WEEKLY BULLETIN

Communicable Disease Threats Report

Week 1, 28 December 2024 - 3 January 2025

This week's topics

Executive Summary

Mpox due to monkeypox virus clade I - Belgium - 2024

- On 18 December 2024, Belgium reported a confirmed mpox case due to monkeypox virus clade Ib in an individual returning from one of the countries affected by the epidemic in Africa.
- On 26 December 2024, Belgium reported a second case of mpox due to monkeypox virus clade Ib in a contact of the index case.
- Considering the measures implemented by Belgium, the risk for the general population in the EU/EEA related to this importation remains low, given a very low likelihood of further spread and a low impact. The ECDC Rapid Risk Assessment Brief published on 16 August 2024 remains valid.

Overview of respiratory virus epidemiology in the EU/EEA - 2024

- Due to decreased testing and reporting during the holiday period, data for weeks 51 and 52 must be interpreted with caution.
- Influenza virus activity has been increasing since week 46, with the aggregate test positivity rate in primary care in the EU/EEA at 26% (based on data from five countries). While hospital

admissions due to influenza have been observed in all age groups, people aged 65 years and older have the highest risk of hospitalisation and severe outcomes. Influenza B virus currently dominates in Slovakia and Bulgaria. Of the 118 influenza A viruses that have been subtyped, 66 (56%) are A(H1)pdm09 and 52 (44%) are A(H3).
- RSV activity has varied over the past three weeks after rising for several weeks, with the aggregate test positivity rate in primary care in the EU/EEA at 7% in week 52.
- Following a peak in July, SARS-CoV-2 activity has gradually decreased in most EU/EEA countries that experienced an epidemic wave during the summer. Among those who experience SARS-CoV-2 infection, people aged 65 years and older remain in the age group at the highest risk of hospitalisation and severe outcomes due to COVID-19.
- Countries should be prepared for continued increases in influenza and RSV activity during the coming weeks. Vaccination is the most effective measure to protect against more severe forms of respiratory viral diseases. Vaccination campaigns have started in many EU/EEA countries. People who are eligible for vaccination, particularly those at higher risk of severe outcomes, are encouraged to get vaccinated.
- ECDC has just published specific public health recommendations for winter 2024/2025 in an epidemiological update.

Avian influenza A(H5N1) human cases – United States – 2024

- On 6 January 2025, the US CDC reported the patient that was hospitalised with severe avian influenza H5N1 in Louisiana has passed away.
- As of 6 January 2025, a total of 66 human cases of avian influenza A(H5) have been reported from 10 states in the United States (US) during 2024. Of these, 40 were individuals exposed to dairy cattle known or presumed to be infected with A(H5N1) and 23 were workers exposed to outbreaks of HPAI A(H5) at poultry farms. Two people had no known animal exposure and one case had exposure to to other animals such as backyard flocks, wild birds, or other mammals.
- On 18 December, the Governor of California declared a state of emergency in the state to further expand monitoring and build on the coordinated approach to contain and mitigate the spread of the H5N1.
- On 13 December, the first case of severe illness linked to the virus in the US was confirmed in a patient in Louisiana state. The genome data identified the virus is of the D1.1 genotype.
- On 6 December, the US Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) announced the start of its National Milk Testing Strategy (NMTS).
- According to the United States Centers for Disease Control and Prevention (US CDC), the risk to the general population remains low, while people with exposure to infected poultry, cattle or other potentially infected domestic or wild animals have a higher risk of infection.

Avian influenza A(H5N1) human case – Canada – 2024

- On 9 November, British Columbia, Canada, reported on a young, previously healthy individual infected by avian influenza A(H5N1) virus and experiencing severe illness requiring prolonged intensive care treatment.
- The clinical conditions of the patient have recently improved and no further human cases have been identified in Canada since.
- Although the source of infection remained unknown, Canadian colleagues have published genotypic virus characterisation data that we report here.

Acute respiratory infections complicated by malaria (previously unknown/undiagnosed disease) - Democratic Republic of the Congo - 2024

- On 27 December, the World Health Organization confirmed that 430 samples from individuals infected by the unknown disease tested positive for various respiratory viruses and/or malaria. Overall, 891 cases were reported as of 16 December 2024, including 48 deaths.
- All cases have been reported in a very remote region of the country (48-hour road trip from Kinshasa), with limited diagnostic and healthcare infrastructures, and a high prevalence of risk factors such as malnutrition.

Mpox due to monkeypox virus clade I and II – Global outbreak – 2024

- Globally, monkeypox virus (MPXV) clade I and clade II are circulating in different countries, with the epidemiological trends remaining largely unchanged.

- Among the countries that have previously reported clade Ib cases in Africa, the Democratic Republic of the Congo (DRC), Burundi, and Uganda continue reporting most cases.
- Outside the affected African countries, new MPXV clade I cases have been reported from Pakistan and Oman. Secondary transmission of MPXV clade Ib was reported in the United Kingdom in October and in Germany in December 2024, among the household contacts of the index cases.
- ECDC is closely monitoring and assessing the epidemiological situation, and additional related information can be found in the Centre's rapid risk assessment published on 16 August 2024 (Risk assessment for the EU/EEA of the mpox epidemic caused by monkeypox virus clade I in affected African countries) and its Rapid scientific advice on public health measures.

1. Mpox due to monkeypox virus clade I - Belgium - 2024

Overview:

On 18 December 2024, Belgium reported its first confirmed mpox case due to monkeypox virus clade Ib. The case was confirmed as clade Ib on 16 December and was an adult who had travel history to an African country where clade Ib was circulating. It was reported that the patient only had symptoms in the genital area and that prior to symptom onset had had sexual contacts with a person who had mpox-compatible symptoms.

Upon arrival in Belgium, the case isolated on their own initiative (prior to diagnosis of mpox).

On 26 December, a second case of mpox due to the clade Ib of MPXV has been confirmed. It concerns a child, under the age of five, of the first case in Belgium. The child first developed symptoms on 21 December. After clinical evaluation in paediatric emergency care, it was decided that hospitalisation was not required. The child is recovering well, and is isolating at home together with (only) the mother. Apart from the mother, five other high-risk contact have been identified, four of whom are health care workers. All high-risk contacts have been informed of precautions to take, and are being followed up.

For more information on the global epidemiological situation regarding MPXV clade Ib, see the weekly reports in the Communicable Diseases Threats Report.

ECDC assessment:

Considering the measures implemented by Belgium, the risk for the general population in the EU/EEA related to this importation is considered low, given a very low likelihood of further spread and a low impact. The ECDC Rapid Risk Assessment published on 16 August 2024 remains valid.

Actions:

ECDC is closely monitoring and assessing the evolving epidemiological situation of mpox in EU/EEA and globally and is in contact with EU/EEA countries and partners. ECDC's recommendations are available here.

Last time this event was included in the Weekly CDTR: 20 December 2024

2. Overview of respiratory virus epidemiology in the EU/EEA - 2024

Overview:

Key indicators

All data presented in this summary are provisional. Interpretation of trends, particularly for the most recent weeks, should consider the impact of possible reporting delays, non-reporting by individual countries or overall low testing volumes at primary care sentinel sites. In the footer, known issues with reported data can be found under 'Country notes', with supporting information also available under 'Additional resources'.

- Overall, in recent weeks, syndromic indicators in primary and secondary care have been at levels comparable to this period in previous years. Primary care consultation rates for acute respiratory illness (ARI) and for influenza-like illness (ILI) have been increasing in several countries in recent weeks. Of the five countries reporting in week 52, three countries report ILI/ARI activity above baseline.
- Influenza activity has continued to increase, with three countries reporting primary care test positivity rates at or above 10% in week 52.
- RSV activity has varied over the past several weeks in primary care surveillance, decreasing to 7% in week 52, and increased in secondary care surveillance in weeks 51 and 52 compared to week 50. One country reported primary care test positivity rates at or above 10%.
- SARS-CoV-2 activity in primary care and hospitals has continued to decrease or remain stable at the EU/EEA level in recent weeks, with lower rates of aggregate test positivity than those observed in 2023 at this time of year. However, the picture remains varied at the country level.

ECDC assessment:

While the number of patients presenting to primary care and hospitals for respiratory illness has remained at expected levels for this time of year, sharp increases in influenza virus and respiratory syncytial virus (RSV) activity have been observed in the EU/EEA. Although most reported RSV cases are among very young children, people aged 65 years and above are also at risk and can develop severe disease. While hospital admissions due to influenza have been observed in all age groups, those aged 65 years and older have the highest risk of hospitalisation and severe outcomes. SARS-CoV-2 activity continues to decrease but remains elevated in some reporting countries, with people aged 65 years and above at greatest risk of severe disease.

Actions:

Countries should be prepared for continued increases in influenza and RSV activity during the coming weeks and consider infection prevention and control practices in healthcare settings.

Vaccination against influenza viruses helps to limit severe disease outcomes for people at high risk. Healthcare workers and people at higher risk should stay up-to-date with influenza vaccination, in accordance with national recommendations.

Despite the observed decrease in SARS-CoV-2 activity, it is important to continue monitoring the impact of SARS-CoV-2 at national and regional levels. To assess the impact of emerging SARS-CoV-2 sub-lineages, countries should continue to sequence SARS-CoV-2-positive clinical specimens and report to GISAID and/or the European Surveillance System (TESSy).

Vaccination is the most effective measure to protect against more severe forms of respiratory viral diseases. Vaccination campaigns have started in many EU/EEA countries and these efforts should continue. While COVID-19 vaccination continues to protect against severe disease, its effect wanes over time and people at higher risk should stay up-to-date with COVID-19 vaccination, in accordance with national recommendations.

Several countries have made vaccination against RSV available for pregnant women and older adults, as well as immunisation with monoclonal antibodies for newborns. For more information, consult the national vaccination and immunisation recommendations made by each country's competent authorities.

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

Further information:

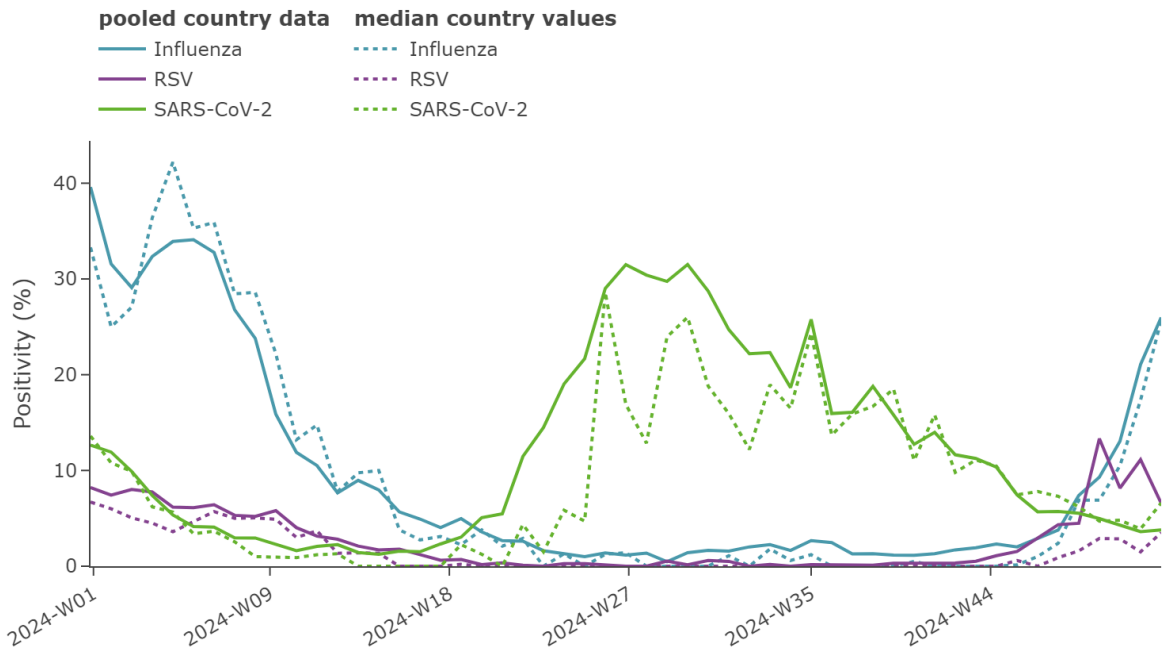
- Short-term forecasts of ILI and ARI rates in EU/EEA countries are published on ECDC's RespiCast.
- EuroMOMO is a weekly European all-cause mortality monitoring activity, aiming to detect and measure excess deaths related to seasonal influenza, pandemics and other public health threats, based on weekly national mortality statistics from up to 27 reporting European countries or subnational regions.
- WHO recommends that trivalent vaccines for use during the 2024–2025 influenza season in the northern hemisphere contain the following (egg-based and cell culture or recombinant-based vaccines respectively): an A/Victoria/4897/2022 or A/Wisconsin/67/2022 (H1N1)pdm09-like virus (subclade 5a.2a.1); an A/Thailand/8/2022 or A/Massachusetts/18/2022 (H3N2)-like virus (clade 2a.3a.1 (J)); and a B/Austria/1359417/2021 (B/Victoria lineage)-like virus (subclade V1A.3a.2).
- Antigenic characterisation data presented in the WHO 2025 southern hemisphere vaccine composition meeting report indicate that current northern hemisphere vaccine components are well matched to circulating 5a.2a and 5a.2a.1 A(H1N1)pdm09 subclades and V1A.3a.2 B/Victoria subclades. The components also appear well matched for the A(H3N2) 2a.3a.1 (J) clade viruses, but less well matched for some of the more recent subclade 2a.3a.1 (J2) viruses characterised by S145N, N158K or K189R HA substitutions (alone or in combination). The majority of the A(H3N2) viruses identified worldwide since February 2024 belong to the subclade 2a.3a.1 (J2).

Sources: ERVISS

Last time this event was included in the Weekly CDTR: 20 December 2024

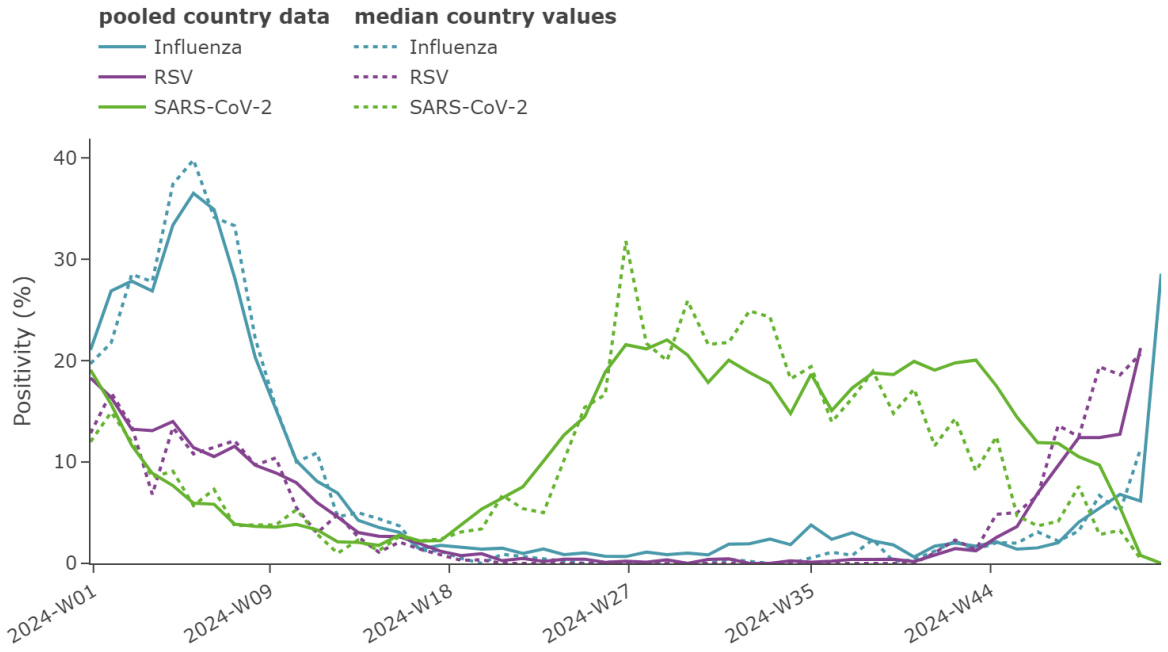
Maps and graphs

Figure 1. ILI/ARI virological surveillance in primary care - weekly test positivity



Source: ECDC

Figure 2. ILI/ARI virological surveillance in hospitals - weekly test positivity



Source: ECDC

Figure 3. Overview of key indicators of activity and severity in week 52, 2024

		Reporting countries		EU/EEA summary		
Indicator	**Syndrome or pathogen**	**Week 52**	**Week 51**	**Description**	**Value**	**Comment**
ILI/ARI consultation rates in primary care	ARI	5 rates (4 MEM)	10 rates (8 MEM)	Distribution of country MEM categories	4 Baseline	
	ILI	4 rates (4 MEM)	10 rates (10 MEM)		1 Baseline 2 Low 1 Medium	Of the four countries reporting, three reported ILI activity above the baseline level for W52: Lithuania, Romania, and Luxembourg.
ILI/ARI test positivity in primary care	Influenza	5	14	Pooled (median; IQR)	26% (26; 21–30%)	Of the five countries reporting data, three reported test positivity rates ≥10% for W52: Poland (26%), Luxembourg (26%), and France (45%).
	RSV	4	13		6.6% (3.5; 1.8–16%)	Of the four countries reporting data, one reported a test positivity rate ≥10% for W52: Luxembourg (28%).
	SARS-CoV-2	3	13		3.8% (6.6; 5–8.2%)	Of three countries reporting data, one country reported a test positivity rate between 5 and 10% in W52: Poland (10%).
SARI rates in hospitals	SARI	1	3	–	–	
SARI test positivity in hospitals	Influenza	2	2	Pooled (median; IQR)	29% (NA; NA–NA%)	Two countries reported a total of seven samples tested. Median and IQR are not calculated.
	RSV	2	2		14% (NA; NA–NA%)	Two countries reported a total of seven samples tested. Median and IQR are not calculated.
	SARS-CoV-2	2	2		0% (NA; NA–NA%)	Two countries reported a total of seven samples tested. Median and IQR are not calculated.
Intensity (country-defined)	Influenza	6	13	Distribution of country qualitative categories	3 Low 3 Medium	
Geographic spread (country-defined)	Influenza	5	12	Distribution of country qualitative categories	1 No activity 2 Sporadic 1 Local 1 Regional	

Source: ECDC

Figure 4. ILI/ARI virological surveillance in primary care - pathogen type and subtype distribution

	Week 52, 2024		Week 40, 2024 – week 52, 2024	
Pathogen	**N**	**%[a]**	**N**	**%[a]**
Influenza	**66**	**–**	**1914**	**–**
Influenza A	53	80	1206	66
A(H1)pdm09	26	72	680	70
A(H3)	10	28	290	30
A (unknown)	17	–	236	–
Influenza B	13	20	620	34
B/Vic	7	100	180	95
B/Yam	0	0.0	10	5
B (unknown)	6	–	430	–
Influenza untyped	0	–	88	–
RSV	**10**	**–**	**1075**	**–**
RSV-A	0	0.0	176	35
RSV-B	2	100	329	65
RSV untyped	8	–	570	–
SARS-CoV-2	**6**	**–**	**2001**	**–**

Source: ECDC

Figure 5. SARI virological surveillance in hospitals - pathogen type and subtype distribution

◉Figure ○Table

	Week 52, 2024		Week 40, 2024 – week 52, 2024	
Pathogen	**N**	**%[a]**	**N**	**%[a]**
Influenza	**2**	**–**	**441**	**–**
Influenza A	1	50	241	89
A(H1)pdm09	1	100	80	77
A(H3)			24	23
A (unknown)			137	–
Influenza B	1	50	30	11
B/Vic			2	100
B (unknown)	1	–	28	–
Influenza untyped	0	–	170	–
RSV	**1**	**–**	**990**	**–**
RSV-A	1	100	243	52
RSV-B			222	48
RSV untyped	0	–	525	–
SARS-CoV-2	**0**	**–**	**2006**	**–**

Source: ECDC

Figure 6. Genetically characterised influenza virus distribution, weeks 40–52, 2024

Subtype distribution			Subclade distribution		
Subtype	**N**	**%**	**Subclade**	**N**	**%**
A(H1)pdm09	66	43	5a.2a(C.1)	51	77
			5a.2a(C.1.9)	10	15
			5a.2a.1(D)	5	8
A(H3)	52	34	2a.3a.1(J)	30	58
			2a.3a.1(J.2.1)	12	23
			2a.3a.1(J.2)	10	19
B/Vic	36	23	V1A.3a.2(C.5.1)	32	89
			V1A.3a.2(C.5.7)	3	8
			V1A.3a.2(C.5.6)	1	3

Source: ECDC

Figure 7. SARS-CoV-2 variant distribution, weeks 50–51, 2024

There are no data available with the selected filters.

Source: ECDC

3. Avian influenza A(H5N1) human cases – United States – 2024

Overview:

Update:
On 6 January 2025, the US CDC and the Louisiana Department of Health reported that the patient that was hospitalised with severe avian influenza H5N1 in the state has passed away. This is the first death from H5N1 reported by the United States. The patient was over 65 years-old and according to the reports had underlying conditions. The patient had been exposed to non-commercial backyard flock and wild birds.

Background: In 2025, as of 6 January 2024, 66 human cases of avian influenza A(H5N1) have been confirmed by US CDC from 10 states including one death. Forty cases reported exposure to dairy cattle in the following states: California (36), Colorado (1), Michigan (2) and Texas (1). Twenty-three cases reported exposure to poultry in the following states: Colorado (9), Iowa (1), Oregon (1), Washington (11), and Wisconsin (1). One case that passed way reported in Louisiana had exposure to backyard flocks and other wild birds. In addition, two cases have been identified with unknown exposure: one in Missouri and one in California; one case has been identified with exposure to other animals such as backyard flocks, wild birds, or other mammals.

On 17 December 2024, US CDC reported one new severe human case of avian influenza A(H5) (CDC H5 Bird Flu Update). According to CDC, the newly reported case occurred in Louisiana and was confirmed on 13 December. The individual reported exposure to sick and dead birds in backyard flocks, and this is the first case in the US that has been linked to this exposure. The case has been hospitalised with severe symptoms. This marks the first instance of severe illness linked to the virus in the US.

On 29 April 2024, CDC recommended against consuming raw milk contaminated with live A(H5N1) virus as a way to develop antibodies against A(H5N1) virus to protect against future disease. Consuming raw milk can lead to serious health risks, especially for certain vulnerable populations.

On 6 December 2024, the US Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) announced the start of its National Milk Testing Strategy (NMTS). In partnership with state veterinarians, USDA implemented a strategy to collect unpasteurised milk samples to better assess where H5N1 is present, with the goal to better inform biosecurity and containment measures, as well as to inform state-led efforts to reduce risk to farm workers who may be in contact with animals infected with H5N1.

On 12 December 2024, a study showing that influenza virus may remain infectious in refrigerated unpasteurised milk for up to 5 days. The experiment was performed with a strain of human influenza virus H1N1 PR8.

CDC sequenced viral genome of the H5N1 avian influenza virus that infected the patient in Louisiana. The sequencing identified the virus is of the D1.1 genotype, which is related to other D1.1 strains recently detected in wild birds and poultry across the US, as well as in recent human cases in British Columbia, Canada, and Washington State. The mutations found in virus sequences were not found in poultry samples collected on the patient's property, suggesting the changes emerged in the patient after infection. This H5N1 strain differs from the B3.13 genotype, which has been detected in dairy cows, isolated human cases in various US states, and some poultry outbreaks.

US CDC's current assessment of the human health risk of A(H5N1) to the general public in the US has not changed and continues to be considered low.

ECDC assessment:

To date, there have been no confirmed human cases of influenza A(H5N1) infection and no reports of A(H5N1) infection in cattle in the EU/EEA. The genotype B3.13, identified in cattle and several of the human cases in the US, has not been detected in Europe.

ECDC has assessed the risk from the circulating HPAI A(H5N1) clade 2.3.4.4b viruses as low for the general population and low-to-moderate for those with activities that expose them to infected or dead animals or contaminated environments (e.g. occupational exposure to infected animals).

Actions:

ECDC is monitoring the situation together with partner organisations in Europe and will continue to update its assessment of the risk for humans in the EU/EEA as new information becomes available.

In addition to enhanced surveillance, active monitoring and testing of exposed individuals is recommended for early detection of human cases and to assess the possibility of human-to-human transmission, according to relevant ECDC guidance documents (Testing and detection of zoonotic influenza virus infections in humans; Investigation protocol of human cases of avian influenza virus; Enhanced surveillance of severe avian influenza virus infections in hospital settings).

It is important to raise awareness, including among all primary care workers, of the need to enquire about animal exposure and symptoms compatible with avian influenza infections and testing of symptomatic people with a history of exposure, following a risk-based approach. It is also important to communicate about the epidemiological situation so as not to miss or delay diagnosis of potential human cases.

Given the uncertainties related to mammal-to-mammal transmission and depending on the epidemiological situation, a low threshold can be considered for testing individuals exposed to potentially infected mammals (e.g. symptomatic individuals with conjunctivitis or respiratory symptoms). Due to the higher risk of infection for individuals exposed to infected animals and contaminated environments, appropriate personal protective measures and other precautionary measures should always be taken to mitigate the risk.

Relevant ECDC publications:

- Testing and detection of zoonotic influenza virus infections in humans in the EU/EEA, and occupational safety and health measures for those exposed at work
- Investigation protocol of human cases of avian influenza virus infections in the EU/EEA
- Surveillance and targeted testing for the early detection of zoonotic influenza in humans during the winter period in the EU/EEA
- Joint ECDC-EFSA Drivers for a pandemic due to avian influenza and options for One Health mitigation measures

ECDC is in contact with US CDC for further information and is closely following any updates on the event. 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. Together with EFSA and the EU Reference Laboratory for Avian Influenza, ECDC produces a quarterly updated report on the avian influenza situation.

Sources: FAO | 2024-e000168 | Event Information Site for IHR National Focal Points

Last time this event was included in the Weekly CDTR: 20 December 2024

4. Avian influenza A(H5N1) human case – Canada – 2024

Overview:

Update: On 31 December 2024, Jassem *et al.* described details of the case, a 13-year old female, in a letter. The patient's condition is reported to have improved and she was removed from ECMO and extubated.

On the 16 November the British Columbia Centre for Disease Control (BCCDC) uploaded to GISAID the viral genome collected from the infected individual. The genome contains an E627K mutation in the PB2 gene, which is associated with mammalian adaptation and enhanced replication. This mutation has previously been observed in other human and mammal infections. Notably, the E627K is absent in sequences provided by the Canadian Food Inspection Agency (CFIA) from the H5N1 viruses linked to the ongoing outbreaks in birds in B.C. Additionally to the mutation in the PB2 gene, two amino acid substitutions have been noted as minority variants in the gene encoding the haemagglutinin (HA) glycoprotein in the positions 190 and 226.

No mutations associated with resistance to oseltamivir, zanamivir, balaxovir, or amantadine were identified in the viral sequence. The NML is also conducting an analysis of the virus relatedness to existing A(H5N1) candidate vaccine viruses. Further genomics testing and analyses are underway between the BCCDC and the NML teams.

Background: On November 9, public health authorities in British Columbia (BC) issued a press release reporting on an individual in BC who had tested presumptive positive for avian influenza A(H5) virus, the first locally acquired case of avian influenza due to the A(H5N1) virus in a person in Canada. The individual is a teenager from the Fraser Health region receiving care at BC Children's Hospital. On December 31, 2024, the case was further described.
The only other occasion of human infection due to A(H5) virus was in 2014, when a Canadian resident died of avian influenza A(H5N1) after returning from a trip to China. Recently, outbreaks of highly pathogenic avian influenza subtype A(H5N1) have been notified in poultry in BC by the animal health authorities. There have been increasing detections of A(H5N1) in poultry and wild birds in the province since early October.

On 13 November 2024, the Public Health Agency of Canada (PHAC) published a risk assessment providing additional information on the recently reported case of H5. The PHAC confirmed that the teenager is the first locally acquired human case of avian influenza A(H5N1). PHAC's National Microbiology Laboratory confirmed via genomic sequencing that the virus is related to the avian influenza H5N1 viruses from the ongoing outbreak in poultry in British Columbia (Influenza A (H5N1), clade 2.3.4.4b, genotype D.1.1). The clade of H5N1 avian influenza in dairy cattle in the United States is not the same as the clade confirmed in the domestically acquired human case in British Columbia. The individual's exposure to the virus is yet to be determined. To date, there is no evidence of infection with A(H5N1) in dairy cattle or viral detection in milk in Canada.

The case was detected via hospital-based influenza surveillance. According to media quoting public health authorities, the patient, a teen with no underlying conditions, presented to the emergency room on 2 November with conjunctivitis, fever, and cough. On 8 November, the patient's status deteriorated and was admitted due to acute respiratory distress. Intravenous antivirals were administered. Local public health authorities are undertaking contact tracing activities and so far no further cases have been identified. Thirty-six contacts were identified but tested negative, prophylaxis with oseltamivir was offered to the contacts.

ECDC assessment:

To date, there have been no confirmed cases of A(H5N1) infection in humans in the EU/EEA. ECDC assesses the risk from the circulating HPAI A(H5N1) clade 2.3.4.4b viruses in the EU/EEA as low for the general population and low-to-moderate for those with activities that expose them to infected or dead animals or a contaminated environment (e.g. occupational exposure to infected animals).

According to the Public Health Agency of Canada, the risk of avian influenza for the general public remains low at this time. The risk of avian influenza is higher for those who have unprotected exposure to infected animals.

Actions:

ECDC is monitoring the situation together with partner organisations in Europe and public health authorities in Canada and through epidemic intelligence activities. ECDC will continue to update its assessment of the risk for humans in the EU/EEA as new information becomes available.

Further information:

In addition to enhanced surveillance, active monitoring and testing of exposed individuals is recommended for early detection of human cases and to assess the possibility of human-to-human transmission, according to the relevant ECDC guidance documents (Testing and detection of zoonotic influenza virus infections in humans; Investigation protocol of human cases of avian influenza virus; Surveillance and targeted testing for the early detection of zoonotic influenza in humans during the winter period in the EU/EEA).

Raising awareness – including about the need to enquire about animal exposure and symptoms compatible with avian influenza infections and testing of symptomatic people with a history of exposure following a risk-based approach – among healthcare workers and communicating on the epidemiological situation is important in order to not miss or delay diagnosis of potential human cases. Given the uncertainties related to mammal-to-mammal transmission and depending on the epidemiological situation, a low threshold can be considered for testing individuals exposed to potentially infected mammals (e.g. symptomatic individuals with conjunctivitis or respiratory symptoms). Due to the higher risk of infection for individuals exposed to infected animals and contaminated environments, appropriate personal protective measures and other precautionary measures should always be taken to mitigate the risk.

Sources: Relevant ECDC publications: | Testing and detection of zoonotic influenza virus infections in humans in the EU/EEA, and occupational safety and health measures for those exposed at work | Investigation protocol of human cases of avian influenza virus infections in the EU/EEA | Surveillance and targeted testing for the early detection of zoonotic influenza in humans during the winter period in the EU/EEA | Joint ECDC-EFSA Drivers for a pandemic due to avian influenza and options for One Health mitigation measures | Avian influenza overview June–September 2024 | Other sources: | Detections of highly pathogenic avian influenza in Canada - inspection.canada.ca | Canadian teen with suspected avian flu in critical condition | CIDRAP | Event Information Site for IHR National Focal Points

Last time this event was included in the Weekly CDTR: 29 November 2024

5. Acute respiratory infections complicated by malaria (previously unknown/undiagnosed disease) - Democratic Republic of the Congo - 2024

Overview:

Update

On 27 December 2024, the World Health Organization published a Disease Outbreak News Item reported that the previously undiagnosed disease reported in Kwango province in the Democratic Republic of the Congo is due to a combination of malaria and common respiratory infections. Further laboratory testing is ongoing and as of 16 December 2024, 891 cases, including 48 deaths had been reported.

Background

On 4 December 2024, the public health authorities in the Democratic Republic of the Congo issued a press release about a reported outbreak of unknown origin in the Panzi health zone, Kwango province.

On 8 December 2024, the World Health Organization published a Disease Outbreak News (DON) item summarising the available information on the undiagnosed disease reported at the Democratic Republic of the Congo (DRC). According to the DON:

- Some 406 cases were reported, including 31 deaths, in Panzi health zone in Kwango Province between 24 October and 5 December 2024.
- The majority of cases are children aged 0-14 years old (64.3%), and 0-59 months old (53%); 59.9% females. Overall, 71% of the deaths were in <15 year-olds with 54.8% in <5 year-olds. All severe cases reported had been malnourished.
- Symptoms reported by the patients included: fever (96.5%), cough (87.9%), fatigue (60.9%) and a running nose (57.8%). Difficulty in breathing, anaemia, and signs of acute malnutrition were the symptoms associated with death.

On 12 December, Africa CDC reported that the total number of cases reached 527, including 32 deaths. The epidemiological and symptoms profile of the cases remains similar to that previously reported, i.e. mostly children and females affected and with fever, cough and asthenia the most frequently reported symptoms.

On 19 December, Africa CDC reported that 65 new cases were detected this week and five deaths (total 592 cases, 37 deaths). A large proportion of tested samples were positive for malaria.

According to WHO DON published on 27 December 2024, as of 16 December 2024, 891 cases including 48 deaths had been reported from 25/30 health areas of Panzi health zone. Children <5 years-old were 47% of all cases and 54% of the deaths. Samples tested were positive for malaria and common respiratory viruses including Influenza A (H1N1, pdm09), rhinoviruses, SARS-CoV-2, Human coronaviruses, parainfluenza viruses, and Human adenovirus.

The public health response following reporting of the event included:

- Meetings convened with partners and coordination meetings held at national level with the participation of provincial teams.
- A case definition developed that includes the clinical symptoms observed. Active case finding conducted and registers reviewed. Case finding in the community organised while data collection and investigation of the community deaths is ongoing.

The response activities and enhanced surveillance will continue.

ECDC assessment:

Samples collected were positive for malaria and common respiratory viruses. Given the clinical presentation and underlying factors such as the prevalence of malnutrition, it is possible that various diseases contributed to the observed clinical course and deaths. The likely reason why the causative agent was not determined promptly was the lack of local diagnostic capacity.

Considering these elements and the results of the laboratory investigations, ECDC assess the risk for EU/EEA citizens living in the affected area in the DRC as very low. There is no risk for the EU/EEA related to this event.

Enhanced surveillance and monitoring of the overall situation continues.

Actions:

No further action is required.

Last time this event was included in the Weekly CDTR: 20 December 2024

6. Mpox due to monkeypox virus clade I and II – Global outbreak – 2024

Overview:

Global update

Globally, MPXV clade I and clade II are circulating in different countries. Global epidemiological data are updated weekly by the World Health Organization (WHO), with the most recent updates from Africa highlighting the recent expansion of clade I cases (2022–□24 Mpox (Monkeypox) Outbreak: Global Trends).

Mpox due to MPXV clade I outside the African continent has been reported by:

- Sweden and Thailand (August 2024);
- India (September 2024);
- Germany (October and December 2024);
- the United Kingdom (October 2024 and November 2024);
- the United States and Canada (November 2024);
- Belgium, Pakistan and Oman (December 2024).

Travel-associated cases outside Africa from all countries besides India, Pakistan and Oman have reported travel history to Africa. The travel-associated cases reported by India, Pakistan and Oman had travel history to the United Arab Emirates (WHO Multi-country outbreak of mpox, External situation report 44 - 23 December 2024). Secondary transmission of mpox due to MPXV clade Ib has been reported by the United Kingdom and Germany.

Overall, since monitoring began in 2022 and as of 30 November 2024, 117 663 confirmed mpox cases (MPXV clade I and clade II), including 263 deaths, have been reported from 127 countries (2022–□24 Mpox (Monkeypox) Outbreak: Global Trends).

Epidemiological situation in Africa

Mpox has been reported by Angola, Burundi, Cameroon, the Central African Republic (CAR), the Republic of the Congo (Congo), Cote d'Ivoire, the Democratic Republic of the Congo (DRC), Gabon, Ghana, Guinea, Kenya, Liberia, Mauritius, Morocco, Nigeria, Rwanda, South Africa, Uganda, Zambia, and Zimbabwe. According to the WHO Global Report presenting data as of 29 December 2024, although there are some fluctuations the overall case trends with regards to clade I and clade II in Africa remain stable.

With regards to MPXV clade Ib in 2024, most confirmed clade I cases have been reported from DRC, Burundi, and Uganda. Rwanda has reported 69 cases, Kenya 31, Zambia and Zimbabwe two cases each.

The DRC continues to report the highest number of cumulative mpox cases in Africa, and clade Ia and Ib are co-circulating.
According to the WHO Global report on mpox (data as of 29 December 2024), the DRC has reported 43 862 cases overall, 9 513 confirmed and 43 confirmed deaths. DRC continues to report the highest number of cumulative mpox cases in Africa, and clade Ia and Ib are co-circulating.

In Burundi, as of 29 December 2024, the cumulative number of confirmed cases is 2 861, and one death. The last six weeks, 811 confirmed cases were reported (no deaths; WHO Global report on mpox (data as of 29 December 2024). According to the WHO Multi-country outbreak of mpox, External situation report published on 23 December 2024, there are indications that the mpox cases are plateauing in Burundi. Forty-six of 49 districts have reported cases and the positivity rate among suspected cases is approximately 49%. The 20-29 years age group is the most affected age group in the country. The reported modes of transmission are: household transmission, community transmission, and sexual contact transmission. However, the relative contribution of each to mpox spread is unclear.

In Uganda, where clade Ib has been detected, WHO Global report on mpox (data as of 29 December 2024) reports that overall 1 303 cases have been reported including six deaths. The last six weeks 756 cases have been reported and there is an increasing trend in the reported cases in Uganda the last weeks.

As of 30 December 2024, Kenya had reported 31 mpox cases according to the Ministry of Health of Kenya. The cases have been reported from 12 counties, with Nakuru reporting most cases (10) followed by Mombasa (8) and Nairobi (2). Rwanda has reported 69 cases overall, 32 of which were in the last six weeks. In both Kenya and Rwanda the case numbers are still relatively low, but the epidemiological links among the cases and the transmission chains are not clearly defined.

With regards to clade Ia, in the last six weeks six cases were reported by CAR (89 cases and three deaths in 2024) and one in Congo (23 cases in 2024) (WHO Global report on mpox (data as of 29 December 2024)).

In addition, the following countries have reported mpox cases since the declaration of the PHEIC on 14 August and for which the clade has not been determined based on the WHO update reported on data as of 29 December 2024 and the Africa CDC Epidemic Intelligence Weekly Report of 21 December 2024:

- Gabon: two confirmed cases have been reported as of 1 September 2024;
- Mauritius: one case reported on 27 October 2024;
- Angola: four confirmed cases reported in total, the first on 17 November 2024.

Based on an analysis of the patterns of MPXV transmission observed at national level, and given the limitations and uncertainties, ECDC has used official epidemiological information to classify countries according to whether MPXV clade I is endemic or has been reported for the first time in 2024. The categories are as follows:

- Countries reporting only travel-associated cases or cases with a clear link to travel-associated cases: Belgium, Canada, Germany, India, Oman, Pakistan, Sweden, Thailand, the United Kingdom, the United States, Zambia, and Zimbabwe;
- Countries reporting clusters of cases: Congo, Kenya;
- Countries reporting community transmission: Burundi, Central African Republic, the DRC, Rwanda, and Uganda.

The classification was last updated on 2 January 2025.

On 13 August 2024, Africa CDC declared mpox a Public Health Emergency of Continental Security. On 14 August 2024, WHO convened a meeting of the IHR Emergency Committee to discuss the Mpox upsurge and declared the current outbreak of mpox due to MPXV clade I a public health emergency of international concern.

Epidemiological situation in the EU/EEA for MPXV clade I

MPXV clade Ib cases have been reported in the EU/EEA. One case was reported by Sweden in August 2024, five by Germany in October and December 2024, and one case by Belgium in December 2024. Secondary transmission of clade Ib has been reported in Germany in December 2024.

Surveillance updates on mpox in EU/EEA are provided through the Communicable Diseases Threats Report (most recently published on 13 December 2024).

ECDC assessment:

The epidemiological situation regarding mpox due to MPXV clade Ib remains similar to last week. The sporadic cases of mpox clade I that have been reported outside Africa including secondary transmission are not unexpected.

The risk for EU/EEA citizens travelling to or living in the affected areas and having close contact with affected communities is considered moderate, and low if contact with affected communities is avoided. The overall risk for the EU/EEA general population is currently assessed as low. However, more imported mpox cases due to MPXV clade I are likely to be reported by the EU/EEA and other countries.

EU/EEA countries may consider raising awareness in travellers to/from areas with ongoing MPXV transmission and among primary and other healthcare providers who may be consulted by such patients. If mpox is detected, contact tracing, partner notification and post-exposure preventative vaccination of eligible contacts are important public health response measures.

Please see the latest ECDC Risk assessment for the EU/EEA of the mpox epidemic caused by monkeypox virus clade I in affected African countries.

Actions:

ECDC is closely monitoring and assessing the evolving epidemiological situation of mpox on a global basis. The Centre's recommendations are available here. ECDC has been supporting the mpox outbreak response in DRC through the deployment of experts since 29 July 2024.

Sources: ECDC rapid risk assessment

Last time this event was included in the Weekly CDTR: 20 December 2024

Events under active monitoring

- Overview of respiratory virus epidemiology in the EU/EEA - 2024 - last reported on 29 November 2024
- HIV/AIDS surveillance 2024 - 2023 data - last reported on 29 November 2024
- Avian influenza A(H5N1) human cases – United States – 2024 - last reported on 29 November 2024
- Detection of avian influenza virus fragments in retail milk - United States - 2024 - last reported on 29 November 2024
- Cholera – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 29 November 2024
- Mpox due to monkeypox virus clade I and II – Global outbreak – 2024 - last reported on 29 November 2024

- Severe flood in Eastern Spain – 2024 - last reported on 29 November 2024
- Avian influenza A(H5N1) human case – Canada – 2024 - last reported on 29 November 2024
- Circulating vaccine-derived poliovirus type 2 (cVDPV2) - multi-country - 2024 - last reported on 29 November 2024
- Identification of cVDPV2 in a sewage sample – Poland – 2024 - last reported on 22 November 2024
- Seasonal surveillance of West Nile virus infections – 2024 - last reported on 22 November 2024
- Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks – Monthly update - last reported on 22 November 2024
- Avian influenza A(H9N2) – Multi-country (World) – Monitoring human cases - last reported on 22 November 2024
- SARS-CoV-2 variant classification - last reported on 20 December 2024
- Marburg virus disease (MVD) – Rwanda – 2024 - last reported on 20 December 2024
- Mpox due to monkeypox virus clade I - Germany - 2024 - last reported on 20 December 2024
- Acute respiratory infections complicated by malaria (previously unknown/undiagnosed disease) - Democratic Republic of the Congo - 2024 - last reported on 20 December 2024
- Cyclone Chido, Mayotte - 2024 - last reported on 20 December 2024
- Mpox due to monkeypox virus clade I - Belgium - 2024 - last reported on 20 December 2024
- Hepatitis A - multi-country - 2024 - last reported on 13 December 2024
- Suspected viral haemorrhagic fever - Sierra Leone - 2024 - last reported on 13 December 2024
- Measles – Multi-country (World) – Monitoring European outbreaks – monthly monitoring - last reported on 13 December 2024
- Mpox in the EU/EEA, Western Balkan countries and Türkiye – 2022–2024 - last reported on 13 December 2024
- Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update - last reported on 06 December 2024
- Increase in respiratory infections due to Mycoplasma pnemoniae in the EU/EEA during the season 2024/2025 - last reported on 06 December 2024
- Influenza A(H5N1) – Multi-country (World) – Monitoring human cases - last reported on 06 December 2024