WEEKLY BULLETIN

Communicable Disease Threats Report

Week 40, 28 September – 4 October 2024

This week's topics

Executive summary

Marburg virus disease (MVD) - Rwanda - 2024

- On 27 September 2024, Rwanda reported its first Marburg virus disease outbreak.
- As of 3 October 2024, 37 cases including 11 deaths have been reported. According to available information for 36 cases, the majority are healthcare workers. Cases were reported from eight of 30 Rwandan districts.
- On 2 October 2024, Germany reported that two travellers returning from Rwanda were isolated in Hamburg as one had a history of exposure in a medical facility where Marburg virus disease patients were being treated. ECDC has been in close contact with the German public health authorities. Negative test results were reported on 3 October.
- The Ministry of Health of Rwanda announced a number of control measures including a ban on patient visits to hospitals, strengthening IPC protocols in hospitals, and measures to limit contact with dead bodies.
- WHO and partners are supporting Rwanda in strengthening their response.

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 which had previously reported clade Ib cases, the Democratic Republic of Congo, Burundi, Kenya, and Uganda have reported new cases in the past week.
- No secondary transmission of MPXV clade Ib has been reported in Sweden, Thailand or India (countries outside of Africa where MPXV clade I has been detected).
- 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.

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

- Two human cases of avian influenza A(H5) in California were confirmed by US CDC on 3 October 2024.
- Both cases were in individuals working with dairy cattle infected with avian influenza.
- To date, there have been no confirmed cases of A(H5N1) infection in humans and no reports of A(H5N1) infection in cattle in the EU/EEA.
- The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered low. The risk to occupationally exposed groups, such as farmers and cullers, is considered low-to-moderate.

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

- Since late spring and during summer 2024, increased SARS-CoV-2 activity in primary and secondary care has been observed in several EU/EEA countries. The timing of the epidemic varies between EU/EEA countries, with most countries now observing a stable or declining trend. However, some countries continue to experience elevated levels of test positivity.
- SARS-CoV-2 test positivity in secondary care remains below levels observed during previous seasons at this time of year. The highest test positivity is among individuals aged 65 years and above, indicating that vulnerable populations remain at risk of severe disease.
- The SARS-CoV-2 variant BA.2.86 and its subvariants, including KP.3, continue to dominate in EU/EEA countries.
- Vaccination is the most effective measure to protect against more severe forms of COVID-19 and seasonal influenza. Since the protective effect wanes over time, promoting vaccination against respiratory viral diseases according to national recommendations before the beginning of the winter season remains important for all EU/EEA countries, particularly to protect individuals at higher risk of severe outcomes.

Seasonal surveillance of West Nile virus infections – 2024

- Since the beginning of 2024, and as of 2 October 2024, West Nile virus (WNV) infection cases have been reported to The European Surveillance System (TESSy) by 13 EU/EEA countries (Austria, Bulgaria, Croatia, Czechia, France, Germany, Greece, Hungary, Italy, Romania, Slovakia, Slovenia, and Spain) and five EU neighbouring countries (Albania, Kosovo*, North Macedonia, Serbia and Türkiye).
- 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.

Locally acquired dengue in 2024 in mainland France

- In 2024, and as of 2 October, 76 locally acquired dengue cases have been reported in mainland France.
- Cases have been reported in the following departments: Alpes-Maritimes (15 cases), Drôme (2 cases), Hérault (2 cases), Pyrénées-Orientales or Lozère (2 cases), Vaucluse (18 cases), and Var (37 cases).
- Investigations are ongoing and vector control measures are being carried out.
- Every Wednesday, the French National Public Health Agency updates its website with new cases of dengue.

Locally acquired dengue infection in Italy – 2024

- In 2024, as of 3 October, 130 locally acquired dengue cases have been reported in Italy.
- For 129 cases NUTS2 regions were reported by the Italian National Public Health Authority. Cases were detected in the regions of Marche (102 cases), Emilia Romagna (19 cases), Lombardy (six cases), Tuscany (one case), and Veneto (one case).
- Investigations are ongoing and vector control measures have been triggered by the Italian health authorities in accordance with their national response plan.

SARS-CoV-2 variant classification

Since the last update on 30 August 2024, and as of 27 September 2024, the following changes have been made to ECDC's variant classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs), and de-escalated variants:

- XEC (a recombinant of two BA.2.86 descendants: KS.1.1 and KP.3.3) has been classified as a VUM.
- Changed classification of BA.2.86+F456L from VUM to de-escalated variant.
- Changed classification of BA.2.86+R346T from VUM to de-escalated variant.
- Changed classification of BA.2.86+R346T+F456L from VUM to de-escalated variant.

The VOI median proportions in the EU/EEA for weeks 36-37, based on 10 reporting countries are currently:

KP.3: 68.9% (range: 42.0%-85.7%, IQR: 54.0%-72.5%)
BA.2.86: 21.3% (range: 9.5%-50.0%, IQR: 15.4%-32.5%)

The VUM median proportions in the EU/EEA for weeks 36-37, based on 10 reporting countries are:

XEC: 8.0% (range: 0.0%-22.4%, IQR: 6.1%-12.7%)

The calculations are based on data reported to GISAID, as of 23 September 2024.

The variants currently circulating that are classified as VOI or VUM are unlikely to be associated with any increase in infection severity compared to previously circulating variants, or a reduction in vaccine effectiveness against

severe disease. However, older individuals, those with underlying conditions, and previously uninfected individuals could develop severe symptoms if infected. Vaccination continues to be protective, with stronger protection against more severe disease, although this protective effect wanes over time. Vaccination of individuals at high risk of severe outcomes (such as older people) remains important.

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

- Since the previous update on 27 August 2024, and as of 1 October 2024, one new MERS-CoV case has been reported by Saudi Arabia.
- The case is a non-healtcare worker male aged 50-55 years residing in the Eastern Region of Saudi Arabia. There is no evidence of contact with camels. The patient has underlying conditions and comorbidities. The onset of symptoms was on 28 August 2024 and the patient was admitted to hospital on 31 August 2024. A sample was sent to the National Public Health Laboratory and tested positive for MERS-CoV by RT-PCR on 4 September 2024
- Since the beginning of 2024, and as of 1 October 2024, five MERS cases, including four fatalities, have been reported in Saudi Arabia with date of onset in 2024
- Since April 2012, and as of 1 October 2024, a total of 2 626 cases of MERS, including 953 deaths, have been reported by health authorities worldwide.

Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks - Monthly update

Since the beginning of 2024, approximately 460 000 chikungunya virus disease (CHIKVD) cases and over 170 deaths have been reported worldwide. A total of 23 countries have reported CHIKVD cases from the Americas (15), Asia (6), Africa (1), and Europe (1). In mainland Europe, one autochthonous case of CHIKVD has been reported by France in 2024.

- Since the beginning of 2024, over 13 million dengue cases and over 8 500 dengue-related deaths have been reported globally. In mainland Europe, autochthonous dengue cases have been reported by France, Italy and Spain.
- The current likelihood of local transmission events involving chikungunya and dengue viruses occurring in areas where the vector is present in mainland EU/EEA is high, as the environmental conditions are favourable for vector activity and virus replication in vectors.

1. Marburg virus disease (MVD) - Rwanda - 2024

Overview

On 27 September 2024, the Ministry of Health of Rwanda reported the first outbreak of Marburg virus disease (MVD) in the country. As of 3 October 2024, a total 36 cases, including 11 deaths, have been reported in the county. According to the Africa CDC Special Press Briefing of 3 October 2024 reporting on data available as of 2 October 2024, cases were reported from eight districts of 30 in Rwanda and over 80% were in healthcare workers.

Epidemiological investigations, contact tracing, strengthening of infection prevention and control protocols and other measures are being implemented by the government of Rwanda to control the outbreak. Among the contacts investigated in Rwanda, one who had travelled to Belgium has completed the monitoring period (21 days) and is not considered a public health risk.

On 2 October 2024, Germany reported that two travellers returning from Rwanda were isolated in Hamburg as one of the two had been working in a medical facility where Marburg virus disease patients were being treated. ECDC has been in close contact with German public health authorities. Negative test results were reported on 3 October. The traveller who had been exposed is currently in quarantine.

Background

Marburg virus is present in certain animal species (e.g. bats) in several sub-Saharan countries of Africa. 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 2–5 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

Since person-to-person transmission of Marburg virus requires contact with body secretions from a symptomatic case, the likelihood of exposure and infection for EU/EEA citizens travelling or residing in the affected areas in Rwanda is currently considered low.

Since several cases have occurred among healthcare workers in hospitals in the Kigali area, EU/EEA citizens working care in healthcare settings in Rwanda should be made aware of the situation. Based on the available information, the likelihood of exposure to MVD in a healthcare setting is moderate. However, infection prevention and control measures are being implemented, including the monitoring of healthcare workers and awareness-raising campaigns, which reduce the risk of infection.

In the event of an MVD case being imported into the EU/EEA, the likelihood of further transmission is considered to be very low if appropriate measures are taken (e.g. early detection, isolation of suspected cases and contact tracing.)

Travellers to Rwanda should be made aware of the ongoing outbreak in Rwanda and the affected areas and follow the advice of the local health authorities. They should be advised to:

- avoid contact with persons exhibiting MVD symptoms (such as fever, vomiting, diarrhoea or bleeding) or contact with fomites contaminated with the body fluids of infected persons. This includes avoiding funerals and the burial processes for 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.

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

Global update

There have been no major changes to the global epidemiological trends in mpox during the past week.

On a global basis, MPXV clade I and clade II are circulating in different countries. Global epidemiological data are being 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). No secondary cases of mpox due to MPXV clade I have been reported by Sweden, Thailand, or India.

Overall, since monitoring began in 2022, 106 310 confirmed mpox cases (MPXV clade I and clade II), including 234 deaths, have been reported from 123 countries (2022-24 Mpox (Monkeypox) Outbreak: Global Trends and WHO Mpox Multi-country external situation report n. 37, published 22 September 2024).

Epidemiological situation in Africa

In 2024, over 34 000 confirmed and suspected mpox cases due to MPXV clade I and clade II, including over 850 deaths, have been reported from Africa. This includes over 6 800 confirmed cases, according to the Africa CDC (Special Briefing on Mpox & Other Health Emergencies, Africa CDC, 3 October 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, Morocco, Nigeria, Rwanda, South Africa, and Uganda. Since the previous update, Ghana has reported one mpox case (Ghana Health Service - Press Release, 2 October 2024). Previously, in 2022-2023, MPXV clade II cases had been reported in the country (WHO Global report on mpox (data as of 29 September)).

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

The two countries reporting the largest numbers of cases in recent weeks are still the DRC and Burundi. In addition, cases have been reported by Kenya and Uganda. Updates on these countries are summarised below:

- The DRC has reported 1 005 confirmed cases in the past six weeks and Burundi 700, according to the WHO Global report on mpox (data as of 29 September). Deaths have only been reported in DRC (over 349 among all cases according to WHO in the past six weeks). Clade Ib has been detected in both countries, while clade Ia is co-circulating in the DRC.
- The DRC continues to report the highest number of mpox cases in Africa. The cumulative number of cases in 2024 is over 27 000 (over 5 500 confirmed), including 850 deaths, while the proportion of suspected cases tested has increased to 38.6% (Africa CDC Epidemic Intelligence Report issued on 30 September 2024 and WHO Global report on mpox (data as of 29 September)).
- In Burundi, as of 29 September 2024, 853 confirmed cases have been reported according to the WHO Global report on mpox (data as of 29 September) from several areas of the country. According to the WHO AFRO weekly report of 27 September, cases were reported from 35 of 49 districts and the positivity rate among suspected cases is 40%.
- Kenya has reported three more cases since 24 September 2024. A total of 10 cases have been reported by Kenya from nine counties (Press Statement Ministry of Health, Kenya, 3 October 2024).
- In Uganda where clade Ib has been detected, 27 cases have been reported since 21 September 2024. The total number of 51 cases have been reported in the country from 11 districts since July 2024. Seven cases have been reported in Kampala and 17 in Nakasongola (Mpox Outbreak in Uganda - 1 October 2024).

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

- Countries reporting only travel-associated cases or cases with a clear link to travel-associated cases (India, Sweden, Thailand)
- Countries reporting clusters of cases (Congo, Kenya, Rwanda)
- Community transmission (Burundi, Central African Republic, DRC, Uganda).

This classification takes into consideration several limitations of the available data, as well as uncertainties. It was updated, based on epidemiological information available, most recently on 3 October 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

On 15 August 2024, Sweden reported the first imported case of mpox due to MPXV clade Ib in the EU/EEA. As of 26 September, no secondary cases have been detected.

ECDC assessment

The number of people with MPXV clade I infection has increased and there has been geographical expansion to newly affected African countries in recent weeks. India, Sweden, and Thailand have detected cases of mpox due to MPXV clade Ib in people with history of travel to areas where the virus is circulating in Africa since August 2024. More imported mpox cases due to MPXV clade I are likely to be reported by 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: 27 September 2024

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

Update: On 3 October 2024, California Department of Public Health (CDPH) reported two cases of avian A(H5) in individuals working at a dairy facility in Central Valley (www.cdph.ca.gov). Both cases were in contact with dairy cattle infected with avian influenza. They reported mild symptoms, including conjunctivitis, but no respiratory symptoms. Neither of the cases required hospitalisation. According to CDPH news release, the first case is being treated with antiviral medicine and is self-isolating at home. Details about second case treatment are not available at the moment. No link or contact between the cases has been established, suggesting animal-to-human transmission.

After testing for A(H5N1) at the local public health laboratory, the first case was notified to CDPH as 'presumptive positive'. Both cases were later confirmed as positive for avian influenza A(H5) by US CDC (www.cdph.ca.gov). The neuraminidase (N) designation has not been yet confirmed.

These are the first reported human cases of avian influenza A(H5) in California. In August 2024, A(H5N1) was detected in dairy cattle in the state. As of 4 October 2024, a total of 16 human cases of avian influenza A(H5) have been reported in the United States during 2024. Of these, six were workers exposed to dairy cattle infected, or presumed to be infected, with A(H5N1) and nine were workers exposed to outbreaks of HPAI A(H5) at commercial egg farms. One case had no known animal exposure.

Where genetic analysis has been available, the virus has been characterised as genotype B3.13 clade 2.3.4.4b of highly pathogenic avian influenza (HPAI) A(H5N1) and has been closely related to viruses identified in recent poultry outbreaks and infected dairy cattle herds in the US. The virus maintains avian genetic characteristics. However, mutations associated with mammalian adaptation have been observed in viruses from some cases. No markers of antiviral resistance were found in viruses from human cases and they remain antigenically similar to the two existing HPAI A(H5) candidate vaccine viruses.

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. However, findings from the ongoing investigation will determine whether the assessment needs to be updated.

ECDC assessment

To date, there have been no confirmed cases of A(H5N1) infection in humans 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 will revisit the risk assessment once more information becomes available from the ongoing sequencing and investigations of the most recent human cases in the US.

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; Enhanced influenza surveillance to detect avian influenza virus infections in the EU/EEA during the inter-seasonal period). Raising awareness (including enquiring 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 (for example 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
- Enhanced influenza surveillance to detect avian influenza virus infections in the EU/EEA during the inter-seasonal period
- Investigation protocol of human cases of avian influenza virus infections in the EU/EEA
- 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: 27 September 2024.

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

Key indicators

All data 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. 'Country notes' in the footer explain known issues with reported data.

- Syndromic surveillance in primary and secondary care 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. Two countries (Slovenia and Lithuania) reported an increase to medium ARI activity, and one country (Denmark) reported an increase to medium ILI activity.
- SARS-CoV-2 activity is variable in both primary and secondary care in EU/EEA countries.
  - In primary care sentinel systems (general practitioners), pooled test positivity shows an overall decreasing trend from 32% in week 29 to 16% in week 39. Test positivity ranged from 0–70% in 11 countries reporting a sufficient number of tests, with variable trends at the country level.
  - In SARI sentinel systems (hospitals), pooled test positivity shows an overall decreasing trend from 20% in week 29 to 15% in week 39, with test positivity ranging from 3–17% in the four reporting countries (Germany, Greece, Malta and Spain). The age group 65 years and above remained the most affected (22% test positivity).
  - Non-sentinel secondary care notifications were at low levels overall, with most EU/EEA countries that report these indicators reporting stable or decreasing trends in the number of positive test results among hospitalised, ICU-admitted patients, and deaths. However, Czechia and Slovakia continued to show an increasing number of hospitalised patients testing positive for SARS-CoV-2.
  - An increase in the number of deaths related to SARS-CoV-2 has been observed in seven countries (Bulgaria, Czechia, Hungary, Lithuania, Poland, Romania, and Sweden) over the past few weeks, but numbers are relatively low; other countries reported decreasing or stable numbers.
  - Despite test positivity in primary and secondary care sentinel systems remaining elevated, sentinel syndromic rates (ILI/ARI/SARI) remain at baseline levels in most EU/EEA countries.
- Seasonal influenza activity at the EU/EEA level remained stable at low levels in almost all reporting EU/EEA countries. One country (Malta) has continued to report elevated SARI sentinel test positivity rates (>15%) since week 31, with type A influenza viruses detected (subtype unknown).

Respiratory syncytial virus (RSV) activity remained low in the reporting EU/EEA countries.

Virus characterisation

Influenza for week 40, 2023 to week 39, 2024

- In the above period 6 940 A(H1)pdm09, 2 316 A(H3) and 1 314 B/Victoria viruses from sentinel and non-sentinel sources were genetically characterised. Of the viruses that have been assigned to a clade:
  - 6 933 were A(H1)pdm09 - 5 299 (76%) were subclade 5a.2a and 1 634 (24%) were subclade 5a.2a.1.
  - 2 313 were A(H3) - 30 (1%) were subclade 2a, 13 (0.6%) were subclade 2a.3a, 2 269 (98%) were subclade 2a.3a.1 and one (0%) was subclade 2a.3b.
  - 1 310 were B/Vic - all were subclade V1A.3a.2.

SARS-CoV-2 variants for weeks 37–38 (9 September to 22 September 2024)

- The estimated distribution (median and IQR of proportions from 10 countries submitting at least 10 sequences) of variants of concern (VOCs) or variants of interest (VOIs) was:
- 65% (52–70%) for KP.3 (492 detections from 10 countries)
- 16% (12–24%) for BA.2.86 (163 detections from 10 countries)

For information on SARS-CoV-2 variants classified as variants under monitoring (VUM), visit ECDC's variant page.

ECDC assessment

Influenza and RSV activity in the EU/EEA remain at low levels. There is evidence of increased SARS-CoV-2 activity for some reporting countries in both primary and secondary care, with those aged 65 years and above at greatest risk of severe disease. Although COVID-19 hospital admissions, ICU admissions and deaths remain low at the EU/EEA level, elevations in these severity indicators in some countries highlights the continued need to monitor the impact of SARS-CoV-2 at national and regional levels.

Actions

In order to assess the impact of emerging SARS-CoV-2 sub-lineages, and their possible correlation with increases in COVID-19 epidemiological indicators, it is important that countries continue to sequence SARS-CoV-2-positive clinical specimens and report to GISAID and/or TESSy. It is therefore important that testing of symptomatic individuals for SARS-CoV-2 continues during the autumn period.

Vaccination remains critically important to protect individuals at high risk of severe outcomes, such as older adults. While COVID-19 vaccination continues to protect against severe disease, its effect wanes over time and individuals at higher risk should stay up-to-date with COVID-19 vaccination, in accordance with national recommendations.

Whilst 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.

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

Further information

- Short-term forecasts of ILI and ARI rates in EU/EEA countries are published on ECDC's RespiCast.
- EuroMOMO is a weekly European mortality monitoring activity, aiming to detect and measure excess deaths related to seasonal influenza, pandemics and other public health threats.
- WHO recommends that trivalent vaccines for use during the 2023–2024 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/Darwin/9/2021 or A/Darwin/6/2021 (H3N2)-like virus (clade 2a); and a B/Austria/1359417/2021 (B/Victoria lineage)-like virus (subclade V1A.3a.2).
- Antigenic characterisation data presented in the WHO 2024-2025 northern hemisphere vaccine composition report indicate 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. While components also appear well matched for 2a.3a A(H3) clade viruses, 2a.3a.1 clade viruses are less well matched. Based on human post-vaccination serology studies, haemagglutination inhibition and virus neutralisation against some recent 2a.3a.1 viruses were significantly reduced for some serum panels.
- ECDC has published interim influenza vaccine effectiveness (VE) estimates for the 2023–2024 season. Analysis of data submitted from multi-country primary care and hospital study sites between September 2023 and January 2024 indicated that up to 53% and 44% of vaccinated individuals in primary care or hospital settings, respectively, were protected against mild and severe influenza.

Sources: ERVISS

Last time this event was included in the Weekly CDTR: 27 September 2024

Maps and graphs

Figure 1. Overview of key indicators of activity and severity in week 39

Indicator	Syndrome or pathogen	Reporting countries		EU/EEA summary		Comment
		Week 39	Week 38	Description	Value	
Primary care consultation rates	ARI	7 rates (5 MEM)	9 rates (7 MEM)	Distribution of country MEM categories	3 Baseline 2 Medium	ARI rates continued to be reported at levels comparable to past seasons at the same time of year. Two countries (Slovenia and Lithuania) reported an increase to medium ARI activity.
	ILI	10 rates (10 MEM)	13 rates (13 MEM)		9 Baseline 1 Medium	ILI rates continued to be reported at levels comparable to past seasons at the same time of year. One country (Denmark) reported an increase to medium ILI activity.
Primary care sentinel positivity	SARS-CoV-2	12	13	Pooled (median; IQR)	16% (15; 10–36%)	Pooled test positivity shows an overall decreasing trend from 32% in week 29 to 16% in week 39. By country, test positivity ranged from 0–70% in 11 countries reporting a sufficient number of tests, with variable trends.
	Influenza	11	13		1.5% (0; 0–1.9%)	Stable trend of very low circulation.
	RSV	12	13		0.4% (0; 0–0%)	Stable trend of very low circulation.
SARI consultation rates	SARI	5	8			Stable rates continued to be reported at levels comparable to past seasons at the same time of year.
SARI positivity	SARS-CoV-2	4	7	Pooled (median; IQR)	15% (8.8; 4.3–14%)	Pooled test positivity shows an overall decreasing trend from 20% in week 29 to 15% in week 39. Test positivity ranged from 3–17% in the four reporting countries (Germany, Greece, Malta and Spain). In data from non-sentinel sources, two countries (Czechia and Slovakia) showed increasing trends in hospitalisation, while in other countries the number of hospitalised cases reported are stable or decreasing.
	Influenza	4	7		2% (0.4; 0.1–8.1%)	Stable trend with very low circulation. One country continued to report elevated, though decreasing, test positivity (Malta, 30%).
	RSV	4	7		0.1% (0; 0–0.2%)	Stable trend of very low circulation.
Intensity (country-defined)	Influenza	15	18	Distribution of country qualitative categories	13 Baseline 2 Low	
Geographic spread (country-defined)	Influenza	14	17	Distribution of country qualitative categories	7 No activity 5 Sporadic 2 Regional	

Source: ECDC

Figure 2. Virological distribution for week 39 and the period week 25, 2024 to week 39, 2024

Pathogen or (sub-)type	Primary care sentinel						SARI sentinel						Non-sentinel			
	Week 39			Period 2024-2025			Week 39			Period 2024-2025			Week 39		Period 2024-2025	
	n	%	positivity	n	%	positivity	n	%	positivity	n	%	positivity	n	%	n	%
Influenza	12	100	1.5%	199	100	1.6%	15	100	2%	219	100	1.7%	116	100	4 099	100
Influenza A (total)	11	92	1.4%	139	72	1.1%	14	100	1.8%	171	96	1.3%	88	77	2 980	74
A(H1)pdm09	4	44	–	39	33	–	2	100	–	10	50	–	7	39	632	49
A(H3)	5	56	–	78	67	–	0	0	–	10	50	–	11	61	661	51
A (unknown)	2	–	–	22	–	–	12	–	–	151	–	–	70	–	1 687	–
Influenza B (total)	1	8	0.1%	54	28	0.4%	0	0	0%	7	4	0.1%	26	23	1 032	26
B/Vic	0	0	–	13	87	–	0	0	–	0	0	–	0	0	75	100
B/Yam	0	0	–	2	13	–	0	0	–	0	0	–	0	0	0	0
B (unknown)	1	–	–	39	–	–	0	–	–	7	–	–	26	–	957	–
Influenza untyped	0	–	–	6	–	0%	1	–	0.1%	41	–	0.3%	2	–	87	–
RSV	3	–	0.4%	25	–	0.2%	1	–	0.1%	25	–	0.2%	27	–	675	–
SARS-CoV-2	131	–	16%	2 814	–	24.3%	116	–	14.7%	2 463	–	18%	38 491	–	473 104	–

Source: ECDC

5. Seasonal surveillance of West Nile virus infections – 2024

Epidemiological summary

Since the start of 2024, and as of 2 October 2024, human cases of WNV infection have been reported to TESSy by 13 EU/EEA countries and five countries neighbouring the EU. In the EU/EEA, Austria, Bulgaria, Croatia, Czechia, Hungary, Romania, France, Germany, Italy, Greece, Slovakia, Slovenia and Spain reported WNV infections. From countries neighbouring the EU, Albania, Kosovo*, North Macedonia, Serbia and Türkiye have reported WNV infections. In total, 180 NUTS3/GAUL1 regions across 18 countries have reported locally-acquired WNV cases. For detailed information on places of infection, please refer to ECDC's weekly update and dashboard.

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.

Actions

ECDC is monitoring West Nile virus through indicator- and event-based surveillance activities.

Last time this event was included in the Weekly CDTR: 27 September 2024

6. Locally-acquired dengue in 2024 in mainland France

Update

Overall, France has reported 76 locally-acquired dengue cases in 2024.

As of 2 October, France has reported cases in the following departments:

- Alpes-Maritimes: one case in Menton (or Monaco), two cases in La Colle sur Loup and 12 cases in Vallauris
- Drôme: two cases in one cluster
- Hérault: two cases in two clusters
- Pyrénées-Orientales or Lozère: two cases in one cluster
- Vaucluse: 18 cases in one cluster
- Var: 25 cases in La Crau and 12 cases in Fréjus

The following clusters are considered closed:

- Hérault (one case)
- Pyrénées-Orientales or Lozère (two cases)
- Alpes-Maritimes (two cases connected to La Colle sur Loup and 1 case connected to Menton (or Monaco))
- Drôme (two cases).

Background

On 8 July, the French Regional Health Agency of Occitania reported the first autochthonous case of dengue in France in 2024 (Montpellier-Pérols, Hérault department, Occitania). The case 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 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 established in a large part of Europe. These outbreaks are therefore not unexpected. With autumn approaching, environmental conditions will become 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 dengue virus in the EU/EEA, and in ECDC's dengue factsheet.

Every Wednesday, the French National Public Health Agency updates its website with new cases of dengue.

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: 27 September 2024

7. Locally acquired dengue infection in Italy – 2024

Overview

As of 3 October, 130 locally acquired dengue cases have been reported by the Italian National Public Health Authority. These are 63 more cases than reported in the previous week's update. The newly reported cases were from Marche (51 cases), Emilia Romagna (14 cases) and Lombardy (one case). According to local authorities in the Marche Region, there is an decreasing trend in case numbers reported from Fano.

For 129 cases NUTS2 regions were reported:

- Marche (102 cases)
- Emilia Romagna (19 cases)
- Lombardy (six cases)
- Tuscany (one case)
- Veneto (one case).

An additional case (onset of symptoms 18 August, DENV 2) 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 in this century 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. With autumn approaching, environmental conditions will become 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 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: 27 September 2024.

8. SARS-CoV-2 variant classification

Overview

Since the last update on 30 August 2024, and as of 27 September 2024, the following changes have been made to ECDC's variant classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs), and de-escalated variants:

- XEC (a recombinant of two BA.2.86 descendants: KS.1.1 and KP.3.3) has been classified as a VUM due to a predicted growth advantage for this variant in the EU/EEA compared to other circulating variants. While there is currently no direct evidence of any increase in transmissibility for this lineage and no laboratory data evaluating its immune evasion relative to currently circulating variants, the proportion of XEC detections have shown an increasing trend in two countries (Germany, Netherlands). It should be noted that there has been no observable impact of XEC on the epidemiological situation for these countries.
- Changed classification of BA.2.86+F456L from VUM to de-escalated variant as this mutation is now seen in almost all circulating BA.2.86 lineages. It is therefore unlikely to further influence the SARS-CoV-2 situation in the EU/EEA. These variants will continue to be monitored under the VOI BA.2.86.
- Changed classification of BA.2.86+R346T from VUM to de-escalated variant as the proportions of lineages with this mutation have decreased significantly during the last three months and are now low in all EU/EEA countries. These variants will continue to be monitored under the VOI BA.2.86.
- Changed classification of BA.2.86+R346T+F456L from VUM to de-escalated variant as the proportions of lineages with these mutations have decreased significantly during the last three months and are now low in all EU/EEA countries. These variants will continue to be monitored under the VOI BA.2.86.

The VOI median proportions in the EU/EEA for weeks 36-37, based on 10 reporting countries are currently:

KP.3: 68.9% (range: 42.0%-85.7%, IQR: 54.0%-72.5%)
BA.2.86: 21.3% (range: 9.5%-50.0%, IQR: 15.4%-32.5%)

The VUM median proportions in the EU/EEA for weeks 36-37, based on 10 reporting countries are:

XEC: 8.0% (range: 0.0%-22.4%, IQR: 6.1%-12.7%)

The calculations are based on data reported to GISAID, as of 23 September 2024.

ECDC assessment

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

Actions

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

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

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

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

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

Overview

Update: Since the previous update on 27 August 2024, and as of 1 October 2024, one new MERS-CoV case has been reported by Saudi Arabia.

The case is a male (who is not a healthcare worker) aged 50-55 years residing in the Eastern Region of Saudi Arabia. There is no evidence of contact with camels. The patient has underlying conditions and comorbidities. The onset of symptoms was on 28 August 2024 and the patient was admitted to the hospital on 31 August 2024. A sample taken on 1 September was sent to the National Public Health Laboratory as part of the severe acute respiratory illness (SARI) sentinel surveillance and tested positive for MERS-CoV by RT-PCR on 4 September 2024.

The patient asked to be discharged on 1 September before knowing the results of the laboratory results and travelled to Pakistan on 2 September 2024. On 7 September 2024, Pakistani health authorities transferred the case to a public hospital for isolation, after being informed by the Saudi Arabian focal point of the positive MERS-CoV test results.

All individuals who had contact with the patient in Saudi Arabia, Pakistan and during the trio to Pakistan have been followed up and no secondary case has been identified.

Summary: Since the beginning of 2024, and as of 1 October 2024, five MERS cases, including four fatalities, have been reported in Saudi Arabia with date of onset in 2024.

Since April 2012, and as of 1 October 2024, a total of 2 626 cases of MERS, 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 | FundacionIO

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, as stated in the Rapid Risk Assessment published by ECDC on 29 August 2018, which also provides details on the last person reported with the disease in Europe.

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

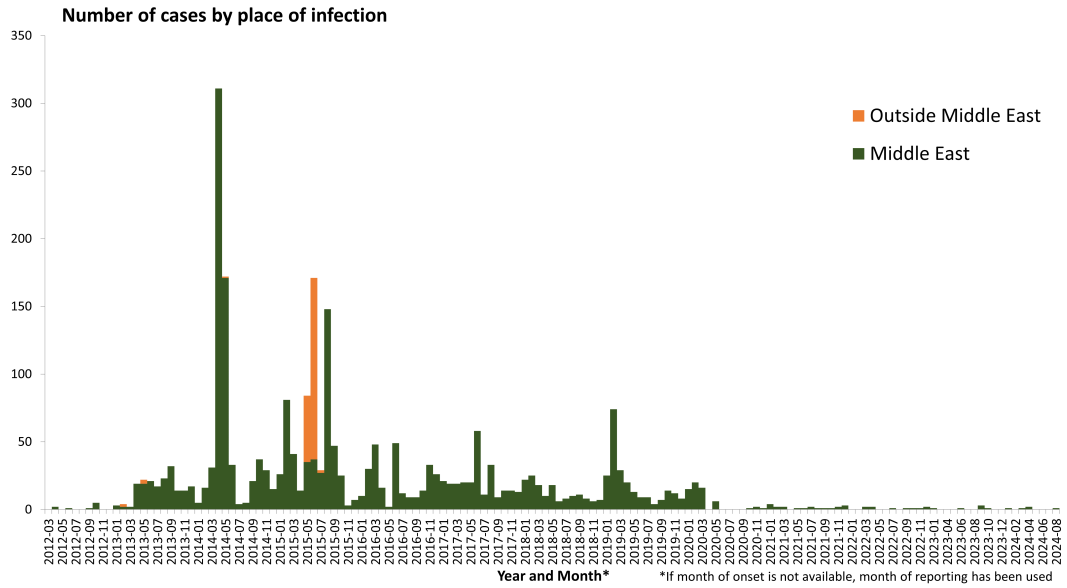
Actions

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

Last time this event was included in the Weekly CDTR: 30 August 2024.

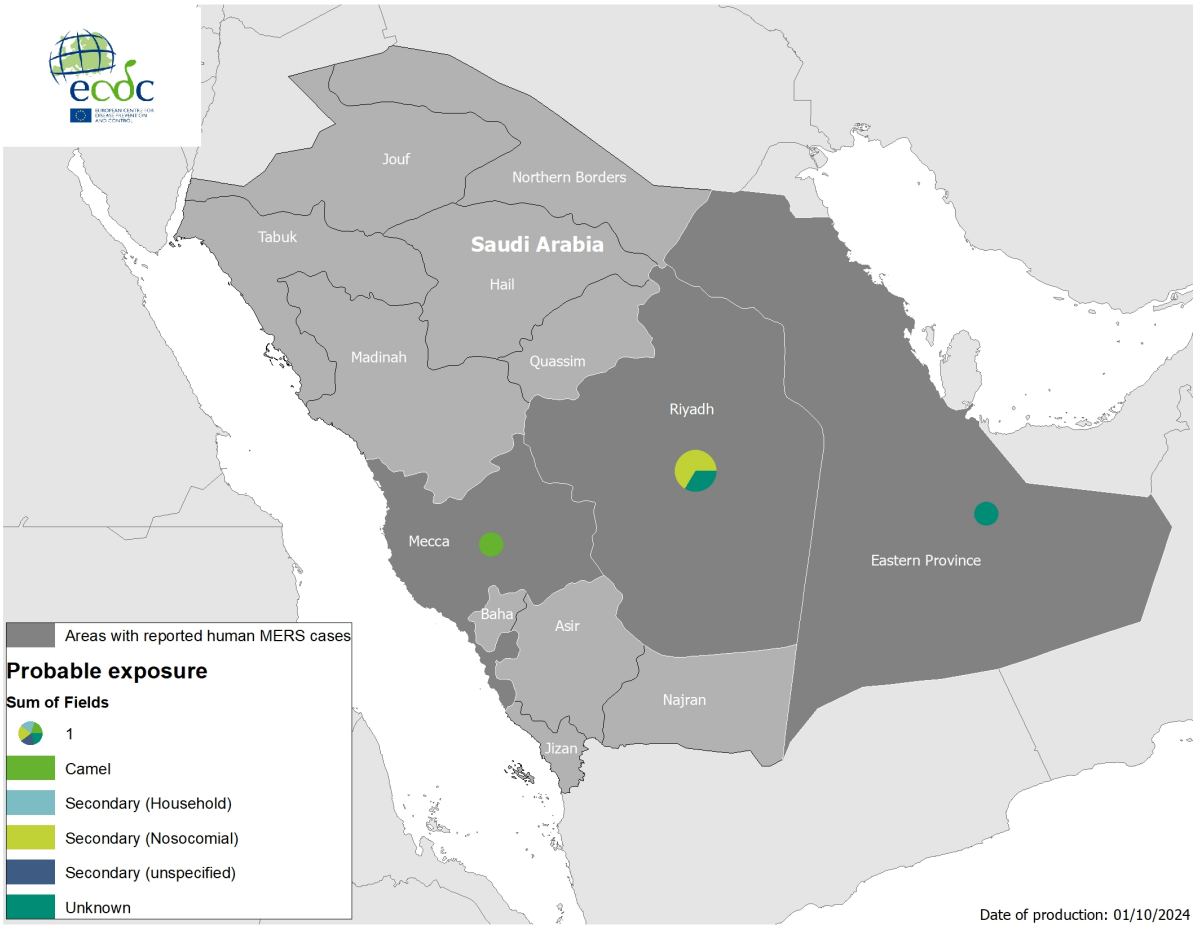
Maps and graphs

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



Source: ECDC

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



Source: ECDC

10. Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks - Monthly update

Chikungunya virus disease (CHIKVD)

In 2024 and as of 30 of September, approximately 460 000 chikungunya virus disease (CHIKVD) cases and 170 CHIKVD associated deaths have been reported worldwide. A total of 23 countries reported CHIKVD cases from the Americas (15), Asia (6), Africa (1), and Europe (1). Grenada reported CHIKVD cases in September and for the first time in 2024.

Most countries reporting high CHIKVD burden are from the Americas, in South and Central America. Countries reporting the highest number of CHIKVD cases are Brazil (391 754), Paraguay (2 749), Argentina (768), and Bolivia (409). Additional countries in the Americas reporting CHIKVD cases can be found on PAHO's dedicated website.

Outside of the Americas, CHIKVD cases have been reported in Asia from India (69 439), Pakistan (2 447), Thailand (468), Maldives (389), Timor Leste (195) and Malaysia (72). One African country reported CHIKVD cases in 2024: Senegal (9).

In 2024, one non-travel associated CHIKVD case has been reported in mainland Europe, from France. In addition, seven non-travel associated CHIKVD cases have been reported from La Réunion.

CHIKVD associated deaths were reported from Brazil (170).

Dengue

Since the beginning of 2024, over 13 million dengue cases and over 8500 dengue-related deaths have been reported globally. Most cases globally have occurred in the WHO PAHO region where over 11 million cases have been reported in 2024, 53% of these being laboratory confirmed. Among the dengue cases, the total number of deaths in PAHO is over 6 000 (case fatality rate: 0.057%). Brazil has reported most cases in 2024 (over 9.5 million) followed by Argentina, Mexico, Paraguay, and Colombia (source:).

In mainland Europe, autochthonous cases have been reported by France, Italy and Spain as of September 2024.

As of August 2024, in Guadeloupe where a dengue epidemic was reported during the second half of 2023 (which started in July 2023), given the decrease in cases, the current situation is classified as phase 1 with sporadic cases (Dengue fever in the West Indies. Update as of August 8, 2024 Sante Publique France). The epidemic earlier this year was due to DENV-2 serotype while recently there have been increases in the proportion of DENV-3 serotype. In Martinique and Saint-Martin, dengue circulation continues, but at lower levels (epidemic phase 1), with only sporadic cases reported.

In French Guyana, over 8 000 confirmed dengue cases have been reported since the beginning of 2024 and as of August 2024. However, since a peak in January 2024 (Bimonthly Epidemiological Bulletin published on 26 September 2024), case numbers have decreased and been stable at lower levels in recent weeks.

Overall, 1 265 dengue cases have been reported in La Reunion since the beginning of the year and as of August 2024.

Dengue circulation has also been reported in the Eastern Mediterranean, South-East Asia and Western Pacific WHO Regions according to reports from the regional offices (EMRO, SEARO and WPRO, respectively), as well as in Africa during September 2024.

In the EMRO region, autochthonous cases were reported by Iran in June 2024 for the first time (WHO Disease Outbreak News Item published on 22 July 2024) while dengue has also been reported in Afghanistan (2 147 as of 14 September 2024) and Pakistan (20 783 as of August 2024).

According to the SEARO report published on 18 September 2024, increases in dengue cases were reported in Bangladesh and Nepal. In Bangladesh, overall, the total number of dengue cases in 2024 remains lower than that reported for the same period in 2023 (19 074 in 2024 as of 15 September, compared to 167 543 in 2023). In Nepal 2 645 cases have been reported through the EWAR system in 2024, as of 11 August 2024, and although an increase has been recorded in recent weeks, the overall number of cases is lower than for the same period last year. Dengue has been reported in India. In Kerala, 15 658 cases had been reported as of 8 September while in Karnataka, 26 323 cases had been reported for the same period. In both areas the number of dengue cases reported in 2024 so far is higher than the number reported for the same period in 2023. In Indonesia, the monthly number of cases has been decreasing after peaking in March-May and over 0.5 million suspected and confirmed cases have been reported, including over 1 000 deaths.

According to the WPRO Dengue Situation update of 19 September 2024, Cambodia reported a decrease in the number of cases reported in week 36 compared to the previous two weeks. In China, the number of dengue cases was higher in August than in July 2024 (1 801 vs 554) and in Vietnam, although increases have been observed in recent weeks, with a total of 71 300 cases reported up to 8 September 2024, the total number of cases is below 2023 (decrease by 12.4%).

In Africa, according to the Africa CDC Epidemic Intelligence Report of 23 September 2024, 74 201 dengue cases have been reported this year from Burkina Faso, Cameroon, Cabo Verde, Central African Republic, Chad, Cote d Ivoire, Ethiopia, Ghana, Kenya, Mali, Mauritius, Sao Tome and Principe, Senegal, Sudan and Togo. The Central African Republic declared a dengue outbreak on 10 September 2024 after the detection of cases due to dengue serotypes 1 and 2 (DENV-1 and DENV-2) in the country (WHO AFRO Weekly Bulletin 15 September 2024). Togo also has reported increased dengue circulation, with over 2000 cases reported in the country, according to Africa CDC.

Note: the data presented in this report originate from both official public health authorities and non-official sources, such as news media, and depending on the source, autochthonous and non-autochthonous cases may be included. Data completeness depends on the availability of reports from surveillance systems and their accuracy, which varies between countries. All data should be interpreted with caution and comparisons, particularly across countries, should be avoided due to under-reporting, variations in surveillance system structure, different case definitions from country to country and over time, and use of syndromic definitions.

ECDC assessment

The Americas is currently facing the largest ever outbreak of dengue. As a result, there has been a substantial increase in the number of imported cases of dengue to the EU/EEA since the beginning of the year.

The likelihood of onward transmission of dengue and chikungunya virus in mainland EU/EEA is linked to importation of the virus by viraemic travellers into receptive areas with established and active competent vectors (e.g. Aedes albopictus and Aedes aegypti). Aedes albopictus is established in a large part of Europe. In Europe and neighbouring areas, Aedes aegypti is established in Cyprus, on the eastern shores of the Black Sea, and in the outermost region of Madeira.

The current likelihood of the occurrence of local transmission events of chikungunya and dengue viruses in areas where the vectors are present in mainland EU/EEA is high, as the environmental conditions are favourable for vector activity and virus replication in vectors. All past autochthonous outbreaks of CHIKVD and dengue in mainland EU/EEA have so far occurred between June and November.

More information on autochthonous transmission of chikungunya and dengue virus in the EU/EEA is available on ECDC's webpages, and in ECDC's factsheets on dengue and CHIKVD.

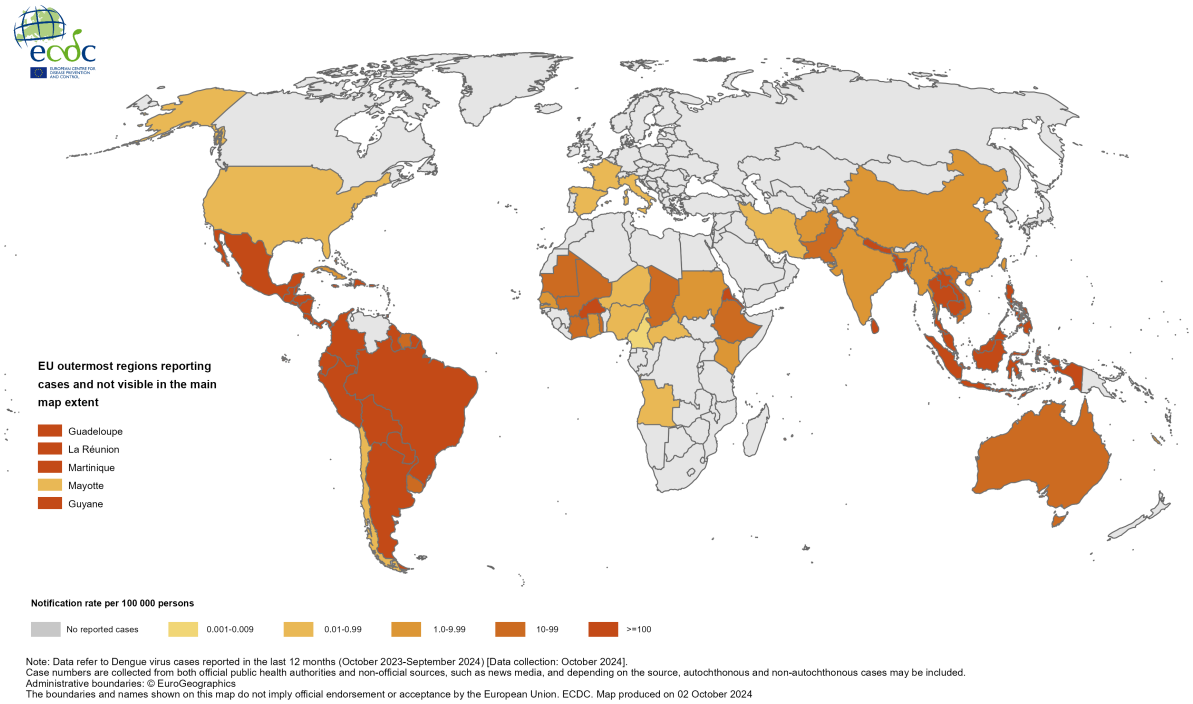
Actions

ECDC monitors these threats through its epidemic intelligence activities, and reports on a monthly basis. A summary of the worldwide overview of **dengue** and **CHIKVD** is available on ECDC's website.

Last time this event was included in the Weekly CDTR: 30 August 2024.

Maps and graphs

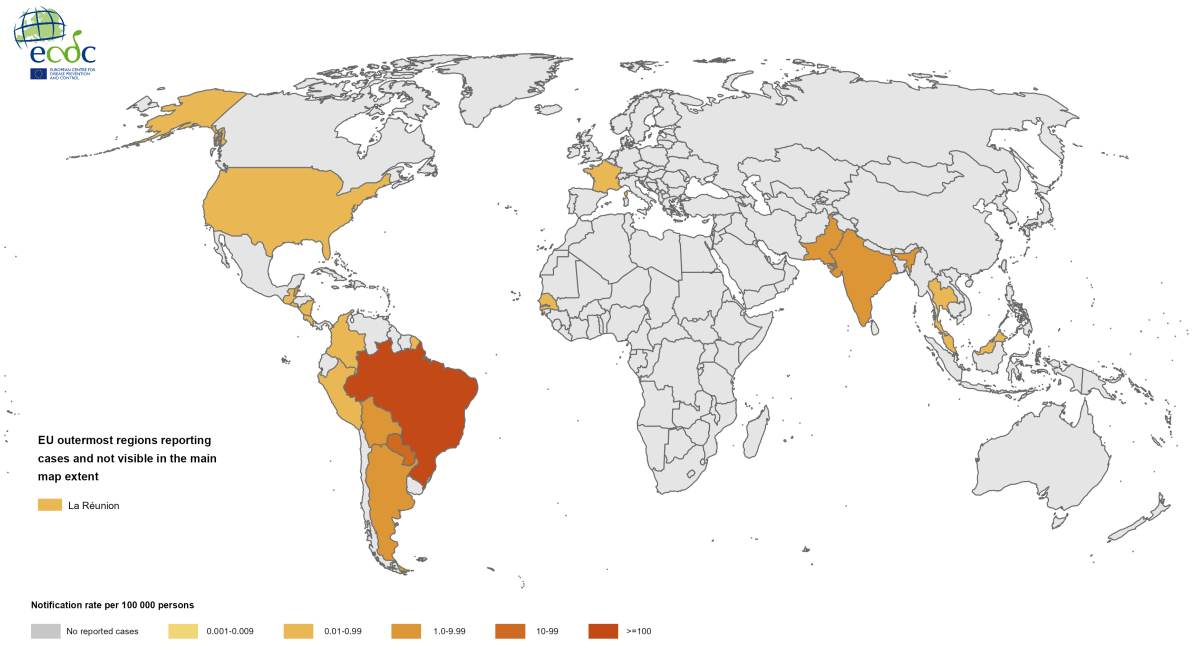
Figure 1. 12-month dengue virus disease case notification rate per 100 000 population, October 2023-September 2024



Note: Data refer to Dengue virus cases reported in the last 12 months (October 2023-September 2024) [Data collection: October 2024].
Case numbers are collected from both official public health authorities and non-official sources, such as news media, and depending on the source, autochthonous and non-autochthonous cases may be included.
Administrative boundaries: © EuroGeographics
The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. ECDC. Map produced on 02 October 2024

Source: ECDC

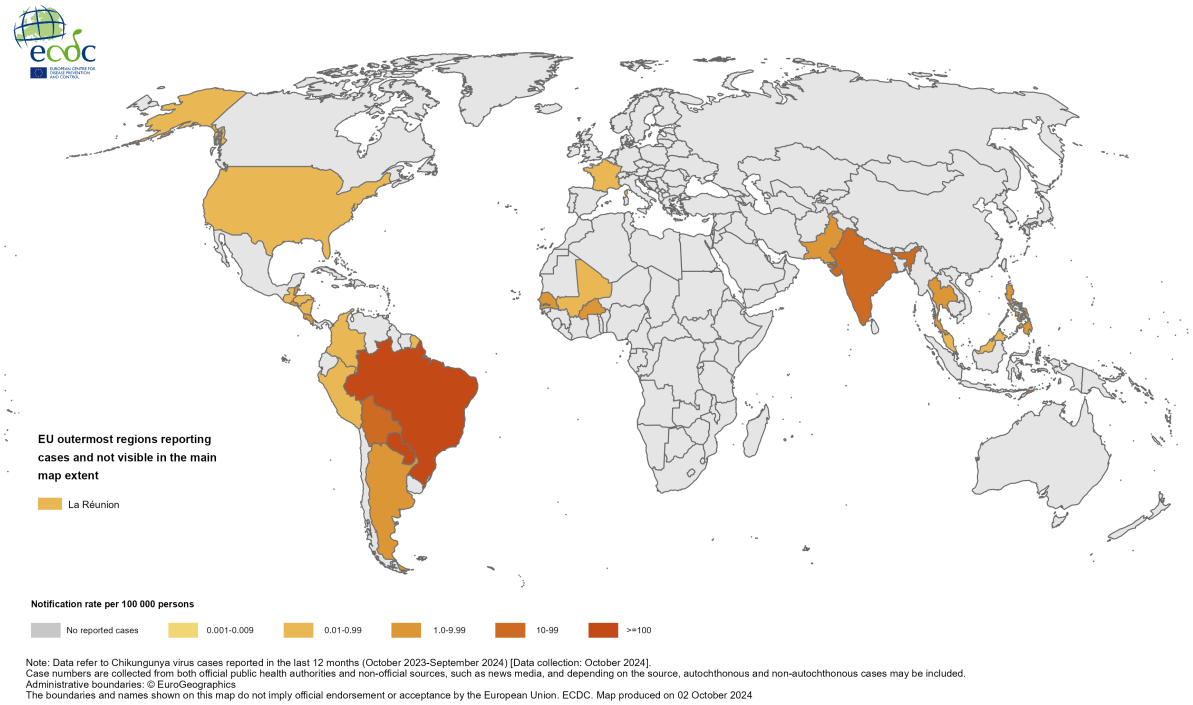
Figure 2. Three-month Chikungunya virus disease case notification rate per 100 000 population, July-September 2024



Note: Data refer to Chikungunya virus cases reported in the last 3 months (July 2024-September 2024) [Data collection: October 2024].
Case numbers are collected from both official public health authorities and non-official sources, such as news media, and depending on the source, autochthonous and non-autochthonous cases may be included.
Administrative boundaries: © EuroGeographics
The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. ECDC. Map produced on 02 October 2024

Source: ECDC

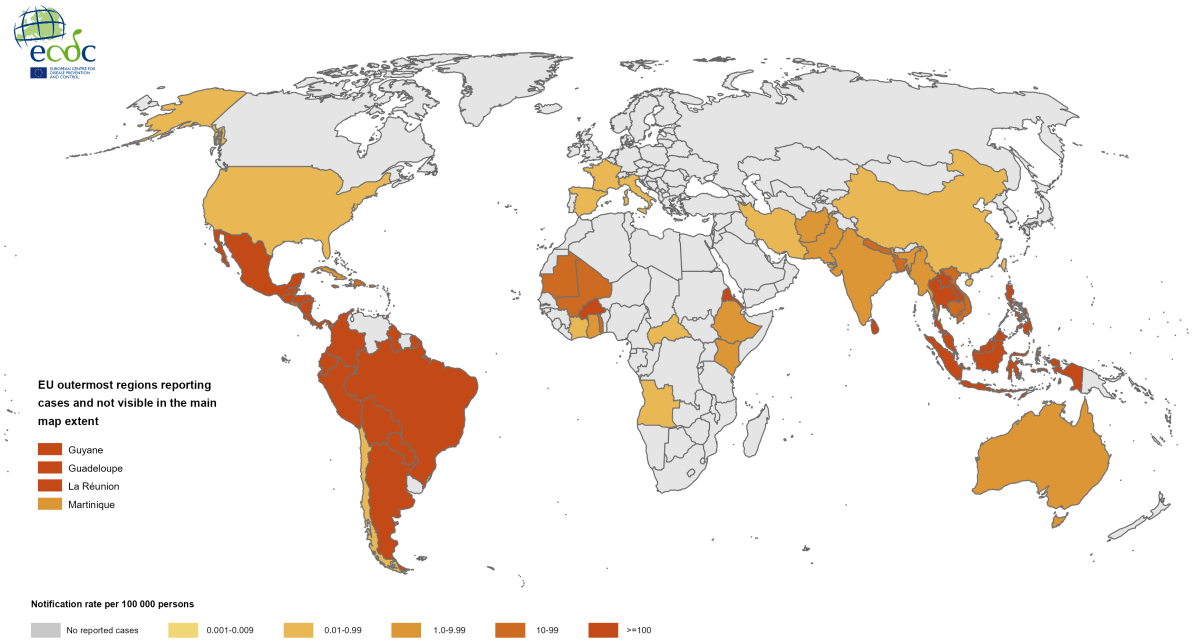
Figure 3. 12-month Chikungunya virus disease case notification rate per 100 000 population, October 2023-September 2024



Note: Data refer to Chikungunya virus cases reported in the last 12 months (October 2023-September 2024) [Data collection: October 2024].
Case numbers are collected from both official public health authorities and non-official sources, such as news media, and depending on the source, autochthonous and non-autochthonous cases may be included.
Administrative boundaries: © EuroGeographics
The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. ECDC. Map produced on 02 October 2024

Source: ECDC

Figure 4. Three-month dengue virus disease case notification rate per 100 000 population, July-September 2024



Note: Data refer to Dengue virus cases reported in the last 3 months (July 2024-September 2024) [Data collection: October 2024].
Case numbers are collected from both official public health authorities and non-official sources, such as news media, and depending on the source, autochthonous and non-autochthonous cases may be included.
Administrative boundaries: © EuroGeographics
The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. ECDC. Map produced on 02 October 2024

Source: ECDC

Events under active monitoring

- Cholera – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 27 September 2024
- Avian influenza A(H9N2) – Multi-country (World) – Monitoring human cases - last reported on 27 September 2024
- Poliomyelitis – Multi-country – Monthly monitoring of global outbreaks - last reported on 27 September 2024
- Human cases of swine influenza A(H3N2) variant virus – Multi-country - last reported on 27 September 2024
- Seasonal surveillance of West Nile virus infections – 2024 - last reported on 27 September 2024
- Locally acquired dengue in 2024 in mainland France - last reported on 27 September 2024
- Mpox due to monkeypox virus clade I and II – Global outbreak – 2024 - last reported on 27 September 2024
- Locally acquired dengue infection in Italy – 2024 - last reported on 27 September 2024
- Overview of respiratory virus epidemiology in the EU/EEA - weekly monitoring - last reported on 27 September 2024
- Avian influenza A(H5N1) human cases – United States – 2024 - last reported on 27 September 2024
- Severe floods in Central and Eastern Europe - Multi-country - 2024 - last reported on 20 September 2024
- Oropouche virus disease – Multi-country (Americas) – 2024 - last reported on 13 September 2024
- Mpox in the EU/EEA, Western Balkan countries and Türkiye – 2022–2024 - last reported on 13 September 2024
- Measles – Multi-country (World) – Monitoring European outbreaks – monthly monitoring - last reported on 13 September 2024
- Human cases of swine influenza A(H1N1) virus variant - Multi-country - 2024 - last reported on 6 September 2024
- SARS-CoV-2 variant classification - last reported on 6 September 2024
- Influenza A(H5N1) – Multi-country (World) – Monitoring human cases - last reported on 6 September 2024
- Marburg virus disease (MVD) - Rwanda - 2024 - last reported on 4 October 2024.
- Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update - last reported on 4 October 2024.
- Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 4 October 2024.