WEEKLY BULLETIN

Communicable Disease Threats Report

Week 41, 5 - 11 October 2024

This week's topics

Executive summary

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

- In August 2024, 27 countries reported measles data to The European Surveillance System (TESSy), with 786 cases reported by 18 countries. Nine countries reported zero cases.
- Through its epidemic intelligence activities, ECDC has identified 199 new measles cases in 11 EU/EEA countries reported since the last monthly update in September.
- In 2024, 19 measles-related deaths have been reported in Romania (18) and Ireland (1).
- Overall in the EU/EEA, over the last 12 months, there has been high measles activity; however, the situation varies by country. Some countries have reported large and/or ongoing outbreaks and others have reported no sustained or very low transmission.
- Relevant updates outside the EU/EEA are available for Switzerland, the United Kingdom (UK), countries in the Western Balkan and WHO Regions.

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

- Since the last update on 6 September 2024, and as of 8 October 2024, 108 mpox cases have been reported from 13 EU/EEA countries: Spain (25), France (23), Germany (21), Netherlands

(19), Belgium (6), Austria (3), Ireland (3), Czechia (2), Greece (2), Denmark (1), Italy (1), Lithuania (1) and Portugal (1). Since 6 September 2024, no new countries have reported confirmed cases.
- Since the start of the mpox outbreak in 2022, and as of 4 October 2024, 23 028 confirmed cases of mpox have been reported by 29 EU/EEA countries.
- In 2024 and as of 8 October 2024, a total of 1 046 mpox cases have been reported in the EU/EEA.
- In September 2024, a 22% decrease in mpox cases was observed compared with August (108 cases reported in September vs 138 cases reported in August).
- The overall risk of infection remains low for men who have sex with men and very low for the broader EU/EEA population.

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

- The number of patients presenting to primary care and hospitals for respiratory illness remain at expected levels for this time of year. COVID-19 accounted for around a sixth of these presentations in week 40, while influenza and respiratory syncytial virus (RSV) circulated at very low levels.
- Although SARS-CoV-2 activity remains elevated, there has been a downward trend in the EU/EEA since the peak in July, including in most of the countries that experienced a later epidemic during the summer.
- The spring/summer SARS-CoV-2 epidemic has led to substantial numbers of people, mostly aged 65 years and above, being admitted to hospital, ICU or dying. In most countries, levels of severe disease did not reach those reported in the last winter season. Our data suggest that people aged 65 years and above with COVID-19 accounted for over a quarter of hospital admissions among people with respiratory symptoms in week 40.
- Vaccination is the most effective measure to protect against more severe forms of respiratory viral diseases. Vaccination campaigns have started or are starting 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

- A new human case of avian influenza A(H5N1) has been reported in California, United States, with reported exposure to dairy cattle infected with avian influenza.
- This person presented with mild symptoms involving conjunctivitis
- Two additional people suspected with avian influenza A(H5N1) are under confirmation by US CDC laboratories.
- The latest person reported only mild symptoms and did not require hospitalisation.
- Since the beginning of October, four epidemiologically unrelated human cases of influenza A(H5N1) have been reported in California.

Seasonal surveillance of West Nile virus infections – 2024

- Since the beginning of 2024, and as of 9 October 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: 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 9 October, 78 locally-acquired dengue cases have been reported in mainland France.
- Cases have been reported in the following departments: Alpes-Maritimes (17 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.

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.

Locally-acquired dengue infection in Italy – 2024

- In 2024, as of 10 October, 173 locally-acquired dengue cases have been reported in Marche (124 cases), Emilia Romagna (36 cases), Lombardy (eight cases), Tuscany (two cases), Veneto (one case) and Abruzzo (one case) regions in Italy.
- Investigations are ongoing and vector control measures have been triggered by the Italian health authorities in accordance with their national response plan.

New strain ofmultidrug-resistant Shigella sonneiST152 - Multi-country - 2024

- An evolving cluster of multidrug-resistant *Shigella sonnei* ST152 with188 cases has been detected in the EU/EEA: Norway (13), Belgium (75), Denmark (4), France (8), Germany (9), Ireland (19) and the Netherlands (60).
- Additionally, 268 cases are reported in the United Kingdom and 234 in the United States, bringing the total to 690 cases.
- The most recent cases had infections with Shigella that are resistant to all first-line antimicrobials. Therefore, antimicrobial susceptibility testing is recommended for all people suspected of having the disease to ensure appropriate antimicrobial treatment.
- Numbers of cases detected per country may be influenced by variation in the extent to which *S. sonnei* isolates are sequenced.
- The cases in the EU/EEA are reported from 2022 onwards with the most recent reported in September 2024. The US cases date back to May 2021.
- The majority are male and sexual transmission is indicated.
- This strain is distinct from those previously reported, still evolving, clusters among gay and bisexual men and other men who have sex with men.
- New cases are likely to occur, particularly among gay and bisexual men and other men who have sex with men.

Marburg virus disease (MVD) - Rwanda - 2024

- On 27 September 2024, Rwanda reported its first Marburg virus disease outbreak.
- As of 10 October 2024, 58 cases including 13 deaths have been reported. According to the Ministry of Health of Rwanda, the new confirmed cases were linked to healthcare facilities in Kigali and all their contacts were under isolation and treatment.
- On 6 October 2024, vaccinations for healthcare workers started with the investigational Marburg vaccine provided by the Sabin Vaccine Institute.
- A number of control measures are being implemented including: exit screening at the airport, ban on patient visits to hospitals, strengthening infection prevention and control protocols in hospitals, and measures to limit contact with dead bodies.

- ECDC published a threat assessment brief on the implication of the outbreak for EU/EEA on 10 October 2024.
- The overall risk for EU/EEA citizens visiting or living in Rwanda is assessed as low because the likelihood of exposure to MVD – considering the low number of cases reported and the mode of transmission – and the impact are both assessed as low.
- In the event of MVD cases being imported into the EU/EEA, we consider 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.
- WHO and partners are supporting Rwanda in strengthening their response.

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

Overview:

In August 2024, 27 countries reported measles data to The European Surveillance System (TESSy), with 786 cases reported by 18 countries. Nine countries reported zero cases.

In the most recent 12-month period, from 1 September 2023 to 31 August 2024, 30 EU/EEA Member States reported a total of 18 449 cases of measles, 14 241 (77.2%) of which were laboratory confirmed. During this 12-month period, two countries (Latvia and Liechtenstein) reported zero cases. The highest number of cases were reported by Romania (14 347), Italy (897), Belgium (606), Austria (532) and Germany (516). The highest notification rates were observed among infants under one year of age (590.9 cases per million) and children aged 1-4 years (348.6 cases per million). Thirteen deaths (case fatality rate (CFR): 0.1) attributable to measles were reported to ECDC during the 12-month period by Romania (12) and Ireland (one). Detailed data are available in ECDC's Surveillance Atlas of Infectious Diseases and the Measles and Rubella monthly report.

Complementary epidemic intelligence surveillance, with data collection conducted on 9 October 2024 from official public and media sources, detected 199 new suspected and/or confirmed measles cases that were reported since the last monthly update in September. New cases were reported in 11 EU/EEA countries : Austria (new: 2; total: 504), Bulgaria (new: 6; total: 26), Czechia (new: 3, total: 33), Germany (new: 78; total: 698), Hungary (new: 4, total: 29), Ireland (new: 29; total: 135, including 1 death), Italy (new: 57; total: 864), Netherlands (new: 7; total: 163), Norway (new: 1; total: 11), Poland (new: 1; total: 262), Sweden (new: 11; total: 37). Overall, 19 measles-related deaths have been reported in the EU/EEA in 2024, in Romania (18) and Ireland (1).

Relevant updates for outside the EU/EEA are available for Switzerland, the UK, and countries in the Western Balkan and WHO Regions.

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

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

Austria reported 504 confirmed measles cases in 2024 as of 8 October 2024, an increase of two since 10 September 2024. Of the 490 individuals for which hospitalisation information was available, 106 (22%) were hospitalised, including four in the intensive care unit. All regions reported at least one case of measles in 2024, with most reported in Lower Austria (117, 23%) and Tyrol (88, 17%).

Bulgaria reported 26 measles cases in 2024 and as of 8 October 2024, an increase of six since 5 August 2024. No cases were reported for the same period of the previous year.

Czechia reported 33 measles cases in 2024 and as of 3 October 2024, an increase of three since the last monthly measles report.

Germany reported 698 confirmed and suspected measles cases in 2024 (data as of 10 October 2024), an increase of 78 since 11 September 2024.

Hungary reported 29 measles cases as of 7 October 2024, an increase of four since 3 August 2024.

Ireland has reported 135 confirmed measles cases as of 8 October 2024, an increase of 29 since 9 September 2024. In addition, 20 people are currently under investigation. Outbreaks have been reported across all six Health Service Executive (HSE) regions.

Italy reported 864 measles cases between 1 January and 31 August 2024 and as of 16 September 2024. This is an increase of 57 since 31 July 2024. Cases have been reported from 17/21 regions, mostly in unvaccinated individuals (90%). At a national level, the incidence in 2024 is 22 cases per million inhabitants.

Netherlands reported 163 measles cases in 2024 and as of 18 September 2024, an increase of seven since 21 August 2024.

Norway reported 11 cases as of 9 October 2024, an increase of one since 11 September 2024.

Poland reported 262 measles cases from January to 30 September 2024, an increase of one since 31 August 2024.

Sweden reported 37 cases in 2024 as of 9 October 2024, an increase of 11 since of 11 September 2024.

Relevant epidemiological summary for countries outside the EU/EEA:

Switzerland reported 99 cases in 2024 and as of 30 September 2024, an increase of five since 2 September 2024.

United Kingdom has reported several outbreaks of measles in 2024. As of 26 September, 2 562 measles cases have been confirmed in England in 2024, an increase of 175 since 29 August. In Northern Ireland, 20 were confirmed between January and 2 October, an increase of two cases since 1 September 2024. In Scotland there have been 17 laboratory-confirmed measles cases in 2024 and as of 2 October 2024. As of 31 July 2024, Wales confirmed 17 measles cases.

Western Balkans: Several countries continue to report measles cases.

Bosnia and Herzegovina
The Republic of Srpska has reported 309 measles cases as of 4 October 2024, an increase by one since 6 September 2024. As of 9 October 2024, the Federation of Bosnia and Herzegovina notified 7 228 measles cases,
including one death in 2024, an increase of 39 cases since 11 September 2024. As of 9 October 2024, Brcko district reported 194 measles cases, an increase of 84 cases since 8 August 2024. On 4 October 2024, the Brcko district government announced an end to the measles epidemic.

Serbia reported 432 measles cases as of 2 October 2024, an increase of 84 cases since 31 August 2024.

Montenegro reported 27 measles cases as of 30 September 2024, an increase of two cases since 9 September 2024.

Summary of measles cases reported by WHO regional offices (as of 16 September 2024)

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

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

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

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

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

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

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

ECDC assessment:

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

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

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

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

Actions:

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

Last time this event was included in the Weekly CDTR: 13 September 2024

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

Overview:

Since the last update on 6 September 2024, and as of 8 October 2024, 108 mpox cases have been reported from 13 EU/EEA countries: Spain (25), France (23), Germany (21), Netherlands (19), Belgium (6), Austria (3), Ireland (3), Czechia (2), Greece (2), Denmark (1), Italy (1), Lithuania (1) and Portugal (1). Since 6 September 2024, no new countries have reported confirmed cases.

In 2024 and as of 6 September 2024, a total of 1 046 mpox cases have been reported in the EU/EEA.

There was a 22% decrease in reported cases in September (108 cases) compared with the 138 cases reported in August.

Since the start of the mpox outbreak and as of 8 October 2024, 23 028 confirmed cases of mpox (MPX) have been reported from 29 EU/EEA countries: Spain (8 272), France (4 334), Germany (3 923), Netherlands (1 349), Portugal (1 203), Italy (1 062), Belgium (822), Austria (353), Sweden (302), Ireland (253), Poland (225), Denmark (209), Norway (109), Greece (102), Czechia (87), Hungary (85), Luxembourg (61), Romania (48), Slovenia (47), Finland (43), Malta (37), Croatia (34), Iceland (17), Slovakia (16), Estonia (11), Bulgaria (7), Latvia (6), Lithuania (6) and Cyprus (5). Deaths have been reported from: Spain (3), Belgium (2), Portugal (2), Austria (1) and Czechia (1).

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

Only one case of mpox due to MPXV clade Ib has been reported in the EU/EEA, by Sweden in August 2024. This case involved a person with a history of travel to an African country where clade Ib has been reported. All other mpox cases with available information on clade reported in the EU/EEA were due to MPXV clade IIb.

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

On 13 August 2024, Africa CDC declared mpox a Public Health Emergency of Continental Security. On 14 August 2024, WHO convened a meeting of the IHR Emergency Committee to discuss the mpox upsurge and declared the current outbreak of mpox due to MPXV clade I a Public Health Emergency of International Concern (PHEIC).

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

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

ECDC assessment:

The number of new infections remains relatively low in Europe, and a decrease in reported cases was observed in September compared with August 2024. This is encouraging as the 138 cases reported in August represented an increase compared to July when 85 cases were reported. The rise in August may be attributed to increased awareness among the men who have sex with men community, clinicians and health authorities following the declaration of mpox due to MPXV clade I as a PHEIC, which likely led to more testing and healthcare-seeking behavior. The overall risk of

MPXV infection is assessed as low for men who have sex with men and very low for the broader population in the EU/EEA.

Response options for EU/EEA countries include raising awareness among healthcare professionals; supporting sexual health services in case detection, contact tracing, and case management; continuing to offer orthopoxvirus testing; implementing vaccination strategies; and maintaining risk communication and community engagement, despite the decreasing number of cases. EU/EEA countries are also encouraged to sequence and report clades and subclades to identify new cases of mpox, particularly those linked to clade Ib.

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

Actions:

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

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

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

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

For the latest updates, visit ECDC's mpox page.

Last time this event was included in the Weekly CDTR: 04 October 2024

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

Overview:

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 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 remains elevated but is steadily decreasing, including in most of the countries that experienced a later epidemic during the summer. 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 almost all reporting EU/EEA countries. In Malta, following weeks of elevated hospital admissions for influenza A (subtype unknown) and deaths among people testing positive for influenza, SARI positivity fell to 6% in week 40, suggesting activity is decreasing.
- Respiratory syncytial virus (RSV) activity remained low in the reporting EU/EEA countries.

Virus characterisation

Influenza for week 40, 2024

- For week 40, 2024, no genetically characterised viruses were reported to TESSy.

SARS-CoV-2 variants for weeks 38–39 (16 September to 29 September 2024)

- The estimated distribution (median and IQR of proportions from seven countries submitting at least 10 sequences) of variants of concern (VOCs) or variants of interest (VOIs) was:
  - 22% (16–33%) for BA.2.86 (170 detections from seven countries)
  - 60% (55–64%) for KP.3 (494 detections from six 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 for some countries highlight 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, should continue to sequence SARS-CoV-2-positive clinical specimens and report to GISAID and/or TESSy. It is therefore important that testing ofto continue testing symptomatic individuals for SARS-CoV-2 continues during the autumn.
Vaccination remains critically important for protecting 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 withfollowing 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.
- 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.

Sources: ERVISS

Last time this event was included in the Weekly CDTR: 04 October 2024

Maps and graphs

Figure 1. Overview of key indicators of activity and severity in week 40

Indicator	Syndrome or pathogen	Reporting countries Week 40	Reporting countries Week 39	EU/EEA summary Description	EU/EEA summary Value	Comment
Primary care consultation rates	ARI	10 rates (10 MEM)	10 rates (8 MEM)	Distribution of country MEM categories	8 Baseline 2 Low	Two countries (Czechia and Lithuania) reported above-baseline (low) ARI activity.
	ILI	14 rates (14 MEM)	13 rates (13 MEM)		14 Baseline	
Primary care sentinel positivity	SARS-CoV-2	15	15	Pooled (median; IQR)	17% (11; 6.4–24%)	A slow decrease in pooled EU/EEA test positivity has been observed since the peak in July 2024. Decreasing trends being observed in most of the countries that experienced a later epidemic during the summer.
	Influenza	15	15		0.7% (0; 0–1.3%)	Stable trend of very low circulation.
	RSV	11	15		0% (0; 0–0%)	Stable trend of very low circulation.
SARI consultation rates	SARI	6	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	6		16% (11; 3.9–17%)	Trends in pooled data are similar to those observed in primary care. Fewer countries reported in week 40 than in w with data from Germany driving the pooled positivity this week. Non-sentinel indicators of severe disease remain el in Czechia, Greece, Ireland, Lithuania, Romania and Sweden.
	Influenza	4	6	Pooled (median; IQR)	0.5% (0.2; 0–1.8%)	Stable trend with very low circulation. After many weeks of elevated activity, test positivity fell to 6% in Malta in w
	RSV	4	6		0.2% (0; 0–1.5%)	Stable trend of very low circulation.
Intensity (country-defined)	Influenza	18	18	Distribution of country qualitative categories	16 Baseline 2 Low	

Source: ECDC

Figure 2. Virological distribution for week 40 and the period week 25, 2024 to week 40, 2024

Note that two detections of B/Yamagata reported from France in week 25, 2024 were due to a transcription error during the creation of the report file. The corrected data without these detections should be visible in the week 41 edition of ERVISS.

Pathogen or (sub-)type	Primary care sentinel						SARI sentinel						Non-sentinel			
	Week 40			Period 2024-2025			Week 40			Period 2024-2025			Week 40		Period 2024-2025	
	n	%	positivity	n	%	positivity	n	%	positivity	n	%	positivity	n	%	n	%
Influenza	6	100	0.7%	206	100	1.5%	3	100	0.5%	225	100	1.6%	149	100	4 257	100
Influenza A (total)	4	67	0.5%	143	72	1%	1	100	0.2%	173	96	1.2%	105	71	3 092	74
A(H1)pdm09	1	33	–	40	33	–	0	0	–	11	52	–	3	50	635	49
A(H3)	2	67	–	80	67	–	0	0	–	10	48	–	3	50	665	51
A (unknown)	1	–	–	23	–	–	1	–	–	152	–	–	99	–	1 792	–
Influenza B (total)	2	33	0.2%	57	28	0.4%	0	0	0%	7	4	0%	42	29	1 075	26
B/Vic	0	0	–	14	88	–	0	0	–	0	0	–	0	0	75	100
B/Yam	0	0	–	2	12	–	0	0	–	0	0	–	0	0	0	0
B (unknown)	2	–	–	41	–	–	0	–	–	7	–	–	42	–	1 000	–
Influenza untyped	0	–	–	6	–	0%	2	–	0.3%	45	–	0.3%	2	–	90	–
RSV	0	–	0%	25	–	0.2%	1	–	0.2%	29	–	0.2%	12	–	714	–
SARS-CoV-2	108	–	17.1%	2 939	–	23.9%	93	–	16.1%	2 634	–	18.2%	30 142	–	505 743	–

Source: ECDC

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

Overview:

Update: On 10 October 2024, the California Department of Public Health (CDPH) reported one human case of avian influenza from Central Valley who reported exposure to infected dairy cattle (www.cdph.ca.gov). Similarly to the three avian influenza A(H5) cases reported earlier in October, the person experienced only mild symptoms, including eye redness or discharge (conjunctivitis) and did not require hospitalisation. All four people reported in California since 3 October had contact with infected cattle at different farms in Central Valley and had no known contacts between one another, suggesting animal-to-human transmission.

US CDC has also reported that the virus isolated from the samples collected from the first two people in California belong to clade 2.3.4.4b, closely related to viruses isolated from infected dairy cows (CDC Newsroom). Whole genome sequencing was performed on one of the isolates (A/California/135/2024) and the virus was confirmed to be a B3.13 genotype. No genetic changes associated with increased ability to infect or transmit between humans, or with reduced susceptibility to antivirals, have been identified. The neuraminidase (N) designation and sequencing of the virus from the case reported here is currently ongoing.

This is the fourth reported human case of avian influenza reported in California, following the reported detection of A(H5N1) in dairy cattle in the state.

As of 11 October 2024, a total of 18 human cases of avian influenza A(H5) have been reported in the United States during 2024. Of these, eight 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 people. No markers of antiviral resistance were found in viruses from humans 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.

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: 04 October 2024

5. Seasonal surveillance of West Nile virus infections – 2024

Overview:

Epidemiological summary

Since the start of 2024, and as of 9 October 2024, human cases of WNV infection have been reported to TESSy by 14 EU/EEA countries and five countries neighbouring the EU. Cyprus reported cases for the first time during the week. In the EU/EEA, Austria, Bulgaria, Croatia, Cyprus, 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, 186 NUTS3/GAUL1 regions across 19 countries have reported locally-acquired WNV cases. National investigations concluded that the confirmed WNV infection reported with place of infection as Rome (NUTS3= ITI43) acquired the infection elsewhere. As this is not reflected in the data reported to ECDC, this case is still displayed with place of infection as Rome in ECDC's outputs. For detailed information on places of infection, please refer to ECDC's weekly update and dashboard.

The latest monthly epidemiological update on WNV infections, covering data up to 2 October 2024, was published on 9 October 2024. In 2024, 18 countries in Europe reported 1202 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 1 728 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 among 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 the cases. The dominance of neurological cases is expected, as cases with more severe symptoms are more likely to be diagnosed.

In addition, travel-associated cases from outside of the EU/EEA have been reported in travellers arriving from 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 date of start of an outbreak among birds and/or equids were respectively on 2 April 2024 and 27 September 2024.

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

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

ECDC assessment:

As in previous years, the peak of transmission was observed in August−September. As environmental conditions are becoming less favourable for vector activity and virus replication in vectors, we expect reported case numbers to decrease in the coming weeks.

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 West Nile virus through indicator- and event-based surveillance activities.
Last time this event was included in the Weekly CDTR: 04 October 2024

6. Locally-acquired dengue in 2024 in mainland France

Overview:

Update
Overall, France has reported 78 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 14 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 one case connected to Menton (or Monaco))
- Drôme (two cases)
- Vaucluse (18 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 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 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: 04 October 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.

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. 39, published 6 October 2024).

Epidemiological situation in Africa

In 2024, over 36 000 confirmed and suspected mpox cases due to MPXV clade I and clade II, including over 970 deaths, have been reported from Africa. This includes over 7 300 confirmed cases, according to the Africa CDC (Special Briefing on Mpox & Other Health Emergencies, Africa CDC, 10 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, Congo reported a new confirmed case in Brazaville after six weeks of no cases (Special Briefing on Mpox & Other Health Emergencies, Africa CDC, 10 October 2024). Additionally, Zambia reported its first mpox case on 10 October 2024. The clade has not yet been defined.

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:

- In the past six weeks, the DRC has reported 1 121 confirmed cases and Burundi 659, according to the WHO Global report on mpox (data as of 6 October). Deaths have only been reported in DRC (over 242 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 31 000 (over 5 800 confirmed), including 992 deaths (Africa CDC Epidemic Intelligence Report issued on 6 October 2024 and WHO Global report on mpox (data as of 6 October)).

- In Burundi, as of 6 October 2024, 987 confirmed cases have been reported according to the WHO Global report on mpox (data as of 6 October) from several areas of the country. No deaths have been reported in the country. According to the WHO AFRO weekly report of 4 October, cases were reported from 38 of 49 districts and the positivity rate among suspected cases is 40.7%.
- Kenya has reported two more cases since the last update. A total of 12 cases have been reported by Kenya (WHO Global report on mpox (data as of 6 October).
- In Uganda where clade Ib has been detected, 18 cases have been reported since the previous report. A total number of 69 cases have been reported in the country from 13 districts since July 2024. 15 cases have been reported in Kampala and 21 in Nakasongola (Mpox Outbreak in Uganda - 5 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).

The classification was last updated on 10 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 the EU/EEA and other countries. Please see the latest ECDC Risk assessment for the EU/EEA of the mpox epidemic caused by monkeypox virus clade I in affected African countries.

Actions:

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

Sources: ECDC rapid risk assessment

Last time this event was included in the Weekly CDTR: 04 October 2024

8. Locally-acquired dengue infection in Italy – 2024

Overview:

As of 10 October, 173 locally-acquired dengue cases have been reported by the Italian National Public Health Authority. These are 43 more cases than reported in the previous week's update. The newly reported cases were from Marche (22 cases), Emilia Romagna (17 cases), Lombardy (two cases), Tuscany (one case) and Abruzzo (one case).

For 172 cases NUTS2 regions were reported:

- Marche (124 cases)
- Emilia Romagna (36 cases)
- Lombardy (eight cases)
- Tuscany (two cases)
- Veneto (one case)
- Abruzzo (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 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 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: 04 October 2024

9. New strain ofmultidrug-resistant Shigella sonneiST152 - Multi-country - 2024

Overview:

A new emerging multidrug-resistant *Shigella sonnei* ST152 strain has been reported to ECDC from several countries. On 4 September 2024, Norway reported a cluster of 13 multidrug-resistant *S. sonnei* infections in EpiPulse. A further six EU/EEA countries reported cases matching this strain, with a total of 188 cases reported since 2022. Additionally, the UK reports 268 cases and the United States 234 cases belonging to the same strain. The earliest isolation date in the United States is May 2021. The majority of cases are men and sexual transmission is suspected in many cases. Some cases are travel-related.

This strain is the latest to be reported among multidrug-resistant.*S. sonnei* already circulating among gbMSM in the EU/EEA and beyond. A large cluster has previously been described (ECDC News Item 2023) and cases related to that cluster continue to be reported, including several in relation to the Darklands MSM festival in Belgium earlier in 2024.

Norway reports a cluster of 13 *S. sonnei* ST152 cases sampled in 2022 (1 case), 2023 (4 cases), and 2024 (8 cases). Seven of the 2024 cases were sampled between 17 June and 19 August. The cases include 11 males and 2 females (aged 20-70). Among the 2024 cases, five reported travel to different European countries, two were domestically acquired, and one had no available travel history. All isolates are multidrug-resistant, and the most important resistance markers carried by all strains are: *gyrA_D87G/gyrA_S83L/parC_S80I* (mutational fluoroquinolone resistance) and *dfrA1* (trimethoprim). The four most recent 2024 isolates also carry plasmid- *blaDHA-1* (pAmpC beta-lactamase conferring resistance to cephalosporins), *mph(A)* (erythromycin), *qnrB4* (fluoroquinolones), and *sul1* (sulfonamides) resistance markers. Sexual transmission was reported for four cases and is suspected for the remaining.

Belgium reports 75 related isolates with similar AMR pattern, including 52 male cases and four infants, with 22 cases in 2024. The most recent strain was isolated in early July. In 2023, contamination at a restaurant let to a significant number of cases, including infants.

Denmark reports four closely related isolates among males aged 25-50 years from 2024 (1 case) and 2023 (3 cases). In general, Denmark reports an increase in *Shigella* notifications specifically among men who have sex with men, not only for *S. sonnei* also for *Shigella flexneri*.

France reports eight closely related isolates from 2023, all in males aged 27-48. No closely related isolates were reported in 2024.

Germany reports nine closely related isolates in 2023 (7 cases) and 2024 (2 cases). All cases were male and adults (median age 35 yrs).

Ireland reports 19 isolates of this strain of *S. sonnei*, first identified in 2023. There were 16 cases in 2023 and three in 2024 (to end of Q3), all involving adults (18 males, 1 female). Among the males, 15 identified as gay and bisexual men and other men who have sex with men, one as heterosexual and for three cases information was not available. Six cases were hospitalised. Infections were reported as linked to Ireland (11 cases), Spain (4 cases), and one case involved travel to Belgium for the 2024 Darklands festival, with travel information unavailable for the remaining three cases. All isolates had antimicrobial resistance markers conferring resistance to fluoroquinolones (*gyrA_D87G, gyrA_S83L, parC_S80I*) and trimethoprim (*dfrA1*). Five had *mph(A)* (erythromycin), four had *sul*1 and one *sul*2 (sulfonamides). The antimicrobial resistance markers *blaDHA-1* (cephalosporins) and *qnrB4* (fluoroquinolones) were not detected in any isolate.

The Netherlands reports 60 cases of *S. sonnei,* in 2022 (7 cases), 2023 (32 cases), and 2024 (21 cases). Of these, 54 are male, five are female and one has unknown sex. Sexual history is known for 35 males, with 20 having sex with other men prior to symptoms. Travel history for 38 cases indicates that 10 travelled abroad, mainly to Spain (3 cases), Belgium (2 cases) and Portugal (2 cases). The mean age is 41 years (range: 20-82), with 10 out of 38 hospitalised.

United Kingdom reports 268 cases reported from February 2023 to August 2024 in England, with 249 males, 17 female and two of unknown gender. Twenty-six cases report overseas travel, with the main country being Spain (12 cases). The strain displays the same genotypic resistance markers as seen in Norway, additionally resistance to aminoglycosides and tetracycline has been observed. Some strains have DHA-19 (pAmpC) (n=12), TEM-1(broad-spectrum beta-lactamase/ TEM191 (ESBL) (n=21), and 2 have CTX-M-15 (ESBL).

United States reports 234 cases with isolation dates ranges from May 2021- 22 August 2024 with 32 new cases since 1 May 2024. The strain is geographically dispersed all over the United States.

ECDC assessment:

This is an evolving cluster of *S. sonnei* ST152 with 690 cases reported in Norway (13), Belgium (75), Denmark (4), France (8), Germany (9), Ireland (19), Netherlands (60), United Kingdom (268) and United States (234). Of these, 188 cases are in the EU/EEA and are reported from 2022 onwards with the most recent in August 2024. The US cases date back to May 2021. The strain is reported to exhibit genotypic resistance to fluoroquinolones and trimethoprim with more recent isolates (2024) showing resistance determinants also for 3rd generation cephalosporins, macrolides, and sulfonamides. Severe or complicated infections with a strain resistant to all first-line antimicrobials of choice (ceftriaxone/cefotaxime, fluoroquinolones and azithromycin) may require treatment with last-resort antimicrobials, such as carbapenems.

Further cases with this strain are very likely to occur, particularly among gay and bisexual men and other men who have sex with men, not only in countries reporting cases but also in other Member States, given the interconnected nature of gay and bisexual men and other men who have sex with men sexual networks in Europe. It is also likely that other cases that have not yet been detected may already be present in other Member States.
There are also examples of cases in people who are not gay and bisexual men and other men who have sex with men, including women and cases in a restaurant in Belgium where children were also affected.

Actions:

ECDC encourages EU/EEA Member States to report cases related to the current cluster in Epi Pulse 2024-FWD-00074(europa.eu). In addition, the large *S. sonnei* cluster reported in 2023 previously described (ECDC News Item 2023) is ongoing with new cases being reported in 2024. Thereby, ECDC encourages countries to update their case numbers also for this additional ongoing event showing similar characteristics, however with a different outbreak strain 2023-FWD-00037(europa.eu). Both events show the development of new introductions of multidrug-resistant strains spreading within the gay and bisexual men and other men who have sex with men community with documented instances of infection in other individuals as well. Representative outbreak sequences for comparisons are publicly available and the accession numbers are indicated in the single linkage tree in Figure and in Table.
To minimise the risk of acquiring *Shigella* infection during sexual activity, it is recommended to practice safer sex and ensure good personal hygiene. The appropriate use of protective measures against *Shigella* infection among the gay and bisexual men and other men who have sex with men community includes disposable gloves for fingering or fisting, dental dams during oral-anal sex, as well as changing condoms between anal and oral sex. It is recommended to not share sex toys and to ensure proper cleaning and disinfection after their use and between partners. It is also important to wash hands, genital and anal areas before and after sexual contact. If a person develops gastrointestinal symptoms (diarrhoea, bloody stool) it is recommended that they refrain from sexual activity, pay extra attention to personal hygiene and seek healthcare to get tested for gastrointestinal pathogens and other STIs. It is important to inform the physician that the infection may have been acquired through sexual activity.

People with gastrointestinal symptoms should not handle or prepare food in catering establishments or for other people at home, and should avoid using public pools, spas and hot tubs while they have gastrointestinal symptoms. Furthermore, gay and bisexual men and other men who have sex with men who have been diagnosed with shigellosis should avoid sexual activity for at least seven days after symptoms have completely disappeared and oral-anal contact during sex for four to six weeks, given that *Shigella* spp. can be shed in stools for up to six weeks.

Sexual partners of patients diagnosed with shigellosis – including partners from whom the patient may have acquired the infection – should be notified and informed about what symptoms to look out for. If they work in settings requiring close interaction with the general public (e.g. healthcare, child-care, food catering establishments) or if they develop symptoms of infection, they should be encouraged to contact a healthcare provider for stool testing and advice on preventive measures in case of positive test results.

It is important to increase awareness among clinicians and microbiology laboratories of the international spread of multidrug-resistant *Shigella* spp. and to ensure antimicrobial susceptibility testing of *Shigella* spp. for cases of gastroenteritis in gay and bisexual men and other men who have sex with men, in order to guide antimicrobial treatment. Healthcare workers should be aware that among adult males the route of acquisition can be sexual (especially among those without travel history to a country with known increased risk of shigellosis).

It is recommended that public health authorities collaborate with civil society organisations that work with gay and bisexual men and other men who have sex with men in order to increase awareness in this population of how to protect themselves and the importance of seeking care if symptomatic. It is essential to report shigellosis cases to public health authorities and test *Shigella* spp isolates for antimicrobial susceptibility testing. Results, and/or isolates should be sent to national reference laboratories in order to monitor trends of antimicrobial resistance and inform public health and clinical recommendations at national and international level. ECDC encourages countries to sequence available isolates of *S.sonnei* displaying multidrug resistance and having a possible association with gay and bisexual men and other men who have sex with men.

The ECDC RRA 2022 contains more detailed information on prevention and control.

Further information:

In June 2024, ECDC organised the first joint meeting of the FWD and STI networks coordination committees. During the discussions, the experts emphasized the added value of collaboration across disease networks and the importance of working with civil society organizations to raise awareness among gay and bisexual men and other men who have sex with men about ongoing transmission. Discussion on sexual health aspects concluded that screening for *Shigella* in high-risk groups of gay and bisexual men and other men who have sex with men may be beneficial. In the meeting, ECDC highlighted that countries can request support through ECDC for whole-genome sequencing of isolates, if needed.

Reports on previous clusters and ongoing clusters of MDR/XDR *Shigella* predominantly affecting gay and bisexual men and other men who have sex with men can be found in: ECDC CDTR 2024, ECDC News Item 2023, ECDC 2023 CDTR, ECDC RRA 2022.

In general, it can be challenging to retrieve an isolate of *Shigella* spp. from the clinical specimen and for a confirmed case, an isolate is needed. If PCR is used as first line analysis for diagnosis using the target gene *ipa*H, but the *Shigella* spp. is not cultured from the sample , the PCR finding in patients can still yield important information for the outbreak investigation, even though the case cannot be confirmed. However, it is still important to try and retrieve an isolate for antimicrobial susceptibility testing.

Sources: The outbreak strains sequencing data shared by countries are analysed and the clusters are monitored in EpiPulse Molecular Typing Tool Home Page - WGS (europa.eu) where the AMR determinants are also recorded.

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

10. 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. On 8 October 2024, two more Marburg virus disease cases were reported and one deaths. As of 10 October 2024, a total 58 cases, including 13 deaths, have been reported. Fifteen patients have recovered. 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. On 10 October 2024, the Ministry of Health of Rwanda reported that all the new cases are linked to healthcare facilities

On 5 October 2024, the Sabin Vaccine Institute provided 700 doses of the investigational Marburg vaccine to Rwanda. On 6 October 2024, vaccinations for healthcare workers started as part of a Phase 2 rapid response open-label study.

Rwanda has been implementing a number of control measures including: exit screening at the airport, measures in education settings and conferences, ban on patient visits to hospitals, strengthening infection prevention and control protocols in hospitals, and measures to limit contact with dead bodies (Travel Advisory, Rwanda (4 October 2024), Ministry of Health, Rwanda: Guidelines for the prevention of Marburg (29 September 2024).

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 travelled to Belgium but has completed the monitoring period (21 days) and is not considered a public health risk.

On 2 October 2024, Germany reported two travellers suspected of having MVD returning from Rwanda. Both were isolated in Hamburg and tested, as one of the two had been working in a

medical facility where Marburg virus disease patients were being treated. ECDC was in close contact with German public health authorities. Negative test results were reported on 3 October.

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 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:

On 10 October 2024, ECDC published a threat assessment brief of the implication of the Marburg virus disease outbreak in Rwanda for EU/EEA (Implications of the Marburg virus disease outbreak in Rwanda for the EU/EEA, 2024). The text of the threat assessment is reproduced below.

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

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

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

In the event that MVD cases are imported into the EU/EEA, we consider the likelihood of further transmission to be very low if appropriate measures are taken (e.g. early detection, isolation of suspected cases (i.e. any person with MVD-compatible symptoms and an epidemiological link to the ongoing outbreak in Rwanda) and contact tracing). In addition, in Rwanda identified contacts of people with MVD in the ongoing outbreak cannot leave the country and in addition, 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 education settings, places of worship and meetings and funerals. They should be advised to:

- Avoid contact with persons exhibiting MVD symptoms (like 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.

Last time this event was included in the Weekly CDTR: 04 October 2024

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
- Marburg virus disease (MVD) - Rwanda - 2024 - last reported on 11 October 2024
- New strain ofmultidrug-resistant Shigella sonneiST152 - Multi-country - 2024 - last reported on 11 October 2024
- Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update - last reported on 04 October 2024
- Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 04 October 2024
- SARS-CoV-2 variant classification - last reported on 04 October 2024