 92 cases had a cutaneous clinical presentation. These cases were from Germany (52), the Netherlands (10), Czechia (5), Belgium (3), Slovenia (3), Latvia (1), Norway (1), Slovakia (1), Spain (1), and Sweden (1). Twelve cases had a respiratory presentation. These cases were from Belgium (3), Germany (5), Latvia (2), the Netherlands (1), and Czechia (1). Two cases had a cutaneous and respiratory presentation (the Netherlands). In 2023, and as of 10 October, two fatal cases – Belgium (1) and Latvia (1) – have been reported in the EU/EEA. Both the fatal cases were attributable to *C. diphtheriae* infections and had a respiratory presentation.

Among the 92 cases of diphtheria reported in 2023, 23 cases were classified as imported, from Afghanistan (8), Syria (4), Croatia (1), Ethiopia (1), Indonesia (1), the Philippines (1), Slovenia (1), and Thailand (1), and for five the origin of importation was unknown. Seven cases were reported as import-related. Thirty-two cases were not imported, and the importation status was unknown for 30 cases.

In 2022, 234 cases of diphtheria, including two deaths, were reported to TESSy in the EU/EEA. Cases were reported in Germany (171), Belgium (31), Slovakia (8), Norway (8), the Netherlands (6), Czechia (5), Sweden (4) and Spain (1). Among the cases reported in 2022, 202 cases of diphtheria, including one death, were attributable to *C. diphtheriae* and 32 cases, including one death, were attributable to *C. ulcerans*. Of 234 cases, 202 had a cutaneous clinical presentation, 17 had a respiratory presentation, two had a cutaneous and respiratory presentation, three had a nasal presentation, four had another clinical presentation, and for six cases the clinical presentation was unknown. Among the 234 cases reported, 91 were classified as imported cases from Afghanistan (25), Syria (12), Serbia (8), Bulgaria (4), Czechia (4), Austria (3), Türkiye (3), Bosnia and Herzegovina (1), Congo (1), France (1), Latvia (1), Nigeria (1), Poland (1), Slovakia (1), Sudan (1), Switzerland (1), Ukraine (1), and for 22 cases the origin of importation was unknown.

Since September 2022, and as of 10 October 2023, 279 cases of diphtheria, including three deaths, have been reported to TESSy in the EU/EEA.

ECDC has no information on community transmission or outbreaks of diphtheria in the broader EU/EEA population as a result of the increased number of diphtheria cases observed since the second half of 2022.

Other news: From 2 January to 5 September 2023, the [United Kingdom Health Security Agency](#) (UKHSA) reported 11 confirmed cases of diphtheria among asylum-seekers in England, an increase by seven cases reported in September 2023.

From 1 January to 4 September 2023, [Switzerland's Federal Office of Public Health](#) reported 17 confirmed cases of diphtheria in the country, an increase by two cases since the previous monthly report.

Disclaimer: The monthly diphtheria epidemiological monitoring report **published in the CDTR** provides the most recent data on cases and outbreaks, based on information made publicly available by national public health authorities or the media in the EU/EEA, and detected during epidemic intelligence screening activities. This report also includes the data routinely submitted by 29 EU/EEA countries to TESSy.

Background: As of 10 October 2023, 92 cases of diphtheria, including two deaths, have been reported in the EU/EEA through TESSy in 2023. Cases were reported in Germany (57), the Netherlands (13), Belgium (6), Czechia (6), Latvia (3), Slovenia (3), Norway (1), Slovakia (1), Spain (1), and Sweden (1). The deaths were reported in Belgium (1) and Latvia (1). Among all the cases reported in 2023, 66 cases, including two deaths, were caused by *C. diphtheriae*, and the remaining 26 cases were caused by *C. ulcerans*.

In 2022, 234 cases of diphtheria, including two deaths, were reported to TESSy in the EU/EEA. Among the cases reported in 2022, 202 cases of diphtheria, including one death, were attributable to *C. diphtheria*, and 32 cases of diphtheria including one death were attributable to *C. ulcerans*.

Following the increase in cases of diphtheria in migrants during the second half of 2022, ECDC adapted the TESSy metadata to allow for the reporting of additional variables, such as the country of origin of the case, whether it is part of an ongoing cluster of cases, and whether the case shows resistance to antibiotic treatment. This is seen as a regular update of the metadata for routine diphtheria reporting, even after the end of the current outbreak. The uploading of data on cases linked to the ongoing outbreak in migrants should be prioritised. The mechanism to monitor the outbreak is the reporting of all cases of diphtheria to TESSy on a monthly basis by the last day of each month. The data uploaded to TESSy will be published both in ECDC's online **Surveillance Atlas of Infectious Diseases** and in ECDC's Communicable Disease Threats Report (CDTR) on a monthly basis.

ECDC assessment:

Diphtheria is a rare disease in EU/EEA countries. According to the **World Health Organization/United Nations Children's Fund (WHO/UNICEF)**, the estimates of immunisation coverage for diphtheria/tetanus/toxoid and pertussis (DTP3) in 2022 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, as per national recommendations. The occurrence of the disease in fully-vaccinated individuals is very rare.

The increase in cases of diphtheria among migrants reported since the second half of 2022 in several EU/EEA countries is unusual and needs to be carefully monitored alongside the implementation of necessary public health measures to avoid the occurrence of more cases and further spread.

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

Recent scientific communications have reported the occurrence of isolates showing a genomic profile suggestive of antimicrobial resistance in **Switzerland** and **Germany**. **These findings** are preliminary and more evidence would be needed to assess the potential implications of these observations, including the adaptation of the currently recommended antibiotic treatment regimes. Nevertheless, similar observations in other European countries cannot be ruled out, and in view of these developments ECDC recommends that antimicrobial susceptibility testing is performed on all *C. diphtheriae* isolates as a precautionary measure.

Actions:

ECDC continues to monitor the diphtheria epidemiological situation in Europe and will provide monthly updates. The latest available information can be found on **EpiPulse**, the **Surveillance Atlas of Infectious Diseases**, and in **ECDC's CDTR**.

Last time this event was included in the CDTR: 11 October 2023