WEEKLY BULLETIN

Communicable disease threats report

Week 49, 30 November - 6 December 2024

This week's topics

Executive summary

Overview of respiratory virus epidemiology in the EU/EEA

- The number of patients presenting to primary care and hospitals for respiratory illness remains at expected levels for this time of year.
- Following a peak in July, the downward trend for SARS-CoV-2 activity in the EU/EEA is gradually continuing in most of the countries that experienced an epidemic wave during the summer. Individuals aged 65 years and older continue to represent the main age group at risk of hospitalisation and severe outcomes due to COVID-19.
- While influenza viruses continue to circulate at low levels in the EU/EEA, activity is slowly increasing, with aggregate positivity rates similar to those observed at this time last year.
- Respiratory syncytial virus (RSV) test activity remains elevated in the EU/EEA, with test positivity increasing in some countries.
- 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.

European Centre for Disease Prevention and Control, Solna, Sweden
www.ecdc.europa.eu

- **Increase in respiratory infections due to Mycoplasma pnemoniae in the EU/EEA during the season 2024/2025**

- Based on official reports, increases in Mycoplasma pneumoniae detections have been reported in Denmark, Norway and Sweden in autumn 2024. Increases in Mycoplasma pneumoniae had also been reported around the same time last year.
- Surges of M. pneumoniae infections occur periodically, typically every one to three years. The disease is typically transmitted via close contact with an infected individual and their respiratory secretions (e.g coughing or sneezing).
- Although cases of M. pneumoniae infection are not notifiable in most EU/EEA countries, it nevertheless remains important to continue monitoring the occurrence of atypical and/or severe forms of disease, or evidence of resistance to antibiotics.

SARS-CoV-2 variant classification

Since the last update on 25 October 2024, and as of 29 November 2024, no changes have been made to ECDC's variant classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs), and de-escalated variants.

The VOI median proportions in the EU/EEA for weeks 45-46, based on seven reporting countries are currently:

KP.3: 59.2% (range: 44.0%-71.4%, IQR: 49.9%-61.0%)
BA.2.86: 7.5% (range: 0.0%-23.1%, IQR: 5.6%-10.1%)

The VUM median proportions in the EU/EEA for weeks 45-46, based on seven reporting countries are currently:

XEC: 33.7% (range: 0.0%-52.0%, IQR: 30.3%-36.2%)

The calculations are based on data reported to GISAID, as of 25 November 2024.

The variants currently circulating that are classified as VOI or VUM are unlikely to be associated with any increase in infection severity compared to previously circulating variants, or a reduction in vaccine effectiveness against severe disease. However, older individuals, those with underlying conditions, and previously uninfected individuals could develop severe symptoms if infected. Vaccination continues to be protective, with stronger protection against more severe disease, although this protective effect wanes over time. Vaccination of individuals at high risk of severe outcomes (such as older people) remains important.

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

- On 4 December 2004, Vietnamese media, citing the announcement of Center for Disease Control (CDC) of Long An province, have reported one case of human infection with influenza A(H5N1).
- The case was in an adult male, a resident of Long An province in southern Vietnam.
- Dead poultry were discovered at a property belonging to the patient's family.
- Since 2003, Vietnam has reported 130 human cases of A(H5N1) avian influenza virus infection, including 65 deaths (case fatality among reported cases: 50%).

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

- Three new cases of zoonotic avian influenza A(H5) have been reported in California, United States (US). Both were exposed to cattle.
- As of 4 December 2024, a total of 58 human cases of avian influenza A(H5) have been reported from seven states in the US during 2024, including the three most recent cases. Of these, 35 were individuals exposed to dairy cattle known or presumed to be infected with A(H5N1) and 21 were workers exposed to outbreaks of HPAI A(H5) at poultry farms. Two people had no known animal exposure.
- 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.

Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update

- Since the previous update on 4 November 2024, and as of 2 December 2024, no new MERS-CoV cases have been reported by the World Health Organization (WHO) or national health authorities.
- Since the beginning of 2024, and as of 2 December 2024, five MERS cases, including four fatalities, have been reported in Saudi Arabia with date of onset in 2024.
- The risk of sustained human-to-human transmission in Europe remains very low and the current MERS-CoV situation poses a low risk to the EU/EEA.

Unknown disease - Democratic Republic of the Congo - 2024

- 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.
- According to the press release, since 24 October 376 people have been affected with 79 deaths, mainly affecting children. The signs and symptoms reported include fever, headaches, cough, dyspnoea, anaemia, and rhinorrhoea.
- ECDC is monitoring the event through its epidemic intelligence activities and is in contact with Africa CDC, DG ECHO and the ECDC staff deployed to Kinshasa for the Mpox response to gather additional information and inform the assessment.

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

- There have been no significant changes in the epidemiological situation related to the global circulation of monkeypox virus (MPXV) clade I and clade II during the past week.
- Among the countries that had previously reported clade Ib cases in Africa, new cases have been reported this week by the Democratic Republic of Congo (DRC), Burundi, Kenya, Rwanda and Uganda.
- Outside the affected African countries, MPXV clade I cases have been reported from Canada, Germany, India, Sweden, Thailand, the United Kingdom (UK) and the United States (US). Among these countries, MPXV clade Ib, secondary transmission has only been reported in the UK in October, among the household contacts of the first case.
- ECDC is closely monitoring and assessing the epidemiological situation and additional related information can be found in ECDC'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.

Suspected viral hemorrhagic fever - Sierra Leone - 2024

- On 1 December 2024, the Government of Sierra Leone, through the National Public Health Agency (NPHA), issued an update stating that the test results for the suspected case returned as 'indeterminate'.
- Assessment is not possible until the aetiology of the case is confirmed.

1. Overview of respiratory virus epidemiology in the EU/EEA

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, syndromic indicators in primary and secondary care remain at levels comparable to this period in previous years. In primary care, consultation rates for acute respiratory illness (ARI) have been increasing in several countries in recent weeks, with five countries currently reporting low activity and one reporting medium activity. Most countries continue to report baseline or low activity for influenza-like illness (ILI), with one country reporting medium activity. In secondary care, rates of severe acute respiratory illness (SARI) are similar to, or lower than, levels observed at this time during previous years.
- SARS-CoV-2 activity in primary care and hospitals continues to decrease or remain stable at the EU/EEA level, 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. Individuals aged 65 years and older continue to be those most affected by severe COVID-19 disease.
- Seasonal influenza activity remains low but has increased compared to last week, with most countries reporting test positivity rates below 10%.
- RSV activity remains at the same level as last week in the EU/EEA, with children aged 0–4 years most affected. Countries should be prepared for a continued increase in RSV activity during the coming weeks.

ECDC assessment:

RSV activity remains elevated in the EU/EEA. Although most reported cases are among very young children, individuals aged 65 years and above are also at risk and can develop severe disease. Influenza activity has begun to slowly increase in the EU/EEA and levels remain typical for this time of year. SARS-CoV-2 activity continues to decrease but remains elevated in some reporting countries, with individuals aged 65 years and above at greatest risk of severe disease.

Actions:

Despite the observed decrease in activity, it remains important to continue monitoring the impact of SARS-CoV-2 at national and regional levels. To continue assessing 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 TESSy.

As RSV activity has begun to increase in the EU/EEA and influenza usually follows shortly afterwards, countries should anticipate increases in activity during the coming weeks, and take into consideration infection prevention and control practices in healthcare settings.

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 vaccinations efforts should continue. While COVID-19 vaccination continues to protect against severe disease, its effect wanes over time and individuals at higher risk should stay up-to-date with COVID-19 vaccination, in accordance with national recommendations.

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

Several countries are now also making 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

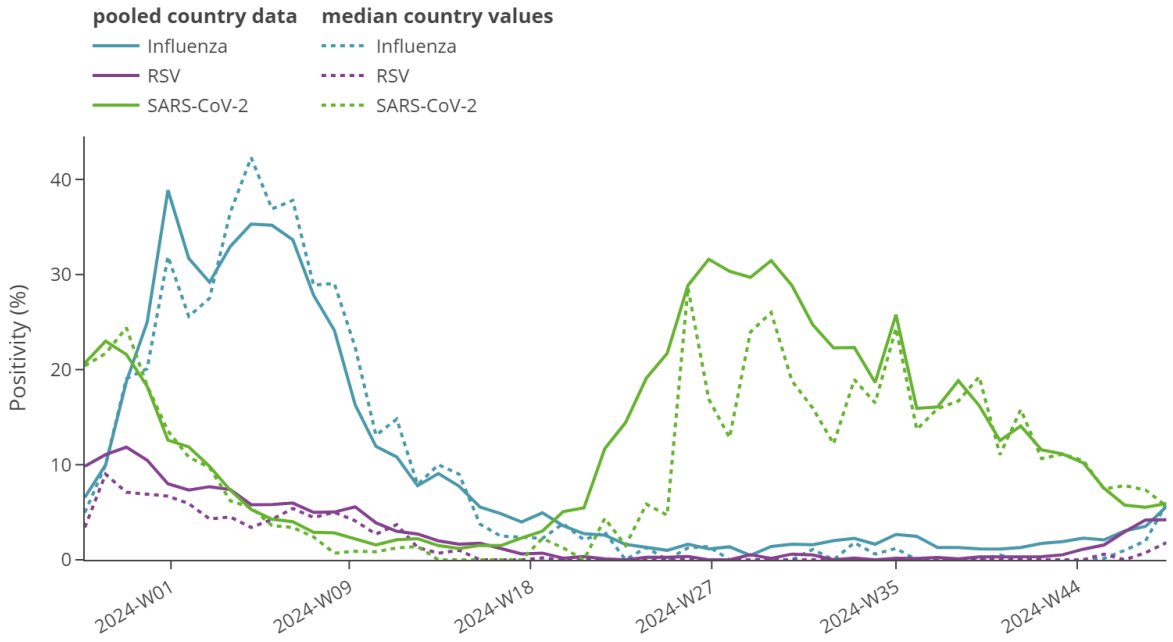
subclade 2a.3a.1 (J2) viruses characterised by S145N, N158K or K189R HA substitutions (alone or in combination). The majority of the A(H3N2) viruses identified worldwide since February 2024 belong to the subclade 2a.3a.1 (J2).

Sources: ERVISS

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

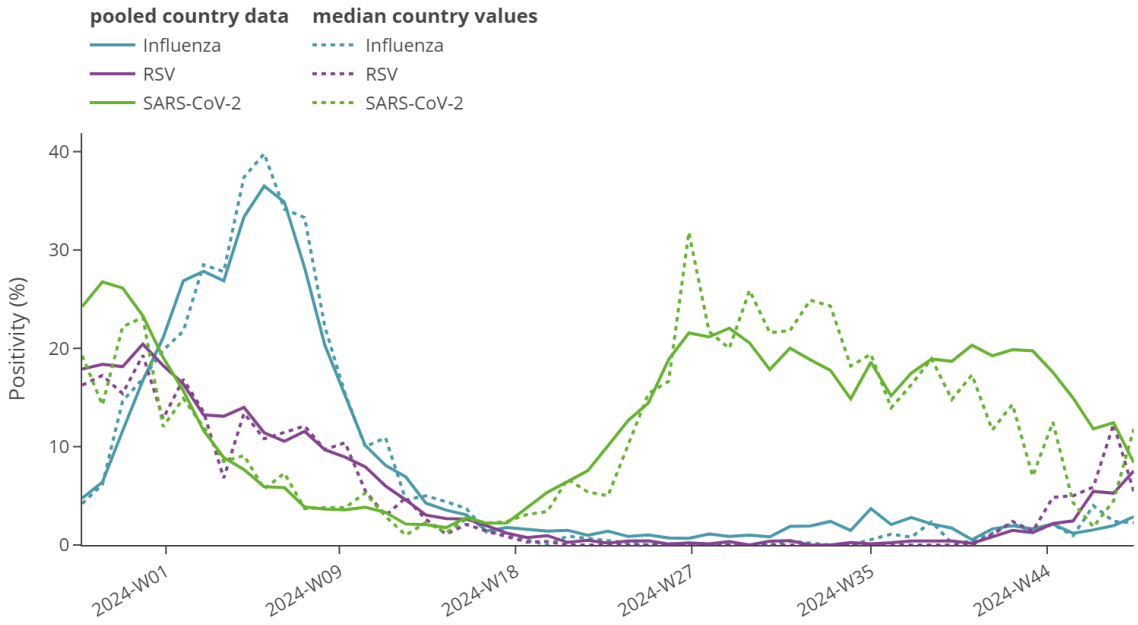
Maps and graphs

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 48, 2024

		Reporting countries		EU/EEA summary		
Indicator	**Syndrome or pathogen**	**Week 48**	**Week 47**	**Description**	**Value**	**Comment**
ILI/ARI consultation rates in primary care	ARI	11 rates (9 MEM)	15 rates (11 MEM)	Distribution of country MEM categories	3 Baseline 5 Low 1 Medium	Overall, ARI activity remains at levels comparable to the same period in previous years. Six countries report ARI activity above the baseline level: Belgium, Bulgaria, Czechia, Estonia, Germany, and Lithuania.
	ILI	17 rates (15 MEM)	21 rates (19 MEM)		10 Baseline 4 Low 1 Medium	Overall, ILI activity remains at levels comparable to the same period in previous years. Five countries report ILI activity above the baseline level: Denmark, Estonia, France, Hungary, and Poland.
ILI/ARI test positivity in primary care	Influenza	14	22	Pooled (median; IQR)	5.6% (5.9; 3.4–8.1%)	The pooled EU/EEA influenza test positivity rate increased from 4% in W47 to 6% in W48, with eight countries reporting test positivity rates ≥5%: Hungary (6%), Netherlands (6%), Portugal (6%), Spain (7%), Greece (9%), Estonia (12%), Ireland (14%), and Poland (25%).
	RSV	14	20		4.2% (1.8; 0–3.8%)	RSV activity remains stable compared to W47. Three countries report test positivity rates ≥5%: Ireland (5%), Spain (7%), and Luxembourg (16%).
	SARS-CoV-2	15	21		5.9% (5.7; 3.7–9.7%)	Following a peak in July 2024, the pooled EU/EEA test positivity rate for SARS-CoV-2 continues to slowly decrease. At national level, the decreasing trend continues in most countries. Three countries report test positivity rates >10%, while five report test positivity rates between 5% and 10%.
SARI rates in hospitals	SARI	8	8	–	–	SARI consultation rates continue to be reported at levels comparable to, or lower than, the same period in previous years.
SARI test positivity in hospitals	Influenza	7	7	Pooled (median; IQR)	2.9% (2.2; 0.6–7.7%)	A stable trend of low influenza test positivity continues to be observed at the EU/EEA level. Two countries report test positivity rates ≥5%: Romania (10%) and Ireland (16%).
	RSV	7	7		7.5% (5.4; 0.3–13%)	The pooled EU/EEA test positivity rate for RSV increased from 5% in W47 to 8% in W48, with test positivity highest among children aged 0–4 years of age. Three countries report test positivity rates ≥5%: Romania (10%), Ireland (14%), and Spain (18%).
	SARS-CoV-2	7	7		8.4% (12; 5.6–12%)	The pooled EU/EEA test positivity rate for SARS-CoV-2 decreased from 12% in W47 to 8% in W48. Non-sentinel indicators of severe disease (hospital admissions, ICU admissions, and deaths) remain low at the EU/EEA level.
Intensity (country-defined)	Influenza	19	24	Distribution of country qualitative categories	11 Baseline 8 Low	
Geographic spread (country-defined)	Influenza	18	23	Distribution of country qualitative categories	2 No activity 13 Sporadic 1 Local 2 Regional	

Source: ECDC

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

	Week 48, 2024		Week 40, 2024 – week 48, 2024	
Pathogen	**N**	**%[a]**	**N**	**%[a]**
Influenza	**127**	**–**	**544**	**–**
Influenza A	74	67	298	64
A(H1)pdm09	38	69	154	66
A(H3)	17	31	78	34
A (unknown)	19	–	66	–
Influenza B	37	33	170	36
B/Vic	8	100	33	97
B/Yam	0	0.0	1	3
B (unknown)	29	–	136	–
Influenza untyped	16	–	76	–
RSV	**68**	**–**	**315**	**–**
RSV-A	12	60	62	50
RSV-B	8	40	63	50
RSV untyped	48	–	190	–
SARS-CoV-2	**100**	**–**	**1678**	**–**

Source: ECDC

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

◉Figure ○Table

	Week 48, 2024		Week 40, 2024 – week 48, 2024	
Pathogen	**N**	**%[a]**	**N**	**%[a]**
Influenza	**31**	**–**	**186**	**–**
Influenza A	17	94	90	90
A(H1)pdm09	2	67	23	79
A(H3)	1	33	6	21
A (unknown)	14	–	61	–
Influenza B	1	6	10	10
B/Vic	0	–	2	100
B (unknown)	1	–	8	–
Influenza untyped	13	–	86	–
RSV	**81**	**–**	**314**	**–**
RSV-A	8	50	65	60
RSV-B	8	50	43	40
RSV untyped	65	–	206	–
SARS-CoV-2	**87**	**–**	**1693**	**–**

Source: ECDC

Figure 6. Genetically characterised influenza virus distribution, weeks 40–48, 2024

Subtype distribution			Subclade distribution		
Subtype	**N**	**%**	**Subclade**	**N**	**%**
A(H1)pdm09	55	60	5a.2a(C.1)	51	93
			5a.2a.1(D)	4	7
A(H3)	30	33	2a.3a.1(J)	30	100
B/Vic	6	7	V1A.3a.2(C.5.1)	6	100

Source: ECDC

Figure 7. SARS-CoV-2 variant distribution, weeks 46–47, 2024

Variant	Classification[a]	Reporting countries	Detections	Distribution (median and IQR)
KP.3	VOI	7	150	40% (33–43%)
BA.2.86	VOI	7	72	22% (12–26%)

Source: ECDC

2. Increase in respiratory infections due to Mycoplasma pnemoniae in the EU/EEA during the season 2024/2025

Overview:

Based on official reports, the following EU/EEA countries have reported increases in Mycoplasma pneumonia infections:

- **Denmark:** according to the Statens Serum Institut, as of week 47 (mid-November 2024), the number of detected cases of M. pneumoniae was high, with 1 915 new cases reported in one week and was at epidemic levels. Since week 21 (end of May 2024) and as of week 47, Denmark reported 26 332 infections due to M. pneumoniae. However, hospitalisations remain at a low level. In 2023, an increase started around week 42 and peaked around week 47 (mid-November), when 541 cases were reported. Between the peak of 2023 and the increase in 2024, the circulation of M. pneumoniae was sustained at high levels compared to previous years;
- **Norway:** according to the Norwegian Institute of Public Health, as of week 47 (mid-November 2024), the incidence of M. pneumoniae infection is high: since the beginning of July and until week 45, the bacterium has been detected in over 3 500 people. However, the proportion of samples with confirmed M. pneumoniae has been declining after a peak in week 42 and it was 17 % in week 47. The incidence is highest in the age group 5-14 years. The incidence of M. pneumoniae infection began to increase in the autumn of 2023, and has been raised constantly during the whole 2024;
- **Sweden:** according to the Public Health Agency of Sweden, an unusual number of infections and increased hospitalisations for M. pneumoniae was recorded from August 2024, and in September more than 500 patients were treated for the infection. When comparing with previous seasons, the 2024/2025 season is already registering more hospitalised cases than in any year in the last ten-year period. As of October, the proportion of samples with confirmed Mycoplasma pneumoniae was about 20%.

Additionally, media quoting experts or official sources reported about increases in Austria, Bulgaria, Czech Republic, Germany, Italy and Slovenia. In Austria media quoting experts reported an increase in the number of infections in late September, especially among children and adolescents. In early November, Bulgarian and German media reported that physicians have been noticing increases of atypical pneumonia. In the same period, in Italy media quoting official sources reported that admissions to the emergency room due to Mycoplasma pneumoniae infections are increasing. In the Czech Republic, experts warn about the increase of infections in the country.

Slovenian media quoting experts reported an increase in patients admitted the hospital with Mycoplasma infection of almost five times more than in the same period before the pandemic, and ten times more than in the same period in 2017/2018.

Outside the EU/EEA, on 18 October 2024, the CDC reported an increase in M. pneumoniae infections in the United States from late spring, especially in young children. Other countries (Canada, China, India, Japan, Türkiye) have reported similar trends in 2024.

Background
Epidemics of M. pneumoniae occur periodically, typically every one to three years. Transmission requires close contact with an infected individual, with slow onset and often atypical respiratory symptoms once infected. Infections typically present with mild, self-limiting upper respiratory tract symptoms; however, patients presenting with prolonged or atypical, severe lower respiratory tract symptoms require antibiotic treatment. During autumn-winter 2023/2024, six EU/EEA countries reported to ECDC increases in M. pneumoniae infections at the national level (Denmark, France, Ireland, the Netherlands, Norway, Sweden) or in specific hospitals. Increases were reported in all age groups but were predominantly observed in children and adolescents. During autumn-winter 2024/2025, increases in M. pneumoniae infections are again anticipated.

ECDC assessment:

M. pneumoniae is not notifiable in most EU/EEA countries, leading to limited available information regarding diagnosed cases, proportion of detections amongst respiratory laboratory samples, or historical detection data. As a result, making country-level comparisons should be done with caution.
M. pneumoniae epidemics occur cyclically in Europe every one to three years. Various factors contribute to this cyclical pattern, such as the decline of population immunity over time or the introduction of new strains into the population.
There are currently no reports of atypical M. pneumoniae strains or resistance to first-line macrolide antibiotics from reporting countries. However, it remains important for countries to monitor and report the occurrence of atypical and/or severe forms of disease, evidence of resistance to antibiotics, and pressure on the healthcare system related to M. pneumoniae cases as winter progresses and the combined burden of respiratory pathogens increase.

Actions:

ECDC continues to monitor the situation.
Last time this event was included in the Weekly CDTR: -

3. SARS-CoV-2 variant classification

Overview:

Since the last update on 25 October 2024, and as of 29 November 2024, no changes have been made to ECDC's variant classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs), and de-escalated variants.

The VOI median proportions in the EU/EEA for weeks 45-46, based on seven reporting countries are currently:

KP.3: 59.2% (range: 44.0%-71.4%, IQR: 49.9%-61.0%)
BA.2.86: 7.5% (range: 0.0%-23.1%, IQR: 5.6%-10.1%)

The VUM median proportions in the EU/EEA for weeks 45-46, based on seven reporting countries are currently:

XEC: 33.7% (range: 0.0%-52.0%, IQR: 30.3%-36.2%)

The calculations are based on data reported to GISAID, as of 25 November 2024.

ECDC assessment:

Low SARS-CoV-2 transmission, reduced reporting and low testing volumes in sentinel systems all have an impact on ECDC's ability to accurately assess the epidemiological situation, including variant circulation. The EU/EEA population overall has a significant level of hybrid immunity (prior infection + vaccination/boosters), conferring protection against severe disease. The variants currently circulating that are classified as VOI or VUM are unlikely to be associated with any increase in infection severity compared to previously circulating variants, or a reduction in vaccine effectiveness against severe disease. However, older individuals, those with underlying conditions, and previously uninfected individuals could develop severe symptoms, if infected. Vaccination continues to be protective, with stronger protection against more severe disease, although this protective effect wanes over time. Vaccination of individuals at high risk of severe outcomes (e.g. older people) remains important.

Actions:

In order to assess the impact of emerging SARS-CoV-2 sub-lineages and their possible correlation with increases in COVID-19 epidemiological indicators, it is important that countries sequence positive clinical specimens and report to GISAID and/or TESSy.

For the latest update on SARS-CoV-2 variant classifications, please see ECDC's webpage on variants. Variant surveillance data, including the distribution of VOC and VOI variant proportions in the EU/EEA and detailed country-specific COVID-19 updates are available as part of the European Respiratory Virus Surveillance Summary (ERVISS).

Routine updates on the SARS-CoV-2 variant classification through the Communicable Diseases Threats Report will be provided on a monthly basis as a minimum.

Last time this event was included in the Weekly CDTR: 06 November 2024

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

Overview:

According to Vietnamese media (phunuonline; baomoi) on 4 December 2024, the Center for Disease Control (CDC) of Long An province in Vietnam has announced one case of human infection with influenza A(H5N1). The case was in an adult male, a resident of Long An province. The man was hospitalised in Long An General Hospital with symptoms of fever, headache and muscle pain. Following the chest X-ray, which showed damage to alveoli in lungs, the patient was diagnosed with respiratory failure, pneumonia and sepsis. The patient was then transferred to the Ho Chi Minh City Hospital of Tropical Diseases for treatment. According to media reports, the patient's condition is stable.

CDC Long An was informed about the case on 14 November 2024 and consulted Pasteur Institute in Ho Chi Minh City (PIHCM). The samples collected from the patient were tested by PIHCM and were positive for influenza A(H5N1) virus.

Investigation coordinated by CDC Long An revealed presence of dead poultry at the premises belonging to patient's family.

In response to the event, Long An Provincial Department of Health has implemented avian influenza response measure. The Department advised poultry farmers to use verified feed, vaccinate their flocks according to recommendations, and promptly report dead poultry or unusual health signs in humans to local authorities and medical facilities. It had urged strict implementation of measures to prevent and combat Influenza A (H5N1), including enhanced disease surveillance at outbreaks, border gates, and within communities. Surveillance of severe viral pneumonia and unusual respiratory infections was prioritized, with timely sample collection and testing to identify causative agents. Plans for adequate medicine, equipment, and resources were also emphasised. Authorities are also strengthening border patrols to prevent smuggling of sick poultry and controlling poultry imports and travellers from neighbouring countries.

Summary:
Since 2003, and as of 4 December 2024, there have been 954 human cases worldwide*, including 464 deaths (Case fatality among reported cases: 49%), with avian influenza A(H5N1) infection reported in 24 countries (Australia (exposure occurred in India), Azerbaijan, Bangladesh, Cambodia, Canada, Chile, China, Djibouti, Ecuador, Egypt, Indonesia, India, Iraq, Laos, Myanmar, Nepal, Nigeria, Pakistan, Spain, Thailand, Türkiye, Vietnam, the United Kingdom, and the United States). To date, no sustained human-to-human transmission has been detected. In 2024, 72 cases, including three deaths, have been reported in six countries: Australia, (1) Cambodia (10 cases, two deaths), Canada (1), China (1), the United States (57) and Vietnam (two cases, one death).

***Note:** this includes six detections due to suspected environmental contamination with no evidence of infection that were reported in 2022 by Spain (two detections) and the United States (1), as well as in 2023 by the United Kingdom (3).

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 low. The risk to occupationally exposed groups, such as farmers and cullers, is considered 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 or dead backyard poultry underlines the risk of unprotected contact with infected birds in backyard farm settings. This supports the importance of using appropriate personal protective equipment.

Actions:

ECDC monitors avian influenza strains through its influenza surveillance programme and epidemic intelligence activities in collaboration with the European Food Safety Authority (EFSA) and the EU Reference Laboratory for Avian Influenza in order to identify significant changes in the virological characteristics and epidemiology of the virus. Together with EFSA and the EU Reference Laboratory for Avian Influenza, ECDC produces a quarterly updated report of the avian influenza situation.

Last time this event was included in the Weekly CDTR: 06 September 2024

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

Overview:

Update: On 4 December 2024, the US CDC reported three new human cases of avian influenza A(H5) (CDC, Bird Flu Response Update). All newly reported cases occurred in California, all three of them report exposure to infected dairy cattle.
Background: In 2024 and as of 4 December 2024, 58 human cases of avian influenza A(H5N1) have been confirmed by the US CDC from seven states. Thirty-five of the cases reported exposure to cattle in the following states: California (31), Colorado (1), Michigan (2) and Texas (1). Twenty-one cases reported exposure to poultry in the following states: Colorado (9), Oregon (1) and Washington (11). In addition, two cases have been identified with unknown exposure: one in Missouri and one in California.

The 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).

Raising 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 is important. It is also important to communicate on the epidemiological situation 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.

ECDC relevant 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 the 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: Event Information Site for IHR National Focal Points | FAO | 2024-e000168

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

6. Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update

Overview:

Update: Since the previous update on 4 November 2024, and as of 2 December 2024, no new MERS-CoV cases have been reported by the World Health Organization (WHO) or national health authorities.

Summary: Since the beginning of 2024, and as of 2 December 2024, five MERS-CoV cases, including four fatalities, have been reported in Saudi Arabia with date of onset in 2024.

Since April 2012, and as of 2 December 2024, a total of 2 626 cases of MERS-CoV, including 953 deaths, have been reported by health authorities worldwide.

Sources: ECDC MERS-CoV page | WHO MERS-CoV | ECDC factsheet for professionals | WHO updated global summary and assessment of risk (November 2022) | Qatar MoPH Case #1 | Qatar MoPH Case #2 | FAO MERS-CoV situation update | WHO DON Oman | WHO DON Saudi Arabia | WHO DON UAE | WHO DON Saudi Arabia 1 | WHO IHR | WHO EMRO MERS Situation report | WHO DON Saudi Arabia 2 | WHO DON Saudi Arabia 3

ECDC assessment:

Human cases of MERS-CoV continue to be reported in the Arabian Peninsula. However, the number of new cases detected and reported through surveillance has dropped to the lowest levels since 2014. The risk of sustained human-to-human transmission in Europe remains very low. The current MERS-CoV situation poses a low risk to the EU/EEA, as stated in the Rapid Risk Assessment published by ECDC on 29 August 2018, which also provides details on the last person reported with the disease in Europe.

ECDC published a technical report, Health emergency preparedness for imported cases of high-consequence infectious diseases, in October 2019, which is still useful for EU Member States wanting to assess their level of preparedness for a disease such as MERS-CoV. ECDC also published Risk assessment guidelines for infectious diseases transmitted on aircraft (RAGIDA) – Middle East respiratory syndrome coronavirus (MERS-CoV) in 22 January 2020.

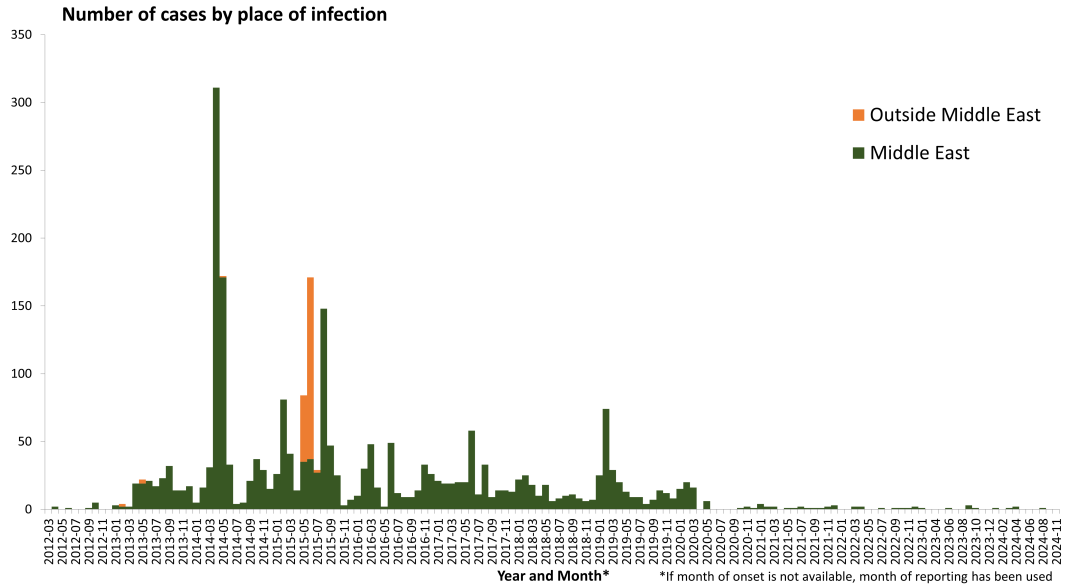
Actions:

ECDC is monitoring this situation through its epidemic intelligence activities and reports on a monthly basis or when new epidemiological information is available.

Last time this event was included in the Weekly CDTR: 08 November 2024

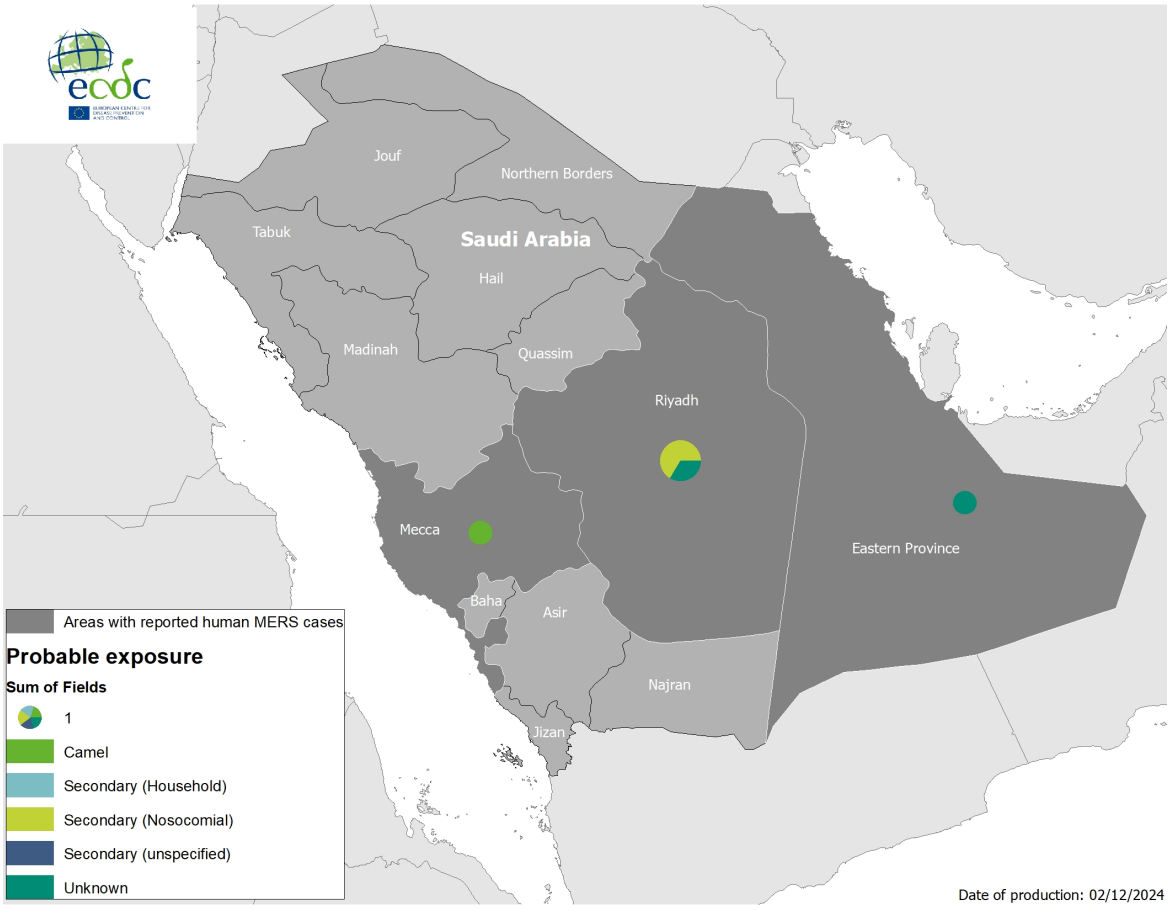
Maps and graphs

Figure 1. Distribution of confirmed cases of MERS by place of infection and month of onset, April 2012 – November 2024



Source: ECDC

Figure 2. Geographical distribution of confirmed cases of MERS in Saudi Arabia by probable region of infection and exposure, with dates of onset from 1 January to 2 December 2024



Source: ECDC

7. Unknown disease - Democratic Republic of the Congo - 2024

Overview:

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. According to the press release, since 24 October, 376 people have been affected with 79 deaths, mainly affecting children. The signs and symptoms reported include fever, headaches, cough, dyspnoea, anaemia, and rhinorrhoea.

A team from the Ministry of Health and the national institute's Emergency operation centre has been deployed to the field to perform activities on case management, sampling of the cases for laboratory examination and to collect more information for the outbreak investigation.

The Ministry of Health has issued some preliminary guidance for the affected population which includes: avoiding mass gatherings, notifying via a hotline any suspect case and hand hygiene.

ECDC assessment:

Given the pathogen remains unknown, an assessment of the risk posed to the EU/EEA is not feasible at this stage.

Actions:

ECDC is monitoring the event through its epidemic intelligence activities and is in contact with Africa CDC, DG ECHO and the ECDC staff deployed to Kinshasa for the Mpox response to gather additional information and inform the assessment.

Last time this event was included in the Weekly CDTR: -

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

Overview:

Global update

There have been no major changes to the global epidemiological trends in mpox during the past week. 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 2024), the UK (October 2024 and November 2024), and more recently the United States and Canada (November 2024). The travel-associated cases reported by Sweden, Thailand, Germany, the UK, the US and Canada have had a travel history to Africa. The case reported by India had a travel history to the United Arab Emirates. Outside the African continent, secondary transmission of mpox due to MPXV clade Ib has only been reported by the UK.

Overall, since monitoring began in 2022 and as of 31 October 2024, 115 101 confirmed mpox cases (MPXV clade I and clade II), including 255 deaths, have been reported from 126 countries (2022– 24 Mpox (Monkeypox) Outbreak: Global Trends).

Epidemiological situation in Africa

In 2024, over 47 000 confirmed and suspected mpox cases due to MPXV clade I and clade II, including over 1 150 deaths, have been reported from Africa. This includes over 13 100 confirmed cases, according to the WHO (WHO Global report on mpox (data as of 5 December). In addition, mpox has been reported by Angola, Burundi, Cameroon, the Central African Republic, the Republic of the Congo (Congo), Cote d'Ivoire, the DRC, Gabon, Ghana, Guinea, Kenya, Liberia, Mauritius, Morocco, Nigeria, Rwanda, South Africa, Uganda, Zambia and Zimbabwe.

The epidemiological situation regarding mpox due to MPXV clade Ib and clade Ia remains similar to the previous week.

With regards to MPX V clade Ib, DRC, Burundi, Kenya, Rwanda and Uganda have reported cases in the past week, while there are no updates from Zambia (one case in 2024) and Zimbabwe (two cases in 2024).

In the past six weeks, the DRC has reported 565 confirmed cases and Burundi 1 047, according to the WHO Global report on mpox (data as of 5 December). The DRC continues to report the highest number of cumulative mpox cases in Africa and clade Ia and Ib are co-circulating. Overall, according to the data presented by WHO, the decreasing trend in the total number of cases reported by DRC over the last few weeks is continuing (WHO Global report on mpox (data as of 5 December)). The cumulative number of cases notified in 2024 is over 43 800 (9 500 confirmed), including over 1 130 deaths (WHO Global report on mpox (data as of 5 December)).

In Burundi, as of 5 December 2024, the cumulative number of confirmed cases is 2 334 and one death has also been reported, according to the WHO Global report on mpox (data as of 5 December).

According to the Ministry of Health of Kenya, as of 30 November 2024, five new confirmed Mpox cases were reported in the last week. Two are children below five years. A total of 23 confirmed Mpox clade Ib cases and one death have been reported in the country, six more than our previous update. Confirmed cases have been reported across 12 counties.

Rwanda has reported 15 more cases since the last update on 17 November. A total of 52 confirmed cases have been reported in the country (WHO Global report on mpox (data as of 5 December)).

In Uganda, where clade Ib has been detected, 101 cases and two deaths have been reported since 24 November and as of 1 December 2024 (Mpox Daily Situation Report, Uganda, 05 December 2024). Overall, 784 cases and four deaths have been reported in the country from 52 districts since July 2024. Most cases have been reported in the age group 19–30 years and from Kampala (364 cases in total).

With regards to clade Ia, Congo – where 22 cases have been reported in 2024 – did not report any confirmed cases in recent weeks, while CAR has reported 21 cases in the past six weeks (85 cases and two deaths in total in 2024) (WHO Global report on mpox (data as of 5 December)).

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 5 December:

- Gabon: two confirmed cases have been reported as of 1 September 2024;
- Mauritius: one case reported on 27 October 2024;
- Angola: two 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: Canada, Germany, India, Sweden, Thailand, the UK, the US, Zambia, 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 5 December 2024.

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

Two MPXV clade Ib cases have been reported in the EU/EEA. One case was reported by Sweden in August 2024 and one by Germany in October 2024. Both cases reported having travel history to affected countries. No secondary transmission of clade Ib has been reported in the EU/EEA.

ECDC assessment:

The epidemiological situation regarding mpox due to MPXV clade Ib remains similar to the previous week. Canada, Germany, Sweden, Thailand, the UK and the US have detected cases of mpox due to MPXV clade Ib in people with a history of travel to Africa and India has detected MPXV in a person with a history of travel to the United Arab Emirates.

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. 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: 29 November 2024

9. Suspected viral hemorrhagic fever - Sierra Leone - 2024

Overview:

On 30 November 2024, the National Public Health Agency (NPHA) and the Ministry of Health of Sierra Leone reported a suspected case of viral haemorrhagic fever in Kono District. A rapid response team was deployed and samples were sent to the 34th Military Hospital Infectious Disease Laboratory.

On 1 December 2024, the Government of Sierra Leone, through the National Public Health Agency (NPHA), has issued an update stating that the test results for the suspected case returned as 'indeterminate'. The inconclusive outcome is attributed to the use of formalin for preserving the body prior to sample collection, which can interfere with accurate testing.

The NPHA confirmed that all identified contacts of the probable case remain asymptomatic. These individuals are being closely monitored during a 21-day observation period, with further testing scheduled at the end of the monitoring timeline to ensure that no signs of infection emerge.

The NPHA and the Ministry of Health have reassured the public of their preparedness to manage any potential disease outbreak. They emphasized the importance of remaining calm and obtaining information only from official channels to avoid misinformation.

The government continues to prioritize health security and urges the public to cooperate with health authorities during this monitoring phase. Further updates will be shared as new information becomes available.

ECDC assessment:

Assessment is not possible until the until the aetiology of the case is confirmed.

Actions:

ECDC is monitoring the event via epideimc intelligence activities.

Last time this event was included in the Weekly CDTR: -

Events under active monitoring

- Cholera – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 29 November 2024
- Overview of respiratory virus epidemiology in the EU/EEA - 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
- 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
- Measles – Multi-country (World) – Monitoring European outbreaks – monthly monitoring - last reported on 15 November 2024
- Multistate outbreak with Salmonella Strathcona in Germany - last reported on 15 November 2024
- Mpox in the EU/EEA, Western Balkan countries and Türkiye – 2022–2024 - last reported on 15 November 2024
- Locally-acquired dengue infection in Italy – 2024 - last reported on 15 November 2024
- Marburg virus disease (MVD) – Rwanda – 2024 - last reported on 15 November 2024
- Locally-acquired dengue in 2024 in mainland France - last reported on 08 November 2024
- Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update - last reported on 08 November 2024
- Mpox due to monkeypox virus clade Ib - United Kingdom - 2024 - last reported on 08 November 2024
- SARS-CoV-2 variant classification - last reported on 06 November 2024
- Oropouche virus disease – Multi-country (Americas) – 2024 - last reported on 06 November 2024
- Influenza A(H5N1) – Multi-country (World) – Monitoring human cases - 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
- Unknown disease - Democratic Republic of the Congo - 2024 - last reported on 06 December 2024
- Suspected viral hemorrhagic fever - Sierra Leone - 2024 - last reported on 06 December 2024