WEEKLY BULLETIN

# Communicable Disease Threats Report

Week 13, 26 March–1 April 2023

## Today's disease topics



## 1. Weekly summary

**Overview:**

**Iatrogenic botulism, exposure in Türkiye**

- As of 30 March 2023, 34 cases of botulism have been reported in Germany (30 cases), Austria (one case), France (one case) and Switzerland (two cases).
- Cases underwent a medical procedure consisting of intragastric injection of botulinum neurotoxin to treat obesity in Türkiye between 3 and 25 February 2023.
- Furthermore, the IHR National Focal Point for Türkiye has reported 53 cases of botulism 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).
- Among 65 cases with known information, the procedure was performed in a single clinic in Istanbul, Türkiye.
- 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 at the hospitals concerned. The products used are not licensed for this type of treatment neither in the EU nor in Türkiye.

- Individuals who travelled to Türkiye for intragastric injection of botulinum neurotoxin between 3 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.

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

- In week week 12 (ending 26 March 2023), overall, there were decreasing or stable trends observed in the majority of EU/EEA indicators. Among the countries reporting increases in any indicator compared to the previous week, values of indicators remain low to moderate. Seven countries reported increases in overall COVID-19 deaths in the last 1–2 weeks
- XBB.1.5 is the dominating lineage in EU/EEA countries and XBB.1.5 is stable/increasing in proportions in most of the EU/EEA countries with adequate sequence reporting volume. As of 27 March 2023, XBB.1.5-like lineages are present in proportions near or above 50% in the following EU/EEA countries: Belgium (52%), Denmark (64%), France (71%), Germany (60%), Ireland (74%), Italy (66%), Luxembourg (55%), Netherlands (70%), Poland (62%), Portugal (49%), Spain (78%) and Sweden (58%), according to GISAID EpiCoV data.
- According to China CDC's latest update on 25 March 2023, the COVID-19 situation in mainland China has stabilised to between 3 000 and 5 000 cases per day, with fluctuations within that range. Hospitalisations and deaths are closed to zero.

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

- Ireland has reported 10 additional iGAS cases for the period 12 to 18 March 2023. In 2023, 117 iGAS cases were notified compared to eight in the same period of 2022.
- Greece has reported additional iGAS-related fatalities.

**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.
- Following a peak at week 51/2022, influenza activity had been decreasing across the Region until week 4/2023 when it reached 22% positivity before rising again to fluctuate around 25% positivity between weeks 6 and 11/2023 before decreasing again to 22% positivity in week 12/2023.
- Overall this season, influenza A(H3) viruses have dominated in sentinel primary care specimens, however higher circulation of A(H1)pdm09 and type B viruses was observed starting from week 50/2022 and week 2/2023, respectively. A similar prevalence of A(H1)pdm09 and 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 patients.

**Marburg virus disease - Equatorial Guinea - 2023**

- As of 28 March 2023, according to the Ministry of Health (MoH) of Equatorial Guinea, the total number of positive MVD cases is 13.
- On 23 March 2023, the MoH of Equatorial Guinea stated that of the nine confirmed cases, four were reported from Bata (Litoral Province), three from Ebebiyin (Kie-Ntem Province), and two from Evinanyong (Centre-Sur Province).
- Epidemiological surveillance and contact tracing efforts are ongoing.
- WHO and partners are supporting Equatorial Guinea and neighbouring countries.

**Marburg virus disease - Tanzania - 2023**

- As of 30 March and since the previous update on 25 March 2023, there are no new relevant epidemiological updates on the Marburg virus disease (MVD) outbreak in Tanzania.
- As of 30 March 2023, the cumulative number of MVD cases in the country is eight confirmed cases, including five deaths.
- The Ministry of Health of Tanzania has sent a rapid response team to the affected area. Contact tracing, case management, and risk communication are occurring.

**Human cases of swine influenza A(H1N1) variant virus - Multi-country - 2022-2023**

- Two new cases with swine influenza A(H1N1) variant virus (A(H1N1)v have been reported in China.
- Overall, in 2022, there were four cases of A(H1N1)v reported in Germany, China, and Brazil, and one case in 2023 in China.
- To date no human-to-human transmission has been reported.

**Influenza A(H3N8) – China – 2022-2023**

- A new case of human infection with avian influenza A(H3N8) was reported by Chinese authorities in a 56-year-old woman with exposure history to backyard poultry and wild bird activities.

- This is the third case reported globally since April 2022. The previous cases are children, both from China with exposure history to backyard poultry and live poultry market.
- No human-to-human transmission is reported to date. The risk for human population in the EU/EEA is assessed as very low.

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

- In March 2023, Chile reported one human infection with avian influenza A(H5N1) in a 53-year-old man. Investigations are ongoing to identify the source of infection and contacts of the case.
- To date, no human-to-human transmission has been detected. Overall, 874 human cases with avian influenza A(H5N1), including 458 deaths (CFR: 52.4%), have been reported in 23 countries since 2004.
- The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be low. The risk to occupationally exposed groups such as cullers has been assessed as low to medium.

**Influenza A(H5N6) - Multi country - Monitoring human cases**

- One new case of human infection with avian influenza A(H5N6) was reported from China with date of onset in December 2022. The patient is a 49-year-old man from Guangdong province.
- Overall, 84 cases, including 33 deaths (CFR:40%) have been reported in China (83) and Laos (1).
- To date, no human-to-human transmission has been reported.
- The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be very low.

**Influenza A(H9N2) - Multi-country (World) - Monitoring human cases**

- Two new cases of avian influenza A(H9N2) have been reported in China, bringing the overall number of human cases to 120, including two deaths, since 1998.
- Most of the cases have been reported in China (107).
- No human cases have been reported in the EU/EEA.
- The risk of zoonotic influenza A(H9N2) transmission to the general public in EU/EEA countries is considered to be very low.

**Poliomyelitis - Peru - 2023**

- On 21 March 2023, a case of acute flaccid paralysis (AFP) caused by vaccine-derived poliovirus type 1 (VDPV1) was reported in Peru.
- The case is a 16-month-old unvaccinated male who lives in an indigenous community in the Manseriche district of the Datem del Marañón province, Loreto department, Peru.
- The Region of the Americas was declared polio-free in 1994, as the first of the WHO Regions. The last polio case in Peru due to wildtype polio occurred in 1991.

# 2. Iatrogenic botulism, exposure in Türkiye

**Overview:**

**Update 30 March 2023**
Since the last update, three more cases have been identified in Germany through active case finding and one in Switzerland.

The German National Consultant Lab for neurotoxin-producing clostridia (botulism, tetanus), located at RKI, has succeeded in detecting the toxin in clinical samples from the current iatrogenic botulism outbreak. With a combination of different methods, the researchers managed to detect BoNT/A in levels below the detection level of the current gold standard method – mouse bioassay – in sera from 9 out of 12 tested patients. Even with the increased sensitivity of these assays however, it was not possible to demonstrate the very small amounts of BoNT in some of the serum samples, especially when patients were sampled late. A negative lab result should therefore not be used to rule out a case as a clinical-epidemiological case of iatrogenic botulism where the exposure to BoNT is known.

The European Medicines Agency informs that none of the licensed BoNT products in the EU are approved for the treatment of obesity by intragastric injection.

**Summary**
The International Health Regulations (IHR) National Focal Point (NFP) for **Türkiye** 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 (three 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 Botulism 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 patients were treated at two hospitals and the botulinum neurotoxin (BoNT) products administered 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 (off-label use). Consequently, the relevant departments of both hospitals have had their activities suspended, and investigations are ongoing against the parties involved.

**Germany** reports **30** 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 2 500 units of BoNT in Türkiye between 3 and 25 February 2023 (most cases were treated on 22-25 February). The earliest known case received treatment on 3 February in the implicated clinic in Istanbul and developed symptoms on 7 February. The patient was still suffering from symptoms at the end of March. From a list of 26 persons treated with intragastric BoNT with discernible links to Germany (German passport, German phone number), 25 were already known as cases or could be contacted: 22 (92%), and all of those with the treatment after 18 February 2023, were ill with symptoms of botulism. 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).

**Austria** has reported one case (female; 25-44 years) of apparent 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).

**France** reports one clinical case of botulism in an adult female hospitalised in ICU for surveillance. Date of BoNT injection was on 22 February 2023 in Istanbul.

**Switzerland** has reported (information submitted via France and Germany) two probable cases of botulism, both adult females. Both patients had undergone intragastric injection of BoNT administered in Türkiye on 22 and 25 February 2023. The patients 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.

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 34 cases of iatrogenic botulism in Germany (30 cases), Austria (one case), France (one case), and Switzerland (two cases) with gastric injections of BoNT administered in Istanbul, Türkiye on dates between 3 and 25 February 2023. The cases are middle-aged adults. Türkiye has reported an additional 53 cases among individuals who underwent the same procedure in two private hospitals in Istanbul (50 cases) and Izmir (three cases) between 28 February and 8 March 2023. Given the possible variation in the clinical presentation of botulism illness, there may be further cases 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 present, it is unclear whether this event represents a therapeutic or procedural issue in the involved hospitals. The products used are not licensed for this type of treatment neither in the EU nor in Türkiye.
Individuals who have travelled to Istanbul and Izmir for intragastric BoNT treatment between 3 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 **2023-FWD-00013**.

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

**Overview:**

**Summary:**
At the pooled EU/EEA level, the epidemiological picture over the past 12 months since the initial large Omicron peak has been characterised by periodic waves of infection, approximately every 2–3 months. There has been a general downward trend in the height of the associated peaks in reported cases, hospitalisations, ICU admissions, and deaths in this period.

By the end of week 12 (ending 26 March 2023), overall, there were decreasing or stable trends observed in the majority of EU/EEA indicators based on pooled country data. The pooled COVID-19 death rate decreased compared to the previous week, with 788 deaths reported from 25 countries in the previous week.

There is some variation across the EU/EEA with some countries reporting increasing trends. Among the countries reporting increases in any indicator compared to the previous week, values of indicators remain low to moderate (cases below 12%, hospital indicators below 22%, and deaths below 13%) relative to the maximum reported during the pandemic.

The following country-level trends were observed:

- Case rates among people aged 65 years and above increased in 10 out of 26 countries with reported data. These trends have continued for the past seven weeks in one of the 10 countries (Romania).
- Four out of 22 countries reporting data reported increases in the last 1–3 weeks in at least one hospital or ICU indicator.

- Seven countries reported increases in overall COVID-19 deaths in the last 1–2 weeks. Increases in death rates in the age groups 65–79 years and 80 years and above were reported by nine and eight of the 25 countries with age-specific data, respectively.

The cumulative uptake of a first booster 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 was 17.3% (country range: 0.2–42.0%) 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.

Among the 10 countries with an adequate volume of sequencing or genotyping for weeks 10–11 (6 March to 19 March 2023), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 54.3% (29.2–75.3% from nine countries) for XBB.1.5, 12.2% (1.2–23.4% from nine countries) for XBB, 11.7% (5.1–51.7% from 10 countries) for BA.2.75, 11.6% (7.0–31.7% from nine countries) for BQ.1, 1.9% (0.5–45.5% from 10 countries) for BA.5, 0.6% (0.1–11.8%, 99 detections from eight countries) for BA.2, and 0.3% (0.1–0.6%, 5 detections from three countries) for BA.4

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 23 March 2023, and as of 31 March 2023, no changes have been made to ECDC variant classifications for variants of concern (VOC), variants of interest (VOI), variants under monitoring or deescalated 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 United States with the sample collection dates dated from 22 October 2022, and this lineage has been seen 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]. In addition, through the VOI XBB.1.5 lineages, ECDC is monitoring an umbrella of SARS-COV-2 lineages that have similar Spike protein profiles and characterised by a specific set of mutations (S:Q183E, S:F486P and S:F490S). This umbrella includes, for instance, the lineages XBB.1.5, XBB.1.9.1*, XBB.1.9.2*, and XBB.1.16. In order make this clearer, we renamed the VOI as 'XBB.1.5-like' to reflect the fact that an umbrella of SARS-COV-2 lineages with is monitored with this variant of interest.

The US CDC nowcast system estimates the current proportion of the variant around 90.2% (previous week 89.7%) in the USA. For the last week with complete data (week 9 2023), the US CDC reports 84.3% XBB.1.5 (previous week 81.7%).

This lineage is currently estimated to have a large growth advantage relative to previously circulating lineages in North America (50%) and Europe (46%) (estimates provided by CoV-spectrum based on data from GISAID EpiCoV), though 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 during the pandemic, probably due to it requiring two nucleotide substitutions in the same codon to change from Phenylalanine to Proline. Other variants with this change have however 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 compared to XBB.1, but that it is associated with a higher ACE2 affinity, which could indicate that the advantage of XBB.1.5 compared to 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.

XBB.1.5 is the dominating lineage in EU/EEA countries and XBB.1.5 is stable/increasing in proportions in most of the EU/EEA countries with adequate sequence reporting volume. Based on GISAID EpiCoV data as of 27 March 2023, XBB.1.5-like lineages are present in proportions near or above 50% in the following EU/EEA countries: Belgium (52%), Denmark (64%), France (71%), Germany (60%), Ireland (74%), Italy (66%), Luxembourg (55%), Netherlands (70%), Poland (62%), Portugal (49%), Spain (78%) and Sweden (58%), according to GISAID EpiCoV data.

A threat assessment brief on XBB.1.5 was published on 13 January 2023.

**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:**

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.

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

**Sources:** China CDC, media, media, media, media, GISAID
**Update**
On 25 March 2023, China CDC published an epidemiological update on the COVID-19 situation in mainland China including data until 23 March 2023. According to the report, on 23 March 2023, 3 575 positive nucleic acid tests and 165 positive antigen tests were reported. Following the peak on December 2022, the COVID-19 situation in mainland China has stabilized between 3 000 and 5 000 cases per day with fluctuations within that range. Additionally, there were 5 severe COVID-19 cases hospitalised on 16 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 17 March to 23 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, reaching 53.5% for week 11 (period 13 to 19 March).

According to the WHO COVID-19 Dashboard, since 3 January 2020 and as of 29 March 2023, a total of 99 238 143 COVID-19 confirmed cases and 120 894 deaths have been reported to WHO (including Taiwan and Special Administrative Regions).

**Information on variants from public sources**
From 1 January 2023 to 31 March 2023, China has deposited 17 882 sequences. As of 31 March 2023, of the total 17 882 sequences submitted from China, 8 561 sequences had recent sample collection dates between 1 January 2023 and 27 March 2023 in GISAID EpiCoV. These sequences mainly belonged to the lineages BA.5.2.48 (60.7%), BF.7.14 (28.1%), BA.5.2.49 (6%) and BA.5.2 (2.6%). Other lineages (including their sub-lineages) circulating in proportions below 1% include XBB.1.5 (52 samples) and BQ.1 (9 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).

# 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 22 March 2023, the Irish Health Protection Surveillance Centre (HPSC) published a provisional update on notifiable infectious diseases in Ireland, reporting 10 confirmed iGAS cases for the period 12 to 18 March 2023. Among these, most were in the age groups 0-4 years (2) and 55-64 years (2). In 2023, as of 18 March, a total of 117 iGAS cases had been notified in Ireland, compared to eight cases reported in the same period the year before.

Since October 2022, six paediatric deaths from iGAS have been reported, and 10 in adults.

**Greece:** According to information provided to the ECDC, the Greek National Public Health Organization (NPHO) was recently notified of another fatality related to iGAS in an 18-month-old child. In 2023, three fatalities linked to iGAS have been reported in Greece.

**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. avoiding the sharing of 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 estimate 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.

ECDC and the WHO Regional Office for Europe have 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.

**Source:** Surveillance Portal: 3702

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

**Overview:**

**Week 12/2023 (20 March – 26 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 decreased to 22% in week 12/2023 from 24% in the previous week and remaining above the epidemic threshold (10%).
- 15 of 37 countries or areas reported medium intensity and 20 of 37 countries reported widespread activity indicating substantial seasonal influenza virus circulation across the Region.
- Of the 20 countries that reported sentinel primary care specimen influenza virus positivity above the 10% epidemic threshold, only Hungary 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 ICU (with higher proportions of type B viruses) and SARI surveillance (with higher proportions of type B viruses). Four countries or areas reported influenza virus positivity rates above 10% in SARI surveillance (Lithuania, Romania, Serbia, and Ukraine).

**Source: Flu News Europe**

**ECDC assessment:**

Following a peak at week 51/2022, influenza activity had been decreasing across the Region until week 4/2023 when it reached 22% positivity before rising again to fluctuate around 25% positivity between weeks 6 and 11/2023 before decreasing again to 22% positivity in week 12/2023.

**Actions:**

ECDC and WHO monitor influenza activity in the WHO European Region. Data are available on the **Flu News Europe** website.

# 6. Human cases of swine influenza A(H1N1) variant virus – Multi-country – 2022–2023

**Overview:**

On 3 March 2023, WHO reported two new human cases with influenza A(H1N1) variant virus infection, both in China. The previous case was reported from Brazil in September 2022.

To date no human-to-human transmission has been reported.

Overall, there have been four cases of A(H1N1)v in 2022 reported in Germany, China, and Brazil, and one case in 2023 reported in China.

Source: WHO Influenza at the human-animal interface (27 January to 3 March 2023)

**ECDC assessment:**

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

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

**Actions:**

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

**Source:** Surveillance Portal: 2022-E000398

# 7. Marburg virus disease – Equatorial Guinea – 2023

**Overview:**

**Update**:

According to the **Ministry of Health (MoH) of Equatorial Guinea**, as of 28 March 2023, the number of positive cases since the start of the epidemic has increased to 13. Two of the cases are hospitalised with mild symptoms, one case has recovered, and no information is available on the fourth case. Nine deaths were reported among laboratory-confirmed cases. Since the beginning of the epidemic, 825 contacts have been followed up.

Previously, in a MoH **epidemiological update** published on 23 March 2023, there were nine confirmed MVD cases, including seven deaths. Of the nine confirmed cases, four were reported from Bata (Litoral Province), three from Ebebiyin (Kie-Ntem Province), and two from Evinayong (Centro Sur Province).

**Summary**: On 8 February 2023, the **Ministry of Health in Equatorial Guinea** published an epidemiological alert regarding an unknown disease-causing haemorrhagic fever in two neighbouring communities in the district Nsok Nsomo, in the province of Kié-Ntem. On 13 February 2023, **Equatorial Guinea** confirmed the first MVD outbreak in the country. The **index case** died in **early January 2023** and the Ministry of Health of Equatorial Guinea was notified on 7 February 2023.

On 23 March 2023, additional information from the Ministry of Health of Equatorial Guinea was **published** reporting that two of nine confirmed cases were among healthcare workers and that on 21 March 2023, 67% contacts were still being followed up (307 of the 459 identified). The nine confirmed cases were reported from Bata (Litoral Province), Ebebiyin (Kie-Ntem Province), and Evinayong (Centro Sur Province). As of 28 March 2023, according to the **Ministry of Health of Equatorial Guinea** the total number of positive MVD cases is 13.

On 14 February 2023, during an **emergency meeting of the Marburg virus vaccine consortium (MARVAC)**, the **World Health Organization** representative for Equatorial Guinea reported that epidemiological surveillance in the country was increasing, including intensified contact tracing. A 30-day response plan was also being developed to assess the needs and impact of the current situation.

The National Technical Committee of Health Emergencies is **working** closely with the Ministry of Health and Social welfare to coordinate and strengthen disease control and prevention. **WHO** and its **partners** are supporting Equatorial Guinea and **neighbouring countries**.

**Marburg virus disease** (MVD), formerly known as Marburg haemorrhagic fever, is a severe disease in humans caused by *Marburg marburgvirus* (MARV), with a case **fatality ratio of up to 88%**. Although MVD is uncommon, MARV has the potential to cause epidemics with significant case fatality rates. All recorded MVD outbreaks have originated in Africa.

Since 1967, when MVD was first detected, approximately **600 MVD cases** have been reported in outbreaks in Angola, the Democratic Republic of the Congo, Ghana, Guinea, Equatorial Guinea, Kenya, South Africa, Tanzania, and Uganda.

Please refer to the ECDC **factsheet** about MVD for additional information.

**ECDC assessment:**

This is the first MVD outbreak to occur in Equatorial Guinea.

Although the disease is severe with a high fatality rate, the likelihood of exposure and infection by MARV for EU/EEA citizens travelling or residing in the affected areas in Equatorial Guinea is currently very low. As a result, the risk of infection by MARV for EU/EEA citizens travelling or residing in Equatorial Guinea is currently very low.

The most likely route of introduction of MARV into the EU/EEA would be via infected travellers. While importation of the virus cannot be excluded, it is currently very unlikely to occur. Should a case be imported nonetheless, the likelihood of the spread of the virus within the EU/EEA is considered to be very low.

Direct contact with blood and other body fluids of infected people, or indirect contact with contaminated surfaces and materials like clothing, bedding, and medical equipment should be avoided. Furthermore, habitats that may be populated by bats, such as caves or mines in areas where MVD has been reported, as well as any form of close contact with wild animals, including monkeys, forest antelopes, rodents, and bats, both alive and dead, and the manipulation or consumption of any type of bushmeat should be avoided.

**Actions:**

ECDC is monitoring this event through its epidemic intelligence activities and will report when relevant information is available.

ECDC is in contact with partners.

**Source:** Surveillance Portal: 42729, 000057

# 8. Marburg virus disease – Tanzania – 2023

**Overview:**

**Update**: As of 30 March, and since the previous update on 25 March 2023, there are no new relevant epidemiological updates on the Marburg virus disease outbreak in Tanzania.

**Summary:** On 17 March 2023, the Ministry of Health of the Republic of Tanzania reported seven people affected by an undiagnosed disease in Kagera, northern Tanzania, including five deaths and two people treated at hospital. The affected individuals presented with symptoms of fever, vomiting, bleeding from various parts of their body, and kidney failure. An investigation was initiated to determine the cause of the outbreak.

On 21 March 2023, according to Africa Centres for Disease Control and Prevention (Africa CDC), the Ministry of Health confirmed an outbreak of Marburg virus disease (MVD) in the Bukoba district in the Kagera region of northwest Tanzania. The cumulative number of MVD cases in the country was eight confirmed cases, including two healthcare workers. Five of these cases died, one was a healthcare worker, 161 contacts were identified and were being monitored. On 29 March 2023, during a WHO press conference, it was reported that three people were being treated in a health facility.

The samples were tested and confirmed at the National Public Health Laboratory in Tanzania.

This is the first reported outbreak of MVD in Tanzania. The Kagera region borders Uganda, Rwanda, and Burundi. The population in this region is highly mobile, creating the risk of cross-border spread. MVD outbreaks have been previously reported in Uganda in regions neighbouring the currently affected area in Tanzania, which is remote, not densely populated, and not often frequented by tourists.

The Ministry of Health of Tanzania has sent a rapid response team to the affected area. Contact tracing, case management, and risk communication are occurring. Africa CDC, and WHO are also assisting the Ministry of Health with the deployment of teams of experts. On 21 March 2023, during a press conference, a WHO representative emphasised the internal capacity and preparedness of Tanzania to manage the situation and stated that the WHO is committed to supporting the Tanzanian government in their response.

**Marburg virus disease** (MVD), formerly known as Marburg haemorrhagic fever, is a severe disease in humans caused by *Marburg marburgvirus* (MARV), with a **fatality ratio of up to 88%**. Although MVD is uncommon, MARV has the potential to cause epidemics with significant case fatality rates. All recorded MVD outbreaks have originated in Africa.

Since 1967, when MVD was first detected, approximately **600 MVD cases** have been reported in outbreaks in Angola, the Democratic Republic of the Congo, Ghana, Guinea, Equatorial Guinea, Kenya, South Africa, and Uganda.

Please refer to the ECDC **factsheet** about MVD for additional information. The latest occurrence of MVD is the outbreak in Equatorial Guinea, which was declared on 13 February 2023 and is still ongoing.

**ECDC assessment:**

This is the first MVD outbreak to occur in Tanzania.

Although the disease is severe with a high fatality rate, the likelihood of exposure and infection by MARV for EU/EEA citizens travelling or residing in the Kagera region of Tanzania is currently very low. As a result, the risk of infection by MARV for EU/EEA citizens travelling or residing in the affected region is currently very low, provided they adhere to the recommended precautionary measures.

The most likely route of introduction of MARV into the EU/EEA would be via infected travellers. While importation of the virus cannot be excluded, it is currently very unlikely to occur. Should a case be imported nonetheless, the likelihood of the spread of the virus within the EU/EEA is considered to be very low.
Direct contact with blood and other body fluids of infected people, or indirect contact with contaminated surfaces and materials like clothing, bedding, and medical equipment should be avoided. It is advisable to avoid habitats that may be populated by bats, such as caves or mines in areas/countries where MVD has been reported, as well as any form of close contact with wild animals, including monkeys, forest antelopes, rodents, and bats, both alive and dead, and the manipulation or consumption of any type of bushmeat.

**Actions:**

The ECDC epidemic intelligence team is closely monitoring this event through its epidemic intelligence activities and will update this EpiPulse item as soon relevant information is available.

# 9. Influenza A(H3N8) – China – 2022-2023

**Overview:**

On 27 March 2023, authorities of the Macao Special Administrative Region of the People's Republic of China reported a human infection with avian influenza A(H3N8). The reported person is a 56-year-old woman from Zhongshan City, Guangdong Province. The woman had exposure to backyard poultry and a history of wild bird activities before onset of symptoms. No additional cases among her contacts have been reported to date.

The A(H3N8) virus is an avian influenza virus that has been detected globally in horses, dogs, poultry, and seals.

Since detection of the first human case with A(H3N8) in April 2022, and as of 27 March 2023, there have been three cases reported. The previous two cases were children: a four-year old boy from Henan province, China, diagnosed in April 2022, who was in critical condition and had exposure to backyard poultry; a second case was a five-year old boy in Hunan province, China, who developed mild symptoms in May 2022 following exposure to a live poultry market.

Additional sources: Hong Kong health authorities

**ECDC assessment:**

This is the third human case of influenza A(H3N8) virus infection over the last year. No human-to-human transmission has been reported to date. This event is a sporadic bird-to-human zoonotic transmission, but with human cases in different geographical regions in China occurring over a short period of time. Whenever avian influenza viruses transmit to humans, further investigations on the molecular composition of the related viruses as well as risk factors that contributed to the spill-over need to be studied.

The risk for human population in the EU/EEA is assessed as very low.
Sporadic human cases of unusual avian influenza viruses have been detected (e.g. H10N3, H10N8, H7N4, H6N1). Although these cases are not unexpected, it is important to conduct investigations on the source and mode of transmission in the animal-health interface.

**Actions:**

ECDC monitors avian influenza strains through its epidemic intelligence activities and in collaboration with EFSA and the EU reference laboratory in order to identify significant changes in the epidemiology of the virus. ECDC, together with EFSA and the EU reference laboratory for avian influenza, produces a quarterly updated report of the avian influenza situation. The most recent report was published in March 2023.

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

**Overview:**

On 27 March 2023, the Ministry of Health of Chile (MoH) reported one human infection with avian influenza A(H5N1) in a 53-year-old man in northern Chile. Investigations are ongoing to identify the source of infection and contacts of the case. The case presented with severe symptoms and is now in stable condition. Samples tested positive for avian influenza A(H5N1) in the national Institute of Public Health, according to the MoH report. National authorities implemented measures according to their sanitary protocol.

This is the first case with avian influenza A(H5N1) infection detected in humans in Chile.
Globally, as of 30 March 2023, there have been 874 cases, including 458 deaths (Case Fatality Rate: 52.4%), of human infection with avian influenza A(H5N1) reported in 23 countries since 2004. To date, no human-to-human transmission has been detected.

**Sources**: ECDC Avian influenza, ECDC Avian influenza overview: Latest situation update of the avian influenza in EU/EEA, the Ministry of Health of Chile

**ECDC assessment:**

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

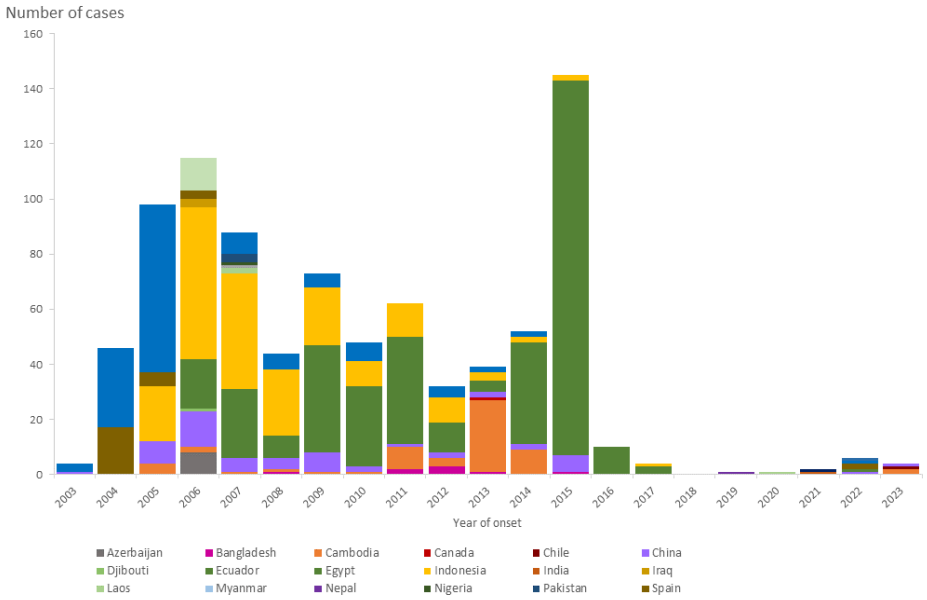
Overall, the risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be low. The risk to occupationally exposed groups such as cullers has been assessed as low to medium. Direct contact with infected birds or a contaminated environment is the most likely source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

**Actions:**

ECDC monitors avian influenza strains through its influenza surveillance programme and epidemic intelligence activities in collaboration with the European Food Safety Authority (EFSA) and the EU reference laboratory for avian influenza, in order to identify significant changes in the virological characteristics and epidemiology of the virus. ECDC, together with EFSA and the EU reference laboratory for avian influenza, produces a quarterly updated report of the avian influenza situation. The most recent report was published in March 2023. ECDC will contact WHO for further details on this event.

**Source:** Surveillance Portal: 2023-E000065

**Figure 1. Distribution of confirmed human cases of avian influenza A(H5N1) virus infection by year of onset and country, 2003–2023 (updated on 30 March 2023, n=874)**




*Source: ECDC*

# 11. Influenza A(H5N6) – Multi country – Monitoring human cases

**Overview:**

**Update:** As of 30 March 2023, and since the last case reported on 2 February 2023, one new human case with avian influenza A(H5N6) virus infection has been reported in China. The patient, a 49-year-old man from Qingyuan, Guangdong province, developed symptoms on 17 December 2022 and was admitted to hospital with severe pneumonia on 21 December 2022. He had exposure to backyard poultry prior to disease onset. There were no additional cases among contacts of this case.

**Summary:** Since 2014, and as of 30 March 2023, 84 laboratory-confirmed cases, including 33 deaths (CFR: 40%), of human infection with influenza A(H5N6) virus have been reported. The cases were reported from China (83) and Laos (1).

Sources: Press release of the Government of the Hong Kong Special Administrative Region, WHO Avian Influenza Weekly Update Number 885

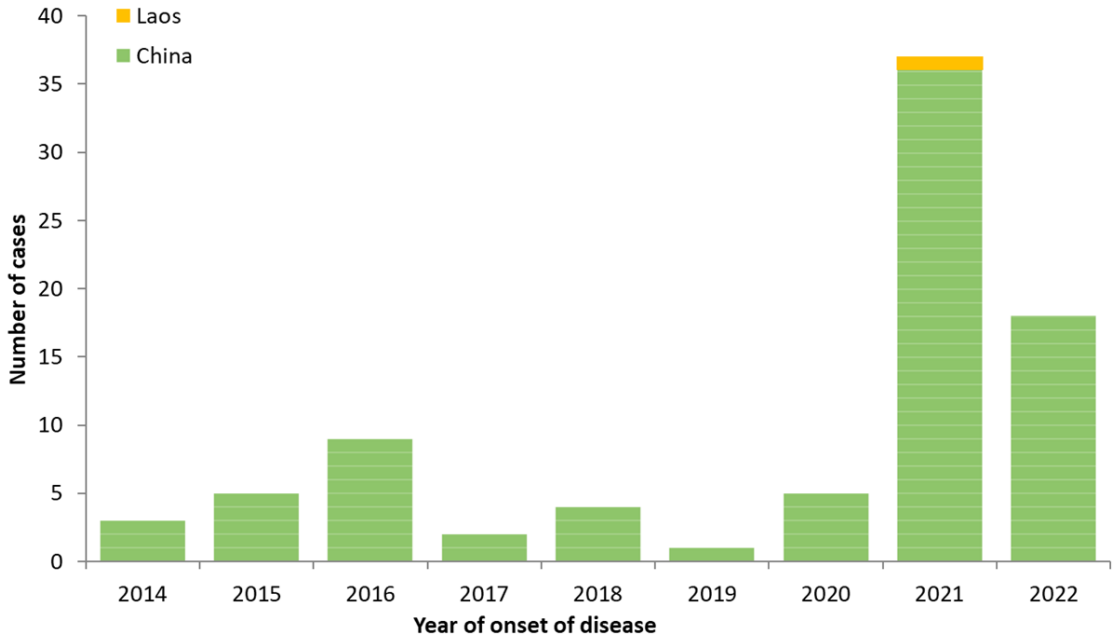
**ECDC assessment:**

Sporadic human cases of avian influenza A(H5N6) have been previously observed. No human-to-human transmission has been reported to date. Sporadic zoonotic transmission cannot be excluded; the use of personal protective measures for people directly exposed to potentially infected poultry and birds with avian influenza viruses will minimise the remaining risk. The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be very low.

**Actions:**

ECDC monitors avian influenza strains through its epidemic intelligence and disease network activities and collaborates with EFSA and the EU reference laboratory in order to identify significant changes in the epidemiology of the virus. ECDC, together with EFSA and the EU reference laboratory for avian influenza, produces a quarterly updated report of the avian influenza situation. The recent report was published on 20 December 2022.

**Figure 2. Distribution of confirmed human cases of avian influenza A(H5N6) virus infection by year of onset and country, 2014–30 March 2023 (n=84)**




*Source: ECDC*

# 12. Influenza A(H9N2) – Multi-country (World) – Monitoring human cases

**Overview:**

**Update**: As of 30 March 2023, and since the previous case reported on 1 February 2023, two new cases of human infection with avian influenza A(H9N2) have been reported in China:

- A six-year-old girl from Sichuan province with onset of mild symptoms on 23 October 2022. She had exposure history to backyard poultry.
- A nine-month-old girl from Hunan province with onset of mild symptoms on 15 November 2022. She had exposure to a live poultry market.

No other cases have been detected or reported among family members of these two cases.

**Summary:** As of 30 March 2023, and since 1998, a total of 120 laboratory-confirmed cases, including two deaths, of human infection with avian influenza A(H9N2) viruses have been reported in China (107), Egypt (4), Bangladesh (3), Cambodia (2), Oman (1), Pakistan (1), India (1), and Senegal (1). Most of the cases were children with mild disease.

**Source:** Hong Kong Centre for Health Protection, Avian Influenza Report, WHO Influenza at the human-animal interface (27 January to 3 March 2023)

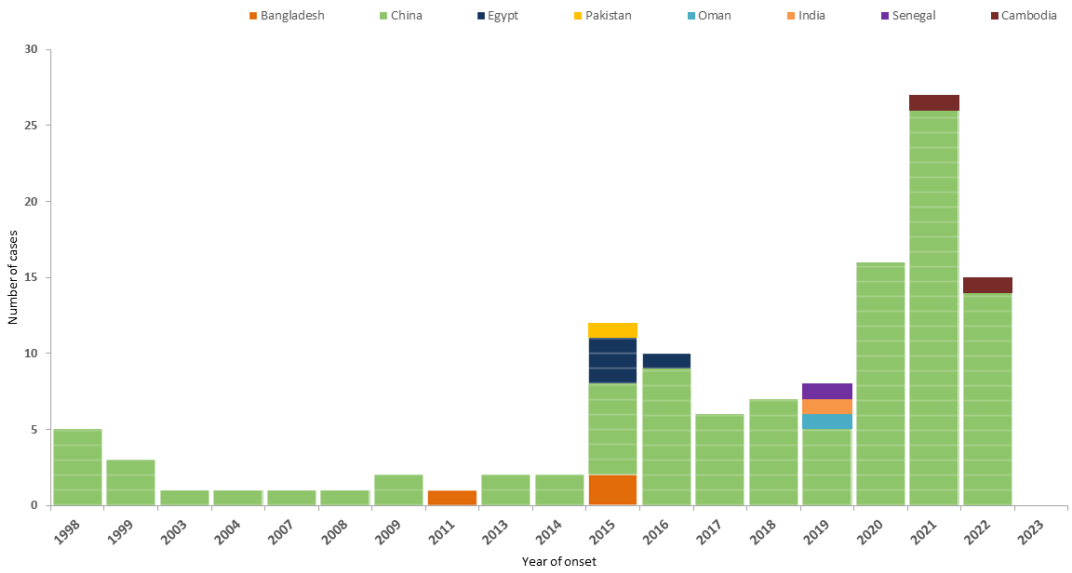
**ECDC assessment:**

Sporadic human cases of avian influenza A(H9N2) have been observed, but no cases of human-to-human transmission have been documented. The use of personal protective measures for people directly exposed to poultry and birds potentially infected with avian influenza viruses will minimise the risk of infection. The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be very low as relevant A(H9N2) viruses are not circulating in the poultry population or present in wild birds in Europe.

**Actions:**

ECDC monitors avian influenza strains through its epidemic intelligence activities, disease experts and in collaboration with EFSA and the EU reference laboratory for avian influenza, in order to identify significant changes in the epidemiology of the virus. ECDC, together with EFSA and the EU reference laboratory for avian influenza, produces a quarterly updated report on the avian influenza situation. The most recent report was published in March 2023.

**Figure 3. Distribution of confirmed human cases of avian influenza A(H9N2) virus infection by year of onset and country, 1998–30 March 2023 (n=120)**




*Source: ECDC*

# 13. Poliomyelitis – Peru – 2023

**Overview:**

On 21 March 2023, WHO/**PAHO** reported a case of acute flaccid paralysis (AFP) caused by vaccine-derived poliovirus type 1 (VDPV1) in Peru. The case is a 16-month-old unvaccinated male who lives in an indigenous community in Manseriche district in Datem del Marañón province, Loreto department, Peru. The case had onset of symptoms (paralysis of lower limbs) on 27 December 2022.

On 21 March 2023, results from stool samples sent to the regional reference laboratory for poliomyelitis in Brazil confirmed via real-time PCR the detection of a VDPV1. The results were further confirmed by nucleotide sequencing of the VP1 region of the viral genome.

According to the **report**, the case is in stable condition although experiencing paralysis in the lower limbs. The case was released from the hospital and travelled to the Nuevo Belén community in the Manseriche district, Datem del Marañón province in the Loreto department.

The **vaccination schedule** for poliomyelitis in Peru includes two doses of inactivated polio vaccine (IPV) at the age of two and four months, followed by three doses of oral polio vaccine at six months, 18 months, and one last dose at four years old. In the last four years, vaccination coverage of three doses of polio vaccine in Peru has been <95%, with coverage below 80% reported in 2020 (72%) and 2021 (79%). The coverage rates of the third dose of polio vaccine (Polio3) in the Manseriche district in the last five years was: 87% in 2018, 97% in 2019 with, 67% in 2020, 34% in 2021, and 44% in 2022. In 2022, there were no cases of acute flaccid paralysis (AFP) in the Manseriche district; however, eight cases of Guillain Barre Syndrome (GBS) were reported.

**ECDC assessment:**

The Region of the Americas was declared polio-free in 1994, as the first of the WHO Regions. The last polio case in Peru due to wildtype polio occurred in 1991. In 2022, one AFP case due to cVDPV2 was reported in an adult in New York state, the United States. The WHO European Region, including the EU/EEA, has remained polio-free since 2002. Inactivated polio vaccines are used in all EU/EEA countries.

As long as there are non-vaccinated or under-vaccinated population groups in European countries and poliomyelitis is not eradicated globally, the risk of the virus being reintroduced in Europe remains. One EU/EEA country

(Romania) and three neighbouring countries (Bosnia and Herzegovina, Montenegro, and Ukraine) remain at high risk of a sustained polio outbreak following wild poliovirus importation or the emergence of cVDPV, due to sub-optimal programme performance and low population immunity, according to a **European Regional Certification Commission for Poliomyelitis Eradication (RCC)** report published in February 2023, referring to data from 2021. According to the same report, eight EU/EEA countries are at an intermediate risk of sustained polio outbreaks. The continuing circulation of wild poliovirus type 1 (WPV1) in Pakistan and Afghanistan and detection of WPV1 cases in Mozambique in 2022, genetically linked to a strain from Pakistan, shows that there is still a risk of the disease being imported into the EU/EEA. Furthermore, the concerning outbreaks of circulating vaccine-derived poliovirus (cVDPV), which emerges and circulates due to lack of polio immunity in the population, illustrate the potential risk for further international spread.

To limit the risk of reintroduction and sustained transmission of WPV and cVDPV in the EU/EEA, it is crucial to maintain high vaccine coverage in the general population and increase vaccination uptake in pockets of under-immunised populations. EU/EEA countries should review their polio vaccination coverage data and ensure there are no immunity gaps in the population and that there is capacity to identify virus circulation through well-performing surveillance systems.

ECDC endorses WHO's temporary recommendations for EU/EEA citizens who are residents of or long-term visitors (>4 weeks) to countries categorised by WHO as having the potential risk of the international spread of polio: an additional dose of poliovirus vaccine should be administered between four weeks and 12 months prior to international travel.

**ECDC links:** ECDC comment on risk of polio in Europe | ECDC risk assessment

**Actions:**

ECDC is monitoring this event through its epidemic intelligence activities and will update this Epipulse item when relevant information becomes available.

**Additional Sources:**

**Ministry of Health of Peru Official Press Release**