

WEEKLY BULLETIN

Communicable Disease Threats Report

Week 11, 12-18 March 2023

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1. Weekly Summary

Overview:

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

- During week 10, 2023 (week ending 12 March 2023) all epidemiological indicators were stable or decreasing, except for hospital occupancy. Nine of 22 countries reporting data observed increases in the last 1-5 weeks in at least one hospital or ICU indicator. COVID-19 death rate has been decreasing for two weeks, with 478 deaths reported by 24 countries in week 10.
- As of 17 March 2023, 100 186 virus sequences belonging to XBB.1.5 lineage have been deposited in GISAID EpiCoV. Most of these submissions are from the United States (63 191 sequences), the United Kingdom (9 838 sequences) and the rest of Europe (14 351 sequences). XBB.1.5 in the EU/EEA accounts for 49% (range: 11-77%) of submitted sequences in week 8 2023.
- According to China CDC's latest update on 11 March 2023, the COVID-19 situation in mainland China has stabilised with daily cases ranging between 7 000 and 15 000. The decreasing trend in hospitalisations and deaths have also stabilised.

Iatrogenic botulism, exposure in Türkiye

- Since late February 2023, and as of 17 March 2023, 17 cases of botulism have been reported in Germany (15 cases), Austria (one case), and Switzerland (one case).
- All these cases had history of a recent medical procedure consisting of intragastric injection of botulinum neurotoxin for treating obesity in Türkiye.
- At the same time, the IHR National Focal Point for Türkiye reported 53 cases botulism diagnosed between 28 February and 8 March 2023 among individuals who underwent the same procedure in two private hospitals in Istanbul (50 cases) and Izmir (three cases).
- Overall, 65 cases had the procedure performed in a single clinic in Istanbul.

- Although it remains unclear whether this event represents a therapeutic or procedural issue in the involved hospitals, the procedure is not authorised by competent authorities in the EU.
- ECDC recommends that EU/EEA citizens avoid intragastric treatments with BoNT for obesity which, besides not being authorised in the EU, is currently associated with a significant risk of developing botulism.
- Individuals who have travelled to Türkiye for intragastric injection of botulinum neurotoxin between 22 February and 1 March 2023 are encouraged to seek medical advice from their healthcare provider, particularly if they experience symptoms such as weakness, difficulty in breathing and/or swallowing.

Group A streptococcal infection - Multi-country - 2022 - 2023

- Ireland reports 14 additional iGAS cases for the period 26 February to 4 March 2023. In 2023 and as of 4 March, 101 iGAS cases were notified in Ireland. In the same period in 2022, seven iGAS cases were notified.

Influenza – Multi-country – Monitoring 2022/2023 season

- The seasonal epidemic activity threshold of 10% positivity in sentinel specimens was first crossed in week 45/2022.
- Influenza activity had been decreasing across the Region until week 4/2023, following a peak at week 51/2022, but has fluctuated around 25% since week 6/2023.
- Overall this season, influenza A(H3) viruses have dominated in sentinel primary care specimens, however a higher circulation of A(H1)pdm09 and type B viruses was observed starting from week 50/2022 and week 2/2023, respectively. A higher prevalence of A(H1)pdm09 over A(H3) viruses was detected in non-sentinel specimens.
- Both influenza type A and type B viruses have been detected in hospitalized patients in ICU and other wards, and influenza A(H1)pdm09 viruses have dominated among SARI specimens.

Chikungunya and dengue - Multi-country (World) - Monitoring global outbreaks

- In 2023, and as of 9 March, 114 181 cases and 43 deaths of chikungunya virus disease have been reported, globally. Of note, Paraguay reported a large increase in chikungunya virus disease cases, including a number of deaths, since the last update.
- In 2023, and as of 9 March, 380 171 cases and 113 deaths of dengue virus disease have been reported, globally.
- The current likelihood of the occurrence of local transmission events of the chikungunya and dengue viruses in mainland EU/EEA is very low, as the environmental conditions are not favourable to vector activity and virus replication.

Severe cases of influenza B among young people

- As of 15 March 2023, Sweden has reported cases of laboratory-confirmed influenza type B virus infection associated with severe outcomes amongst children and adolescents with geographical proximity to one another. Complications include myocarditis and meningoencephalitis. Cases have been severe, requiring critical intensive care.
- Case finding is ongoing to further investigate whether the cases are within the expected range of severe outcomes and explanatory factors among cases.
- Some cases are known to share an epidemiological link and all cases are from the same region of Sweden.
- So far, sequencing of clinical specimens from severe cases has identified B/Victoria viruses belonging to subgroup V1A.3a.2, which is the dominant influenza type B virus circulating across Europe and the northern hemisphere 2022-23 and 2023-24 influenza vaccine strain (B/Austria/1359417/2021-like virus).

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

Overview:

Summary

The epidemiological picture at the EU/EEA level over the past 12 months has been characterised by periodic waves of infection approximately every 2-3 months since the initial large Omicron peak. There has been a general downward trend in the size of the associated peaks in reported cases, hospitalisation, ICU admissions and deaths during this period.

By the end of week 10 (ending 12 March 2023), overall there were no increasing trends in most of the EU/EEA indicators based on pooled country data, except for hospital occupancy. All pooled indicators remained at relative low levels. The pooled COVID-19 death rate has been decreasing for two weeks, with 478 deaths in week 10 data reported from 24 countries.

The following country-level trends were observed:

- Case rates among people aged 65 years and older increased in seven out of 25 countries with data. These trends have been continuing for the past 5-6 weeks in three countries.
- Nine of 22 countries reporting data observed increases over the last 1-5 weeks in at least one hospital or ICU indicator.
- One country reported increases in overall COVID-19 deaths, while increases in the age groups 65-79 years and/or 80 years and above were reported by one of the 22 countries with age-specific data.

Countries reporting high proportions of the XBB.1.5 variant of interest (VOI) include those in which increases in epidemiological indicators have been reported, as well as those with a low and stable epidemiological situation. Among the five countries with an adequate volume of sequencing or genotyping for weeks 8–9 (20 February to 5 March 2023), the estimated distribution of variants of concern (VOC) or variants of interest (VOI) was 48.0% (45.5–65.8% from four countries) for XBB.1.5, 18.7% (8.5–27.5% from five countries) for BA.2.75, 14.0% (12.3–32.1% from four countries) for BQ.1, 11.2% (0.9–14.6% from four countries) for XBB, 2.1% (1.4–43.3% from five countries) for BA.5, 0.6% (0.2–29.2%, 1 019 detections from four countries) for BA.2 and 0.1% (0.0–0.3%, three detections from two countries) for BA.4.

The cumulative uptake of a first booster dose was 65.4% (country range: 11.3–87.1%) among adults aged 18 years and older, 84.9% (country range: 13.3–100.0%) among people aged 60 years and older and 54.7% (country range: 9.2–75.8%) in the total population. The cumulative uptake of a second booster dose was 17.3% (country range: 0.2–41.9%) among adults aged 18 years and older, 35.5% (country range: 0.4–86.7%) among people aged 60 years and older, and 14.2% (country range: 0.2–33.6%) in the total population.

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

Weekly update on SARS-CoV-2 variants

Since the last update on 9 March 2023, and as of 16 March 2023, no changes have been made to ECDC variant classifications for variants of concern (VOC), variants of interest (VOI), variants under monitoring or de-escalated variants.

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

ECDC assessment of the XBB.1.5 sub-lineage

XBB.1.5 is a sub-lineage of XBB with an additional spike RBD mutation S486P. This lineage was first detected in the United States with sample collection dates from 22 October 2022 onwards, and this lineage has been increasing in numbers since then. The parental lineage XBB and its sub-lineages, including XBB.1.5, are categorised as a variant of interest (VOI) [1].

As of 17 March 2023, 100 186 sequences have been deposited in GISAID EpiCoV belonging to XBB.1.5 lineage. Most of these submissions are from the United States (63 191 sequences), the United Kingdom (9 838 sequences) and the rest of the Europe (14 351 sequences).

The US CDC nowcast system estimates the current proportion of the variant to be around 89.5% (previous week 87%) in the USA. For the last week with complete data (week 7 2023), the US CDC reports 77% XBB.1.5 (previous week 70%).

This lineage is currently estimated to have a large growth advantage relative to previously circulating lineages in North America (58%) and Europe (60%) (estimates provided by [CoV-spectrum](#) based on data from GISAID EpiCoV), although these estimates are associated with significant uncertainty.

The most likely explanation of the growth advantage is the already high level of immune escape demonstrated by XBB, combined with the effect of the spike change S486P. This mutation has previously been rare, probably due to it requiring two nucleotide substitutions in the same codon to change from Phenylalanine to Proline. However, other variants with this change have emerged before without becoming successful. A recent [preprint](#) demonstrates that XBB.1.5 is not associated with a higher reduction in neutralisation by vaccine and convalescent sera than XBB.1, but that it is associated with a higher ACE2 affinity, which could indicate that the advantage of XBB.1.5 over XBB.1 could be caused by an increase in intrinsic transmissibility. Further laboratory and epidemiological investigations are required to elucidate the mechanism of the growth advantage conferred by this change, specifically in the XBB variant. There is currently no indication of any change in infection severity associated with the variant.

Based on GISAID EpiCoV data as of 15 March 2023, XBB.1.5 is increasing in proportions in most of the EU/EEA countries with adequate sequence reporting volume and XBB.1.5 is the dominant lineage in the EU/EEA. The estimated proportions for week 8 2023 and week 7 2023 (in parenthesis) are:

Austria 22% (16%), Belgium 46% (38%), Czechia 77% (62%), Denmark 49% (33%), Finland 28% (29%), France 51% (41%), Germany 11% (25%), Ireland 63% (66%), Italy 43% (30%), Luxembourg 49% (38%), Netherlands 67% (51%), Poland 52% (28%), Portugal 32% (36%), Spain 53% (47%) and Sweden 30% (20%). The presence of XBB.1.5 in the EU/EEA accounts for a median proportion of 49% (range: 11-77%) in the countries that reported data for week 8 2023.

There is a risk that this variant may have an increasing effect on the number of COVID-19 cases in the EU/EEA as the variant becomes dominant, possibly during early March 2023. Due to uncertainties associated with the growth rate of the variant, this assessment is associated with a high degree of uncertainty. [A threat assessment brief on XBB.1.5](#) was published on 13 January 2023.

Other news

On 14 March 2023, the Greek Ministry of Health published a [statement](#) on the lifting of COVID-19 measures. According to the statement, the Ministry of Health had proposed to the Expert Committee that COVID-19 measures be lifted, with the exception of public and private healthcare settings and nursing homes. The recommendation was accepted by the Committee and measures are expected to be lifted soon.

On 16 March 2023, Eurostat published a [news article](#) on the recent decline in life expectancy at birth in the EU, observed since 2020–2021 (most recent year with data available). In 2019, life expectancy at birth was 81.3 years but this decreased to 80.4 years and 80.1 years in 2020 and 2021, respectively. The article states that the decline was probably the result of the sudden increase in mortality due to the COVID-19 pandemic.

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.

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

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

Actions:

On 27 January 2022, ECDC published its Rapid Risk Assessment, '[Assessment of the further spread and potential impact of the SARS-CoV-2 Omicron variant of concern in the EU/EEA, 19th update](#)'.

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

ECDC invites countries to use the EpiPulse event on BQ.1 and sub-lineages to discuss and share information on this variant as it becomes available. Of particular interest is information on virus characterisation and evidence regarding changes in disease severity, virus transmissibility, immune evasion, and effects on diagnostics and therapeutics. Case reporting should continue through TESSy.

Further information

COVID-19 associated with SARS-CoV-2 – China – 2022–2023

Sources: [China CDC](#), [media](#), [media](#), [media](#), [media](#), [GISAID](#)

Update

On 11 March 2023, China CDC [published](#) an epidemiological update on the COVID-19 situation in mainland China including data until 9 March 2023. According to the report, on 9 March 2023, 7 786 positive nucleic acid tests and 249 positive antigen tests were reported. Following the peak on December 2022, the COVID-19 situation in mainland China has stabilised between 7 000 and 15 000 cases per day with fluctuations within that range. In addition, there were six severe COVID-19 cases hospitalised on 9 March 2023 (99.9% decrease compared to the 128 000 severe cases hospitalised during the peak on 5 January 2023). No deaths were reported in hospitals from 3 March to 9 March. The decreasing trend in hospitalisations and deaths has stabilized.

Since week 6 (6 to 12 February) 2023, China's Influenza Surveillance system has detected an increase in the weekly number Influenza-like illness (ILI). Positive rate for Influenza among ILI samples has constantly increased since week 6 onwards, reaching 41.6% for week 9 (period 27 February to 5 March).

According to the [WHO COVID-19 Dashboard](#), since 3 January 2020 and as of 16 March 2023, a total of 99 185 059 COVID-19 confirmed cases and 120 576 deaths have been reported to WHO (including Taiwan and Special Administrative Regions).

Information on variants from public sources

From 1 January 2023 to 17 March 2023, China has deposited 16 960 sequences. As of 17 March 2023, of the total 16 960 sequences submitted from China, 7 866 sequences had recent sample collection dates between 1 January 2022 and 12 March 2023 in GISAID EpiCoV. These sequences mainly belonged to the lineages BA.5.2.48 (60.9%), BF.7.14 (28.1%), BA.5.2.49 (6.3%) and BA.5.2 (2.8%). Other lineages (including their sub-lineages) circulating in proportions below 1% including XBB.1.5 (9 samples) and BQ.1 (7 samples).

Several new sub-lineages of Omicron have been assigned from sequence data released by China, which is expected as the virus accumulates random mutations. Most of these lineages carry no spike protein changes compared to previously known lineages, while a few sub-lineages of BF.7 carry single spike protein changes, a part of BF.7.14.1 carries V83F, BF.7.14.2 carries Q14H and BF.7.14.3 carries S626V. None of these changes are likely to provide the virus with a substantial transmission advantage and none of the associated lineages show signs of rapid expansion.

Assessment

ECDC Assessment for the European Union (EU) / European Economic Area (EEA)

There are currently no data suggesting the emergence of new variants of concern in China. China's CDC is currently providing weekly epidemiological updates which show a significant improvement in the epidemiological situation across the country for all monitored indicators. The surge of cases in China between December and January did not influence the epidemiological situation in the EU/EEA.

ECDC actions

ECDC liaises on a regular basis with the European Commission and the Member States in the Health Security Committee.

ECDC is in contact with China CDC on a regular basis to receive updated information on the epidemiological situation. ECDC is also in contact with the Public Health Agency of Canada (PHAC), the Japanese CDC, the Australian CDC, the US CDC, the WHO headquarters and the WHO Regional Office for Europe to cross-check and validate data and assessments with partners outside of China, including sequencing data from Chinese travellers.

ECDC continues to routinely monitor and report on emerging SARS-CoV-2 variant threats via its Strategic Analysis of Variants in Europe (SAVE) Working Group, where variants and epidemiological trends in the EU/EEA and worldwide will continue to be evaluated. ECDC participates in the global WHO Technical Advisory Group on Virus Evolution (TAG-VE).

3. Iatrogenic botulism, exposure in Türkiye

Overview

Update 17 March 2023

The International Health Regulations (IHR) National Focal Point (NFP) for Türkiye has reported 53 apparently iatrogenic clinical botulism cases between 28 February and 8 March 2023. Cases are reported to have received intragastric botulinum neurotoxin (BoNT) injections for treatment of obesity at two private hospitals; Hospital A in Istanbul (50 cases) and Hospital B in Izmir (3 cases).

Cases experienced botulism symptoms approximately one week after treatment with BoNT, and were identified when they presented at different hospitals in Türkiye. The first cases reported were identified on 28 February 2023, and the most recent cases were identified on 8 March 2023. The initial symptom most frequently reported among cases was fatigue. Other symptoms included difficulty swallowing, blurred vision, double vision, and difficulty breathing, and weakness.

Patients are receiving medical treatment and are being monitored. Of 53 cases who presented to hospitals, 31 have been hospitalised, three have been admitted to intensive care units, and 22 have been discharged. Seventeen cases were treated with Botulinum Antitoxin (BAT). No fatalities have been reported so far. The Istanbul and Izmir Health Directorates are reported to have conducted urgent inspections at the hospitals where patients received treatment with BoNTs. The General Directorate of Public Health, Department of Communicable Diseases and Early Warning is reported to be conducting an epidemiological investigation in collaboration with provincial health centres and other related departments. The Turkish Medicines and Medical Devices Agency has been informed of the issue.

During the inspections, it was understood that the patients were treated at two hospitals and the botulinum neurotoxin products administered in the treatments were seized and taken for examination. The Turkish Medicines and Medical Devices Agency evaluated the products used and found that the imported series was approved, but was deemed to have been used in a manner other than its indicated purpose for gastric botulinum toxin treatment. Consequently, the relevant departments of both hospitals have had their activities suspended, and investigations have been launched against the parties involved.

Germany reports 15 cases of clinical botulism, apparently iatrogenic, due to intragastric injection of botulism neurotoxin (BoNT). The cases are middle-aged adults, originating from different regions of Germany, who underwent treatments with 1 000 to 1 500 units of BoNT in Türkiye between 22 and 25 February 2023. The clinical presentation of the cases ranged from mild to severe; several cases have been hospitalised, among whom a number are reported to have been admitted to intensive care units (ICUs). Among 13 cases with known information, all received treatment at the same clinic in Istanbul, Türkiye. Six cases who recalled the name of the BoNT product used on them reported to have been treated with one and the same product.

Austria has reported one case (female; 25-44 years) of apparently iatrogenic botulism after an intragastric injection of BoNTs administered in Türkiye on 22 February 2023. The case reported receiving treatment, which was self-arranged, at the same clinic as the cases in Germany and Switzerland. The patient was hospitalised with botulism symptoms (ptosis, dysphagia, dyspnoea, neck weakness, generalised muscle weakness).

Switzerland (information reported to ECDC by France on behalf of Switzerland) has reported one suspected case of botulism (female, 45-64 years), probably associated with intragastric injection of BoNT, also administered in Türkiye on 22 February 2023. The patient reported receiving treatment at the same clinic as the cases in Germany and Austria.

Background information

In 2019, **France** reported a suspected case of botulism (female; 25-44 years) following intragastric injection of BoNT in Egypt (in order to lose weight), with hospitalisation in France.

A **WHO medical product alert** from August 2022, reported five falsified batches of a BoNT product detected in five countries: Jordan (May 2022), Türkiye (May 2022), Kuwait (June 2022), the United Kingdom (June 2022), and Poland (July 2022). It is not known, however if these batches have been used for treatment in the cases reported so far.

Outbreaks of iatrogenic botulism, sometimes linked to counterfeit or unlicensed BoNT, have also been reported in the past following different clinical procedures, for example in **Egypt** and **Türkiye**.

Botulism is a serious neuroparalytic illness caused by BoNTs mainly produced by the bacterium, *Clostridium botulinum*. The disease naturally occurs in four different forms: a) food-borne botulism, b) intestinal botulism, c) infant botulism, and d) wound botulism. There are two other forms of botulism which do not occur naturally: a) inhalation botulism and b) iatrogenic botulism, which is the most recent human-made form of botulism. Intoxication may occur as an adverse event following the administration of BoNTs for therapeutic or cosmetic reasons.

While it is considered rare, individuals receiving BoNT injections for cosmetic purposes (e.g. for facial wrinkle lines) or therapeutic treatments (e.g. for management of muscle spasticity), may develop iatrogenic botulism if they are injected with an excessive dose of the BoNTs.

Symptoms of iatrogenic botulism are characterised by weakness and difficulty swallowing. Toxicities following cosmetic treatment include ophthalmological and oropharyngeal symptoms (blurred vision, drooping eyelid, difficulty swallowing, and dry mouth) while toxicities following therapeutic treatments are linked with difficulty breathing and weakness.

The symptoms of botulism can be very severe, requiring intensive-care treatment as well as the administration of an anti-toxin. Even when such treatments are available, complete recovery usually takes weeks to months. Limited information is available quantifying mortality in iatrogenic botulism cases. For food-borne botulism, 5–10% of cases are fatal.

Further information about botulism can be found on the websites of **ECDC**, **US CDC**, and **WHO**.

ECDC assessment

This is a multi-country outbreak of at least 17 cases of iatrogenic botulism in Germany (15 cases), Austria (one case), and Switzerland (one case) with gastric injections of BoNT administered in Istanbul, Türkiye on dates between 22 and 25 February 2023. The cases are middle-aged adults. Among fifteen cases with known information in Germany (13 cases), Austria (one case), and Switzerland (1 case), all are reported to have received treatment at the same clinic in Istanbul. Türkiye has reported an additional 53 cases between 28 February and 8 March 2023 among individuals who underwent the same procedure in two private hospitals in Istanbul (50 cases) and Izmir (three cases). Considering the possible variation in the clinical presentation of botulism illness, it is possible that some cases are yet to be identified. New cases may occur, particularly among those travelling to Türkiye for medical treatments involving intragastric injection of BoNTs.

ECDC strongly encourages EU/EEA citizens to avoid intragastric treatments with BoNT for obesity in Türkiye as this is currently associated with a significant risk of developing botulism. At this time, it is unclear whether this event represents a therapeutic or procedural issue in the involved hospitals, or whether there is a problem with the product administered.

Individuals who have travelled to Istanbul and Izmir for intragastric BoNT treatment between 22 February and 1 March 2023 are encouraged to seek medical advice from their healthcare provider, particularly if they experience symptoms such as weakness, difficulty in breathing and/or swallowing.

Actions

ECDC is monitoring the event in EpiPulse and via its epidemic intelligence activities and is sharing information through the CDTR report. ECDC encourages countries to report any information relevant to this outbreak in the EpiPulse event.

4. Group A streptococcal infection - Multi-country - 2022 - 2023

Overview

Update

Since the previous report, the following countries have reported updates on invasive group A streptococcal disease (iGAS):

Ireland: On 8 March 2023, the Irish Health Protection Surveillance Centre (HPSC) [published](#) a provisional update of notifiable infectious diseases in Ireland, reporting 12 confirmed and two probable iGAS cases for the period 26 February to 4 March 2023. Among these, most were in the age groups 0-4 years (4) and >65 years (4). In 2023, as of 4 March, a total of 101 iGAS cases had been notified in Ireland, compared to seven cases reported in the same period the year before.

Since October 2022, six paediatric and ten adult deaths from iGAS have been reported.

Other news

On 10 March 2023, the US Centers for Disease Control and Prevention [published](#) a 'Notes From the Field' article in the Morbidity and Mortality Weekly Report on iGAS in the United States. According to the article, an increase in paediatric iGAS cases was observed in the period October-December 2022 in Colorado and Minnesota. Authors suggest that the increased activity in respiratory viruses, combined with a low exposure to GAS during the COVID-19 pandemic, might have predisposed children to iGAS infections.

Summary

On 2 December 2022, an increase in iGAS and scarlet fever notifications caused by diverse emm types was observed in the EU/EEA and the UK, including several associated fatalities. Following the first reports on the increase of iGAS and scarlet fever notifications, retrospective studies based on surveillance data revealed an increase in iGAS and scarlet fever cases since the beginning of 2022 in some EU/EEA countries. Other countries outside the EU/EEA have also issued [alerts](#) on recent increases in iGAS among children. In the EU/EEA, the increase in iGAS notifications has been reported by [France](#), [Ireland](#), [the Netherlands](#), and [Denmark](#). Other EU/EEA [countries](#) have reported an increase in iGAS cases compared to the previous season, but with a lower incidence than before the pandemic.

The age groups most affected are children <10 years of age and people aged >65 years. According to available data, consultations for scarlet fever and iGAS notifications peaked in the pre-Christmas period in December 2022, before decreasing in January 2023.

On 12 December 2022, ECDC published a [news item](#) in collaboration with the WHO Regional Office for Europe advising countries to remain vigilant against increases in GAS and iGAS infections and to increase awareness among healthcare professionals and parents of young children.

ECDC assessment

Group A streptococcus (GAS) is considered the most common cause of bacterial pharyngitis in school-aged children. It may also affect the younger siblings of affected children. The incidence of GAS pharyngitis usually peaks during winter months and early spring. Outbreaks in kindergartens and schools are frequently reported. GAS pharyngitis is easily diagnosed by a rapid antigen detection test (Rapid Strep) and/or bacterial culture and treated with antibiotics and supportive care. Good hand hygiene and general personal hygiene (e.g. avoid sharing utensils, drinking glasses, and personal items, etc.) can help to control transmission within these settings.

Invasive GAS (iGAS) infections are rare life-threatening systematic infections, complicating simple scarlet fever or pharyngitis. Children recovering from viral infections, e.g. varicella (chickenpox), influenza, etc. are at higher risk of developing iGAS infection.

Neither GAS nor iGAS infections are notifiable at the EU level, and the ability to assess increased circulation in EU/EEA countries is limited as a result. However, WHO and ECDC currently assess that the risk posed by iGAS to

the general population is low, given that the current increase in iGAS cases is relatively low overall, the reported cases are not caused by a new strain, and the disease is easily treatable with antibiotics.

This season, typing data suggest that the surge of iGAS cases is not related to a specific or new strain or an increase in antibiotic resistance of GAS. The most common emm types reported are emm 1 and emm 12. Countries experiencing an increased number of cases are encouraged to share any emm-typing, M-typing, multilocus sequence typing (MLST), and/or whole genome sequencing (WGS) data via the related EpiPulse event page.

Actions

ECDC has opened an EpiPulse item and invited EU/EEA countries and the UK to share information on GAS and iGAS infections. In addition, in collaboration with the WHO Regional Office for Europe, EU/EEA countries and the UK have been contacted by ECDC through EpiPulse about the current situation related to GAS and iGAS infections.

In collaboration with the WHO Regional Office for Europe, ECDC has also published a [news item](#) advising countries to be vigilant against increases in GAS and iGAS infections, and to increase awareness among healthcare professionals and parents of young children.

ECDC is continuing to monitor this event through its epidemic intelligence activities and will report when relevant epidemiological updates are available.

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

Overview

Week 10/2023 (6 March – 12 March 2023)

- The percentage of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms that tested positive for an influenza virus increased from 24% in the previous week to 26% in week 10/2023, which remains above the epidemic threshold (10%).
- In total, 19 of 40 countries or areas reported medium or high intensity and 20 of 39 countries reported widespread activity, indicating substantial seasonal influenza virus circulation across the Region.
- Of the 21 countries that reported sentinel primary care specimen influenza virus positivity above the 10% epidemic threshold, France, Hungary, Romania and Slovenia reported activity above 40%.
- Influenza type A and type B viruses were detected in sentinel and non-sentinel surveillance, with influenza type B predominating in both systems.
- Hospitalised patients with confirmed influenza virus infection were reported from ICUs (with higher proportions of type B viruses), other wards (with higher proportions of type A viruses) and SARI surveillance (with higher proportions of type B viruses). Six countries or areas reported influenza virus positivity rates above 10% in SARI surveillance.

Source: [Flu News Europe](#)

ECDC assessment

Influenza activity had been decreasing across the Region until week 4/2023, following a peak at week 51/2022, but has fluctuated around 25% since week 6/2023 due to increased type B virus circulation.

Actions

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

6. Chikungunya and dengue - Multi-country (World) - Monitoring global outbreaks

Overview

Chikungunya virus disease: In 2023, and as of 9 March, 114 181 cases and 43 deaths have been reported. The majority of cases have been reported from Paraguay (82 240), Brazil (30 386), Argentina (655), Bolivia (300) and Thailand (259). All deaths have been reported from Paraguay (43).

Dengue: In 2023, and as of 9 March, 380 171 cases and 113 deaths have been reported. The majority of cases have been reported from Brazil (240 482), Bolivia (31 283), Peru (20 022), Colombia (15 972) and Nicaragua (13 187). The majority of deaths have been reported from Bolivia (26), Peru (26), Brazil (24), Sudan (14) and Bangladesh (9).

Summary:

Chikungunya virus disease

Europe:

No autochthonous cases of chikungunya virus disease have been reported in Europe in 2023.

Americas and the Caribbean:

The five countries reporting most cases are Paraguay (82 240), Brazil (30 386), Argentina (655), Bolivia (300) and Thailand (259).

Paraguay reported a large increase in chikungunya virus disease cases, with 11 650 cases reported during weeks 6-8, ([Ministry of Health Weekly Surveillance report](#)), and [media](#) report on pressure in the healthcare system in the country. In addition, on 2 March 2023, US CDC published an [advisory on the Health Alert Network](#) reporting on the increased number of cases in Paraguay and providing recommendations for healthcare professionals and travellers.

[Argentina:](#) In 2023 and as of 25 February, 655 cases, including 161 confirmed cases and no deaths, had been reported.

[Belize:](#) In 2023 and as of 4 February, 46 cases and no deaths had been reported.

[Bolivia:](#) In 2023 and as of 11 February, 300 cases and no deaths had been reported.

[Brazil:](#) In 2023 and as of 25 February, 30 386 cases, including 6 794 confirmed cases and no deaths, had been reported.

[Colombia:](#) In 2023 and as of 25 February, 9 cases and no deaths had been reported.

[Costa Rica:](#) In 2023 and as of 18 February, 2 cases, including 2 confirmed cases and no deaths had been reported.

[El Salvador:](#) In 2023 and as of 25 February, 4 cases and no deaths had been reported.

[Guatemala:](#) In 2023 and as of 11 February, 40 cases and no deaths had been reported.

[Nicaragua:](#) In 2023 and as of 18 February, 3 cases and no deaths had been reported.

[Paraguay:](#) In 2023 and as of 4 March, 82 240 cases, including 35 997 confirmed cases and 43 deaths had been reported.

[Peru:](#) In 2023 and as of 4 March, 97 cases, including 59 confirmed cases and no deaths had been reported.

[Uruguay:](#) In 2023 and as of 18 February, 4 cases, including 4 confirmed cases and no deaths had been reported.

[Venezuela:](#) In 2023 and as of 14 January, 13 cases and no deaths had been reported.

Asia:

[Malaysia:](#) In 2023 and as of 18 February, 94 confirmed cases and no deaths had been reported.

[Philippines:](#) In 2023 and as of 18 February, 29 confirmed cases and no deaths had been reported.

[Thailand:](#) In 2023 and as of 25 February, 259 confirmed cases and no deaths had been reported.

Africa:

No autochthonous cases have been reported in 2023.

Australia and the Pacific:

No autochthonous cases have been reported in 2023.

Denque

Europe:

No autochthonous cases have been reported in 2023. Six cases from 2022 were reported [retrospectively](#) in Spain in 2023.

Americas and the Caribbean:

In 2023, and as of 9 March 2023, [PAHO](#) has reported 339 126 cases of dengue and 83 associated deaths, in the Americas. The five countries reporting most cases are: Brazil (240 482), Bolivia (31 283), Peru (20 022), Colombia (15 972) and Nicaragua (13 187).

All four dengue virus serotypes (DENV 1, DENV 2, DENV 3, and DENV 4) are currently circulating in the Americas. The figures for each country of the Americas region can be found on the [PAHO Health Information Platform](#).

In the [French Antilles](#) between 1 January and 15 December 2022, confirmed cases were reported from Guadeloupe (79) and Martinique (25).

Asia:

[Bangladesh](#): In 2023 and as of 5 March, 758 cases and nine deaths had been reported.

[Cambodia](#): In 2023 and as of 4 February, 580 cases and one death had been reported.

[Laos](#): In 2023 and as of 4 February, 271 cases and no deaths had been reported.

[Malaysia](#): In 2023 and as of 4 February, 11 127 cases and six deaths had been reported.

[Singapore](#): In 2023 and as of 3 March, 1 746 cases and no deaths had been reported.

[Sri Lanka](#): In 2023 and as of 3 March, 12 496 cases and no deaths had been reported.

[Vietnam](#): In 2023 and as of 12 February, 11 991 cases and no deaths had been reported.

Africa:

[Sao Tome and Principe](#): In 2023 and as of 22 January, 19 confirmed cases and no deaths had been reported.

[Senegal](#): In 2023 and as of 22 January, four confirmed cases and no deaths had been reported.

[Sudan](#): In 2023 and as of 28 February, 1 701 cases, including 1 012 confirmed cases and 14 deaths, had been reported.

Australia and the Pacific:

[Australia](#): In 2023 and as of 6 March, 107 cases and no deaths had been reported.

[Marshall Islands](#): In 2023 and as of 4 February, one case and no deaths had been reported.

[Vanuatu](#): In 2023 and as of 28 January, four cases and no deaths had been reported.

[Wallis and Futuna](#): In 2023 and as of 28 January, nine cases and no deaths had been reported.

Disclaimer

The data presented in this report originates from both official public health authorities and non-official sources, such as news media. Data completeness depends on the availability of reports from surveillance systems and their accuracy, which varies between countries. All data should be interpreted with caution and comparisons, particularly across countries, avoided, due to the under-reporting, variations in surveillance system structure, varying case definitions between countries and over time, and use of syndromic definitions.

ECDC assessment

Chikungunya virus disease and dengue affect people in most countries in the tropics and sub-tropics. EU/EEA citizens travelling to the affected areas should adhere to personal protective measures against mosquito bites.

The likelihood for onward transmission of dengue and chikungunya virus disease in mainland EU/EEA is, among other things, linked to importation of the virus by viraemic travellers into receptive areas with established and active competent vectors (e.g. [Aedes albopictus](#)). [Aedes albopictus](#) is [established](#) in a large part of Europe. The current likelihood of the occurrence of local transmission events of the chikungunya and dengue viruses in mainland EU/EEA is very low, as the environmental conditions are not favourable to vector activity and virus replication. All autochthonous outbreaks of [chikungunya virus disease](#) and [dengue](#) in mainland EU/EEA have so far occurred between June and November.

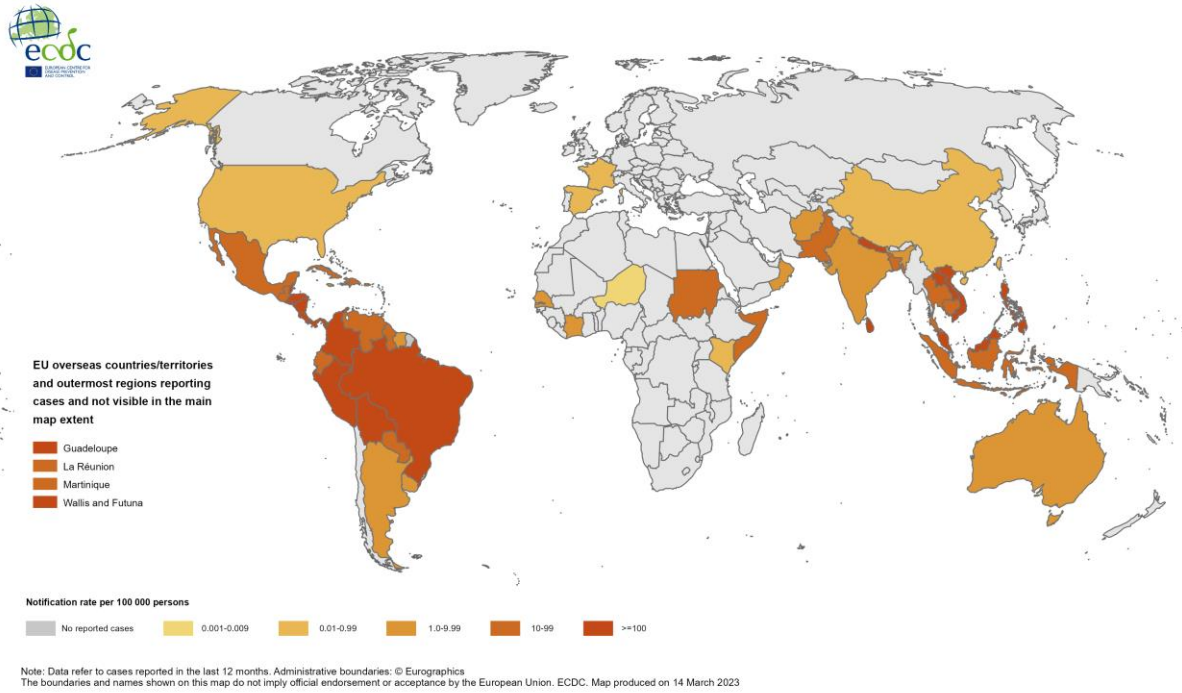
More information is available on ECDC's webpages on autochthonous transmission of [chikungunya](#) and [dengue](#) virus in the EU/EEA, as well as on ECDC's factsheets on [dengue](#) and [chikungunya](#).

Actions

ECDC monitors these threats through its epidemic intelligence activities, and reports on a monthly basis. A summary of the worldwide overview of [dengue](#) and [chikungunya virus disease](#) is available on ECDC's website.

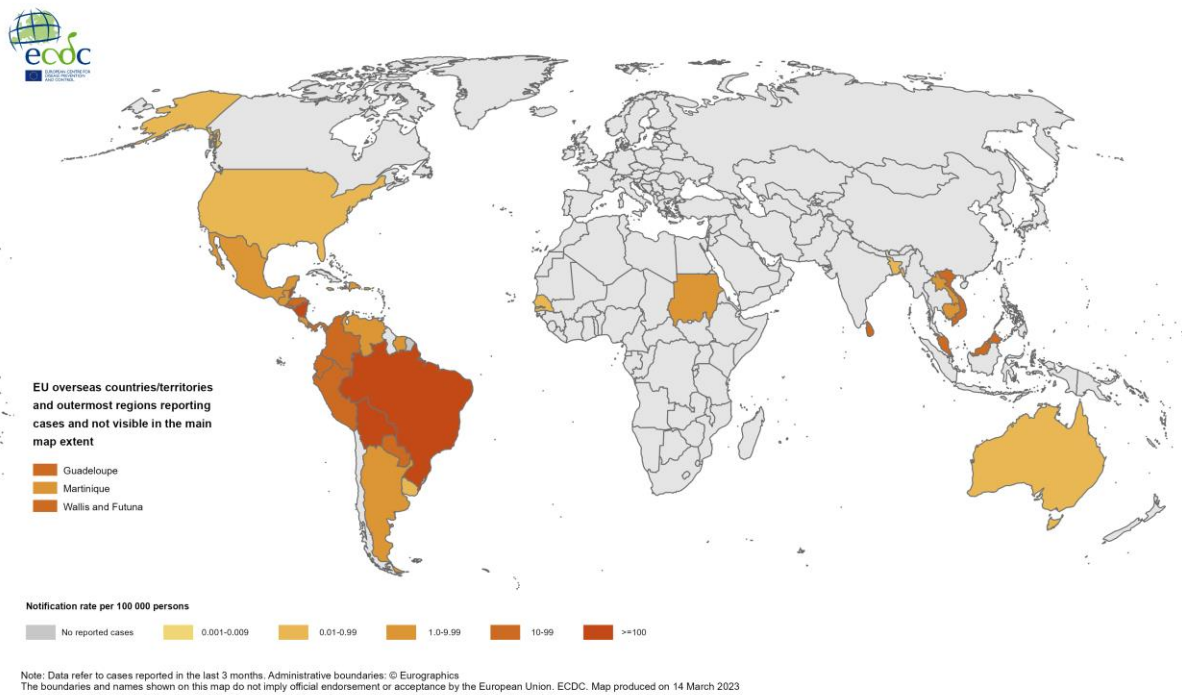
Maps and graphs

Figure 1. Twelve-month dengue virus disease case notification rate per 100 000 population, April 2022-March 2023



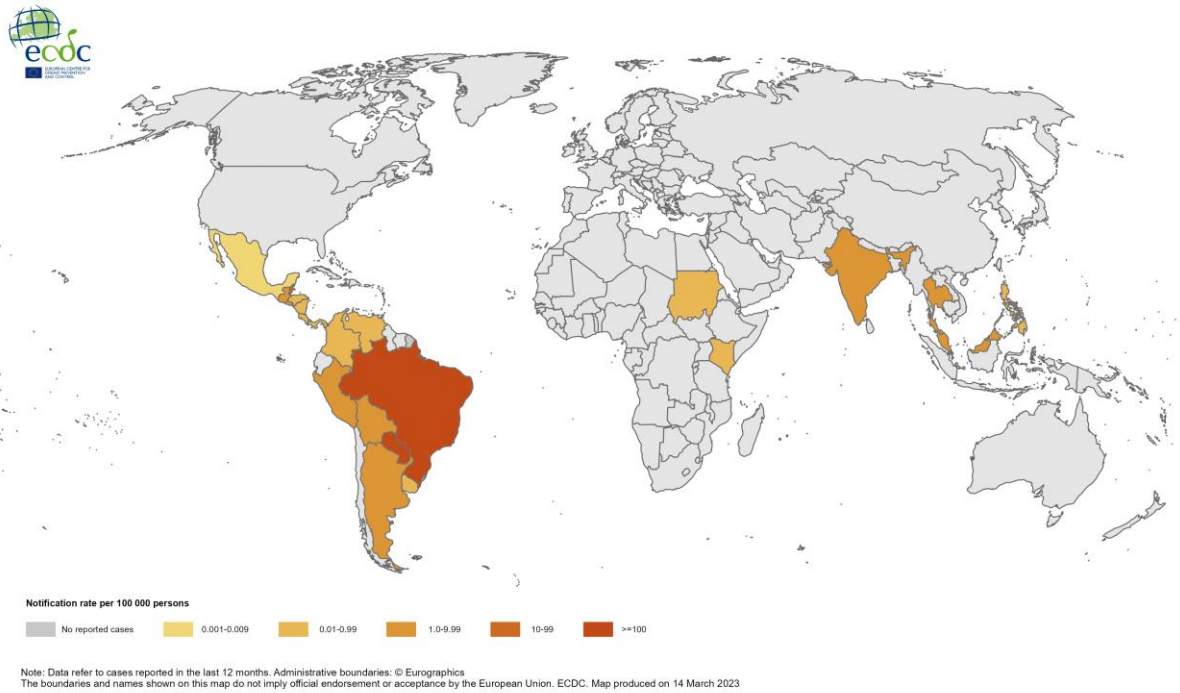
Source: ECDC

Figure 2. Three-month dengue virus disease case notification rate per 100 000 population, January-March 2023



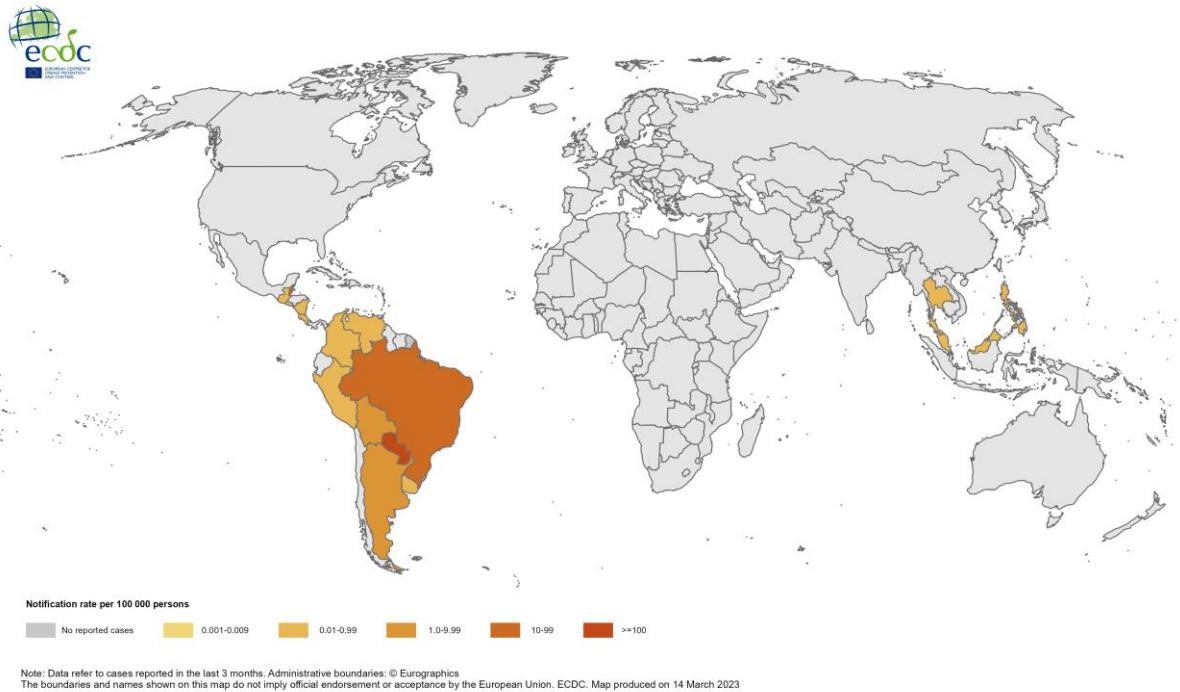
Source: ECDC

Figure 3. Twelve-month chikungunya virus disease case notification rate per 100 000 population, April 2022-March 2023



Source: ECDC

Figure 4. Three-month chikungunya virus disease case notification rate per 100 000 population, January-March 2023



Source: ECDC

7. Severe cases of influenza B among young people

Overview

As of 15 March 2023, Sweden has reported cases of laboratory-confirmed influenza B infection, associated with severe outcomes among children and adolescents with geographical proximity to one another. There were no underlying medical conditions. Complications included myocarditis and meningoencephalitis. All cases have been severe, requiring critical intensive care. As of 14 March, influenza vaccination is being offered free of charge to children 6-17 years of age in the region in question through the regional healthcare system. Case finding is ongoing to further investigate whether the cases are within the expected range of severe outcomes and explanatory factors.

So far, sequencing has been completed for some of the cases, all B/Victoria lineage. Phylogenetic analysis of HA1 suggests they are genetically similar to other circulating influenza B viruses in Sweden this season, belonging to genetic subgroup V1A.3a.2. This is the dominant subgroup across Europe and the northern hemisphere in the 2022-23 season and the northern hemisphere 2022-23 and 2023-24 influenza vaccine strain (B/Austria/1359417/2021-like virus) [1]. No antiviral resistance in influenza B viruses has been observed in the current season in Sweden or globally [2]. Further analysis of other samples from both severe and mild cases in the region and from the rest of Sweden is ongoing.

ECDC assessment

Very few influenza virus detections in humans were observed in the EU/EEA during the 2020/21 and 2021/22 seasons. The 2022/23 influenza season started early (W45-2022), with widespread circulation and intensity levels comparable to pre-COVID-19-pandemic seasons. In Sweden, influenza type A(H3N2) and A(H1N1)pdm09 co-circulated between W45-2022 and W07-2023, with virus detections peaking in W52-2022. Influenza detections have gradually declined since W52-2022, albeit with the proportion of influenza type B virus detections among all positive samples increasing since W07-2023. This mirrors the trend observed across the EU/EEA.

Although the influenza type B virus cases reported in Sweden have been detected in the same region, only two confirmed and one suspected case are known to share an epidemiological link. So far, there is no indication that the influenza B viruses circulating in Sweden differ from those circulating elsewhere in the EU/EEA or globally.

It is unknown whether cases had been vaccinated against seasonal influenza or had had COVID-19 prior to the onset of the influenza infection. None of the cases have a co-infection with COVID-19 and influenza B.

Reduced circulation of, and population exposure to influenza viruses during the preceding seasons may have had an impact on immunity to the influenza viruses currently in circulation, so it is important to remain vigilant for signals of increased severity in different population groups.

Actions

An EpiPulse event item has been launched to facilitate reporting of epidemiological information from all EU/EEA countries. ECDC will continue to monitor the event in EpiPulse and via Epidemic Intelligence activities. ECDC encourages countries to provide information on cases of laboratory-confirmed influenza B infection observed among children and adolescents, associated with severe outcomes. Countries are encouraged to determine the lineage, as well as perform genetic and antigenic characterisation for such cases. It would also be advisable for countries to share either clinical specimens or virus isolates with the WHO Collaborating Centre (London) for further characterisation. Where available, countries are asked to provide GISAID accession numbers for sequenced isolates, to enable genomic analyses and comparisons. ECDC can offer sequencing and virus characterisation support through contracted activities.