

WEEKLY BULLETIN

## **Communicable disease threats report**

Week 45, 2-8 November 2024

# This week's topics

- 1. Overview of respiratory virus epidemiology in the EU/EEA weekly monitoring
- 2. Avian influenza A(H5N1) human cases United States 2024
- 3. Middle East respiratory syndrome coronavirus (MERS-CoV) Multi-country Monthly update
- 4. Seasonal surveillance of West Nile virus infections 2024
- 5. Locally-acquired dengue infection in Italy 2024
- 6. Locally-acquired dengue in 2024 in mainland France
- 7. Mpox due to monkeypox virus clade I and II Global outbreak 2024
- 8. Mpox due to monkeypox virus clade Ib United Kingdom 2024
- 9. Marburg virus disease (MVD) Rwanda 2024

## **Executive summary**

#### 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 very low levels. However, 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

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

- Two new cases of zoonotic avian influenza A(H5) have been reported in the United States (US). The case detected in California had exposure to cattle, and the one in Washington had exposure to infected poultry.
- As of 6 November 2024, a total of 46 human cases of avian influenza A(H5) have been reported in the US during 2024, from six states, including the two most recent cases. Of these, 25 were individuals exposed to

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dairy cattle that were infected, or presumed to be infected, with A(H5N1) and 20 were workers exposed to outbreaks of HPAI A(H5) at poultry farms. One person had no known animal exposure.

• According to the 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 1 October 2024, and as of 4 November 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 4 November 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. The current MERS-CoV situation poses a low risk to the EU/EEA.

#### Seasonal surveillance of West Nile virus infections - 2024

- Since the beginning of 2024, and as of 6 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 2 October 2024, with a total of 1 202 locally-acquired WNV infection cases and 88 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: <u>Weekly updates: 2024 West Nile virus transmission season (europa.eu)</u> and <u>West Nile</u> <u>virus Dashboard (europa.eu)</u>. Monthly epidemiological updates are available at: <u>Monthly updates: 2024 West</u> <u>Nile virus transmission season (europa.eu)</u>.

\* 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.

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

- In 2024, as of 7 November, 213 locally-acquired dengue cases have been reported in the Marche (147 cases), Emilia Romagna (36 cases), Lombardy (12 cases), Abruzzo (14 cases), Tuscany (2 cases) and Veneto (1 case) regions in 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.

#### Locally-acquired dengue in 2024 in mainland France

- In 2024, and as of 6 November, 85 locally-acquired dengue cases have been reported in mainland France.
- Cases have been reported in the following departments: Alpes-Maritimes (19 cases), Drôme (2 cases), Hérault (3 cases), Pyrénées-Orientales or Lozère (2 cases), Vaucluse (18 cases) and Var (41 cases).
- Three new cases were reported since the last update (30 October), two cases in Fréjus and one in Ramatuelle.

#### 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, and Uganda.
- The United Kingdom reported the first detection of mpox cases due to clade Ib in a person with travel history to African countries on 30 October and secondary transmission to three of their household contacts. As of 6 November 2024, four mpox clade Ib cases had been <u>reported</u> in the country. Among the countries that have previously reported MPXV clade Ib outside Africa (i.e., Germany, Sweden, India and Thailand), no secondary cases have been reported.
- 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 (<u>Risk assessment for the EU/EEA of the</u> <u>mpox epidemic caused by monkeypox virus clade I in affected African countries</u>), and its <u>Rapid scientific advice</u> <u>on public health measures</u>.

#### Mpox due to monkeypox virus clade Ib - United Kingdom - 2024

- On 6 November 2024, the United Kingdom Health Security Agency (UKHSA) reported one additional human case of mpox due to monkeypox virus clade Ib.
- The total number of clade Ib mpox cases in UK is four, all belonging to the same household. The first case that
  was reported on 30 October 2024 had travel history to African countries that have reported clade Ib
  detections.

- Overall, outside Africa, five countries (including UK) have reported cases of mpox due to MPXV clade Ib. Secondary transmission has only been reported in the UK.
- ECDC is monitoring the event and is in contact with the UK and partners.

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

- No new cases of Marburg virus disease have been reported in Rwanda since 30 October 2024. The last two
  cases were reported on 26 and 30 October 2024 by the Ministry of Health of Rwanda. Both cases were known
  contacts of confirmed cases.
- Additional doses of the investigational Marburg virus vaccine have been dispatched.
- Since 27 September 2024 and as of 7 November 2024, 66 MVD cases (49 recovered), including 15 deaths, have been reported. Based on the available information, all cases belong to one big 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 implication of the outbreak for the EU/EEA.

## **1. 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'.

- Syndromic surveillance in primary care and hospitals indicates that respiratory activity remains at baseline levels in most EU/EEA countries, similar to the levels observed during 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 the reporting EU/EEA countries.
- RSV activity remained low in the reporting EU/EEA countries and at lower levels than observed compared to 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 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 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 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, 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 (<u>ERVISS.org</u>). 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 <u>Operational considerations for respiratory virus surveillance in Europe</u>'.

#### Further information:

The following provide additional context and resources for interpreting the epidemiological and virological data presented in ERVISS.

- Short-term forecasts of ILI and ARI rates in EU/EEA countries are published on ECDC's <u>RespiCast</u>.
- <u>EuroMOMO</u> 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 <u>recommends</u> 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: 25 October 2024

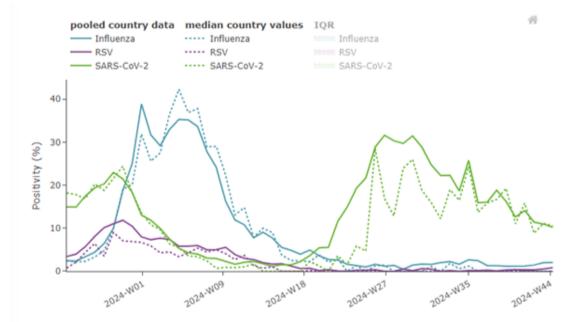
### Maps and graphs

#### Figure 1. Overview of key indicators of activity and severity in week 44

| Indicator                                     | Syndrome   | Reporting<br>countries     |                            | EU/EEA summary                                       |                                         | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
|-----------------------------------------------|------------|----------------------------|----------------------------|------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Indicator                                     | pathogen   | Week<br>44                 | Week<br>43                 | Description                                          | Value                                   | COMBRICIL                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| Primary care<br>consultation<br>rates         | ARI        | 12<br>rates<br>(11<br>MEM) | 14<br>rates<br>(11<br>MEM) | Distribution<br>of country                           | 10 Baseline<br>1 Low                    | ARI activity remains at similar levels to past seasons at this time of year. One country reported ARI activity above<br>baseline: Estonia reported low activity.                                                                                                                                                                                                                                                                                                   |  |
|                                               | ш          | 18<br>rates<br>(17<br>MEM) | 20<br>rates<br>(18<br>MEM) | MEM categories                                       | 16 Baseline<br>1 Medium                 | ILI activity remains at similar levels to past seasons at this time of year. One country reported ILI activity above<br>baseline: Denmark reported medium activity.                                                                                                                                                                                                                                                                                                |  |
|                                               | Influenza  | 16                         | 20                         |                                                      | 2.1%<br>(0; 0-2.3%)                     | Stable trend of very low circulation, similar to past seasons at this time of year. Luxembourg reported a test<br>positivity rate of 6.1 % (33 ARL/ILI samples tested).                                                                                                                                                                                                                                                                                            |  |
| Primary care<br>sentinel<br>positivity        | RSV        | 14                         | 16                         | Pooled<br>(median: IOR)                              | 0.8%<br>(0; 0-0.2%)                     | Stable trend of very low circulation. Based on data from previous seasons, week 41 usually marks the beginning of<br>an increase in RSV circulation and the situation will continue to be closely monitored in the coming weeks.                                                                                                                                                                                                                                   |  |
|                                               | SARS-CoV-2 | 17                         | 19                         | fragment and a                                       | 10%<br>(11; 5.8–14%)                    | The pooled EU/EEA test positivity rate continues to decrease slowly, as observed since the peak in July 2024. At<br>the country level, the situation remains more varied. While the decreasing trend continues in some countries that<br>experienced an epidemic during the summer (e.g. Greece, Ireland, Spain), the levels remain more stable in others<br>(e.g. Denmark, Germany, Norway). Eight countries reported test positivity rates above 10 % this week. |  |
| SARI<br>consultation<br>rates                 | SARI       | 6                          | 8                          |                                                      |                                         | Rates continued to be reported at levels comparable to past seasons at the same time of year.                                                                                                                                                                                                                                                                                                                                                                      |  |
|                                               | Influenza  | 5                          | 6                          |                                                      | 2.5%<br>(2.9; 1.3-7.7%)                 | Stable trend with very low circulation, similar to past seasons at this time of year.                                                                                                                                                                                                                                                                                                                                                                              |  |
| SARI                                          | RSV        | 5                          | 6                          | Pooled<br>(median: IOR)                              | 1.6%<br>(2.4; 0.5–7.3%)                 | Stable trend of very low circulation.                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| positivity                                    | SARS-CoV-2 | 5                          | 6                          | Concession and and and                               | 13%<br>(14; 11-16%)                     | As observed in primary care, the pooled positivity rate continues to decrease. The positivity rates in SARI<br>purveillance are at lower or similar levels as those observed in 2023 at the same time of year for several countries.<br>Non-sentine indicators of severe disease remain elevated in Cyprus, Czechia, Greece, Hungary, Ireland, Lithuania<br>and Slovakia.                                                                                          |  |
| Intensity<br>(country-<br>defined)            | Influenza  | 21                         | 23                         | Distribution of<br>country qualitative<br>categories | 17 Baseline<br>4 Low                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| Geographic<br>spread<br>(country-<br>defined) | Influenza  | 20                         | 22                         | Distribution of<br>country qualitative<br>categories | 6 No activity<br>13 Sporadic<br>1 Local |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |

#### Source: ECDC

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



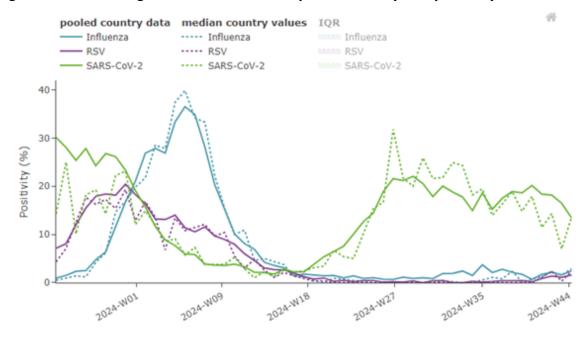
Source: ECDC

|                   | Week 4 | 14, 2024       | Week 40, 2024 – week 44, 2024 |                |
|-------------------|--------|----------------|-------------------------------|----------------|
| Pathogen          | N      | % <sup>a</sup> | N                             | % <sup>a</sup> |
| Influenza         | 29     | -              | 153                           | -              |
| Influenza A       | 17     | 74             | 92                            | 70             |
| A(H1)pdm09        | 9      | 90             | 36                            | 59             |
| A(H3)             | 1      | 10             | 25                            | 41             |
| A (unknown)       | 7      | -              | 31                            | -              |
| Influenza B       | 6      | 26             | 39                            | 30             |
| B/Vic             | 2      | 100            | 5                             | 83             |
| B/Yam             | 0      | 0.0            | 1                             | 17             |
| B (unknown)       | 4      | -              | 33                            | -              |
| Influenza untyped | 6      | -              | 22                            | -              |
| RSV               | 11     | -              | 41                            | -              |
| RSV-A             |        |                | 2                             | 29             |
| RSV-B             | 1      | 100            | 5                             | 71             |
| RSV untyped       | 10     | -              | 34                            | -              |
| SARS-CoV-2        | 144    | -              | 1068                          | -              |

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

<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.

#### Figure 4. SARI virological surveillance in hospitals – weekly test positivity



Source: ECDC

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

|                   | Week 4 | 4, 2024        | Week 40, 2024 - | Week 40, 2024 – week 44, 2024 |  |
|-------------------|--------|----------------|-----------------|-------------------------------|--|
| Pathogen          | N      | % <sup>a</sup> | N               | % <sup>a</sup>                |  |
| Influenza         | 25     | -              | 99              | -                             |  |
| Influenza A       | 14     | 93             | 47              | 87                            |  |
| A(H1)pdm09        | 0      | -              | 9               | 75                            |  |
| A(H3)             | 0      | -              | 3               | 25                            |  |
| A (unknown)       | 14     | -              | 35              | -                             |  |
| Influenza B       | 1      | 7              | 7               | 13                            |  |
| B/Vic             | 0      | -              | 0               | -                             |  |
| B (unknown)       | 1      | -              | 7               | -                             |  |
| Influenza untyped | 10     | -              | 45              | -                             |  |
| RSV               | 16     | -              | 56              | -                             |  |
| RSV-A             | 1      | 100            | 8               | 67                            |  |
| RSV-B             |        |                | 4               | 33                            |  |
| RSV untyped       | 15     | -              | 44              | -                             |  |
| SARS-CoV-2        | 134    | -              | 990             | -                             |  |

<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.

#### Figure 6. SARS-CoV-2 variant distribution, weeks 42-43, 2024

| Variant | Classification <sup>a</sup> | Reporting countries | Detections | Distribution<br>(median and IQR) |
|---------|-----------------------------|---------------------|------------|----------------------------------|
| KP.3    | VOI                         | 9                   | 394        | 61% (53–66%)                     |
| BA.2.86 | VOI                         | 8                   | 91         | 9% (6–12%)                       |

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

Source: ECDC

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

#### **Overview:**

**Update:** On 06 November 2024, US CDC reported two new human cases of avian influenza A(H5), (<u>CDC, Bird Flu</u> <u>Response Update</u>). One case was identified in California and had exposure to dairy cattle and the other was reported from Washington and had exposure to poultry. At this time, no further information is available on the reported cases. According to US CDC, there is no evidence of human-to-human transmission currently. Public health authorities have detected H5N1 virus in wastewater samples in recent weeks in various other cities including Los Angeles, San José, Redwood City, San Francisco, Palo Alto, Sacramento, and Santa Cruz.

**Background:** In 2024 and as of 6 November 2024, 46 human cases of avian influenza H5N1 have been confirmed by the US CDC from six states. Twenty-five of which report exposure to cattle California (21), Colorado (1), Michigan (2) and Texas (1).

Twenty cases had exposure to poultry, nine in Colorado and eleven in Washington.

US CDC is performing genetic analysis of viruses isolated from other confirmed cases. Genetic sequencing confirmed that six of the cases reported previously in California were infected with avian influenza virus A(H5N1) from clade 2.3.4.4b. All six sequences are closely related genetically to the virus causing infections in domestic dairy cattle. Whole genome sequencing was performed on viruses isolated from two people in California and both viruses were confirmed to be a B3.13 genotype. No changes associated with mammalian adaptation in other gene segments were identified in the analysed samples. In addition, no mutations associated with reduced susceptibility to antivirals (e.g. neuraminidase inhibitors or polymerase acidic inhibitors) were identified.

US CDC is performing additional testing, including antigenic characterisation of the isolated viruses. This will reveal if existing candidate vaccine viruses (CVVs) are well-matched to the new reported cases of avian influenza A(H5).

CDC has posted in GISAID and submitted to GenBank the haemagglutinin (HA), neuraminidase (NA), and nonstructural (NS) gene segments for A/California/134/2024 (GISAID EPI\_ISL\_19463619; NCBI\_PQ435213-PQ435215) and the whole genome sequences for A/California/135/2024 and A/California/147/2024.

On 24 October US CDC also published results of a retrospective investigation of individuals who had close contact with an H5N1 patient reported in Missouri in September 2024 (<u>CDC Report on Missouri H5N1 Serology Testing</u>). Seven people, including five healthcare workers, the reported patient and one family member of the patient have been identified for further serological testing. The CDC supported this investigation by testing blood samples from six of these contacts and the original patient to detect possible prior exposure to H5N1. None of the healthcare workers showed signs of past H5N1 infection, ruling out human-to-human transmission between the individual and healthcare workers. The Missouri patient and a household contact had some inconsistent signs suggesting possible exposure to, or a previous infection with, H5N1. According to US CDC, "immunologic results coupled with the epidemiologic data that these two individuals had identical symptom onset dates support a single common exposure to bird flu rather than person-to-person spread within the household."

As of 30 October 2024, a total of 39 human cases of avian influenza A(H5) have been reported in the US during 2024. Of these, 20 were individuals exposed to dairy cattle that were infected, or presumed to be infected, with A(H5N1) and 18 were workers exposed to outbreaks of HPAI A(H5) at poultry farms. One person had no known animal exposure.

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 of infection 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 a contaminated environment (e.g. occupational exposure to infected animals).

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 the 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 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 all primary care 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.

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
   laist ECDC EECA Drivers for a nonderrise due to guide influenza and antions for One Haalth
- Joint ECDC-EFSA Drivers for a pandemic due to avian influenza and options for One Health mitigation
   measures

#### Actions:

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: FAO | 2024-e000168

Last time this event was included in the Weekly CDTR: 6 November 2024

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

#### **Overview:**

**Update:** Since the previous update on 1 October 2024, and as of 4 November 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 4 November 2024, five MERS-CoV cases, including four fatalities, have been reported in <u>Saudi Arabia</u> with date of onset in 2024.

Since April 2012, and as of 1 October 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 <u>Rapid Risk Assessment</u> 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, <u>Health emergency preparedness for imported cases of high-consequence</u> <u>infectious diseases</u>, 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 <u>Risk assessment guidelines for infectious</u> <u>diseases transmitted on aircraft (RAGIDA) – Middle East respiratory syndrome coronavirus (MERS-CoV)</u> in 22 January 2020.

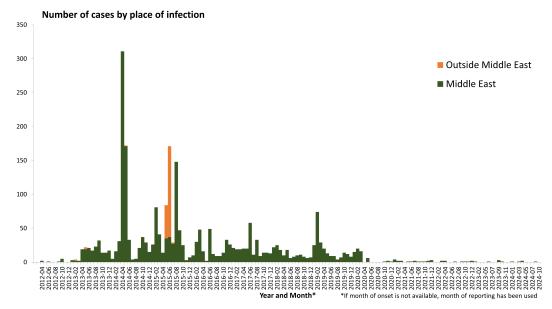
#### Actions:

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: 6 November 2024

### Maps and graphs

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



Source: ECDC

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

#### **Overview:**

#### **Epidemiological summary**

Since the start of 2024, and as of 6 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, 204 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 person 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 <u>monthly epidemiological update</u> on WNV infections, covering data up to 2 October 2024, was published on 9 October 2024. In 2024, 18 countries in Europe reported 1 202 locally-acquired human cases of WNV infection with known place of infection. The earliest and latest dates of onset were on 1 March and 26 September 2024, respectively. Locally-acquired cases were reported by Italy (422), Greece (202), Spain (114), Albania (102), Hungary (101), Romania (71), Serbia (53), Austria (34), Türkiye (30), France (27), Croatia (20), Germany (8), Slovenia (5), Kosovo\* (4), Slovakia (4), Bulgaria (2), North Macedonia (2), and Czechia (1). In Europe, 88 deaths were reported by Greece (31), Italy (16), Albania (13), Romania (10), Spain (10), Bulgaria (2), Serbia (2), Türkiye (2), 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, 681 cases had been reported. However, numbers are lower than in 2018, when 1728 cases had been reported by this time of year.

All 18 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, 180 regions across 18 countries have reported locally-acquired human cases of WNV infection this year, compared to 120 regions in 2023 and 159 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; Bjelovarsko-bilogorska županija in Croatia; Hérault, Guadeloupe and Gard in France; Bautzen, Diepholz, Oder-Spree and Jena Kreisfreie Stadt in Germany; Thesprotia in Greece; Barletta-Andria-Trani, Benevento, Chieti, Roma, Firenze and Napoli in Italy; Prishtinë, Prizren and Mitrovicë in Kosovo\*; Pološki in North Macedonia; Trnavský kraj and Nitriansky kraj in Slovakia; Podravska in Slovenia; Jaén in Spain; and Bursa and Osmaniye in Türkiye.

As observed in previous years, most cases are men aged over 65 years. Severity indicators are comparable to those observed in previous years, with 92% of cases hospitalised, a case-fatality rate of 8% and neurological manifestations in 70% of cases. The dominance of neurological cases is expected, as people 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 Bosnia and Herzegovina, India, Kenya, Morocco, Oman, Tunisia, Uganda, the United Arab Emirates, and the United States.

From the veterinary perspective, 337 WNV outbreaks among equids and 344 outbreaks among birds have been reported in Europe in 2024. Outbreaks among equids have been reported by

Germany (122), Austria (47), Spain (46), France (39), Hungary (35), Italy (28), Portugal (16), Greece (3), and Poland (1). Outbreaks among birds have been reported

by Italy (248), Germany (57), Austria (18), Spain (8), Slovenia (4), Hungary (3), Bulgaria (2), France (2), and Poland (2). The earliest and latest start dates of outbreaks among birds and/or equids were 2 April 2024 and 27 September 2024, respectively.

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 (<u>Weekly</u> <u>updates: 2024 West Nile virus transmission season (europa.eu)</u> and <u>West Nile virus Dashboard (europa.eu)</u>). Monthly epidemiological updates are available at: <u>Monthly updates: 2024 West Nile virus transmission season</u> (<u>europa.eu</u>).

\* 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 less favourable for vector activity and virus replication in vectors, the intensity of WNV circulation has decreased.

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: 06 November 2024

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

#### **Overview:**

As of 7 November, 213 locally acquired-dengue cases have been <u>reported</u> by the Italian National Public Health Authority. These are six more than reported in the previous week's update. The newly reported cases were from Marche (3 cases) and Abruzzo (3 cases).

For 212 cases, NUTS2 regions were reported:

- Marche: 147 cases;
- Emilia Romagna: 36 cases;
- Lombardy: 12 cases;
- Abruzzo: 14 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 Marches 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 <u>established</u> in a large part of Europe. These outbreaks are therefore not unexpected. During autumn, environmental conditions are becoming less favourable for vector activity and virus replication in vectors. However, it is possible that additional locally-acquired cases will occur in the coming weeks.

In addition to Italy, France and Spain have also reported autochthonous dengue cases in Europe in 2024.

In the past, local outbreaks of dengue have been reported by France, Italy, Spain and Croatia. More information is available on ECDC's dedicated webpage on autochthonous transmission of <u>dengue</u> virus in the EU/EEA and in ECDC's <u>dengue</u> 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: 6 November 2024

# 6. Locally-acquired dengue in 2024 in mainland France

#### **Overview:**

#### Update

 Overall, France has reported 85 locally-acquired dengue cases in 2024. Three new cases were reported since the last update (30 October), two cases in Fréjus and one in Ramatuelle.

As of 6 November, France has reported cases in the following departments:

- Alpes-Maritimes: one case in Menton (or Monaco), two cases in La Colle sur Loup and 16 cases in Vallauris;
- Drôme: two cases in one cluster;
- Hérault: two cases in Vendargues and one case in Montpellier or Pérols;

- Pyrénées-Orientales or Lozère: two cases in one cluster;
- Vaucluse: 18 cases in one cluster;
- Var: 25 cases in La Crau, 15 cases in Fréjus and 1 case in Ramatuelle.

The following clusters are considered closed:

- all clusters in Hérault;
- the cluster in Pyrénées-Orientales or Lozère;
- two clusters in Alpes-Maritimes: two cases connected to La Colle sur Loup and one case connected to Menton (or Monaco);
- the cluster in Drôme;
- the cluster in Vaucluse;
- one cluster in Var: 25 cases in La Crau.

#### Background

On 8 July, the French Regional Health Agency of Occitania <u>reported</u> the first autochthonous case of dengue in France in 2024 (Montpellier-Pérols, Hérault department, Occitania). The person had onset of symptoms on 17 June, no travel history, and the place of infection was in the region of Occitania.

#### ECDC assessment:

In 2023, France reported nine outbreaks of dengue involving a total of 45 cases of autochthonous human dengue virus infections. In 2022, France also reported nine outbreaks, with a total of 65 locally-acquired cases of dengue, which – at that time – was the highest number of autochthonous cases and outbreaks in the EU/EEA.

In Europe, the dengue virus is transmitted by the mosquito vector Aedes albopictus, which is <u>established</u> in a large part of Europe. These outbreaks are therefore not unexpected. During autumn, environmental conditions are becoming less favourable for vector activity and virus replication in vectors. However, it is possible that additional locally-acquired cases will occur in the coming weeks.

In addition to France, Italy and Spain have also reported autochthonous dengue cases in Europe in 2024.

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

France's National Public Health Agency updates its website with any new cases of dengue every Wednesday.

#### Actions:

Investigations are ongoing and vector control measures have been carried out. Relevant measures have been taken by France's public health authorities to prevent transmission through substances of human origin.

ECDC continues monitoring 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: 6 November 2024

## 7. 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).

On 30 October 2024, the United Kingdom (UK) reported its first detection of mpox due to MPXV clade Ib. As of 6 November, four cases had been <u>reported</u> in total in the country. The first case had travel history to countries in Africa where community cases of MPXV clade Ib have been detected and the other three cases were among their household contacts. Mpox due to MPXV clade Ib outside Africa has been reported also by Sweden and Thailand (August 2024), India (September 2024), and more recently from Germany (October 2024). The cases reported by Sweden, Thailand and Germany 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 30 September 2024, 109 699 confirmed mpox cases (MPXV clade I and clade II), including 236 deaths, have been reported from 123 countries (2022– 24 Mpox (Monkeypox) Outbreak: Global Trends and WHO Mpox Multi-country external situation report n. 41, published 26 October 2024).

#### **Epidemiological situation in Africa**

In 2024, over 46 000 confirmed and suspected mpox cases due to MPXV clade I and clade II, including over 1 000 deaths, have been reported from Africa. This includes over 10 000 confirmed cases, according to the WHO and Africa CDC (WHO Global report on mpox (data as of 3 November), and Special Briefing on Mpox and other Health Emergencies | Nov. 7, 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. For Zambia and Zimbabwe that have reported one and two cases respectively, MPXV clade Ib has been confirmed (WHO Global report on mpox (data as of 3 November)).

The epidemiological situation regarding mpox due to MPXV clade Ib and clade Ia remains similar to the previous week. DRC, Burundi and Uganda have reported mpox due to MPXV clade Ib the past week while there are no updates from Kenya (14 cases and 1 death reported in 2024) and Rwanda where 26 cases have been reported in total in 2024 (20 the past six weeks).

In the past six weeks, the DRC has reported 1 647 confirmed cases and Burundi 1 030, according to the <u>WHO</u> <u>Global report on mpox (data as of 3 November)</u>. 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 over 38 180 (over 8 600 confirmed), including over 1 040 deaths (<u>Africa CDC Epidemic Intelligence Report issued on 3 November 2024</u> and <u>WHO Global report on mpox (data as of 3 November)</u>). In Burundi, as of 3 November 2024, 3 679 cases, of which 1 726 were confirmed, have been reported according to the <u>WHO Global report on mpox (data as of 3 November)</u> from several areas of the country. No deaths have been reported so far. According to the <u>WHO Mpox Multi-country</u> <u>external situation report n. 41</u>, published 26 October 2024, mpox cases in Burundi were reported from 42 of 49 districts and the positivity rate among suspected cases is approximately 40%.

In Uganda where clade Ib has been detected, 162 cases have been reported since 28 October and as of 5 November 2024. Overall, 384 cases and one death have been reported in the country from 36 districts since July 2024. Most cases have been reported in Kampala, Wakiso and Nakasongola (150, 61 and 49, respectively) (<u>Mpox</u> <u>Outbreak in Uganda - 5 November 2024</u>).

The Central African Republic, where clade Ia is endemic, reported new mpox cases in the Paoua districts, which share borders with Chad. According to the <u>WHO Global report on mpox (data as of 3 November</u>), the Central African Republic has reported nine confirmed cases and one death the last six weeks and overall, 64 confirmed cases and two deaths in 2024. Congo, where clade Ia is also endemic, has reported in total 22 cases in 2024, one of which has been reported in the last six weeks (on 13 October 2024; <u>WHO Global report on mpox (data as of 3 November</u>)).

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, United Kingdom, Zambia, Zimbabwe;
- Countries reporting clusters of cases: Congo, Kenya;
- Community transmission: Burundi, Central African Republic, DRC, Rwanda, Uganda.

The classification was last updated on 7 November 2024.

On 13 August 2024, Africa CDC <u>declared</u> mpox a Public Health Emergency of Continental Security. On 14 August 2024, WHO <u>convened</u> a meeting of the IHR Emergency Committee to discuss the mpox upsurge and <u>declared</u> 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 <u>Risk</u> 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 <u>here</u>. 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: 6 November 2024

## 8. Mpox due to monkeypox virus clade Ib - United Kingdom - 2024

#### **Overview:**

On <u>6 November 2024, the United Kingdom Health Security Agency (UKHSA) reported</u> one more human cases of mpox due to monkeypox virus (MPXV) clade Ib. This case as well as the two reported on 4 November 2024 are household contacts of the first mpox clade Ib case in the UK. All three secondary cases are under specialist care. This is the first secondary transmission of MPXV clade Ib outside Africa. The first case had travel history to affected countries in the continent.

The total number of mpox cases due to MPXV clade Ib in the UK is four. The contacts of the cases are offered vaccination and testing.

In addition to the cases reported by UK, outside Africa, confirmed cases of mpox due to MPXV clade Ib have been reported by: Sweden and Thailand (one case each reported in August 2024), India (one case reported in September 2024), Germany (one case reported in October 2024) (<u>WHO Multi-country outbreak of mpox, External situation report #41- 26 October 2024</u>). No secondary transmission has been reported from Sweden, Thailand, India or Germany. The cases reported by Sweden, Thailand, Germany and the first case reported by the UK had travel history to affected countries in Africa. The case reported by India had travel history to the United Arab Emirates.

Since 2022 and until 30 September 2024, 4 100 mpox clade IIb cases had been reported by the UK mainly among gay, bisexual and other men who have sex with men without travel history to endemic countries <u>UKHSA Mpox</u> <u>outbreak: epidemiological overview, 10 October 2024</u>).

#### Background

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

#### ECDC assessment:

Considering the measures implemented by the United Kingdom, the risk for the general population in the EU/EEA related to this cluster of mpox case due to monkeypox virus clade Ib is considered low, given a low likelihood of further spread and a low impact. The <u>ECDC Rapid Risk Assessment</u> published on 16 August 2024 remains valid.

#### Actions:

ECDC is monitoring the event through epidemic intelligence activities and is in contact with the UKHSA and partners.

#### Last time this event was included in the Weekly CDTR: 6 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 and as of 7 November 2024. The last two cases were reported on <u>26 October</u> and on <u>30 October 2024</u>. Both cases were known contacts of confirmed cases. An additional 1 000 doses of the investigational Marburg virus vaccine were dispatched to Rwanda by the Sabin Vaccine Institute (<u>Sabin Vaccine Institute Press Release, 31 October 2024</u>).

Epidemiological investigation of the patients is ongoing and a <u>preprint including the results of the genomic analysis</u> 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 <u>healthcare worker</u>. 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.

Caves where fruit bats can be found have been mapped and investigations of the fruit bats in the area where the index case was exposed (mining site) are conducted, according to the interview of the Minister of Health of Rwanda to the <u>New England Journal of Medicine (published on 6 November)</u>.

Overall, 66 MVD cases have been reported since the start of the outbreak. Among these, 49 have recovered and 15 have passed away. 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 <u>reported</u> the detection of MVD cases. Based on available data as of 20 October 2024, <u>most of cases</u> are males (70%), and aged 30–39 years old (48%). 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 (<u>a male with history of exposure to bats in caves</u>). Based on genomic analysis, there are indications that the sequences from the current outbreak are related to the strain detected in 2014 (note: in <u>2014 Marburg had been detected in Kampala, Uganda</u>).

In the context of the MVD outbreak in Rwanda, <u>vaccinations for healthcare workers started</u> 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 <u>14 October 2024</u> and 1 000 more on <u>31 October 2024</u>. As of 3 November 2024, 1 629 <u>vaccine doses had been administered</u>.

Rwanda <u>continues to implement</u> 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 implication of the Marburg virus disease outbreak in Rwanda for the EU/EEA (<u>Implications of the Marburg virus disease outbreak in Rwanda for the EU/EEA</u>, <u>2024</u>).

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 lifethreatening 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 is in contact with international partners to acquire more information on the measures being implemented and will continue monitoring the event through epidemic intelligence activities. ECDC is supporting the MVD outbreak response in Rwanda through the deployment of experts since 30 October 2024.

#### Last time this event was included in the Weekly CDTR: 6 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
- Locally-acquired dengue infection in Italy 2024 last reported on 25 October 2024
- Overview of respiratory virus epidemiology in the EU/EEA weekly monitoring last reported on 25 October 2024
- Cholera Multi-country (World) Monitoring global outbreaks Monthly update last reported on 25 October 2024
- Detection of cVDPV2 in a wastewater sample, Barcelona, Spain last reported on 18 October 2024
- Poliomyelitis Multi-country Monthly monitoring of global outbreaks last reported on 18 October 2024
- Circulation of VDPV3 in French Guiana last reported on 18 October 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