WEEKLY BULLETIN

Communicable Disease Threats Report
Week 2, 9 - 15 January 2023

Today's disease topics

1. COVID-19 associated with SARS-CoV-2 - Multi-country (EU/EEA) - 2019 - 2023
2. Ebola virus disease due to Sudan ebolavirus – Uganda – 2022
3. C. diphtheriae among migrants – Europe – 2022
4. Influenza – Multi-country – Monitoring 2022/2023 season
5. Measles - Multi-country (World) - Monitoring European outbreaks
6. Middle East respiratory syndrome coronavirus (MERS-CoV) - Multi-country

1. COVID-19 associated with SARS-CoV-2 - Multi-country (EU/EEA) - 2019 - 2023

Overview:

Summary:
In the week ending 8 January 2023, the overall epidemiological situation for COVID-19 was improving compared to the substantial increases in transmission and severity indicators reported by numerous countries during the year-end holiday period. Surveillance data suggests an overall decline in transmission together with stable or decreasing trends in hospital/ICU indicators and deaths pooled at the EU/EEA level.
Data may still be affected by a combination of reduced testing, delayed reporting and changes in healthcare-seeking behaviour during the end-of-year holidays, which make interpretation of the data more challenging.
Variations exist between countries. Three countries reported increases in case notification rates. Seven out of 21 countries with data reported an increase in at least one hospital or ICU indicator. One country reported an increase in COVID-19 deaths, with a total of 1 904 deaths reported in the last week.
Despite the improvements visible in the reported surveillance data, there is still considerable COVID-19 activity in hospitals in some EU/EEA countries. Furthermore, it may take some more time before the impact of the increased exposure of vulnerable groups to respiratory viruses (due to increased inter-generational mixing during the holiday season) becomes visible.
Forecasts of cases, hospital admissions and deaths from the European COVID-19 Forecast Hub provide predictions for weeks 2 and 3. Compared with the previous week, decreasing trends in cases, hospital admissions and deaths are forecast for the EU/EEA overall by the end of week 3.

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

The cumulative uptake of a first booster was 65.4% (country range: 11.3–87.0%) among adults aged 18 years and older, 84.8% (country range: 13.3–100.0%) among people aged 60 years and older and 54.7% (country range: 9.2–75.8%) in the total population. The cumulative uptake of a second booster was 34.4% (country range: 0.3–86.3%) among people aged 60 years and older.
Among the 10 countries with an adequate volume of sequencing or genotyping for weeks 51–52 (19 December to 1 January 2023), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 51.4% (37.6–77.2% from eight countries) for BQ.1, 24.2% (6.4–100.0% from 10 countries) for BA.5, 15.5% (5.7–31.6% from nine countries) for BA.2.75, 5.0% (0.9–9.0% from eight countries) for XBB, 0.8% (0.3–3.6%, 108 detections from nine countries) for BA.2 and 0.6% (0.2–1.5%, 115 detections from seven countries) for BA.4.
As of 20 June 2022, ECDC discontinued the data collection and publication of the number of COVID-19 cases and deaths worldwide. Please refer to World Health Organization (WHO) data on COVID-19 and WHO's Weekly Epidemiological and Weekly Operational Updates page for non-EU/EEA countries.
For the latest COVID-19 country overviews, please see the dedicated web page.

Other News

On 11 January 2023, the Department of Health and Human Services of the United States, published the renewal of the US COVID-19 Public Health Emergency Declaration. According to the publication, the ongoing COVID-19 pandemic still constitutes a public health emergency for the country. The COVID-19 Public Health Emergency Declaration will stand for another 90 days until the situation in the country is re-assessed.

Weekly update on SARS-CoV-2 variants:

As of 12 January 2023, XBB.1.5 was added to ECDC's list of variants of interest (VOI) to allow monitoring of this sub-lineage separately from the previously added parent linage XBB (VOI). XBB.1.5 is a recombinant of previously circulated Omicron lineages with an additional spike RBD change S486P compared to XBB. XBB.1.5 is growing rapidly in the United States and preliminary studies suggest that XBB.1.5 exhibits the immune escape properties of XBB and has an increased transmissibility compared to XBB and other currently circulating variants. There are currently no signals of increased infection severity for XBB.1.5 or XBB.

The current variant landscape remains complex with several competing sub-lineages of different Omicron ancestors. The BQ.1 variant and its sub-lineages remain dominant in the EU/EEA, in stable or declining proportion at around 50%. Increases in proportions in the EU/EEA are observed for BA.2.75-descendant lineages, where BN.1 have increased to significant proportions in Denmark (16%) and Iceland (17%); CH.1.1 in Denmark (6.4%), Netherlands (5.8%) and Belgium (4.4%).
For the latest information on variants, please see ECDC's webpage on variants.

ECDC assessment on the XBB.1.5 sub-lineage

XBB.1.5 is a sub-lineage of XBB with an additional spike RBD mutation S486P. This lineage was first detected in the United States with the sample collection dated from 22 October 2022, and this lineage has been seen increasing in numbers since. As of 12 January 2023, 6 142 sequences have been deposited in GISAID EpiCoV belonging to XBB.1.5 with the mutational profile in Spike region - Q183E, F486P and F490S. Most of these submissions are from the United States (4 959 sequences) and the United Kingdom (531 sequences).
Based on GISAID EpiCoV data as of 12 January 2023, XBB.1.5 is increasing from low proportions in all EU/EEA countries with adequate sequence reporting volume. These estimated proportions for week 52 2022 and week 51 2022 in parenthesis are: Austria 1.6% (1.4%), Belgium 1.0% (0.4%), Denmark 1.3% (0.9%), France 0.5% (0.3%), the Netherlands 2.9% (1.8%), Spain 2.6% (0.2%) and Sweden 1.2% (0.2%).
This lineage is currently estimated to have a large growth advantage relative to previously circulating lineages in North America (109%) and Europe (113%) (estimates provided by CoV-spectrum based on data from GISAID EpiCoV), though these estimates are associated with significant uncertainty. The US CDC reports a doubling time of the proportion of XBB.1.5 of 9 days and the US CDC nowcast system estimates the current proportion of the variant around 27.6% in the USA (95% prediction interval 14.0-46.5%). Due to the uncertainty associated with the estimate, it is still unclear whether the variant will become dominant in the US in the coming weeks. The rapid growth in the US does not necessarily mean that the variant will become dominant in the EU/EEA, major differences in variant circulation between North America and Europe have been observed several times during the pandemic.
The most likely explanation of the growth advantage is the already high level of immune escape demonstrated by XBB, combined with the effect of the spike change S486P. This mutation has been rare during the pandemic, probably due to it requiring two nucleotide substitutions in the same codon to change from Phenylalanine to Proline. Other variants with this change have however emerged before without becoming successful. A recent preprint demonstrates that XBB.1.5 is not associated with a higher reduction in neutralisation by vaccinee and convalescent sera compared to XBB.1, but that it is associated with a higher ACE2 affinity, which could indicate that the advantage of XBB.1.5 compared to XBB.1 could be caused by an increase in intrinsic transmissibility. Further laboratory and epidemiological investigations are required to elucidate the mechanism of the growth advantage conferred by this change specifically in the XBB variant. There is currently not enough information available to assess any change in infection severity associated with the variant.
There is a risk that this variant may have an increasing effect on the number of cases of COVID-19 in the EU/EEA, but not within the coming month as the variant is currently only present at very low levels. Due to uncertainties associated with the growth rate of the variant, this assessment is associated with a high degree of uncertainty.

Public Health Emergency of International Concern (PHEIC):
On 30 January 2020, the World Health Organization (WHO) declared that the outbreak of COVID-19 constitutes a PHEIC. On 11 March 2020, the Director-General of WHO declared the COVID-19 outbreak a pandemic.
The third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, and thirteenth International Health Regulations (IHR) Emergency Committee meetings for COVID-19 were held in Geneva on 30 April 2020, 31 July 2020, 29 October 2020, 14 January 2021, 15 April 2021, 14 July 2021, 22 October 2021, 13 January 2022, 11 April 2022, 8 July 2022, and 13 October 2022 respectively. The Committee concluded during these meetings that the COVID-19 pandemic continues to constitute a PHEIC.
As of 20 June 2022, ECDC discontinued the data collection and publication of the number of COVID-19 cases and deaths worldwide. Please refer to World Health Organization (WHO) data on COVID-19 and WHO's Weekly Epidemiological Updates and Monthly Operational Updates page for non-EU/EEA countries.
For the latest COVID-19 country overviews, please see the dedicated web page.

ECDC assessment:

For the most recent risk assessment, please visit ECDC's dedicated webpage.

Actions:

On 27 January 2022, ECDC published its Rapid Risk Assessment, 'Assessment of the further spread and potential impact of the SARS-CoV-2 Omicron variant of concern in the EU/EEA, 19th update'.
Detailed country-specific COVID-19 updates are available on ECDC's website. For the latest update on SARS-CoV-2 variants of concern, please see ECDC's webpage on variants.
ECDC invites countries to use the EpiPulse event (2022-IRV-00008) on BQ.1 and sub-lineages to discuss and share information on this variant as it becomes available. Of particular interest is information on virus characterisation and evidence regarding changes in disease severity, virus transmissibility, immune evasion, and effects on diagnostics and therapeutics. Case reporting should continue through TESSy.

Further information:

COVID-19 associated with SARS-CoV-2 – China – 2022 - 2023

Sources: China CDC, media, media, media, media, GISAID
Update
The latest China CDC update is from 9 January 2023 (reporting data until 8 January 2023). In the update, China reported 14 171 new confirmed cases and three associated fatalities in mainland China. According to this report, there are 118 147 current cases in mainland China, of which 7 557 are considered severe cases. Since the start of the pandemic, a total of 503 302 confirmed cases and a total of 5 272 associated fatalities have been reported in mainland China.
Information on variants from public sources
From 1 December 2022 to 13 January 2023, China has deposited 1 042 sequences, out of which 1 025 sequences were deposited since 25 December 2022. As of 13 January 2023, of the total 1 042 sequences submitted from China, 774 had recent sample collection dates between 1 December 2022 and 6 January 2023 in GISAID EpiCoV. These sequences mainly belonged to the lineages (including their sub-lineages) BA.5.2 (39%), BF.7 (36%), BQ.1 (11%), BA.2.75 (4%), XBB (2%), BA.2 (1%). No new variant has been detected.
On 4 January 2023, a statement was issued by the Technical Advisory Group on Virus Evolution (TAG-VE) that met on 3 January 2023.
Other news
In light of the recommendations given by the European Commission, countries in the EU/EEA have adopted preventive measures in the context of the current upsurge of COVID-19 cases in China.

- Countries requesting a negative test for passengers arriving from China include Austria, Belgium, France, Germany, Greece, Italy, Malta, Portugal, Spain, Sweden.
- Countries performing, recommending or planning wastewater surveillance within airports include Belgium, Cyprus, Greece, Netherlands, Portugal.

On 9 January 2023, the Luxembourg government stated that any travellers who have stayed in China during the 14 days prior to arrival in Luxembourg are obliged to declare their presence in the country to the Health Inspection. Such travellers will be invited at random to take a voluntary COVID-19 test upon arrival.
On 11 January 2023, the Cypriot Ministry of Health issued a press release regarding the decisions taken due to the ongoing epidemiological situation in China. According to the press release, from 15 January 2023, all passengers arriving in Cyprus from China will be requested to present a negative PCR test taken 48 hours before departure. The decision will stand until 15 March 2023.
On 12 January 2023, Romanian media quoting the Romanian Minister of Health, Alexandru Rafila, mentioned no measures will be introduced in Romania due to the recent surge of COVID-19 cases in China. According to the news, Romania has issued recommendations but no additional measures.

On 12 January 2023, the Public Health Agency of Sweden released the results of its assessment regarding the potential consequences of the COVID-19 situation in China for Sweden. The assessment concluded that the increase in COVID-19 infections in China will not have a significant effect on the epidemiological situation in Sweden. Nonetheless, the Swedish government has decided to implement temporary COVID-19 testing for arrivals from China as recommended by the IPCR.

Summary

The number of COVID-19 cases has reached record levels in mainland China. There continues to be limited data on COVID-19 cases, hospital admissions, deaths and ICU capacity and occupancy in China. High levels of SARS-CoV-2 infections and increased pressure on healthcare services in China are anticipated due to low population immunity and the relaxation of non-pharmaceutical interventions. Projection models published by the Institute for Health Metrics and Evaluation at the University of Washington anticipate steep increases in infections, hospitalisations, and deaths through April 2023. However, in the absence of more detailed and timely data from official sources on epidemiological indicators and sequencing, the public health impact, and the size and severity of the current surge of COVID-19 cases are difficult to assess.

Assessment

ECDC Assessment for the European Union (EU) / European Economic Area (EEA)

Given the higher population immunity in the EU/EEA, and the fact that the variants currently circulating in China have already been circulating in the EU/EEA, the current surge in cases of these variants in China is not expected to have any significant impact on the COVID-19 epidemiological situation in the EU/EEA. There is currently no data suggesting the emergence of new variants of concern in China. The ECDC assessment is based on the information currently available. ECDC will revisit its assessments as new information becomes available.

ECDC Actions

ECDC liaises on a regular basis with the European Commission and the Member States in the Health Security Committee.

ECDC is in contact with the Chinese Center for Disease Prevention and Control (China CDC) on a regular basis to receive updated information on the epidemiological situation. ECDC is also in contact with the Public Health Agency of Canada (PHAC), the Japanese CDC, the Australian CDC, the US CDC as well as with WHO's headquarters and WHO's Regional Office for Europe to cross-check and validate data and assessments with partners outside of China, including on sequencing data from Chinese travellers.

ECDC continues to routinely monitor and report on emerging SARS-CoV-2 variant threats via its Strategic Analysis of Variants in Europe (SAVE) Working Group, where variants and epidemiological trends in the EU/EEA as well as worldwide will continue to be evaluated. ECDC participates in the global WHO Technical Advisory Group on SARS-CoV-2 Virus Evolution (TAG-VE).

2. Ebola virus disease due to Sudan ebolavirus – Uganda – 2022

Overview:

On 11 January 2023, Uganda declared the end of the Ebola disease outbreak caused by the Sudan virus, after 42 days passed without any new case reported since the last case was released from care (WHO AFRO News). Overall, 142 confirmed cases and 22 probable cases were reported, including 55 confirmed deaths and 87 recoveries. The case fatality ratio was 39% among confirmed cases and 47% overall. More than 4 000 contacts with confirmed cases were followed up for 21 days.

Cases were reported from nine districts, with the first case reported in Mubende on 20 September 2022. The other eight districts that reported at least one case were: Bunyangabu, Jinja, Kagadi, Kampala, Kassanda, Kyegegwa, Masaka, and Wakiso (Sit Rep 91).

Sources: Ministry of Health Uganda , Africa CDC, WHO.

Maps and graphs

Figure 1. Geographical distribution of EVD cases in Uganda, 2022

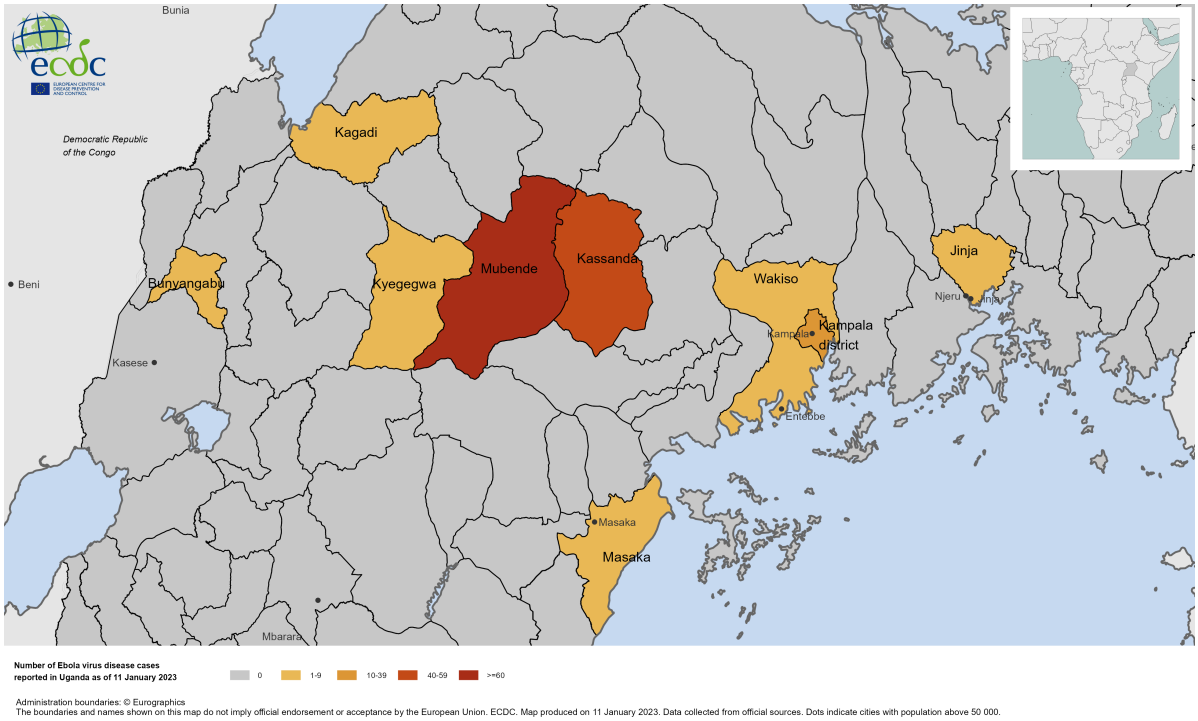
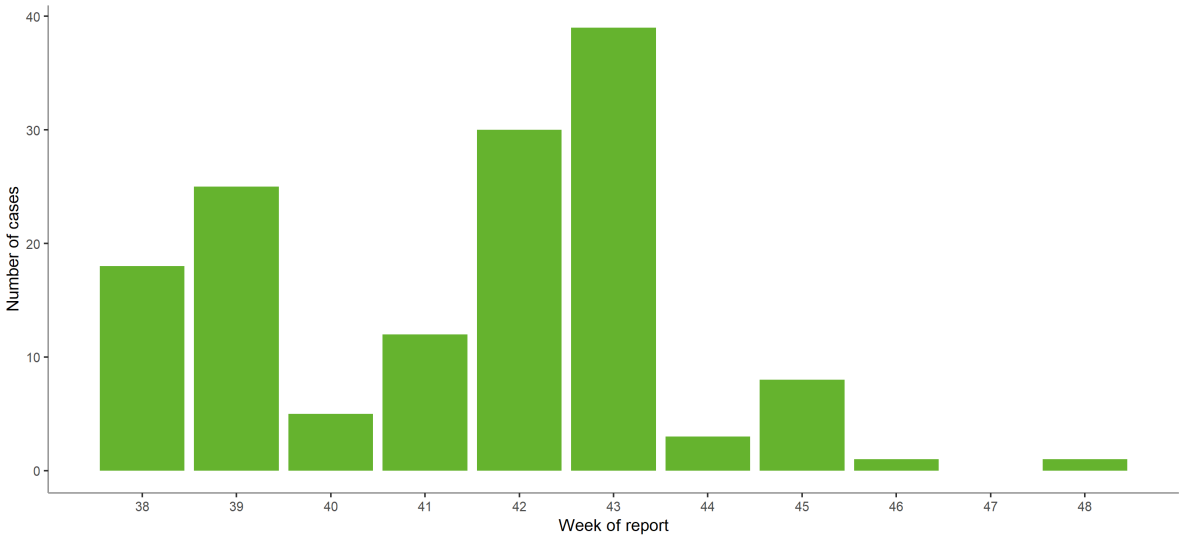


Figure 2. Ebola disease cases reported in Uganda in 2022, by week of reporting.



3. C. diphtheriae among migrants – Europe – 2022

Overview:

Summary: As of 10 January 2023, and since the last update on 21 December 2022, two countries have reported new cases of diphtheria: Austria (2), and the United Kingdom (11).
Background: Since the beginning of 2022, and as of 10 January 2023, there have been 244 cases of diphtheria among migrants reported by eight EU/EEA countries: Austria (63), Belgium (25), France (14), Germany (116), Italy (2), the Netherlands (5), Norway (7) and Spain (1). Cases have also been reported in Switzerland (25) and the United Kingdom (73), bringing the overall number for Europe to 331.
Among these cases, the majority presented with the cutaneous form of the disease (n=230), 46 cases had respiratory diphtheria, six cases had both respiratory and cutaneous presentations, 30 cases were asymptomatic, and information was missing for 19 cases. All cases were caused by toxigenic C. diphtheriae, and the majority were detected in male migrants aged 8–49 years..
ECDC has no data indicating further transmission and outbreaks of C. diphtheriae in the broader EU/EEA population resulting from the increased number of diphtheria cases.
On 11 November 2022, the United Kingdom Health Security Agency (UKHSA) published updated guidelines on the public health control and management of diphtheria in England as well as a supplementary guidance document for cases and outbreaks in asylum seeker accommodation settings.
On 3 November 2022, a rapid communication published in Eurosurveillance reported two C. diphtheriae isolates in Switzerland possibly linked to the increase observed in the EU/EEA, and an unusually broad predicted resistance to common oral and parenteral antibiotics. According to the authors, these findings challenged the treatment options for bacterial co-infections in the wounds of the cases.
On 17 November 2022, another rapid communication was published in Eurosurveillance, in which phenotypic and predicted resistance data from cases in Germany confirmed the predicted resistance profile observations from the two isolates in Switzerland.
On 1 December 2022, the UKHSA released 'Supplementary guidance for cases and outbreaks in asylum seeker accommodation settings', in which antimicrobial susceptibility testing of all C. diphtheriae isolates is recommended.

ECDC assessment:

Diphtheria is a rare disease in EU/EEA countries. According to WHO/UNICEF, immunisation coverage estimates for DTP3 in 2021 in the EU/EEA varied across Member States, ranging from 85% (Austria) to 99% (Greece, Hungary, Luxembourg, Malta and Portugal). Universal immunisation is the only effective method for preventing the toxin-mediated disease. This includes the administration of a booster dose of diphtheria toxoid if more than 10 years have passed since the last dose. The occurrence of the disease in fully vaccinated individuals is very rare. The increase in cases reported among this group and the occurrence of similar outbreaks in several EU/EEA countries recently is unusual and needs to be carefully monitored, alongside the implementation of necessary public health measures to avoid the occurrence of more cases and further spread.
In this context, the probability of developing the disease is very low for individuals residing in the community, provided they have completed a full diphtheria vaccination series and have an up-to-date immunisation status. Nevertheless, the possibility of secondary infections in the community cannot be excluded and severe clinical diphtheria is possible in unvaccinated or immunosuppressed individuals.
In exposed unvaccinated or immunosuppressed individuals in migrant centres, a severe outcome following a diphtheria infection is possible. Nevertheless, the impact of the disease for individuals with a completed course of diphtheria vaccination is considered to be low. Given the moderate probability of exposure and the potential individual impact as described above, the risk is considered to be moderate for unvaccinated or immunosuppressed individuals in migrant reception centres or other similar crowded settings in the EU/EEA, but low for fully vaccinated individuals in those settings.
The occurrence of isolates (in other European countries) showing a genomic profile suggestive of antimicrobial resistance similar to that observed in Switzerland and Germany cannot be ruled out. However, these findings are preliminary and more evidence would be needed before assessing the potential implications of these observations, including the adaptation of the currently recommended antibiotic treatment regimes. In view of these ongoing developments, ECDC recommends, as a precautionary measure, that antimicrobial susceptibility testing is performed on all C. diphtheriae isolates.
On 6 October 2022, ECDC published a Rapid Risk Assessment (RRA) on the increase of reported diphtheria cases among migrants in Europe due to Corynebacterium diphtheriae, stressing the importance of universal immunisation with diphtheria toxoid-containing vaccines. Options for responses recommended in this RRA included:

- Identification and vaccination of individuals residing in migrant centres who have incomplete vaccination status.
- Provision of information to migrant centres' health service providers for the rapid identification and isolation of possible cases pending diagnostic confirmation.
- Respiratory droplet isolation of all confirmed or suspected cases with respiratory diphtheria.
- Contact precautions, such as avoiding contact with wounds and the dressing of wounds, for confirmed and suspected cases of cutaneous diphtheria.
- Isolation of all confirmed cases (respiratory and cutaneous presentation) until the elimination of the organism is demonstrated by two negative cultures obtained at least 24 hours apart after the completion of antimicrobial treatment.
- Identification of close contacts, including the personnel providing assistance, especially if they have performed procedures without appropriate personal protective equipment (PPE).
- Antimicrobial post-exposure prophylaxis and vaccination of incompletely vaccinated or unvaccinated close contacts.
- Alerting clinicians to the possibility of cutaneous and/or respiratory diphtheria among migrants and travellers returning from endemic areas.
- Collection of data on the country of origin and migratory route from all suspected diphtheria cases.
- Up-to-date vaccination status for all personnel working in reception centres for migrants.
- Limiting situations of overcrowding in migrant centres, verification of the availability of laboratory diagnostics in each country.
- Timely reporting to authorities of cases confirmed according to the EU case definition for diphtheria.
- Enhanced surveillance, including molecular typing and whole genome sequencing of patient isolates to improve the understanding and monitoring of transmission patterns.

Additional ECDC tools may be of relevance during outbreak investigation activities, such as, the Expert Opinion on the public health needs of irregular migrants, refugees or asylum seekers across the EU's southern and south-eastern borders, the Handbook on implementing syndromic surveillance in migrant reception/detention centres and other refugee settings and the Handbook on using the ECDC preparedness checklist tool to strengthen preparedness against communicable disease outbreaks at migrant reception/detention centres.

Actions:

ECDC continues to monitor this event through its epidemic intelligence activities and will provide weekly updates. The latest information available can be found on EpiPulse.
On 6 October 2022, ECDC published a Rapid Risk Assessment (RRA) on the increase of reported diphtheria cases among migrants in Europe due to Corynebacterium diphtheriae. The conclusions and options for response proposed in this RRA remain valid for this event. Additionally, on 5 December 2022, ECDC published an epidemiological update on the Increase of reported diphtheria cases among migrants in Europe due to Corynebacterium diphtheriae, 2022.

4. Influenza – Multi-country – Monitoring 2022/2023 season

Overview:

Week 01/2023 (02 January– 08 January 2023)

- The percentage of sentinel primary care specimens from patients presenting with influenza-like illness (ILI) or acute respiratory illness (ARI) symptoms, that tested positive for an influenza virus, remained above the epidemic threshold (10%). It also slightly decreased to 25% from 30% in the previous week which might still be due to the impact of the festive period with lower testing and reporting in some countries.
- 29 of 37 countries or areas reported high or very-high intensity and/or widespread activity, indicating high seasonal influenza virus circulation across the Region.
- Armenia, Belgium, Bulgaria, Finland, Israel, Lithuania, the Netherlands, Poland, Republic of Moldova, Slovenia, Slovakia, Switzerland and Northern Ireland (in the UK) reported seasonal influenza activity above 40% positivity in sentinel primary care.
- Both influenza type A and type B viruses were detected, with similar numbers of A(H3) and A(H1)pdm09 viruses being observed in sentinel surveillance systems, but with A(H1)pdm09 viruses dominating in non-sentinel surveillance systems.
- Hospitalised patients with confirmed influenza virus infection were reported from ICU, other wards and severe acute respiratory infections (SARI) surveillance. The highest positivity rates (at or above 40% positivity) for

influenza virus detections in SARI surveillance were reported by Kazakhstan, Lithuania, Romania, Serbia and Slovakia.

Source: Flu News Europe

ECDC assessment:

Seasonal influenza activity is still increasing in some EU/EEA countries while other countries seem to have already passed their peak period of seasonal activity. Sentinel positivity for influenza virus detections above 40% for a minimum of 10 tested specimens were observed in the following countries: Finland (62%), Slovenia (60%), Slovakia (59%), Poland (56%), (47%), the Netherlands (47%), Belgium (40%), Bulgaria (40%) and Lithuania (40%).

Actions:

ECDC and WHO monitor influenza activity in the WHO European Region. Data are available on the Flu News Europe website.

5. Measles - Multi-country (World) - Monitoring European outbreaks

Overview:

From January to November 2022, 14 EU/EEA countries reported 103 confirmed cases of measles to TESSy (detailed data available in ECDC Surveillance Atlas of Infectious Diseases). The most recent cases in November 2022 were reported in Belgium (2), Ireland (1) and Poland (3).
As of 10 January 2023, complementary epidemic intelligence surveillance of official public sources and media sources had not detected any measles outbreaks in the EU/EEA. Two EU/EEA countries have reported nine suspected and/or confirmed cases of measles in the past month: Germany (3) and Italy (15), Ireland provided a retro-corrected number of cases. Other countries did not report new cases of measles or updates for previous periods.
No measles-related deaths have been reported in the EU/EEA in 2022 and in 2023 to date, based on TESSy and epidemic intelligence data.
Relevant updates outside the EU/EEA are available for England, UK, and Ukraine, as well WHO Regional Office for Africa (WHO AFRO), WHO Pan American Health Organization (PAHO). No updates were available for WHO Western Pacific Regional Office (WPRO).
Disclaimer: the monthly measles report published in the CDTR provides the most recent data on cases and outbreaks from information made publicly available by national public health authorities or the media. This report is a supplement to ECDC's monthly measles and rubella monitoring report, based on data routinely submitted by 29 EU/EEA countries to The European Surveillance System (TESSy). Data presented in the two monthly reports may differ.
Epidemiological summary for EU/EEA countries with epidemic intelligence updates since last month
Germany reported three suspected and confirmed cases in week 1 in 2023 (ending 8 January 2023). In 2022, 67 suspected and confirmed cases were reported in weeks 1 to 49 (ending 11 December 2022). (Note: the number provided in this report includes suspected cases therefore is higher than the number provided to TESSy).
Ireland reported four cases in 2022, weeks 1 to 52, a decrease of six since week 48 (ending 3 December 2022).
Italy reported 15 cases of measles from January to November 2022 according to a report published on 15 December. Of these cases, 11 were laboratory confirmed, one was probable and three cases classified as possible. The cases were reported from six regions: Piedmont, Lombardy, Veneto, Marche, Lazio and Puglia. All cases developed complications, including pneumonia (2), keratoconjunctivitis (1) and thrombocytopenia (1). Over half of the cases (n=8, 53%) were between 15 and 39 years of age, however, the highest incidence was among children less than five years (n=3, 1.4 cases per million). Thirteen cases were unvaccinated, one case received one dose and one received two doses.

Relevant epidemiological summary for countries outside the EU/EEA
England, The UK reported 16 new cases in the period from July to September, with an overall of 40 cases reported between January-September 2022. Of the 16 newly reported cases, one was imported from Kenya, the other cases were linked to community transmission in London. One case was vaccinated. Most of the cases were children: nine were less than 10-years-old, including two infants.

Ukraine reported nine cases in January-November 2022 which is an increase of three cases since August 2022.
According to a report by WHO Regional Office for Africa (AFRO), report as of 25 December 2022 (week 52), cases and outbreaks of measles in 2022 were reported in the same countries as reported last month: Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo (DRC), Ethiopia, Guinea, Kenya, Liberia, Mali, Niger, Senegal, Sierra Leone, South Africa, South Sudan, Tanzania, Zambia, Zimbabwe. Due to varying reporting periods by the countries, please visit the latest weekly bulletin available here.
Democratic Republic of the Congo reported over 140 000 measles cases, including 1 700 deaths in 2022. The epidemic is declared in the Provincial Health Division of Kasaï-Oriental with 12 000 cases, including 109 deaths reported in the province in 2022.
According to WHO Pan American Health Organization (PAHO) report (Vol. 28, No. 49-50) in 2022, the week ending 17 December 2022, 124 cases were reported in five countries: the United States of America (76), Brazil (46), Canada (3), Argentina (2), and Ecuador (1).
An outbreak of measles is ongoing in Ohio state, USA, with at least 82 cases, all of whom are children (<18-years-old), of which 32 were hospitalised; 74 of them were unvaccinated. Among the cases, 23 are infants below one year of age, and 36 are children 1-2 years-old. Overall, the US CDC reports 118 cases of measles in 2022 (as of 5 January 2022).

ECDC assessment:

The substantial decline in measles cases reported by EU/EEA countries after March 2020, and continuing through 2022 and 2023, contrasts with the usual annual and seasonal pattern for measles, which peaks during the spring in temperate climates. A similar decrease has been observed in other countries worldwide during the same period. Under-reporting, under-diagnosis, or a real decrease due to the direct or indirect effects of the COVID-19 pandemic measures could explain the observed decline in cases. The lifting of non-pharmaceutical interventions related to the COVID-19 pandemic could lead to measles outbreaks in the EU/EEA. Active measles surveillance and public health measures, including high vaccination uptake, provide the foundation for a proper response to possible increases in the number of cases/outbreaks.

Actions:

ECDC monitors the measles situation through its epidemic intelligence activities, which supplement monthly outputs with measles surveillance data from The European Surveillance System (TESSy) routinely submitted by 29 EU/EEA countries. ECDC published a risk assessment entitled 'Who is at risk of measles in the EU/EEA?' on 28 May 2019.

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

Overview:

Update: Since the previous update published on 5 December 2022, and as of 9 January 2023, no new MERS-CoV cases and no related deaths have been reported by health authorities worldwide or by the World Health Organization.
Summary: Since the beginning of 2022, and as of 9 January 2023, six MERS-CoV cases have been reported in Saudi Arabia (3), Qatar (2), and Oman (1), including one death. All cases were primary cases, and all but one reported contact with camels.
Since April 2012, and as of 9 January 2023, a total of 2 610 cases of MERS-CoV, including 945 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

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 ECDC's rapid risk assessment published on 29 August 2018, which also provides details on the last case reported in Europe.

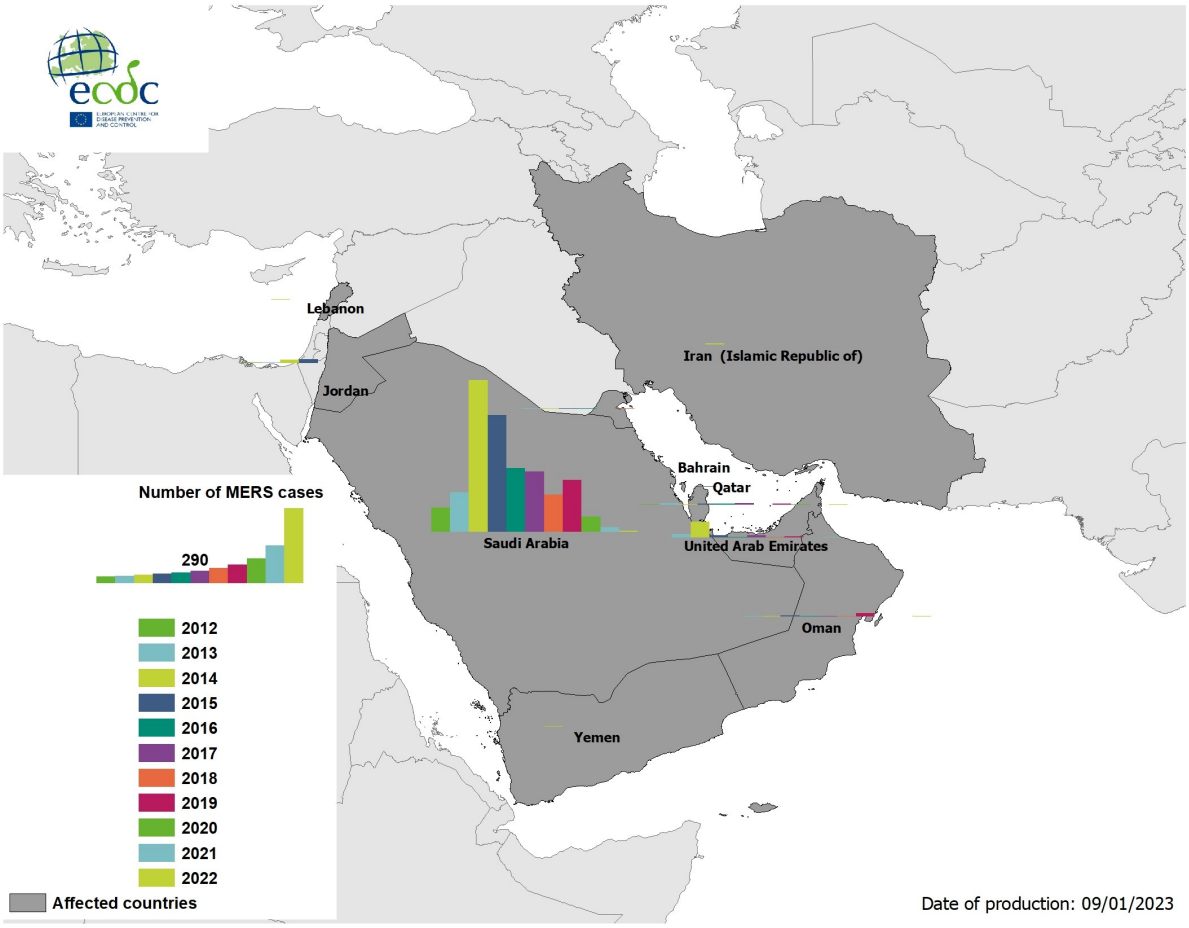
ECDC published a technical report Health emergency preparedness for imported cases of high-consequence infectious diseases in October 2019, which will be useful for EU Member States wanting to assess their level of preparedness for a disease such as MERS. ECDC also published Risk assessment guidelines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

Actions:

ECDC is monitoring this threat through its epidemic intelligence activities and reports on it on a monthly basis.

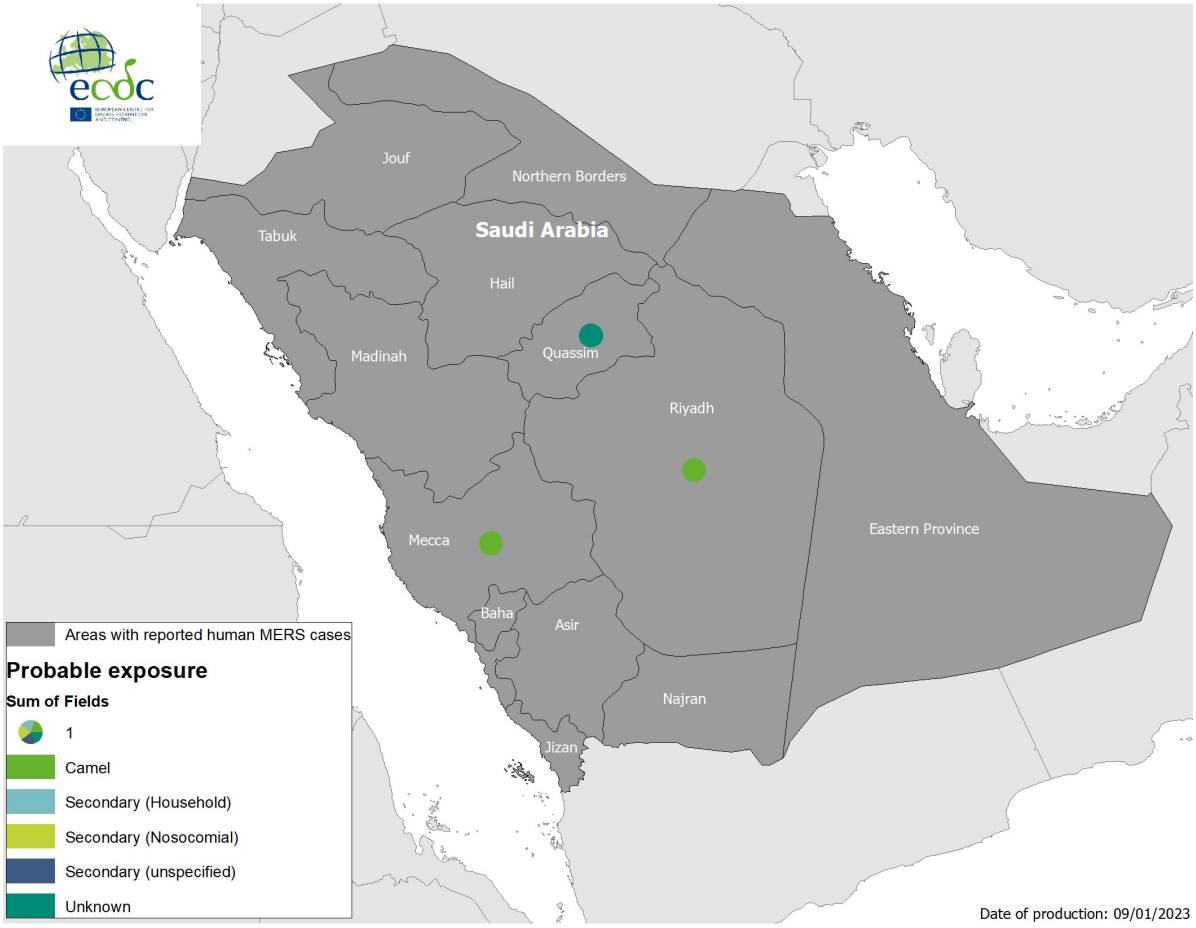
Maps and graphs

Figure 1. Geographical distribution of confirmed MERS-CoV cases by country of infection and year, from April 2012 to 9 January 2023



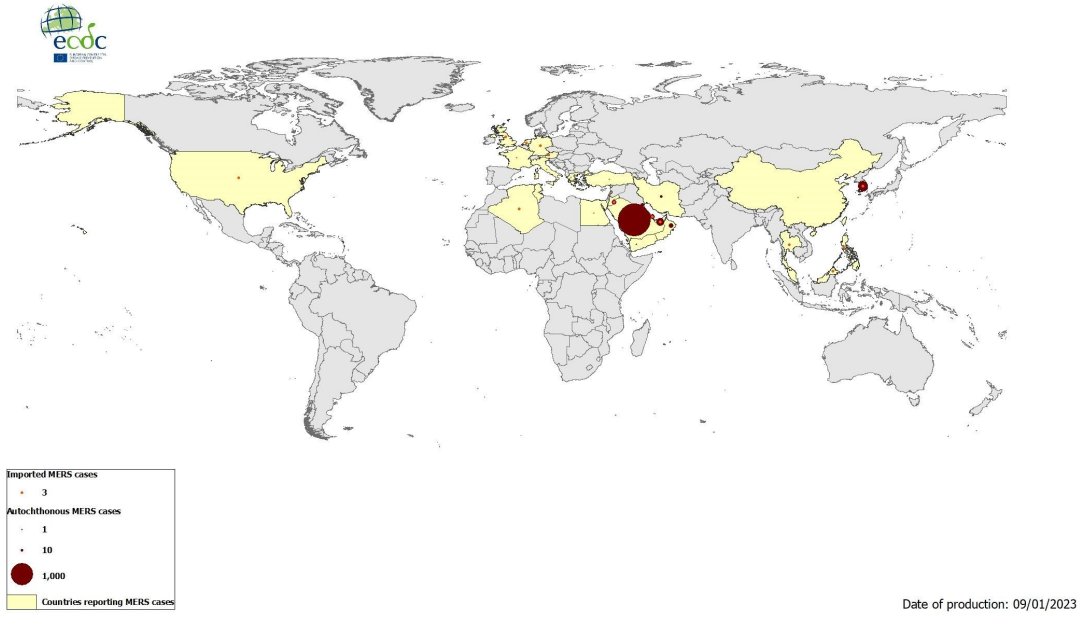
Source: ECDC

Figure 2. Geographical distribution of confirmed MERS-CoV cases in Saudi Arabia by probable region of infection and exposure, from 1 January 2022 to 9 January 2023



Source: ECDC

Figure 3. Geographical distribution of confirmed cases of MERS-CoV by reporting country, April 2012 - January 2023



Source: ECDC