

## WEEKLY BULLETIN

# Communicable disease threats report

Week 46, 9–15 November 2024

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## Executive summary

### Locally-acquired dengue infection in Italy – 2024

- In 2024, as of 13 November, 214 locally-acquired dengue cases have been reported in the Marche (147 cases), Emilia Romagna (36 cases), Lombardy (12 cases), Abruzzo (15 cases), Tuscany (2 cases), and Veneto (1 case) regions of Italy. One place of infection is currently under investigation.
- Investigations are ongoing and vector control measures have been triggered by the Italian health authorities in accordance with their national response plan.

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

- On 9 November, public health authorities in British Columbia, Canada, issued a press release about a patient who tested positive for avian influenza A(H5N1) virus.
- The source of exposure is under investigation.
- So far, no additional human cases have been identified.
- To date, there have been no confirmed cases of A(H5N1) infection in humans in the EU/EEA. The risk of zoonotic influenza transmission to the general public in EU/EEA is considered low. The risk to those occupationally or otherwise exposed to infected animals and their environments is considered low-to-moderate.

### **Multistate outbreak with *Salmonella* Strathcona in Germany**

- Between 1 January 2023 and 5 November 2024, 232 cases of *Salmonella* Strathcona have been reported in 16 EU/EEA countries and three countries outside the EU/EEA (the United Kingdom, the United States, and Canada).
- Investigations revealed that isolates from cases that are genetically closely related to the outbreak strain have been detected since 2011.
- Based on epidemiological, microbiological and traceability investigations, small tomatoes from the Sicily region of Italy were identified as the vehicle of infection.
- The risk for new infections remains as long as the seasonal deliveries of contaminated produce continue.

### **Overview of respiratory virus epidemiology in the EU/EEA - weekly monitoring**

- The number of patients presenting to primary care and hospitals for respiratory illness remains at expected levels for this time of year.
- There has been a downward trend of COVID-19 activity in the EU/EEA since the peak in July, including in most of the countries that experienced a later epidemic during the summer. People aged 65 years and above continue to represent the main age group at risk of hospitalisation and severe outcomes due to COVID-19.
- Influenza and respiratory syncytial virus (RSV) continue to circulate at low levels. Based on data from past seasons, countries should be prepared to see an increase in RSV activity in 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 when it is offered to them.

### **Seasonal surveillance of West Nile virus infections – 2024**

- Since the beginning of 2024, and as of 13 November 2024, cases of West Nile virus (WNV) infection have been reported to The European Surveillance System (TESSy) by 14 EU/EEA countries (Austria, Bulgaria, Croatia, Cyprus, Czechia, Hungary, Romania, France, Germany, Italy, Greece, Slovakia, Slovenia, and Spain) and five EU-neighbouring countries (Albania, Kosovo\*, North Macedonia, Serbia, and Türkiye).
- The latest monthly epidemiological update on WNV infections covers data up to 6 November 2024, with a total of 1 375 locally-acquired WNV infection cases and 113 deaths reported by European countries to TESSy.
- More information, including maps and a dashboard, are available in ECDC's weekly surveillance report on West Nile virus infections: [Weekly updates: 2024 West Nile virus transmission season \(europa.eu\)](#) and [West Nile virus Dashboard \(europa.eu\)](#). Monthly epidemiological updates are available at: [Monthly updates: 2024 West Nile virus transmission season \(europa.eu\)](#).

\* *This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.*

### **Measles – Multi-country (World) – Monitoring European outbreaks – monthly monitoring**

- In September 2024, 27 countries reported measles data to EpiPulse Cases, with 245 cases reported by 17 countries. Ten countries reported zero cases.
- Through its epidemic intelligence activities, ECDC has identified 84 new measles cases in eight EU/EEA countries reported since the last monthly update in September and not reported to ECDC.
- In 2024, 19 measles-related deaths have been reported in Romania (18) and Ireland (1).
- Overall in the EU/EEA, over the last 12 months, there has been high measles activity; however, the situation varies by country. Some countries have reported large and/or ongoing outbreaks and others have reported no sustained or very low transmission.
- Updates are available for WHO Regions.

## Mpox in the EU/EEA, Western Balkan countries and Türkiye – 2022–2024

- Since the last update on 8 October 2024, and as of 8 November 2024, 146 mpox cases have been reported from 12 EU/EEA countries: Spain (41), Germany (34), the Netherlands (20), France (14), Belgium (12), Ireland (6), Italy (5), Norway (4), Austria (3), Czechia (3), Sweden (3), and Luxembourg (1). Since 8 October 2024, no new countries have reported confirmed cases.
- Since the start of the mpox outbreak, and as of 8 November 2024, 23 239 confirmed cases of monkeypox (MPX) have been reported from 29 EU/EEA countries. In 2024 and as of 8 November 2024, a total of 1 256 mpox cases have been reported in the EU/EEA.
- In October 2024, a 35% increase in mpox cases was observed compared with September (146 cases reported in October vs 108 cases reported in September).
- The overall risk of infection remains low for men who have sex with men (MSM) and very low for the broader EU/EEA population.

## 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, and Uganda.
- Among the countries that have reported MPXV clade Ib outside Africa, no secondary cases have been reported by Germany, Sweden, India, and Thailand. Secondary transmission has only been reported in the United Kingdom (UK) 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 ([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](#).

## Marburg virus disease (MVD) – Rwanda – 2024

- No new cases of Marburg virus disease (MVD) have been reported in Rwanda since 30 October 2024. All patients who were under care have recovered, with the last testing negative on 8 November 2024. If no cases are reported in the 42-day period starting on 9 November 2024 the outbreak will be declared over.
- Overall, 66 MVD cases (51 recovered), including 15 deaths, have been reported. Based on the available information, all cases belong to one large cluster, with different branches linked to healthcare facilities and the presumed index case.
- In the event of MVD cases being imported into the EU/EEA, ECDC assesses the likelihood of further transmission to be very low, and the associated impact low. Therefore, the overall risk for the EU/EEA is assessed as low. The overall risk for EU/EEA citizens visiting or living in Rwanda is assessed as low. In October, ECDC published a [threat assessment brief](#) on the implications of the outbreak for the EU/EEA.

# 1. Locally-acquired dengue infection in Italy – 2024

## Overview:

As of 13 November, 214 locally acquired-dengue cases have been [reported](#) by the Italian National Public Health Authority. This is one more case than reported in the previous week's update. The newly reported case was from Abruzzo.

For 213 cases, NUTS2 regions were reported:

- Marche: 147 cases;
- Emilia Romagna: 36 cases;
- Lombardy: 12 cases;
- Abruzzo: 15 cases;
- Tuscany: two cases;
- Veneto: one case.

An additional case was reported by the Abruzzo region. However, the place of infection is currently under investigation as the infection may have occurred in another region.

### ECDC assessment:

Non-travel-associated dengue cases have been reported in Italy since 2020 (10 cases). None were reported in 2021 and 2022. In 2023, 82 locally-acquired dengue cases were reported, which was the highest number of locally-acquired cases in the EU/EEA until 2024. The current outbreak in the Marche is the largest dengue outbreak reported in the EU/EEA to date.

In Europe, the dengue virus is transmitted by the mosquito vector *Aedes albopictus*, which is established in a large part of Europe. These outbreaks are therefore not unexpected. As environmental conditions are becoming unfavourable for vector activity and virus replication in vectors, only sporadic cases and cases reported with delay are expected in the coming weeks.

In addition to Italy, France and Spain have also reported autochthonous dengue cases in Europe in 2024. More information on the cases in France is provided in EpiPulse item [2024-EVD-00023](#), while information on the cases in Spain is provided in EpiPulse item [2024-EVD-00038](#).

Local outbreaks of dengue have previously been reported by France, Italy, Spain, and Croatia. More information is available on ECDC's dedicated webpage on autochthonous transmission of dengue virus in the EU/EEA and in ECDC's dengue factsheet.

### Actions:

Investigations are ongoing and vector control measures have been triggered in accordance with the national arbovirus prevention and control plan.

ECDC continues to monitor locally acquired dengue cases in the EU/EEA. Countries are asked to report autochthonous cases through EpiPulse.

**Last time this event was included in the Weekly CDTR:** 8 November 2024

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

### Overview:

**Update:** 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.

**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.

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.

### ECDC assessment:

To date, there have been no confirmed cases of A(H5N1) infection in humans in the EU/EEA. ECDC assesses the risk of infection 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 infection for the general public remains low at this time. The risk of avian influenza infection 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](#)

### 3. Multistate outbreak with *Salmonella* Strathcona in Germany

#### Overview:

A cross-border outbreak of *Salmonella* Strathcona ST2559 is ongoing in the European Union/European Economic Area (EU/EEA) and the United Kingdom (UK). From 1 January 2023 to 5 November 2024, 232 confirmed cases of *S.* Strathcona ST2559 have been identified in 16 EU/EEA countries according to the European case definition: Austria (33), Croatia (3), Czechia (10), Denmark (9), Estonia (1), Germany (62), Finland (3), France (23), Ireland (1), Italy (67), Luxembourg (2), the Netherlands (2), Norway (3), Slovakia (5), Slovenia (2), and Sweden (6). Cases were also identified in three countries outside the EU/EEA; the UK (29), the US (8) and Canada (5). Among the travel associated cases, the most frequently visited country was Italy.

Tomatoes were identified as the vehicle of infection in several national epidemiological investigations undertaken in response to this multi-country outbreak. Whole genome sequencing cluster analyses suggest that the outbreak strain from multiple affected countries has a recent common origin. The epidemiological, microbiological and traceability investigations in the 2023 Austrian outbreak and 2024 Italian outbreak confirmed that small tomatoes from the Sicily region of Italy were the vehicle of infection in these two outbreaks. The same conclusion was confirmed for a historical *S.* Strathcona ST2559 outbreak in Denmark in 2011.

Human and food sectors should continue to conduct investigations to verify whether small tomatoes from Sicily are the vehicle of infection in all EU countries that have reported or continue to report cases in this multi-country outbreak, as other foods could also be involved in the transmission. The environment's role in the contamination of the tomatoes should also be investigated, as the outbreak strain was also identified in a farm animal in the region. Investigations to identify the point of entry of *S.* Strathcona – including of irrigation water – should be conducted so the appropriate corrective measures are taken to stop the contamination from spreading and prevent possible new cases.

#### ECDC assessment:

This is a re-emerging, seasonal outbreak where 232 *S.* Strathcona infections have been reported by 16 EU/EEA countries, the UK, and the US since January 2023, with most cases reported between the months of August and October. Epidemiological, microbiological and traceability investigations identified small tomatoes grown in the Sicily region of Italy as the vehicle of infection.

The risk for new infections remains as long as the seasonal deliveries of contaminated produce continues. New outbreaks are likely to occur in future seasons until the root cause of the contamination has been identified and control measures implemented. Human and food sectors are recommended to continue investigations to verify whether small tomatoes from Italy are the vehicle of infection in newly occurring cases. The role of the environment, including irrigation water in the contamination of the tomatoes should also be investigated, to identify the point of entry at which contamination with *S.* Strathcona is occurring.

#### Actions:

ECDC is monitoring the event in EpiPulse.

ECDC and EFSA have published a joint rapid outbreak assessment (see below for links).

#### Further information:

Müller et al 2016. Outbreak of *Salmonella* Strathcona caused by datterino tomatoes, Denmark, 2011, [Epidemiology and Infection](#).

ECDC and EFSA joint rapid outbreak assessment (published 12 November 2024): [Prolonged multi-country outbreak of \*Salmonella\* Strathcona ST2559 linked to consumption of tomatoes in the EU/EEA and the UK](#)

Sources: [2024.7763](#)

Last time this event was included in the Weekly CDTR: 17 November 2023

## 4. Overview of respiratory virus epidemiology in the EU/EEA – weekly monitoring

### 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'.*

- ARI activity (primary care consultation rates) is increasing in many countries over the past weeks with five countries now reporting low activity. ILI (primary care consultation rates) and SARI (hospital consultation rates) remain at baseline levels in most EU/EEA countries. Overall, all syndromic indicators are at levels comparable to previous seasons at this time of year.
- SARS-CoV-2 activity in primary care and hospitals continues to decrease at the EU/EEA level, with positivity rates lower or similar to those observed in 2023 at this time of year. The picture remains mixed at the country level, with most countries reporting a decreasing trend. People aged 65 years and above continue to be most affected by severe COVID-19 disease.
- Seasonal influenza activity remained stable at low levels in most reporting EU/EEA countries. Notably one country has reported increased seasonal influenza activity in primary and secondary care which may be an indication of increased activity in the coming weeks across the region.
- RSV activity has increased slightly compared to the previous week particularly in those aged 0-4 years. However, overall activity remains low in the reporting EU/EEA countries and at lower levels than observed in the past three seasons. Countries should be prepared to see a potential increase in RSV activity in the coming weeks.

### ECDC assessment:

While influenza and RSV activity in the EU/EEA remain at relatively low levels, increased activity is anticipated in the coming weeks, as is typical for this time of year. SARS-CoV-2 activity continues to decrease but remains elevated in some reporting countries, with those aged 65 years and above at greatest risk of severe disease.

### Actions:

It remains important to continue monitoring the impact of SARS-CoV-2 at national and regional levels despite the observed decreased activity. 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.

While influenza and RSV activity in the EU/EEA remain at relatively low levels, countries should prepare for an increase in activity in 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 and vaccination 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, following national recommendations.

Similarly, vaccination against influenza viruses contributes to limiting severe outcomes of the disease for people at high risk. Healthcare workers and individuals at higher risk should stay up to date with influenza vaccination, following 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](https://www.ecdc.europa.eu/en/erVISS)). 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](#)’.

Sources: [ERVISS](https://www.ecdc.europa.eu/en/erVISS)

Last time this event was included in the Weekly CDTR: 8 November 2024

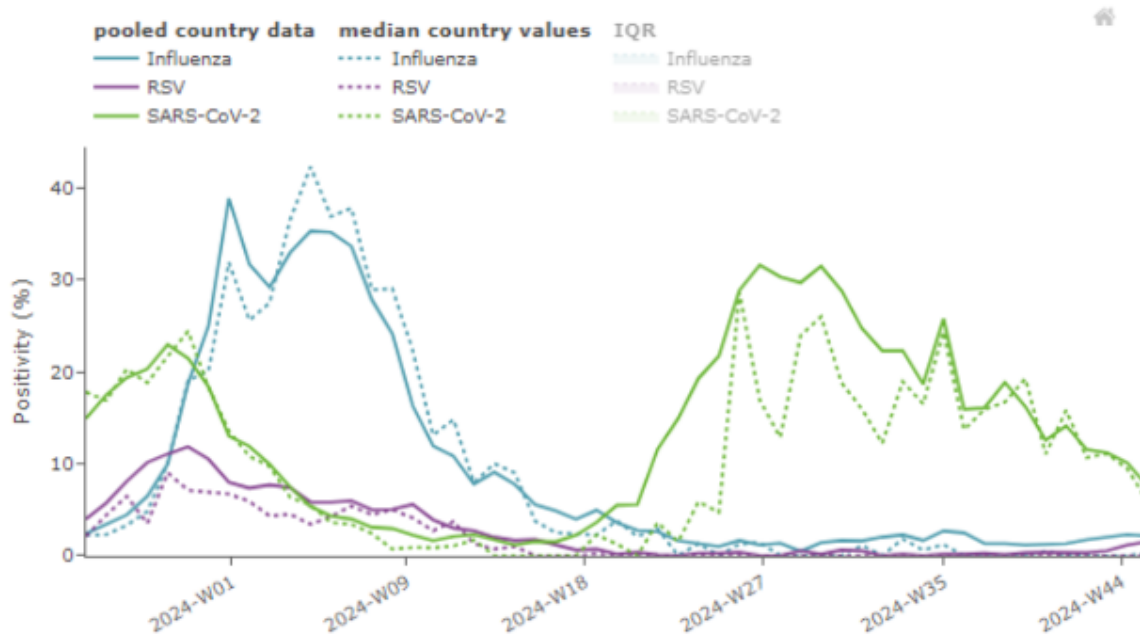
**Figure 1. Overview of key indicators of activity and severity in week 45**

Indicator	Syndrome or pathogen	Reporting countries		EU/EEA summary		Comment
		Week 45	Week 44	Description	Value	
Primary care consultation rates	ARI	12 rates (10 MEM)	14 rates (11 MEM)	Distribution of country MEM categories	5 Baseline 5 Low	ARI activity is increasing in many countries but remains at similar levels to past seasons at this time of year. Five countries reported ARI activity above baseline levels: Bulgaria, Czechia, Estonia, Germany, and Lithuania.
	ILI	18 rates (16 MEM)	20 rates (18 MEM)		14 Baseline 1 Low 1 Medium	
Primary care sentinel positivity	Influenza	18	19	Pooled (median; IQR)	2.1% (0.3; 0–2%)	Continued low activity in most EU/EEA countries, similar to past seasons at this time of year. Ireland reported a test positivity rate of 8% (87 samples tested).  An increasing trend was observed at EU/EEA level. However, there is still very relatively low circulation compared past seasons at this time of year. At EU/EEA level, the highest test positivity (8%) was observed in those aged 0–4 years (14 detections and 133 tests). Based on data from previous seasons, week 41 usually marks the beginning of an increase in RSV circulation. The situation will continue to be closely monitored in the coming weeks.  The pooled EU/EEA test positivity rate continues to decrease slowly, as observed since the peak in July 2024. At the country level, the situation remains more varied. A decreasing trend continues in most countries. Six countries reported test positivity rates above 10% this week.
	RSV	16	17		1.5% (0; 0–2.5%)	
	SARS-CoV-2	19	19		7.5% (5.9; 4.3–12%)	
SARI consultation rates	SARI	7	8			Rates continued to be reported at levels comparable to past seasons at the same time of year.
SARI positivity	Influenza	5	7	Pooled (median; IQR)	1.1% (0.9; 0.4–2.3%)	Stable trend with very low circulation, similar to past seasons at this time of year. As observed in primary care, Ireland reported the highest test positivity rate (5%, 40 samples tested).  Stable trend of very low circulation. As observed in primary care, at EU/EEA level the highest test positivity (8%) was observed in those aged 0–4 years (9 detections and 112 tests).  As observed in primary care, the pooled positivity rate continues to decrease. The positivity rates in SARI surveillance are at lower or similar levels as those observed in 2023 at the same time of year for several countries. Non-sentinel indicators of severe disease remain elevated in Cyprus, Czechia, Greece, Hungary, and Lithuania.
	RSV	5	7		1.1% (1.2; 0–3.8%)	
	SARS-CoV-2	6	7		13% (13; 6.5–18%)	
Intensity (country-defined)	Influenza	21	23	Distribution of country qualitative categories	14 Baseline 6 Low 1 Medium	
Geographic spread (country-defined)	Influenza	20	22	Distribution of country qualitative categories	6 No activity 13 Sporadic 1 Local	

Source: ECDC



**Figure 2. ILI/ARI virological surveillance in primary care – weekly test positivity**



Source: ECDC

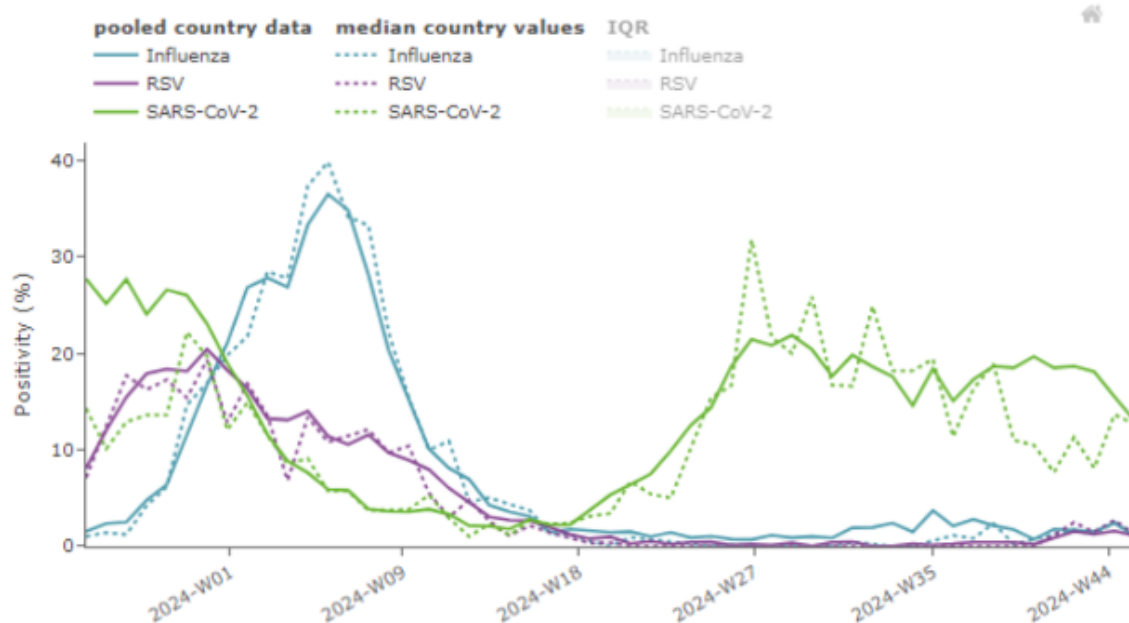
**Figure 3. ILI/ARI virological surveillance in primary care – pathogen type and subtype distribution**

Pathogen	Week 45, 2024		Week 40, 2024 – week 45, 2024	
	N	% <sup>a</sup>	N	% <sup>a</sup>
<b>Influenza</b>	<b>45</b>	<b>–</b>	<b>223</b>	<b>–</b>
Influenza A	21	51	121	65
A(H1)pdm09	9	64	51	62
A(H3)	5	36	31	38
A (unknown)	7	–	39	–
Influenza B	20	49	64	35
B/Vic	2	100	9	90
B/Yam	0	0.0	1	10
B (unknown)	18	–	54	–
Influenza untyped	4	–	38	–
<b>RSV</b>	<b>27</b>	<b>–</b>	<b>76</b>	<b>–</b>
RSV-A	5	71	7	39
RSV-B	2	29	11	61
RSV untyped	20	–	58	–
<b>SARS-CoV-2</b>	<b>136</b>	<b>–</b>	<b>1255</b>	<b>–</b>

<sup>a</sup> Percentages show either the relative proportion of influenza and RSV types (A and B) or influenza A subtypes and influenza B lineages.

Source: ECDC

**Figure 4. ILI/ARI virological surveillance in hospitals – weekly test positivity**



Source: ECDC

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

Pathogen	Week 45, 2024		Week 40, 2024 – week 45, 2024	
	N	% <sup>a</sup>	N	% <sup>a</sup>
<b>Influenza</b>	<b>10</b>	–	<b>105</b>	–
Influenza A	6	86	54	90
A(H1)pdm09	2	100	14	88
A(H3)	0	0.0	2	12
A (unknown)	4	–	38	–
Influenza B	1	14	6	10
B/Vic	0	–	1	100
B (unknown)	1	–	5	–
Influenza untyped	3	–	45	–
<b>RSV</b>	<b>10</b>	–	<b>71</b>	–
RSV-A	1	100	13	72
RSV-B	0	–	5	28
RSV untyped	9	–	53	–
<b>SARS-CoV-2</b>	<b>125</b>	–	<b>1212</b>	–

<sup>a</sup> Percentages show either the relative proportion of influenza and RSV types (A and B) or influenza A subtypes and influenza B lineages.

Source: ECDC

**Figure 6. Genetically characterised influenza virus distribution, weeks 40–45, 2024**

Subtype distribution			Subclade distribution		
Subtype	N	%	Subclade	N	%
A(H1)pdm09	20	62	5a.2a	19	95
			5a.2a.1	1	5
A(H3)	9	28	2a.3a.1	9	100
B/Vic	3	9	V1A.3a.2	3	100

**Figure 7. SARS-CoV-2 variant distribution, weeks 43–44, 2024**

Variant	Classification <sup>a</sup>	Reporting countries	Detections	Distribution (median and IQR)
KP.3	VOI	7	300	57% (48–68%)
BA.2.86	VOI	7	59	8% (6–11%)

<sup>a</sup> For information on SARS-CoV-2 variants classification, including information on variants under monitoring (VUMs), visit [ECDC's variant page](#).

Source: ECDC

## 5. Seasonal surveillance of West Nile virus infections – 2024

### Overview:

#### Epidemiological summary

Since the start of 2024, and as of 13 November 2024, human cases of WNV infection have been reported to TESSy by 14 EU/EEA countries and five EU-neighbouring countries. In the EU/EEA, Austria, Bulgaria, Croatia, Cyprus, Czechia, Hungary, Romania, France, Germany, Italy, Greece, Slovakia, Slovenia, and Spain reported WNV infections. From EU-neighbouring countries, Albania, Kosovo\*, North Macedonia, Serbia, and Türkiye have reported WNV infections. In total, 210 NUTS3/GAUL1 regions across 19 countries have reported locally-acquired WNV cases. National investigations concluded that the person with confirmed WNV infection initially reported with the place of infection as Rome (NUTS3 = ITI43) actually acquired the infection elsewhere. As this is not reflected in the data reported to ECDC, this case is still displayed with place of infection as Rome in ECDC's outputs. For detailed information on places of infection, please refer to ECDC's [weekly update](#) and [dashboard](#).

The latest [monthly epidemiological update](#) on WNV infections, covering data up to 6 November 2024, was published on 14 November 2024. In 2024, 19 countries in Europe reported 1 375 locally-acquired human cases of WNV infection with known place of infection. The earliest and latest dates of onset were on 1 March and 13 October 2024, respectively. Locally-acquired cases were reported by Italy (449), Greece (217), Spain (131), Hungary (111), Albania (102), Romania (99), Serbia (63), Türkiye (55), France (37), Austria (34), Germany (24), Croatia (20), Bulgaria (14), Slovakia (5), Slovenia (5), Kosovo\* (4), Cyprus (2), North Macedonia (2) and Czechia (1). In Europe, 113 deaths were reported by Greece (34), Romania (20), Italy (18), Albania (13), Spain (10), Serbia (5), Türkiye (5), Bulgaria (3), Hungary (3), France (1), and North Macedonia (1).

Case numbers reported this year are above the mean monthly case count for the past 10 years. During the same period in 2023, 781 cases had been reported. However, numbers are lower than in 2018, when 2 038 cases had been reported by this time of year.

All 19 countries had reported human cases of WNV infections in the past. However, Albania, Czechia, Kosovo\*, Slovenia, and Türkiye have not reported any human cases in the past four to five years. In Albania, the current outbreak is the largest outbreak of WNV infections among humans that has been detected in the country.

So far, 204 regions across 19 countries have reported locally acquired human cases of WNV infection this year, compared to 136 regions in 2023 and 165 regions in 2018 during the same period. This is the largest geographical distribution of WNV ever reported in a year. The following regions have reported locally acquired human cases of WNV infection for the first time ever: Berat, Elbasan, Kavaje, Kucove, Kurbin, Lushnje, Vlore, Mallakaster and Kruje in Albania, Kardzhali in Bulgaria, Bjelovarsko-bilogorska županija in Croatia, Hérault, Pyrénées-Atlantiques, Guadeloupe and Gard in France, Bautzen, Diepholz, Oder-Spree, Jena Kreisfreie Stadt, Dithmarschen, Segeberg, Havelland, Jerichower Land and Börde in Germany, Thesprotia in Greece, Benevento, Chieti, Roma, Firenze, Napoli, Caserta and Barletta-Andria-Trani in Italy, Prishtinë, Prizren and Mitrovicë in Kosovo\*, Pološki in North Macedonia, Trnavský kraj and Nitriansky kraj in Slovakia, Podravska in Slovenia, Jaén and Málaga in Spain, and Edirne, Bursa and Osmaniye, and Tekirdağ in Türkiye.

As observed in previous years, most cases are among men aged over 65 years. Severity indicators are comparable to those observed in previous years, with 91% of cases hospitalised, a case fatality rate of 9% and neurological manifestations in 69% of the cases. The dominance of neurological cases is expected, as cases with more severe symptoms are more likely to be diagnosed.

In addition, travel-associated cases from outside of the EU/EEA have been reported in travellers arriving from Albania, Bosnia and Herzegovina, India, Kenya, Morocco, Oman, Tunisia, Uganda, the United Arab Emirates and the United States.

From the veterinary perspective, 483 WNV outbreaks among equids and 435 outbreaks among birds have been reported in Europe in 2024. Outbreaks among equids have been reported by Germany (174), France (79), Spain (67), Austria (54), Hungary (41), Italy (34), Portugal (17), Croatia (8), Poland (6), and Greece (3). Outbreaks among birds have been reported by Italy (307), Germany (76), Austria (20), Spain (14), France (4), Slovenia (4), Hungary (3), Bulgaria (2), Croatia (2), Poland (2), and Latvia (1). The earliest and latest date of start of an outbreak among birds and/or equids were respectively on 2 April 2024 and 21 October 2024.

More background information on the Commission Directives on blood safety and EU/EEA notifications of WNV infections can be found in ECDC's weekly surveillance report on WNV infections, which is available online ([Weekly updates: 2024 West Nile virus transmission season \(europa.eu\)](#) and [West Nile virus Dashboard \(europa.eu\)](#)). Monthly epidemiological updates are available at: [Monthly updates: 2024 West Nile virus transmission season \(europa.eu\)](#).

*\* This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.*

## ECDC assessment:

As in previous years, the peak of transmission was observed in August and September. As environmental conditions have become unfavourable for vector activity and virus replication in vectors, only sporadic cases and cases reported with a delay are expected in the coming weeks.

As of 6 November 2024, the most recent onset date reported was 13 October 2024.

Due to the delay in diagnosis and reporting of cases of WNV infection, and also that a majority of the WNV infections remain asymptomatic or pauci-symptomatic, the case numbers provided in this report are not a true representation of the actual number of cases.

## Actions:

ECDC is monitoring WNV through indicator- and event-based surveillance activities.

**Last time this event was included in the Weekly CDTR:** 8 November 2024

## 6. Measles – Multi-country (World) – Monitoring European outbreaks – monthly monitoring

### Overview:

In September 2024, 27 countries reported measles data to the EpiPulse Cases, with 245 cases reported by 17 countries. Ten countries reported zero cases.

Detailed data are available in [ECDC's Surveillance Atlas of Infectious Diseases](#).

Complementary epidemic intelligence surveillance, with data collection conducted on 12 November 2024 from official public and media sources, detected 84 new suspected and/or confirmed measles cases reported since the monthly update in October and not reported to ECDC. New cases were reported in eight EU/EEA countries: Austria (new: 2; total: 506), Bulgaria (new: 1; total: 27), Germany (new: 57; total: 755), Hungary (new: 1, total: 30), Ireland (new: 12; total: 147), Lithuania (new: 1, total: 27), the Netherlands (new: 4; total: 167), and Poland (new: 6; total: 268). Overall, 19 measles-related deaths have been reported in the EU/EEA in 2024 (18 in Romania and one in Ireland).

Updates are available for WHO Regions.

**Disclaimer:** *The [monthly measles report published in the CDTR](#) provides the most recent data on cases and outbreaks based on information made publicly available by the national public health authorities or the media. Sometimes this information is made available retrospectively. This report is a supplement to [ECDC's monthly measles and rubella monitoring report](#), based on data routinely submitted by 30 EU/EEA countries to TESSy. Data presented in the two monthly reports may differ.*

### Epidemiological summary for EU/EEA countries with epidemic intelligence updates since last month:

[Austria](#) reported 506 confirmed measles cases in 2024 as of 12 November 2024, an increase of two cases since 8 October 2024. Of the 500 cases with available information on hospitalisation, 107 individuals (21%) were hospitalised, including four in the intensive care unit.

[Bulgaria](#) reported 27 measles cases in 2024 and as of 12 November 2024, an increase of one case since 8 October 2024. No cases were reported for the same period of the previous year.

[Germany](#) reported 755 confirmed and suspected measles cases in 2024 (data as of 12 November 2024), an increase of 57 cases since 10 October 2024.

[Hungary](#) reported 30 measles cases as of 3 November 2024, an increase of one case since 7 October 2024.

[Ireland](#) has reported 147 confirmed measles cases as of 6 November 2024, an increase of 12 cases since 8 October 2024.

[Lithuania](#) reported 27 cases in 2024 and as of 6 November 2024.

[The Netherlands](#) reported 167 measles cases in 2024 and as of 23 October 2024, an increase of four cases since 18 September 2024.

[Poland](#) reported 268 measles cases from January to 31 October 2024, an increase of six cases since 30 September 2024.

### Summary of measles cases reported by WHO regional offices (as of [7 November 2024](#))

WHO Regional Office for Europe (WHO/EUROPE) reported 95 204 measles cases in 2024. The five non-EU/EEA countries reporting the most measles cases were: Kazakhstan (27 760), Azerbaijan (16 675), the Russian Federation (14 751), Kyrgyzstan (12 587), and the United Kingdom (2 398).

*The numbers provided to WHO for EU/EEA countries are from TESSy data, which are updated monthly and available on the [ECDC Surveillance Atlas of Infectious Diseases](#). Due to differences in reporting times, the numbers may not correspond to the data from epidemic intelligence screening.*

WHO Regional Office for Africa (WHO AFRO) has reported 67 976 measles cases in 2024. The highest numbers of cases were reported from Ethiopia (26 493), Nigeria (8 243), Burkina Faso (6 457), Cote d'Ivoire (6 048) and the Democratic Republic of the Congo (4 149).

WHO Regional Office for the Americas (WHO PAHO) has reported 342 measles cases in 2024. Most cases (238) were reported in the United States.

WHO Regional Office for the Eastern Mediterranean (WHO EMRO) has reported 80 607 measles cases in 2024. The highest numbers of cases were reported from Iraq (30 889), Pakistan (21 070), Yemen (17 730), Afghanistan (7 023), and Somalia (1 119).

WHO Regional Office for South-East Asia (WHO SEARO) has reported 24 541 measles cases in 2024. The highest numbers of cases were reported from India (16 934), Indonesia (4 145), Thailand (2 694), Sri Lanka (242), and Nepal (201).

WHO Regional Office for the Western Pacific (WHO WPRO) has reported 7 137 measles cases in 2024. The following five countries reported the most cases: the Philippines (3 346), Malaysia (2 647), China (665), Vietnam (347), and the Republic of Korea (47).

### ECDC assessment:

The overall number of measles cases in the EU/EEA has been steadily increasing since June 2023. However, for the month of September 2024, there was a decrease in the number of cases reported. **Measles cases may continue to increase in the EU/EEA in the coming months.** This is due to reported sub-optimal vaccination coverage for measles-containing vaccines (MCV) in a number of EU/EEA countries (<95% in many of these countries), as well as a high probability of importation from areas experiencing high circulation. In addition, the majority of recently reported cases have acquired the disease within the reported country through community/local transmission, indicating a higher probability of being exposed to the virus within the EU/EEA than in previous months.

As the number of cases is expected to rise in the near future, ECDC urges EU/EEA public health authorities to focus on the following areas:

- **Close immunity gaps, achieve and maintain high vaccination coverage for MCV** (>95% with the second dose). It is vital to ensure first and second dose vaccinations are administered on time as per national schedules among infants and children. It is also important to identify and vaccinate eligible individuals (for example, non-immune adolescents and adults) in immunisation catch-up programmes (as recommended by local and national authorities).
- **Strive towards high-quality surveillance**, and adequate public health capacity, especially for early detection, diagnosis, response and control of outbreaks.
- **Increase the clinical awareness of health professionals.**
- **Promote vaccine acceptance and uptake** by employing specific risk communication strategies and identifying drivers of sub-optimal MMR vaccine acceptance and uptake to ensure that tailored interventions are implemented in response.
- **Address barriers and engage with underserved populations.** Systemic barriers that impact vaccine uptake in under-served, isolated and difficult-to-reach populations need to be monitored and addressed with targeted strategies, to reduce inequalities in vaccine uptake.

ECDC's latest advice on measles is available in the Threat Assessment Brief '[Measles on the rise in the EU/EEA: Considerations for a public health response](#)' published in February 2024 and the conclusions of that remain valid. Additional information on the risk classification and ECDC recommendations can be found in this report.

### Actions:

ECDC is monitoring the measles situation through its epidemic intelligence activities, which supplement monthly outputs with measles surveillance data from TESSy, routinely submitted by 30 EU/EEA countries. ECDC's latest advice on measles is available in the Threat Assessment Brief, '[Measles on the rise in the EU/EEA: Considerations for a public health response](#)', published on 15 February 2024.

**Last time this event was included in the Weekly CDTR:** 11 October 2024

## 7. Mpox in the EU/EEA, Western Balkan countries and Türkiye – 2022–2024

### Overview:

Since the last update on 8 October 2024, and as of 8 November 2024, 146 monkeypox cases have been reported from 12 EU/EEA countries: Spain (41), Germany (34), the Netherlands (20), France (14), Belgium (12), Ireland (6), Italy (5), Norway (4), Austria (3), Czechia (3), Sweden (3), and Luxembourg (1). Since 8 October 2024, no new countries have reported confirmed cases.

In 2024 and as of 6 September 2024, a total of 1 256 mpox cases have been reported in the EU/EEA.

There was a 35% increase in reported cases in October (146 cases) compared with the 108 cases reported in September.

Since the start of the monkeypox outbreak, and as of 8 November 2024, 23 239 confirmed cases of mpox (MPX) have been reported from 29 EU/EEA countries: Spain (8 341), France (4 363), Germany (3 960), the Netherlands (1 374), Portugal (1 204), Italy (1 072), Belgium (839), Austria (356), Sweden (305), Ireland (261), Poland (225), Denmark (209), Norway (113), Greece (102), Czechia (90), Hungary (85), Luxembourg (62), Romania (48), Slovenia (47), Finland (43), Malta (38), Croatia (34), Iceland (17), Slovakia (16), Estonia (11), Bulgaria (7), Latvia (6), Lithuania (6), and Cyprus (5). Deaths have been reported from: Spain (3), Belgium (2), Portugal (2), Austria (1), and Czechia (1).

Since the start of the mpox outbreak in 2022, and as of 8 November 2024, the following Western Balkan countries have reported confirmed cases of mpox: Serbia (40), Bosnia and Herzegovina (9), and Montenegro (2). In addition, 12 cases have been reported by Türkiye.

Two MPXV clade Ib cases have been reported in EU/EEA. One case was reported by Sweden in August 2024 and one from Germany in October 2024. Both cases reported having travel history to affected countries. No secondary transmission of clade Ib has been reported in EU/EEA. All other mpox cases with available information on clade reported in the EU/EEA were due to MPXV clade I Ib.

Cases reported in 2024 share the same epidemiological profile as those reported since the beginning of the outbreak in the EU/EEA, with the majority of cases being men, and sexual contact among men who have sex with men remaining the primary mode of transmission.

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 (PHEIC).

For more information on the global update regarding MPXV clade Ib, please refer to the EpiPulse item [2024-EIP-00041](#).

A detailed summary and analysis of data reported to TESSy can be found in the [Joint ECDC-WHO Regional Office for Europe Mpox Surveillance Bulletin](#).

### ECDC assessment:

The number of new infections remains relatively low in Europe even though an increase in reported cases was observed in October compared with September 2024. This increase comes after a decrease seen in September relative to August, and an increase in August relative to July. The changes in case numbers are likely to represent expected month-to-month variation in reported numbers as total numbers are small. The overall risk of MPXV infection is assessed as low for MSM and very low for the broader population in the EU/EEA.

Response options for EU/EEA countries include raising awareness among healthcare professionals; supporting sexual health services in case detection, contact tracing, and case management; continuing to offer orthopoxvirus testing; implementing vaccination strategies; and maintaining risk

communication and community engagement, despite the decreasing number of cases. EU/EEA countries are also encouraged to sequence and report clades and subclades to identify new cases of mpox, particularly those linked to clade Ib.

Primary preventive vaccination (PPV) and post-exposure preventive vaccination (PEPV) strategies may be combined to focus on individuals at substantially higher risk of exposure and close contacts of cases, respectively, particularly in the event of limited vaccine supply. PPV strategies should prioritise gay, bisexual, and transgender people, and MSM, who are at higher risk of exposure, as well as individuals at risk of occupational exposure, based on epidemiological or behavioural criteria. Health promotion interventions and community engagement are also critical to ensure effective outreach, high vaccine acceptance and uptake among those most at risk of exposure.

### **Actions:**

ECDC is closely monitoring the mpox epidemiological situation through indicator- and event-based surveillance.

A [rapid risk assessment](#), 'Mpox multi-country outbreak', was published on 23 May 2022. The [first update](#) to the rapid risk assessment was published on 8 July 2022, and a [second update](#) was published on 18 October 2022. ECDC published a [report](#) on public health considerations for mpox in EU/EEA countries on 14 April 2023. ECDC published a [Threat Assessment Brief on MPXV clade I in the Democratic Republic of the Congo \(DRC\) on 5 December 2023](#) and an [epidemiological update on 5 April 2024](#). A [risk assessment](#) for the EU/EEA on the mpox epidemic caused by mpox virus clade I in affected African countries was published on 16 August 2024, and [rapid scientific advice on public health measures](#) was released on 9 September 2024.

A [resource toolkit for event organisers](#) and [social media materials](#) on mpox related to events are also available. Member States can use these materials to work with event organisers ahead of Pride events to ensure that attendees have access to the right information.

Member States can also consider providing those who travel to Pride events abroad with updated information on how to protect themselves and others from mpox.

For the latest updates, visit [ECDC's mpox page](#).

**Last time this event was included in the Weekly CDTR:** 11 October 2024

## **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 Ib outside Africa has been reported by Sweden and Thailand (August 2024), India (September 2024), and more recently from Germany and the UK (October 2024). The cases reported by Sweden, Thailand, Germany, and the UK have had travel history to Africa, while the case reported by India had travel history to the United Arab Emirates. Outside Africa, secondary transmission of mpox due to MPXV clade Ib has only been reported by the UK.

Overall, since monitoring began in 2022, 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 50 500 confirmed and suspected mpox cases due to MPXV clade I and clade II, including over 1 100 deaths, have been reported from Africa. This includes over 11 140 confirmed cases, according to the WHO and Africa CDC ([WHO Global report on mpox \(data as of 10 November\)](#)), and [Special Briefing on Mpox and other Health Emergencies | Nov. 14, 2024](#)). The countries reporting cases are Burundi, Cameroon, the Central African Republic, 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.

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

With regards with clade Ib, DRC, Burundi, Kenya, and Uganda have reported mpox due to MPXV clade Ib the past week, while there are no updates from Rwanda (26 cases in 2024), Zambia (one case in 2024) and Zimbabwe (two cases in 2024).

In the past six weeks, the DRC has reported 1 543 confirmed cases and Burundi 1 010, according to the [WHO Global report on mpox \(data as of 10 November\)](#). The DRC continues to report the highest number of mpox cases in Africa and clade Ia and Ib co-circulate. The cumulative number of cases in 2024 is 42 912 (9 457 confirmed), including over 1 132 deaths ([WHO Global report on mpox \(data as of 10 November\)](#)). In Burundi, as of 10 November 2024, 3 924 cases, of which 1 736 were confirmed, have been reported according to the [WHO Global report on mpox \(data as of 10 November\)](#) from several areas of the country. No deaths have been reported so far. According to the [WHO Mpox Multi-country external situation report n. 42](#), published on 9 November 2024, mpox cases in Burundi were reported from 43 of 49 districts and the positivity rate among suspected cases is approximately 45%.

Kenya has reported three more cases since the last update. A total of 17 cases have been reported by Kenya ([WHO Global report on mpox \(data as of 10 November\)](#)).

In Uganda, where clade Ib has been detected, 110 cases have been reported since 5 November and as of 13 November 2024 ([Mpox Daily Situation Report, Uganda, 14 December 2024](#)). Overall, 494 cases and one death have been reported in the country from 39 districts since July 2024. Most cases (64%) have been reported from the Greater Kampala Metropolitan Area and of 26 most recently reported cases 21 are from Kampala and five from Wakiso. Overall, 218 cases have been reported from Kampala.

With regards to clade Ia, Congo where 22 cases have been reported in 2024, did not reported any confirmed cases the past weeks, while CAR has reported 12 cases the past six weeks (69 in total in 2024) ([WHO Global report on mpox \(data as of 10 November\)](#)).

Based on an analysis of the patterns of MPXV transmission observed at the 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: Germany, India, Sweden, Thailand, the UK, Zambia, Zimbabwe;
- Countries reporting clusters of cases: Congo, Kenya;
- Community transmission: Burundi, Central African Republic, DRC, Rwanda, Uganda.

The classification was last updated on 14 November 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 EU/EEA. One case was reported by Sweden in August 2024 and one from Germany in October 2024. Both cases reported having travel history to affected countries. No secondary transmission of clade Ib has been reported in EU/EEA.

#### ECDC assessment:

The epidemiological situation regarding mpox due to MPXV clade Ib remains similar to the previous week. Germany, Sweden, Thailand, and the UK have detected cases of mpox due to MPXV clade Ib in people with history of travel to Africa and India has detected MPXV in a person with travel history 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 when contacts with affected communities are 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:** 8 November 2024

## 9. Marburg virus disease (MVD) – Rwanda – 2024

### Overview:

No new cases of Marburg virus disease have been reported in Rwanda since 30 October 2024. The last two cases were reported on [26 October](#) and on [30 October 2024](#). All patients who were under care have now recovered. The last patient tested negative on 8 November 2024. The treatment centre has now been closed, as the last patient has been discharged. The 42-day countdown for declaring the outbreak over if no more cases are reported started on 9 November ([Africa CDC Special Briefing on Mpox & other Health Emergencies | 14 November 2024](#) and [WHO Disease Outbreak News Marburg virus disease - Rwanda, 13 November 2024](#)).

Overall, 66 MVD cases have been reported since the start of the outbreak. Among these, 51 have recovered and 15 have died. Over 1 000 contacts have been listed and followed up during the investigation.

This is the first MVD outbreak in the country and it was declared on 27 September 2024 when the Ministry of Health of Rwanda [reported](#) the detection of MVD cases. [Most cases](#) are males (68%), and aged 30–39 years (45%). All cases have been epidemiologically linked and belong to the same cluster, which has three major branches: two linked to healthcare facilities and one around the index case ([a male with history of exposure to bats in caves](#)).

A [preprint including the results of the genomic analysis of Marburg virus from the cases was published on 5 November](#). The analysis concluded that the outbreak lineage is most closely related to a sequence sampled in Kampala, Uganda in September 2014 from a [healthcare worker](#). The results support the theory of a single zoonotic event followed by human-to-human transmission among the cases reported during the first two weeks. Investigations of the fruit bats in the area where the index case was exposed (mining site) continue ([New England Journal of Medicine \(published on 6 November 2024\)](#) and [Africa CDC Special Briefing on Mpox & other Health Emergencies; 14 November 2024](#)).

In the context of the MVD outbreak in Rwanda, [vaccinations for healthcare workers started](#) as part of a Phase 2 rapid response open-label study. The Sabin Vaccine Institute provided the first 700 doses of the investigational Marburg virus vaccine on 5 October 2024, 1 000 doses on [14 October 2024](#) and 1 000 more on [31 October 2024](#).

Rwanda [continues to implement](#) communicable disease control measures, including: exit screening at the airport, measures in education settings and conferences, ban on hospitals' visitors, strengthening infection prevention and control protocols in hospitals, and measures to limit contact with dead bodies.

### Background

Marburg virus is present in certain animal species (e.g. bats) in several sub-Saharan African countries. Transmission from animals to humans is rare. However, such events may initiate outbreaks due to subsequent human-to-human transmission.

MVD is not an airborne disease and is not considered contagious before symptoms appear. Direct contact with the blood and other body fluids of an infected person or animal is the most frequent route of transmission. Indirect contact with surfaces and materials, such as clothing, bedding and medical equipment contaminated with infected blood or body fluids may also result in transmission of the virus. Therefore, if proper infection prevention and control measures are strictly adhered to, the likelihood of infection is considered very low.

The incubation period of MVD is usually five to ten days (range: 3–21 days). The onset of MVD is usually abrupt, with non-specific, flu-like symptoms, such as a high fever (usually 39–40°C), severe headache, chills, muscle pain and malaise. In 50–75% of patients, rapid worsening occurs within two to five days, marked by gastrointestinal symptoms such as anorexia, abdominal discomfort, severe nausea, vomiting and diarrhoea. A maculopapular rash and symptoms of haemorrhagic fever, such as petechiae, mucosal and gastrointestinal bleeding, and bleeding from venipuncture sites may follow in severe cases. Neurological symptoms (disorientation, agitation, seizures and coma) can occur in later stages of the disease. The case fatality of MVD can range from 24–88%, depending on the virus strain, mode and intensity of infection, and the timeliness and level of medical care.

There is no specific antiviral treatment for MVD. Supportive therapy such as intravenous fluids, electrolyte replacement, supplemental oxygen, as well as blood and blood product replacement, may improve the clinical outcome significantly. There is no approved vaccine for MVD to date.

More information can be found in the [ECDC Factsheet about Marburg virus disease](#).

### ECDC assessment:

On 10 October 2024, ECDC published a threat assessment brief of the implications of the Marburg virus disease outbreak in Rwanda for the EU/EEA ([Implications of the Marburg virus disease outbreak in Rwanda for the EU/EEA, 2024](#)).

EU/EEA citizens visiting or living in Rwanda are considered at a **low likelihood of exposure and infection**, since person-to-person transmission of Marburg virus requires contact with body secretions from a symptomatic person and case numbers remain low. There are still unknowns around the epidemiological links of those with the disease and ongoing transmission of the virus. Control measures announced by Rwanda's government in various settings (educational, places of worship, meetings, funerals) will further mitigate the likelihood of exposure and infection.

Transmission of the virus is documented, and most likely ongoing, in healthcare facilities in Kigali, with many healthcare workers affected. Small numbers of EU/EEA citizens may be working in healthcare settings in Rwanda and for them the risk is estimated as higher, particularly if not using proper personal protective equipment (PPE). Healthcare workers, along with caregivers, are at the highest risk of contracting the disease in these outbreaks, due to having close contact with body fluids and performance of invasive procedures.

The impact of an MVD case for an EU/EEA citizen in Rwanda is assessed as low. Although MVD is a potentially life-threatening disease, at the population level, case numbers are low and in the context of this outbreak adequate supportive care is available locally. Therefore, the overall risk for EU/EEA citizens visiting or living in Rwanda is estimated as **low**.

In the event that MVD cases are imported into the EU/EEA, we consider the likelihood of further transmission to be very low if appropriate measures are taken (e.g. early detection, isolation of suspected cases (i.e. any person with MVD-compatible symptoms and an epidemiological link to the ongoing outbreak in Rwanda) and contact tracing). In addition, in Rwanda, identified contacts of people with MVD in the ongoing outbreak cannot leave the country and exit screening is being implemented. The impact associated with imported MVD cases in the EU/EEA is estimated as low. Hence, the overall risk for EU/EEA citizens from a potential imported MVD case is assessed as **low**.

Information about the health risks related to the ongoing MVD outbreak should be provided to EU/EEA travellers going to Rwanda as well as EU/EEA citizens working or living in Rwanda. They should be made aware of the ongoing outbreak in the country and the affected areas and advised to follow the recommendations of the local health authorities, as regards hospital visitation, attending educational settings, places of worship, meetings and funerals. They should be advised to:

- Avoid contact with people exhibiting MVD symptoms (fever, vomiting, diarrhoea or bleeding) or contact with fomites contaminated by body fluids of infected persons. This includes avoiding participating in funerary rituals and the burial process of deceased persons.
- Avoid visiting healthcare facilities in the MVD-affected areas for non-urgent medical care or for non-medical reasons.
- Avoid habitats that may be populated by bats, such as caves or mines, as well as any form of close contact with wild animals, including monkeys, forest antelopes, rodents and bats, both alive and dead, and manipulation or consumption of any type of bushmeat.

Travellers returning from Rwanda to the EU/EEA should be advised to seek prompt medical care if they develop MVD-compatible symptoms and mention their travel history, as well as possible exposure history and close contacts.

### Actions:

ECDC continues monitoring the event, through epidemic intelligence activities and communication with international partners. ECDC had deployed an expert through the EU Health Task Force (EUHTF).

**Last time this event was included in the Weekly CDTR:** 8 November 2024

## Events under active monitoring

- SARS-CoV-2 variant classification - last reported on 31 October 2024
- Avian influenza A(H5N1) human cases – United States – 2024 - last reported on 31 October 2024
- Oropouche virus disease – Multi-country (Americas) – 2024 - last reported on 31 October 2024
- Seasonal surveillance of West Nile virus infections – 2024 - last reported on 31 October 2024
- Locally-acquired dengue in 2024 in mainland France - last reported on 31 October 2024
- Mpox due to monkeypox virus clade I and II – Global outbreak – 2024 - last reported on 31 October 2024
- Marburg virus disease (MVD) – Rwanda – 2024 - last reported on 31 October 2024
- Severe flood in Eastern Spain - 2024 - last reported on 31 October 2024
- Mpox clade Ib, Germany - last reported on 25 October 2024
- Overview of respiratory virus epidemiology in the EU/EEA - weekly monitoring - last reported on 25 October 2024
- Locally-acquired dengue infection in Italy – 2024 - last reported on 25 October 2024
- Cholera – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 25 October 2024
- Measles – Multi-country (World) – Monitoring European outbreaks – monthly monitoring - last reported on 15 November 2024
- Mpox in the EU/EEA, Western Balkan countries and Türkiye – 2022–2024 - last reported on 15 November 2024
- Multistate outbreak with Salmonella Strathcona in Germany - last reported on 15 November 2024
- Avian influenza A(H5N1) human case – Canada – 2024 - last reported on 15 November 2024
- Mpox due to monkeypox virus clade Ib - United Kingdom - 2024 - last reported on 08 November 2024
- Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update - last reported on 08 November 2024