

WEEKLY BULLETIN

Communicable Disease Threats Report

Week 37, 10 - 16 September 2023

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Executive summary

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

- By the end of week 36 (ending 10 September 2023), there was a decrease in COVID-19 cases at the EU/EEA level, which is an inversion of the increasing trend observed in the previous weeks. Of 19 countries reporting data, seven reported an increase in COVID-19 cases. However, the impact on severe disease and mortality remained limited.
- As of 24 August 2023, BA.2.86 was added as a variant under monitoring (VUM). As of 11 September, there have been 102 detections of BA.2.86 from six countries within the EU/EEA and nine countries outside EU/EEA. In addition, this variant has been reported in wastewater samples in the United States, Switzerland and Thailand. BA.2.86 has a high number of spike mutations that are distinct from ancestral BA.2 and currently circulating XBB-derived variants. Phylodynamic analysis indicates that BA.2.86 emerged recently (various unpublished analyses indicate the last common ancestor of BA.2.86 emerging between May and July 2023). Given that by August 2023 BA.2.86 has been detected in several countries in different regions, with no known epidemiological link to a common source, it may be associated with an elevated growth rate compared to current circulating variants, although there is a high degree of uncertainty involved. The mechanism of any growth advantage probably includes immune escape, as BA.2.86 carries many spike changes compared with the XBB.1.5-like variants that have been dominant recently, and also compared with previous Omicron variants.

- As of 10 August 2023, ECDC classified all **XBB.1.5-like lineages with additional spike protein change F456L** as variants of interest (VOI). This includes lineages EG.5, FL.1.5.1, XBB.1.16.6 and FE.1, among others. The reason for this classification is the rapid increase in proportion of these lineages within the EU/EEA, together with a slight increase in epidemiological indicators. The reason ECDC is not singling out EG.5 within the group is that other 456L-lineages also exhibit elevated growth rates, and the likely source of the elevated growth rate is the F456L change itself.
- As of 11 September 2023, the 13 EU/EEA countries reporting at least ten sequences to GISAID EpiCoV for week 34 (22 to 28 August 2023) showed the following proportions of XBB.1.5-like + F456L lineages: Austria (62%), Belgium (60%), Denmark (64%), Finland (66%), France (60%), Germany (53%), Iceland (71%), Ireland (67%), Italy (60%), Luxembourg (59%), Netherlands (62%), Spain (59%) and Sweden (58%). The overall trend for the variant proportion is increasing.

Monthly diphtheria epidemiological monitoring in the EU/EEA - 2023

- Since the beginning of 2023 and as of 12 September, 74 cases of diphtheria have been reported in the EU/EEA through The European Surveillance System (TESSy). Cases have been reported in Germany (44), the Netherlands (10), Belgium (6), Czechia (5), Latvia (3), Slovenia (3), Norway (1), Slovakia (1), and Sweden (1). This represents 17 additional cases since the previous update on 8 August.
- Among the 74 cases reported, nine presented with respiratory disease, 63 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 (Slovenia) has reported three cases of diphtheria in 2023, since the previous update in August.
- Since September 2022 and as of 12 September 2023, there have been 256 cases of diphtheria and 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.

West Nile virus One Health seasonal surveillance - 2023

- Since the last update and as of 13 September 2023, 31 human cases of West Nile virus (WNV) infection have been reported by EU/EEA countries and eight by an EU-neighbouring country.
- Since the beginning of the 2023 transmission season, 417 human cases of WNV infection have been reported by EU/EEA countries and 70 by EU-neighbouring countries.
- There have been 37 outbreaks among equids and 134 outbreaks among birds reported by EU/EEA countries since the beginning of the 2023 WNV transmission season, as of 13 September 2023.

Avian influenza in fur farms - Finland - 2023

- As of 13 September 2023, the Finnish Food Authority ordered the euthanasiation of all foxes and raccoon dogs in farms with confirmed avian influenza A(H5N1) virus.
- Sequencing analyses of avian influenza virus isolated from fur farms suggest a possible spread from birds (gulls) to mammals, and also potentially between mammals at affected fur farms.
- Since 13 July 2023 and as of 13 September 2023, the avian influenza A(H5N1) virus has been detected in 26 fur farms in Ostrobothnia region, Finland.
- 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 people. According to the [Finnish Institute for Health and Welfare \(THL\)](#), those exposed should be monitored for 10 to 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-infected animals as low-to-moderate.

Autochthonous cases of dengue - France - 2023

- In the 2023 transmission season three clusters of autochthonous dengue virus transmissions have been identified so far in mainland France.
- As of 6 September, France reported two additional autochthonous cases of dengue virus infection: one in a patient residing in Nice in the Alpes-Maritimes department who had visited Castellet and La Garde, Var department, Provence-Alpes-Côte d'Azur region; and another one in Perpignan, Pyrénées Orientales department, Occitania region.

- As of 28 August, France reported four autochthonous cases of dengue virus infection in patients residing in Gardanne, Bouches-du-Rhône department, Provence-Alpes-Côte d'Azur region.
- Response and control measures are being implemented by the French public health authorities. These include vector control, information to healthcare providers and the general public, and door-to-door surveys.
- Further cases connected to this transmission event or autochthonous secondary transmission from imported cases of dengue in other areas cannot be excluded.

Autochthonous dengue cases - Italy - 2023

- Since the first week of August and as of 11 September 2023, [19 locally acquired dengue fever cases](#) have been detected in the Lombardy (14) and Lazio (5) regions in Italy.
- The cases are grouped in three clusters in the province of Lodi, Lombardy region (14), in the metropolitan city of Rome (3) and in the province of Latina (2), Lazio region.
- Symptom onset for the first case dates back to 2 August 2023.
- Response and control measures are being implemented by Italian public health authorities. These include case finding, vector control activities, information to healthcare providers and the general public, and preventive measures for donors of substances of human origin (e.g. blood and organs).
- Further autochthonous cases may occur in the affected regions, and in Italy overall, and surveillance has been strengthened to detect new cases early, identify transmission chains, define areas at risk and quantify the level of risk.
- Since the mosquito vector *Aedes albopictus* is established in most of Europe, further virus introductions leading to secondary autochthonous transmissions may occur in most of the southern countries of the EU/EEA.

Legionnaires' disease - Poland - 2023

- The latest epidemiological update published on 15 September reports 164 confirmed cases and 25 deaths.
- The majority of cases reside in Rzeszów city (112) and Rzeszów powiat (38) in Podkarpackie province in south-eastern Poland.
- Epidemiological and microbiological investigations are still ongoing to identify the source of this outbreak.

Mass gathering monitoring - Rugby World Cup 2023

- ECDC is monitoring the Rugby World Cup 2023 through its epidemic intelligence activities from 4 September to 3 November 2023, reporting on a weekly basis.
- One event of public importance has been detected in relation to the event during the period 9-15 September 2023 - an outbreak of botulism in Bordeaux, France.

Cutaneous anthrax - Romania - 2023

- Three human cases of cutaneous anthrax were reported in Târgu Mureş county, Romania at the end of August 2023.
- All cases participated in the slaughtering of infected cattle and meat cutting in a local town. The meat was consumed locally and not sold on.
- No new cases have been detected among an additional group of 20 people who are known to have been in contact with the infected meat.
- Although there is a low risk of infection for the population of the affected area, there is no risk to the EU/EEA in relation to this outbreak.

Pertussis - Denmark - 2023

- A pertussis epidemic has been declared in Denmark with 1 229 cases reported in 2023.
- In response to this event, Danish authorities are offering free vaccination to pregnant women during their second and third trimester of pregnancy.
- Furthermore, the Danish Health and Medicines Authority has recommended routine vaccination of pregnant women against pertussis from now on.

Botulism - France - 2023

- Fifteen people have been diagnosed with suspected botulism in Bordeaux, France, one of whom has died. At least, ten have been hospitalised and eight admitted to ICU.
- Botulism type B toxin has been identified in serum samples of some of the cases, and the sardines that were tested are positive for type B *Clostridium botulinum*.
- All patients reported eating at the same restaurant, which served locally produced preserved sardines, confirmed as the vehicle of infection.
- The patients include individuals of American, British, Canadian, English, French, German, Irish and Spanish nationalities.
- The product has been immediately removed and control measures are being applied at the restaurant.

- Based on the current information, the risk of infection for EU/EEA citizens is considered low, although further cases linked to this event may still occur in the coming days.
- French authorities are actively looking for additional cases, as their investigations show that up to 25 individuals may have been exposed between 4 and 10 September 2023. People are urged to contact their healthcare provider if symptoms occur.

Severe floods - Multi-country (Mediterranean) - 2023

- Storm Daniel has affected several countries in the Mediterranean area since the beginning of September 2023, including two EU countries - Bulgaria and Greece. Substantial damage has been caused in the affected areas.

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

Overview

Summary

By the end of week 36 (ending 10 September 2023), there was a decrease in COVID-19 cases at the EU/EEA level, which is an inversion of the increasing trend observed in the previous weeks. Of 19 countries reporting data, seven reported an increase in COVID-19 cases. However, the impact on severe disease and mortality remained limited.

Consultation rates of patients presenting to sentinel general practitioners with respiratory illness (influenza-like illness (ILI)/acute respiratory infection (ARI)) increased in several countries but remained similar to the low levels observed for the same period last year.

Among 16 countries that reported age-specific data on cases positive for COVID-19, 12 observed increases in case rates among people aged 65 years and above. However, these figures remained at low levels compared with epidemic peaks. As this age group has the highest risk of severe disease, these figures highlight the importance of continuing to monitor disease and implement protective measures in older age groups.

Among the nine and 14 countries reporting COVID-19-related hospitalisations and deaths, respectively, one country reported an increase in hospital admissions and one country reported an increase in deaths.

Among the 14 countries reporting at least 10 results from SARS-CoV-2 sequencing or genotyping for weeks 34–35 (21 August to 3 September 2023), the estimated distribution of variants of concern (VOC) or variants of interest (VOI) was 60.6% (50.7–71.1% from 14 countries) for XBB.1.5+F456L, 35.2% (24.4–45.1% from 14 countries) for XBB.1.5, 2.8% (1.0–12.6% from 12 countries) for BA.2.75, and 1.1% (0.3–5.9% from seven countries) for XBB.

Weekly update on SARS-CoV-2 variants:

As of 24 August, ECDC has classified BA.2.86 as a variant under monitoring (VUM). As of 11 September 2023, 102 cases of BA.2.86 have been reported to GISAID from 15 countries. In the EU/EEA, these were Denmark (12), France (7), Germany (1), Portugal (2), Spain (3) and Sweden (5). Outside of the EU/EEA, these were Australia (1), Canada (2), Israel (3), Japan (1), South Africa (16), South Korea (1), Thailand (5), the United Kingdom (36), and the United States (7). Detection of this variant has been reported in waste water samples from several more countries, both within and outside of the EU/EEA.

BA.2.86 has a high number of spike mutations that are distinct from ancestral BA.2 and currently circulating XBB-derived variants. Phylodynamic analysis indicates that BA.2.86 emerged recently (various unpublished analyses indicate the last common ancestor of BA.2.86 emerging between May and July 2023). Given that BA.2.86 was detected simultaneously in several countries in different regions during August 2023, with no known epidemiological link to a common source, it may be associated with an elevated growth rate compared to current circulating variants, although there is a high degree of uncertainty involved. The mechanism of any growth advantage probably includes immune escape, as BA.2.86 carries many spike changes compared with the XBB.1.5-like variants that have been dominant recently, and also compared with previous Omicron variants.

It is unlikely that BA.2.86 variants are associated with any increase in infection severity compared to currently circulating variants, or a reduction in vaccine effectiveness against severe disease. However, older individuals and those with underlying conditions could develop severe symptoms if infected.

In the coming weeks, we anticipate further detections of BA.2.86 from sampled individuals, as well as in waste water detection systems in the EU/EEA. ECDC is closely monitoring the emergence of BA.2.86 and epidemiological indicators from countries with detections, either from sampled cases or in waste water. The emergence of BA.2.86 underscores the importance of continued vigilance for SARS-CoV-2 via [strengthened surveillance systems](#) in primary and secondary care to detect trends in transmission and severe disease, with timely sequencing and reporting of positive samples to facilitate robust assessment of evolving variant dynamics.

As of 10 August 2023, **ECDC classified all XBB.1.5-like lineages with additional spike protein change F456L as variants of interest (VOI)**. This includes lineages EG.5, FL.1.5.1, XBB.1.16.6 and FE.1, among others. The reason for this classification is the rapid increase in proportion of these lineages within the EU/EEA, together with a slight increase in epidemiological indicators. These lineages are also increasing globally, with the World Health Organization (WHO) **classifying** EG.5, which is the most prevalent lineage within the group, as a VOI as of 9 August 2023, and the United Kingdom Health Security Agency (UKHSA) **classifying** EG.5.1 as a variant as of 31 July 2023. The reason ECDC is not singling out EG.5 within the group is that other 456L-lineages also exhibit elevated growth rates, and the likely source of the elevated growth rate is the F456L change itself.

The growth advantage observed for 456L-lineages is most likely caused by **increased immune escape** conferred by the F456L change, combined with waning immunity to infection in the population. So far there are no indications that 456L-lineages are associated with any change in infection severity. It is likely that the presence of the variant will contribute to an increase in COVID-19 cases and hospitalisations in the coming weeks and months. However, it is expected that these indicators will not reach the levels associated with previous peaks in cases and hospitalisations.

As of 11 September 2023, the 13 EU/EEA countries reporting at least ten sequences to GISAID EpiCoV for week 34 (22 to 28 August 2023) showed the following proportions of XBB.1.5-like + F456L lineages: Austria (62%), Belgium (60%), Denmark (64%), Finland (66%), France (60%), Germany (53%), Iceland (71%), Ireland (67%), Italy (60%), Luxembourg (59%), Netherlands (62%), Spain (59%) and Sweden (58%). The overall trend for the variant proportion is increasing.

For the latest information on variants, please see ECDC's **webpage on variants**.

Other news

On 14 September 2023, the European Medicines Agency (EMA) **announced** that EMA's Committee for Medicinal Products for Human Use (CHMP) has recommended the authorisation of an updated Spikevax vaccine targeting the Omicron XBB.1.5 subvariant (Spikevax XBB.1.5). The vaccine is to be used for adults and children from six months of age. The European Commission had already **authorised** an adapted Comirnaty vaccine, which also targets the Omicron XBB.1.5.5, for adults and children aged six months and over.

On 12 September 2023, the United States Centers for Disease Control and Prevention (US CDC) **published** recommendations on the use of an updated COVID-19 vaccine for the autumn/winter virus season. According to the **press release**, US CDC recommends that everyone over the age of six months should receive an updated COVID-19 vaccine. US CDC also stated that the updated COVID-19 vaccines from Pfizer-BioNTech and Moderna will be available later in the week. The US CDC press release followed a **news release** by the US Food and Drug Administration on 11 September stating that, following the authorisation of updated monovalent XBB.1.5 vaccines, the previously used bivalent vaccines are no longer authorised.

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 the elderly and people with comorbidities. 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: 8 September 2023.

2. Monthly diphtheria epidemiological monitoring in the EU/EEA - 2023

Overview

Summary: From the beginning of 2023 and as of 12 September 2023, 74 cases of diphtheria have been reported in the EU/EEA through The European Surveillance System (TESSy). Cases have been reported in Germany (44), the Netherlands (10), Belgium (6), Czechia (5), Latvia (3), Slovenia (3), Norway (1), Slovakia (1), and Sweden (1).

This represents an increase of 17 cases since the previous update on 8 August 2023. The new cases have been reported from Germany (9), the Netherlands (5), and Slovenia (3).

Among all the cases reported in 2023, 49 cases were caused by *Corynebacterium (C.) diphtheriae* and the remaining 25 cases were caused by *Corynebacterium (C.) ulcerans*. Sixty-three of the 74 cases had a cutaneous clinical presentation. These cases were from Germany (41), the Netherlands (8), Czechia (4), Belgium (3), Slovenia (3), Latvia (1), Norway (1), Slovakia (1), and Sweden (1). Nine cases had a respiratory presentation. These cases were from Belgium (3), Germany (3), Latvia (2), and Czechia (1). Two cases had a cutaneous and respiratory presentation (the Netherlands). In 2023, and as of 12 September, 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 74 cases of diphtheria reported in 2023, 17 cases were classified as imported, from Syria (4), Afghanistan (3), Croatia (1), Ethiopia (1), Indonesia (1), the Philippines (1), Slovenia (1), and for two the origin of importation was unknown. Five cases were reported as import-related. Twenty-nine cases were not imported, and the importation status was unknown for 23 cases.

In 2022, 226 cases of diphtheria, including two deaths, were reported to TESSy in the EU/EEA. Cases were reported in Germany (171), Belgium (31), Slovakia (8), the Netherlands (6), Czechia (5), Sweden (4) and Spain (1). Among the cases reported in 2022, 194 cases of diphtheria, including one death, were attributable to *C. diphtheriae* and 32 cases, including one death, were attributable to *C. ulcerans*. Of 226 cases, 198 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 two cases the clinical presentation was unknown. Among the 226 cases reported, 89 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), Slovenia (1), Sudan (1), Switzerland (1), Ukraine (1), and for 20 cases the origin of importation was unknown.

Since September 2022 and as of 12 September 2023, 256 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 four confirmed cases of diphtheria among asylum-seekers in England.

From 1 January to 4 September 2023, [Switzerland's Federal Office of Public Health](#) reported 15 confirmed cases of diphtheria in the country.

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 12 September 2023, 74 cases of diphtheria, including two deaths, have been reported in the EU/EEA through TESSy in 2023. Cases were reported in Germany (44), the Netherlands (10), Belgium (6), Czechia (5), Latvia (3), Slovenia (3), Norway (1), Slovakia (1), and Sweden (1). The deaths were reported in Belgium (1) and Latvia (1). Among all the cases reported in 2023, 49 cases, including two deaths, were caused by *C. diphtheriae*, and the remaining 25 cases were caused by *C. ulcerans*.

In 2022, 226 cases of diphtheria, including two deaths, were reported to TESSy in the EU/EEA. Among the cases reported in 2022, 194 cases of diphtheria, including one death, were attributable to *C. diphtheriae* 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 [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: 13 September 2023.

3. West Nile virus One-Health seasonal surveillance - 2023

Overview

This is the 16th weekly update of the 2023 West Nile virus (WNV) monitoring season.

Since last week's update, and as of 13 September 2023, European Union (EU) and European Economic Area (EEA) countries reported 31 human cases of West Nile virus (WNV) infection and two deaths related to WNV infections. Cases were reported by Greece (19), France (4), Hungary (4), Romania (3) and Spain (1). Deaths were reported by Greece (1) and Romania (1). EU-neighbouring countries reported eight human cases of WNV infection. The cases were reported by Serbia (8). No deaths related to WNV infections were reported by EU-neighbouring countries.

This week, among the reporting countries, the following NUTS 3 regions have reported autochthonous human cases of WNV infection for the first time since the start of this season: Sevilla in Spain and Somogy in Hungary.

Since the beginning of the 2023 transmission season and as of 13 September 2023, EU/EEA countries have reported 417 human cases of WNV infection in Italy (203), Greece (119, one of which had unknown place of infection), Romania (42), Hungary (23), France (21), Spain (5), Germany (3) and Cyprus (1). EU/EEA countries have reported 31 deaths in Greece (14), Italy (9), Romania (7) and Spain (1). EU-neighbouring countries have reported 70 human cases of WNV infection in Serbia (69) and North Macedonia (1). No deaths related to WNV infections have been reported by EU-neighbouring countries.

During the current transmission season, within the reporting countries, autochthonous human cases of WNV infection were reported from 102 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 and Alpes-Maritimes in France, Kastoria in Greece and Huelva and Valencia/València in Spain.

Since the beginning of the 2023 transmission season, 37 outbreaks among equids and 134 outbreaks among birds have been reported by EU/EEA countries. Outbreaks among equids have been reported by Spain (17), Hungary (12), Italy (4), Germany (2) and France (2). Outbreaks among birds have been reported by Italy (109), Spain (11), Germany (10), Hungary (2), Bulgaria (1) and France (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

The combined totals from Italy and Greece accounted for 77% of all reported autochthonous cases. This follows a trend from the previous year: Italy and Greece reported the highest number of cases in 2022.

In 2023, the WNV transmission season started later than the mean for the seasons in the period 2019–2022. However, as the weather conditions are favourable for WNV transmission in the affected areas in Europe, further human cases are expected in the coming weeks.

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: 8 September 2023.

4. Avian influenza in fur farms - Finland - 2023

Overview

Update

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-to-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.

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

Summary

Since 13 July 2023 and as of 13 September 2023, avian influenza A(H5N1) has been detected in 26 fur farms in Finland, according to [updates by the Finnish Food Authority](#). The farms are in the areas of Evijärvi, Halsua, Kannus, Kauhava, Kaustinen and Vöyri in Ostrobothnia and host foxes (blue, silver and mixed-breed), raccoon dogs and mink.

On 21 July 2023, the Finnish Food Authority [reported](#) that, based on preliminary analysis, the lineage of the virus collected from the fur 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 in five fur farms. Overall, thirteen of the infected farms have been instructed to euthanise their animals.

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 the monitoring, the presence of avian influenza is being investigated in mink farms. This investigation is expected to finish at the end of October 2023. In the next phase, monitoring and sampling of fox and raccoon dog fur farms will be implemented. 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.

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 to 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 flu 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 protection equipment for farm workers.

Last time this event was included in the CDTR: 14 September 2023.

5. Autochthonous cases of dengue – France, 2023

Overview

On 4 August 2023, the French public health agency (Santé publique France) reported two autochthonous cases of dengue virus infection in patients residing in Gardanne, Bouches-du-Rhône department, Provence-Alpes-Côte d'Azur region. Following the door-to-door case finding investigation, two additional cases were identified. None of the cases had travelled abroad recently.

The index case presented with fever, asthenia, headaches, myalgia and purpura on 27 July 2023, and dengue was confirmed by PCR. Onset of symptoms of the four cases was between 18 July and 4 August 2023.

A case of dengue imported from the French Caribbean and living in proximity to the autochthonous cases was notified on 12 July; onset of symptoms of this case was at the end of June. The patient stayed home for the entire duration of the viremia. Vector control was implemented on 18 July around the residence of the imported case.

Vector control measures were implemented around the house of the autochthonous cases. Healthcare professionals were informed, including general practitioners, public and private laboratories, and pharmacists and hospitals. The general population was informed through local and national media.

As of 6 September, France reported an additional autochthonous case of dengue virus infection in the Provence-Alpes-Côte d'Azur region. The patient resided in Nice in the Alpes-Maritimes department and visited Castellet and La Garde, Var department. Another autochthonous case of dengue virus infection was reported from Perpignan, Pyrénées Orientales department, Occitania region, with symptom onset in mid-August.

Santé publique France and the French local and national health authorities are monitoring the situation closely until the end of the dengue transmission season in November.

Source: [ARS PACA](#), Epipulse.

ECDC assessment

Three outbreaks with a total of 10 cases of autochthonous human dengue virus infections have been reported so far in mainland France for the 2023 transmission season. In 2022, France reported nine outbreaks, with a total of 65 locally-acquired cases of dengue, which was the highest number of autochthonous cases and outbreaks in the EU/EEA so far this century.

In Europe, the dengue virus is transmitted by the mosquito vector *Aedes albopictus*, which is [established](#) in a large part of Europe.

The current weather conditions in most of the areas in continental EU/EEA, where the competent vectors are established, are favourable for vector propagation, dengue virus propagation in vectors, and vectoral transmission of dengue virus. Therefore, further cases connected to this transmission event or autochthonous secondary transmission from imported cases of dengue in other areas cannot be excluded, as exemplified by the [ongoing dengue outbreak\(s\) in Italy](#).

More information is available on ECDC's dedicated webpage on autochthonous transmission of [dengue](#) virus in the EU/EEA, and in ECDC's [dengue](#) factsheet.

Actions

ECDC continues to monitor the epidemiological situation of dengue both globally and in the EU/EEA. Relevant changes in the epidemiological situation and risk levels will be reported.

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

6. Autochthonous dengue cases - Italy - 2023

Overview

Summary

On 18 August 2023, Italian authorities [reported](#) a locally-acquired dengue case in a person from the Lombardy region with no recent travel history outside of the region. The onset of symptoms was on 3 August. As of 11 September 2023, an additional 13 autochthonous dengue cases were reported from the region, bringing the total number of cases to 14 in the province of Lodi, Lombardy region.

On 21 August 2023, Italian authorities reported a second locally acquired dengue case in a person from the Lazio region with no recent travel history outside of the region. The onset of symptoms was on 2 August. As of 11 September 2023, two additional autochthonous dengue cases were reported in this cluster, bringing the total number of cases to three for this outbreak in the metropolitan city of Rome, Lazio region.

A third cluster of two locally-acquired dengue cases was detected in the province of Latina, Lazio region (Circeo). The cases have an epidemiological link with an imported case of dengue. Onset of symptoms was on 29-30 August 2023.

All cases were laboratory confirmed by PCR. A DENV-1 serotype virus was identified in the cases in Lombardy and in the metropolitan city of Rome, Lazio region. Epidemiological investigations have not identified any link between the cases in Lombardy and the cases identified in the Lazio region. A DENV-3 serotype was detected in the cluster of cases in the province of Latina, Lazio region, indicating that this outbreak is independent from the other two in Italy. All cases have recovered or are improving.

Italian authorities have implemented vector control measures in the areas and have established preventive measures for donors of substance of human origin at municipal and national level.

Background

Autochthonous dengue cases were [reported](#) in Italy for the first time in 2020 in the Veneto region. At that time, an outbreak of 10 autochthonous dengue cases was reported among household co-habitants following an imported case that had returned to Italy after a trip to South East Asia. Since then, no further cases of autochthonous dengue have been reported in Italy.

Since 2019 and as of 2023, 131 autochthonous dengue cases have been reported in mainland EU/EEA. France is the country with the highest number of autochthonous dengue cases reported in mainland EU/EEA during this period.

ECDC assessment

It is not unusual that autochthonous dengue cases occur during the summer months in parts of southern Europe. The most recent reports of additional cases in all three clusters indicate that virus transmissions were still ongoing in the second half of August. Enhanced surveillance, as implemented by Italy, will be crucial for early detection of cases and the application of adequate control measures around these cases.

In Europe, the dengue virus is transmitted by the mosquito vector *Aedes albopictus*, which is [established](#) in a large part of Europe.

The current weather conditions in most of the EU/EEA areas where *Aedes albopictus* is established are favourable for vector propagation, dengue virus replication in vectors, and vectoral transmission of dengue. Therefore, further cases connected to this transmission event or autochthonous secondary transmission from imported cases of dengue in other areas cannot be excluded.

More information is available on ECDC's dedicated webpage on autochthonous transmission of [dengue](#) virus in the EU/EEA, and ECDC's [dengue](#) factsheet.

Actions

ECDC continues to monitor the epidemiological situation of dengue both globally and in the EU/EEA. Relevant changes in the epidemiological situation and risk levels will be reported.

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

7. Legionnaires' disease - Poland - 2023

Overview

Update: On 15 September 2023, the State District Sanitary Inspector in Rzeszów, Poland released a [statement](#) reporting 164 confirmed cases of Legionnaires' disease and 25 deaths. The majority of cases reside in Rzeszów city (112) and Rzeszów powiat (38) in Podkarpackie province in south-eastern Poland.

All 25 fatal [cases](#) had comorbidities.

Summary: The [index case](#) was detected on 30 July 2023, and the peak of cases occurred during the period 12-16 August 2023.

On 18 August 2023, the [State District Sanitary Inspector in Rzeszów](#), Poland was informed of 15 confirmed cases of Legionnaires' disease in hospitalised individuals in Rzeszów.

As of [24 August 2023](#), 56 water samples had been collected from installations in buildings in Rzeszów, Rzeszów powiat, Ropczyce and Sędziszów powiat. Fountains and water installations have been closed in Rzeszów. Rzeszów Municipal Water and Sewage Company planned to disinfect the water supply network of the city of Rzeszów and adjacent towns on 27 August 2023.

Healthcare units and long-term care facilities were [instructed](#) to carry out additional inspections to their water systems.

On 25 August 2023, the [Ministry of Health and State Sanitary Inspectorate](#) reported that an epidemiological investigation, including interviews with patients or relatives, is underway to determine the source of infection.

Background

Between 2016 and 2021, Poland reported 20 - 70 Legionnaires' disease cases annually to The European Surveillance System (TESSy). In 2022, this increased to 111 reported cases.

As of 14 September 2023, no travel-associated cases have been reported by ELDSNet to ECDC for accommodation sites in Rzeszów powiat.

ECDC assessment:

Outbreaks of Legionnaires' disease are caused by inhalation of aerosolised water droplets carrying *Legionella* bacteria.

Although an identified source has not been reported yet for this outbreak, precautionary control measures have been implemented to reduce the risk of infection from possible environmental sources. Infection risk is limited to a localised geographical area around the outbreak source.

Actions

ECDC is in contact with public health authorities in Poland regarding this outbreak and will continue to monitor this event through epidemic intelligence activities.

Last time this event was included in the CDTR: 8 September 2023.

8. Mass gathering monitoring - Rugby World Cup 2023

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 ten 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 for the Rugby World Cup, with over 2.5 million tickets sold, according to a [media report](#). Over a half of the international visitors are from the UK, followed by Australia, the Netherlands, New Zealand and some other countries.

As with other sports events, gatherings and/or possibilities of crowding and potential risk-prone behaviour with prolonged close contacts are expected 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

One event has been detected during the period 9–15 September 2023:

- an outbreak of botulism related to consumption of sardines in a popular bar/restaurant in Bordeaux, France, which is described in more detail in this week's CDTR.

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: 8 September 2023.

9. Cutaneous anthrax - Romania - 2023

Overview

At the end of August 2023, human cases of cutaneous anthrax were reported by [media, quoting the local health authority](#) in three hospitalised individuals from Ungheni, Târgu Mureş county, Romania. Two of the three cases (men, aged 54 and 46 years) were confirmed by RT-PCR ([media report 1](#), [media report 2](#), quoting health authorities), although culture and serological tests were negative. The men participated in the slaughtering of an infected cow and meat cutting. According to [media](#), quoting veterinary authorities, the meat was consumed locally and was not distributed further or sold on. No new cases have been detected through epidemiological investigation or as a result of medical follow-up among a group of 20 other people who had meat from the infected cow. The World Animal Health Information System ([WAHIS](#)) reports anthrax in cattle in Romania.

Sources: [press release of public health authority in Mures](#), [media](#) report 1, [media](#) report 2, [WAHIS](#) report anthrax in cattle in Romania.

ECDC assessment

Cutaneous anthrax is the mildest form of the disease in humans. Infections with *Bacillus anthracis* are possible in individuals having close contact with sick animals. Romanian authorities have implemented control measures to minimise the risk of further infections. The exposure to infected animals only occurred at local level and there is no indication that contaminated meat has been put on the international market. There is a low risk of infection for the local population in the affected area and no risk to the EU/EEA in relation to this outbreak. The risk remains particularly high in areas where cattle has been affected as the spores of *Bacillus anthracis* can survive in soil for decades.

Actions

ECDC is monitoring this event through epidemic intelligence and food- and waterborne group activities.

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

10. Pertussis - Denmark - 2023

Overview

On 6 September 2023, [Statens Serum Institute in Denmark](#) reported an epidemic of pertussis in the country, following a significant increase in cases between June and August 2023 in all regions, apart from Bornholm. Overall, 1 229 confirmed cases have been reported in Denmark in 2023, with 439 cases reported in August 2023 - a figure four times higher than that usually reported for this month in the period between epidemics. High incidence is reported among young children under one year, older children aged 9 to 19 years and adults aged 40 to 50 years. According to the Danish public health authority, epidemics of whooping cough occur every three to five years in Denmark. The previous epidemic in [Denmark](#) was reported in 2019–2020.

Due to the increase in pertussis cases, and to ensure that new-borns and those too young to be fully vaccinated are protected, free vaccination is being offered by the [Danish authorities](#) to pregnant women in their second or third trimester of pregnancy in connection with routine pregnancy examinations. The temporary offer covers the period from 1 August to 31 December 2023, after which it is hoped that the offer will be made permanent, based on a recommendation from the Danish Health and Medicines Authority. Pertussis vaccination is part of the Danish vaccination programme and vaccination is offered at 3–5–12 months of age, with a booster at five years of age. In Denmark, vaccination coverage with pertussis-containing vaccine is >95% for primary vaccination.

ECDC assessment

Pertussis is a contagious respiratory illness which spreads easily from person to person. Outbreaks have been reported in the past in Denmark. The priority remains the protection of infants and babies and those at high risk. Prompt case identification, prophylactic treatment of high-risk contacts, and timely vaccination of the target population and those having missed vaccination, remains a priority.

Actions

ECDC will continue monitoring this event through Epidemic Intelligence activities.

Last time this event was included in the CDTR: 12 September 2023.

11. Botulism - France - 2023

Overview

As of 15 September 2023, 15 cases of suspected and confirmed botulism, including one death, have been identified, according to the Ministry of Health of France. Of the 15 cases, at least ten are hospitalised, eight of them in an intensive care unit (ICU). The first signal was reported on 12 September 2023 by the [public health authorities](#) in France with the identification of a cluster of eight people with suspected botulism hospitalised in the Bordeaux University Hospital.

The patients include individuals of American, British, Canadian, English, French, German, Irish and Spanish nationalities. All reported having eaten at the same bar in Bordeaux that served locally made canned sardines - suspected to be a source of infection. The suspected food item had been produced and served at the restaurant and not distributed further. Measures have been implemented in the restaurant to stop the outbreak, including the

immediate removal of the suspected food item. Epidemiological Investigations are ongoing, including the laboratory testing of food items from the bar and an active search for affected people.

French authorities are actively looking for additional cases, as their investigations show that up to 25 individuals may have been exposed, and they are urged to contact healthcare providers if they experience symptoms ([SPF](#)).

Given the diverse incubation period for botulism (from several hours to few days) new cases linked to this event may occur in the coming days.

Background: In 2022, 84 cases of botulism were reported in the EU/EEA, including 11 cases reported in France. For these 84 cases, 29% were aged 45–64 years and the case fatality rate was 4.8% [ECDC Surveillance Atlas](#).

Source: [MoH report on 12 September 2023](#), [regional public health agency report](#), [Santé Publique France announcement 13/09/2023](#), [ECDC factsheet on botulism](#)

ECDC assessment

This is an outbreak of botulism in Bordeaux France, linked to consumption of a locally produced artisanal food item (preserved sardines) at a local establishment. At least ten cases have been hospitalised, eight of them having been admitted to ICU. One death has been reported. The exposure occurred at a single restaurant; measures have been implemented to stop the outbreak, including the immediate removal of the suspected food item from the restaurant. There is no indication that the suspected food item has been distributed further. The risk of infection for EU/EEA citizens is considered low, although further cases linked to this event may still occur in the coming days.

Actions

ECDC is monitoring this event through its epidemic intelligence activities and is in contact with the French health authorities and will update the event if new, relevant information becomes available.

Last time this event was included in the CDTR: 14 September 2023.

12. Severe floods - Multi-country (Mediterranean) - 2023

Overview

Since early last week at least 15 people have died and several remain missing across Greece, Türkiye and Bulgaria as heavy rains affected the region. The storm, which has officially been named Daniel by the national meteorological services in south-east Europe, has led to several months' worth of rain, flooding homes, businesses and roads, destroying agricultural production areas and drowning hundreds of animals.

Since 4 September 2023, [Greece](#) has been affected by heavy rainfall from Storm Daniel which has caused floods in central and western parts of the country, affecting Thessaly region and in particular the [Magnesia, Sporades and Evia regional units](#) - the agricultural centre of Greece which supplies [15% of all agricultural production](#). Overall, according to [European Civil Protection And Humanitarian Aid Operations](#), Emergency Response Coordination Centre ([ERCC](#)), 5 260 people have been evacuated across Thessaly, Central Greece, Central Macedonia, the Peloponnese and Attica regions. Thessaly is the worst affected region, with more than 3 500 people having been evacuated. There is a growing concern that the situation could facilitate the spread of infectious diseases due to affected water supplies and contact with dead animals. Citizens have been advised to only consume bottled water, which has also been delivered to affected regions as part of the response activities. The water level in the Pinios River remains well above the alarm level, increasing the flood risk to the city of Larissa, one of the largest cities in the region, and adjacent settlements. Earlier, Storm Daniel had affected Burgas province in [Bulgaria](#), causing floods on the country's southern Black Sea coast and severely affecting the area around Tsarevo, resulting in four deaths, according to media reports.

This storm then moved to affect Libya where it is caused thousands of deaths and the collapse of two dams. The floods have affected several cities, including Al-Bayda, Al-Marj, Tobruk, Takenis, Al-Bayada, and Battah, as well as the eastern coast all the way to Benghazi. According to media sources, in the affected region the risk of exposure to dead humans and animals is elevated and there are fears of infectious diseases spreading. The weather system is expected to move slowly east toward northern Egypt.

ECDC assessment

Floods are the most common type of natural disaster in Europe. Flash floods are significant emergencies that are challenging to predict and result in considerable destruction. Such events have become more common in recent years and are expected to occur more frequently due to climate change. Affected regions and countries are facing the immediate response needs of rescue operations, evacuations and disruption of services. Collaboration between public health authorities and other local authorities (e.g. civil protection agencies, municipal governments) is needed to ensure access to clean water as soon as possible in the affected communities. Affected countries and regions may consider setting up syndromic and event-based surveillance systems to rapidly detect and respond to possible outbreaks. Suspected cases of infectious diseases (including clusters of respiratory and gastrointestinal symptoms, rashes, etc.) on an agreed list would need to be reported to local and national public health authorities immediately to prompt a rapid response. Mechanisms to achieve early detection and awareness of disease clusters should be enhanced and availability of vaccines should be ensured. Non-pharmaceutical interventions, such as hand and respiratory hygiene, and the wearing of face masks, remain useful, particularly for displaced populations housed in shelters where physical distancing cannot be maintained. Water management plans should minimise the risk of *Legionella* growth. Flooded areas also need to be monitored and potentially treated to prevent increases in mosquito populations, as all areas are endemic for West Nile Virus. Risk communication to the affected communities is a critical part of the response to the flood crisis and it should be undertaken in a structured way that clearly delivers core messages and listens to the affected communities' needs. Key principles of successful risk communication include the identification of a trusted spokesperson and the delivery of clear and actionable advice, with messaging tailored to the needs of the affected communities.

Infectious disease risks following floods do not represent the greatest risks to the health and well-being of the flood-affected communities. Several other health risks, including disruption of healthcare, environmental hazards (e.g. carbon monoxide poisoning, exposure to dangerous chemicals) and psychological stress, may cause acute and long-lasting health effects and an increase in all-cause mortality in these areas.

The assessment and options for response included in the RRA [Extreme rainfall and catastrophic floods in western Europe](#), from July 2021 remain valid.

Actions

ECDC is following this event through epidemic intelligence activities and will report when relevant communicable disease events occur. ECDC has been in contact with national health authorities in Greece and is coordinating possible support activities with DG ECHO.

Last time this event was included in the CDTR: 12 September 2023.