COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 19, 8-14 May 2022

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

COVID-19 associated with SARS-CoV-2 – Multi-country (World) – 2019 - 2022

Opening date: 7 January 2020 Latest update: 13 May 2022

On 31 December 2019, the Wuhan Municipal Health and Health Commission reported a cluster of pneumonia cases of unknown aetiology with a common source of exposure at Wuhan's South China Seafood City market. Further investigations identified a novel coronavirus as the causative agent of respiratory symptoms for these cases. The outbreak rapidly evolved, affecting other parts of China and other countries worldwide. On 30 January 2020, WHO declared that the outbreak of coronavirus disease (COVID-19) constituted a Public Health Emergency of International Concern (PHEIC), accepting the Committee's advice and issuing temporary recommendations under the International Health Regulations (IHR). 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 and eleventh International Health Regulations (IHR) Emergency Committee meeting 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 and 11 April 2022 respectively. The Committee concluded during these meetings that the COVID-19 pandemic continues to constitute a PHEIC.

➔Update of the week

Since week 2022-17 and as of week 2022-18, 3 719 155 new cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) and 13 297 new deaths have been reported.

Since 31 December 2019 and as of week 2022-18, 517 044 187 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 6 270 933 deaths.

As of week 2022-18, 138 837 839 cases and 1 092 498 deaths have been reported in the EU.

The figures reported worldwide and in the EU/EEA are probably an underestimate of the true number of cases and deaths, due to various degrees of under-ascertainment and under-reporting.

The latest situation update for the EU/EEA is available here.

Since the last update on 5 April 2022 and as of 12 May 2022, ECDC has reclassified Omicron sub-lineages BA.4 and BA.5 from variants of interest to variants of concern.

BA.4 and BA.5 were first detected in South Africa in January and February 2022, respectively, and since then they have become the dominant variants there. Both lineages contain the amino-acid substitutions L452R, F486V, and R493Q in the spike receptor binding domain compared to BA.2. Preliminary studies suggest a significant change in antigenic properties of BA.4 and BA.5 compared to BA.1 and BA.2, especially compared to BA.1. In addition, there has been an increasing trend in the variant

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proportions for BA.5 observed in Portugal in recent weeks, accompanied by an increase in COVID-19 case numbers and the rate of test positivity.

The Portuguese National Institute of Health estimated that BA.5 already accounted for ~37% of the positive cases as of 8 May 2022. The estimated daily growth advantage for BA.5 over BA.2 is 13%, which is similar to the 12% daily growth advantage previously reported by South Africa. Assuming such growth rate, BA.5 will become the dominant variant in Portugal by 22 May 2022.

The currently observed growth advantage for BA.4 and BA.5 is probably due to their ability to evade immune protection induced by prior infection and/or vaccination, particularly if this has waned over time. Limited available data from in vitro studies evaluating sera from unvaccinated individuals who have experienced a prior BA.1 infection indicate that both BA.4 and BA.5 are capable of escaping immune protection induced by infection with BA.1. These unvaccinated individuals are unlikely to be protected against symptomatic infection with BA.4 or BA.5, while sera from vaccinated individuals performed better in in vitro studies carried out to date, indicating that protection derived from currently available vaccines does wane over time against the Omicron variant.

There is currently no indication of any change in severity for BA.4/BA.5 compared to previous Omicron lineages.

Overall, the indication is that the presence of these variants could cause a significant increase in COVID-19 cases in the EU/EEA in the coming weeks and months. The overall proportion of BA.4 and BA.5 in the EU/EEA is currently low but the high growth advantages reported suggest that these variants will become dominant in the EU/EEA in the coming months. Based on the limited data currently available, no significant increase in infection severity compared to the circulating lineages BA.1 and BA.2 is expected. However, as in previous waves, if COVID-19 case numbers increase substantially, some level of increased hospital and ICU admissions is likely to follow.

ECDC encourages countries to remain vigilant for signals of BA.4 and BA.5 emergence. Early variant detection critically relies on sensitive and representative testing and genomic surveillance, with timely sequence reporting. Representative testing policies are required to reliably estimate the contribution of these variants to ongoing viral circulation, as well as to accurately determine the extent to which these variants may contribute to any observed increases in severe outcomes in the population, such as increases in hospital or ICU admissions.

The public health benefit of administering a second mRNA COVID-19 booster dose was recently assessed by ECDC to be clearest in those aged 80 years and above and immediate administration of a second booster dose in this population was found to be optimal in situations of continued high or increasing viral circulation.

Continued close epidemiological and vaccine effectiveness monitoring is essential in order to rapidly detect signals of increased SARS-CoV-2 circulation or risk of severe disease among vaccinated individuals. If such signals emerge, a second booster may be considered for some or all adults 60 years and older and for other vulnerable groups. Countries should have plans in place for the rapid deployment of booster doses in these population groups.

For all age groups, it remains a priority to improve COVID-19 vaccine uptake of the primary course and first booster dose in populations who have yet to receive them.

For the latest information on variants, please see ECDC's webpage on variants.

Influenza – Multi-country – Monitoring 2021/2022 season

Opening date: 15 October 2021 Latest update: 13 May 2022

The current circulation of influenza viruses across the WHO European Region is slightly higher than in the 2020/21 season, but still substantially lower than before the COVID-19 pandemic.

➔Update of the week

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Week 18 2022 (02 May – 08 May 2022)
Thirteen of 40 countries across the Region reported widespread influenza activity.

The percentage of all sentinel primary care specimens from patients presenting with influenza-like illness (ILI) or acute respiratory infection (ARI) symptoms that tested positive for an influenza virus decreased to 14% from 17% in the previous week.

Two countries reported seasonal influenza activity above 30% positivity in sentinel primary care: Finland (70%) and the Netherlands (35%).

Both influenza type A and type B viruses were detected, with A(H3) viruses being dominant across all monitoring systems.

Hospitalised patients with laboratory-confirmed influenza infections were infected with both type A and B viruses.

Arrival of people displaced from Ukraine to the EU following Russia's aggression in Ukraine - Multistate – 2022

Opening date: 24 February 2022 Latest update: 13 May 2022

On 24 February 2022, Ukraine declared martial law following Russia's invasion. As the invasion escalates, large numbers of displaced people are seeking shelter in neighbouring countries.

➔Update of the week
According to the United Nations, between 24 February and as of 11 May, the total number of people who fled Ukraine reached 6 029 705. In total, 3 272 943 have crossed the Polish border; 895 828 the Romanian; 583 066 the Hungarian; and 409 527 the Slovakian. In addition, Czechia's Ministry of the Interior reported 338 830 special visa concessions to Ukrainian applicants as of 11 May. Outside of the EU/EEA, 459 546 people have sought safety in the Republic of Moldova (United Nations). As of 5 May 2022, overall, 2.4 million people have moved beyond the neighbouring countries (UNCHR). In addition, according to United Nations, up to 1 626 500 people have returned to Ukraine since 28 February.

On 12 May 2022, the World Health Organization published the eleventh situation report on the emergency in Ukraine, according to which approximately eight million people are internally displaced within Ukraine.

No major outbreaks or other events related to communicable diseases have been detected since the previous update.

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

Opening date: 9 February 2011 Latest update: 13 May 2022

A sharp decrease in measles cases was observed globally during the COVID-19 pandemic. A few measles cases are now being reported in the EU/EEA, including in countries that had previously eliminated or interrupted endemic transmission.

➔Update of the week
Since the previous monthly measles update in ECDC's Communicable Disease Threats Report (CDTR) on 15 April 2022, 16 new cases have been reported by five countries in the EU/EEA: Bulgaria (1), Germany (6), Hungary (2), Ireland (1), and Poland (6). Other countries did not report new cases of measles.

So far, in 2022, no deaths have been reported in the EU/EEA.

Relevant updates outside the EU/EEA are available for Ukraine, the Republic of Congo, Democratic Republic of the Congo, WHO Regional Office for Europe (EURO), WHO Regional Office for Africa (WHO AFRO), WHO Pan American Health Organization (PAHO) and WHO Regional Office for Eastern Mediterranean (EMRO). No updates were available for WHO Regional Office for South-East Asia (SEARO), and WHO Western Pacific Regional Office (WPRO).

WHO and UNICEF in their press release published on 27 April 2022 warn of 'serious outbreaks of vaccine-preventable illnesses' as the number of reported measles cases increased by 79% in January and February 2022.

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Non EU Threats

New! Monkeypox – United Kingdom – 2022

Opening date: 10 May 2022 Latest update: 13 May 2022

On 7 May 2022, the UK Health Security Agency reported a case of monkeypox in a person with a recent travel history from Nigeria, which is where they are believed to have contracted the infection, before travelling to the UK.

Source: UKHSA

➔Update of the week

On 29 April 2022 the case reported developing a rash and flew back from Lagos to London on 3-4 May. Due to the development of more systemic symptoms, the case presented to a hospital in London on 4 May, where the suspicion of monkeypox was raised at an early stage, ensuring rapid isolation and use of appropriate personal protective equipment. The patient has a recent travel history from Nigeria, which is where they are believed to have contracted the infection, before travelling to the UK. Health authorities rapidly set up an incident management team to coordinate identification and management of contacts. Further follow-up is underway for contacts on the flight from Nigeria to the UK.

In recent years, there have been several cases of monkeypox reported in the United Kingdom. Two imported cases from Nigeria and one case of nosocomial transmission in 2018, one imported case from Nigeria in 2019 and one imported case from Nigeria, with two secondary cases in 2021.

Increase in hepatitis cases of unknown aetiology in children – Multicountry – 2022

Opening date: 13 April 2022 Latest update: 13 May 2022

On 5 April 2022, an increase in acute hepatitis cases of unknown aetiology among previously healthy children aged under 10 years was reported by the United Kingdom (UK). Most cases identified by the UK presented with symptoms from March 2022 onwards. Since additional cases have been reported from the EU/EEA and globally.

➔Update of the week

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EU/EAA:
As of 12 May 2022, 115 cases of acute hepatitis among children aged 16 and under have been reported from 14 EU/EEA countries (Austria [2], Belgium [9], Cyprus [2], Denmark [6], France [2], Greece [3] Ireland [6], Italy [35], the Netherlands [6], Norway [4], Poland [1], Portugal [8], Spain [22] and Sweden [9]). Among these cases, six required a liver transplant.

On 12 May 2022, public health authorities in Ireland announced one death associated with hepatitis of unknown aetiology in a child under 12 years of age.

Non – EU/EEA:
As of 12 May 2022, the UKHSA has identified a total of 176 children, aged 10 and under, with acute hepatitis of unknown aetiology. Of these cases, 11 children have received a liver transplant. The cases are predominantly children under 5 years who initially presented with gastrointestinal symptoms (such as diarrhoea and nausea) followed by the onset of jaundice and acute hepatitis. A second detailed technical briefing on the investigations among the UK cases was published by the UKHSA on 6 May 2022.

Outside of EU/EEA and the UK, as of 12 May 2022, there are at least 201 cases of acute hepatitis among children. Cases have been reported by 16 countries: Argentina [9], Brazil [28], Canada [11], Costa Rica [2], Guatemala [1], Indonesia [15], Israel [12], Japan [7], Malaysia [1], Moldova [1], Palestine* [1], Panama [1], Serbia [1], Singapore [1], South Korea [1] and the United States [109].

The total number of cases reported worldwide is 492, including 12 deaths reported from Ireland [1], Indonesia [5], Palestine* [1] and the United States [5].

**This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue*.

Disclaimer: *Data presented in this update are compiled from official national reports or, if not available, from public sources quoting national authorities. Where possible, cases are classified according to the EU/EEA case definition. Media reports might not include complete information on testing, so classification of cases is not always possible. These are presented as 'cases under investigation'. Data include both probable cases, according to the case definition used in the EU/EEA, and cases under investigation. In some cases, the testing strategy has not been officially confirmed.*

As of 12 May 2022, a total of 232 cases have been reported to ECDC and WHO Regional Office for Europe from 14 European countries through the ECDC-based TESSY system. The majority (75.9%) of cases are <5 years of age. Of 143 cases with information, 22 (15.4%) were admitted to an intensive care unit. Of the 98 cases for which this information was available, six (6.1%) have received a liver transplant.

Overall, 151 cases were tested for adenovirus by any specimen type, of which 90 (59.6%) tested positive. The positivity rate was the highest in whole blood specimens (68.9%).
Of the 173 cases PCR tested for SARS-CoV-2, 20 (11.6%) tested positive. Serology results for SARS-CoV-2 were only available for 19 cases, of which 14 (73.7%) had a positive finding. Of the 56 cases with data on vaccination, 47 (83.9%) were unvaccinated.

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II. Detailed reports

COVID-19 associated with SARS-CoV-2 – Multi-country (World) – 2019 - 2022

Opening date: 7 January 2020 Latest update: 13 May 2022

Epidemiological summary

Since 31 December 2019 and as of week 2022-18, 517 044 187 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 6 270 933 deaths.

Cases have been reported from:
Africa: 11 733 295 cases; the five countries reporting most cases are South Africa (3 841 388), Morocco (1 165 247), Tunisia (1 040 712), Egypt (515 645) and Libya (501 919).
Asia: 130 337 569 cases; the five countries reporting most cases are India (43 105 401), South Korea (17 564 999), Vietnam (10 678 359), Japan (8 082 469) and Iran (7 224 701).
America: 154 406 110 cases; the five countries reporting most cases are United States (81 863 725), Brazil (30 564 536), Argentina (9 100 927), Colombia (6 093 645) and Mexico (5 745 652).
Europe: 213 041 317 cases; the five countries reporting most cases are France (28 967 440), Germany (25 347 256), United Kingdom (22 127 666), Russia (18 227 666) and Italy (16 798 998).
Oceania: 7 525 191 cases; the five countries reporting most cases are Australia (6 165 105), New Zealand (992 732), French Polynesia (72 786), Fiji (64 725) and New Caledonia (60 885).
Other: 705 cases have been reported from an international conveyance in Japan.

Deaths have been reported from:
Africa: 253 072 deaths; the five countries reporting most deaths are South Africa (100 523), Tunisia (28 566), Egypt (24 613), Morocco (16 070) and Ethiopia (7 510).
Asia: 1 296 988 deaths; the five countries reporting most deaths are India (524 093), Indonesia (156 381), Iran (141 165), Philippines (60 439) and Vietnam (43 057).
America: 2 735 168 deaths; the five countries reporting most deaths are United States (997 526), Brazil (664 139), Mexico (324 465), Peru (212 957) and Colombia (139 809).
Europe: 1 974 324 deaths; the five countries reporting most deaths are Russia (376 946), United Kingdom (176 412), Italy (164 489), France (160 693) and Germany (136 746).
Oceania: 11 375 deaths; the five countries reporting most deaths are Australia (7 454), Fiji (862), New Zealand (812), Papua New Guinea (651) and French Polynesia (648).
Other: 6 deaths have been reported from an international conveyance in Japan.

EU/EEA:
As of week 2022-18, 140 967 218 cases have been reported in the EU/EEA: France (28 967 440), Germany (25 347 256), Italy (16 798 998), Spain (12 085 095), Netherlands (8 060 411), Poland (6 008 769), Austria (4 226 251), Belgium (4 095 446), Portugal (3 970 408), Czechia (3 909 062), Greece (3 364 351), Romania (2 830 109), Denmark (2 807 602), Sweden (2 503 546), Slovakia (2 285 387), Norway (1 925 202), Hungary (1 910 029), Ireland (1 525 312), Lithuania (1 397 680), Bulgaria (1 159 150), Croatia (1 127 735), Finland (1 041 130), Slovenia (1 015 982), Latvia (822 126), Cyprus (625 720), Estonia (558 886), Luxembourg (301 014), Iceland (187 018), Malta (92 944) and Liechtenstein (17 159).

As of week 2022-18, 1 095 674 deaths have been reported in the EU/EEA: Italy (164 489), France (160 693), Germany (136 746), Poland (116 512), Spain (105 151), Romania (61 493), Hungary (45 124), Czechia (40 174), Bulgaria (36 966), Belgium (31 054), Greece (29 414), Portugal (22 468), Netherlands (22 280), Austria (19 813), Slovakia (19 448), Sweden (18 867), Croatia (15 888), Lithuania (9 184), Slovenia (7 695), Ireland (7 131), Latvia (6 401), Denmark (5 254), Finland (4 577), Norway (3 006), Estonia (2 432), Luxembourg (1 298), Cyprus (1 278), Malta (668), Iceland (114) and Liechtenstein (56).

The latest situation update for the EU/EEA is available here.

In week 2022-18, in the EU/EEA overall, the reported weekly cases decreased by – 20.4% compared to the previous week. Weekly increases were observed in Portugal. The countries with the highest 14-day notification rates per 100 000 population are: Luxembourg (2 558), Portugal (1 554), Germany (1 266), Italy (1 119) and Cyprus (1 058). Overall, all countries except for Portugal reported a decrease in the weekly cases.

As of week 13 2022, ECDC has discontinued the assessment of each country's epidemiological situation using its composite score, mainly due to changes in testing strategies affecting the reliability of the indicators for all-age case rates and test positivity.

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For the latest COVID-19 country overviews, please see the dedicated web page.

Since the last update on 5 April 2022 and as of 12 May 2022, ECDC has reclassified Omicron sub-lineages BA.4 and BA.5 from variants of interest to variants of concern.

BA.4 and BA.5 were first detected in South Africa in January and February 2022, respectively, and since then they have become the dominant variants there. Both lineages contain the amino-acid substitutions L452R, F486V, and R493Q in the spike receptor binding domain compared to BA.2. Preliminary studies suggest a significant change in antigenic properties of BA.4 and BA.5 compared to BA.1 and BA.2, especially compared to BA.1. In addition, there as been an increasing trend in the variant proportions for BA.5 observed in Portugal in recent weeks, accompanied by an increase in COVID-19 case numbers and the rate of test positivity.

The Portuguese National Institute of Health estimated that BA.5 already accounted for ~37% of the positive cases as of 8 May 2022. The estimated daily growth advantage for BA.5 over BA.2 is 13%, which is similar to the 12% daily growth advantage previously reported by South Africa. Assuming such a growth rate, BA.5 will become the dominant variant in Portugal by 22 May 2022.

The currently observed growth advantage for BA.4 and BA.5 is probably due to their ability to evade immune protection induced by prior infection and/or vaccination, particularly if this has waned over time. Limited available data from in vitro studies evaluating sera from unvaccinated individuals who have experienced a prior BA.1 infection indicate that both BA.4 and BA.5 are capable of escaping immune protection induced by infection with BA.1. These unvaccinated individuals are unlikely to be protected against symptomatic infection with BA.4 or BA.5, while sera from vaccinated individuals performed better in in vitro studies carried out to date, indicating that protection derived from currently available vaccines does wane over time against the Omicron variant.

There is currently no indication of any change in severity for BA.4/BA.5 compared to previous Omicron lineages.

Overall, the indication is that the presence of these variants could cause a significant overall increase in COVID-19 cases in the EU/EEA in the coming weeks and months. The overall proportion of BA.4 and BA.5 in the EU/EEA is currently low but the high growth advantages reported suggest that these variants will become dominant in the EU/EEA in the coming months. Based on the limited data currently available, no significant increase in infection severity compared to the circulating lineages BA.1 and BA.2 is expected. However, as in previous waves, if COVID-19 case numbers increase substantially, some level of increased hospital and ICU admissions is likely to follow.

ECDC encourages countries to remain vigilant for signals of BA.4 and BA.5 emergence. Early variant detection critically relies on sensitive and representative testing and genomic surveillance, with timely sequence reporting. Representative testing policies are required to reliably estimate the contribution of these variants to ongoing viral circulation, as well as to accurately determine the extent these variants may contribute to any observed increases in severe outcomes in the population, such as increases in hospital or ICU admissions.

The public health benefit of administering a second mRNA COVID-19 booster dose was recently assessed by ECDC to be clearest in those aged 80 years and above and immediate administration of a second booster dose in this population was found to be optimal in situations of continued high or increasing viral circulation.

Continued close epidemiological and vaccine effectiveness monitoring is essential in order to rapidly detect signals of increased SARS-CoV-2 circulation or risk of severe disease among vaccinated individuals. If such signals emerge, a second booster may be considered for some or all adults 60 years and older and for other vulnerable groups. Countries should have plans in place for the rapid deployment of booster doses in these population groups.

For all age groups, it remains a priority to improve COVID-19 vaccine uptake of the primary course and first booster dose in populations who have yet to receive them.

For the latest information on variants, please see ECDC's webpage on variants.

Public Health Emergency of International Concern (PHEIC):
On 30 January 2020, the World Health Organization 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, eight, ninth, tenth and eleventh International Health Regulations (IHR) Emergency Committee meeting 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 and 11 April 2022 respectively. The Committee concluded during these meetings that the COVID-19 pandemic continues to constitute a PHEIC.

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ECDC assessment

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

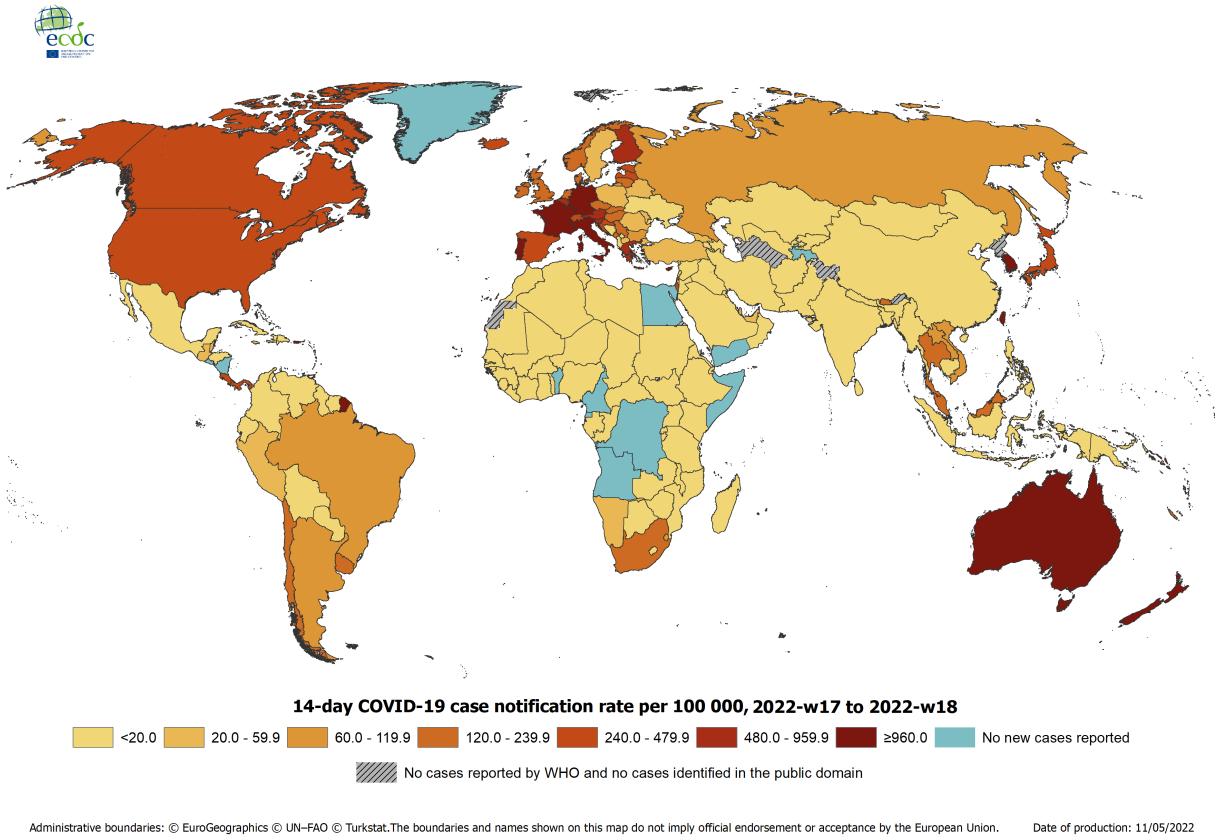
Actions

On 27 January 2022, ECDC published its Rapid Risk Assessment 'Assessment of the further emergence and potential impact of the SARS-CoV-2 Omicron variant of concern in the EU/EEA, 19th update'.

A dashboard with the latest updates is available on ECDC's website. For the latest update on SARS-CoV-2 variants of concern, please see ECDC's web page on variants.

Geographic distribution of 14-day cumulative number of reported COVID-19 cases per 100 000 population, worldwide, 2022-w17 to 2022-w18

Source: ECDC



Influenza – Multi-country – Monitoring 2021/2022 season

Opening date: 15 October 2021 Latest update: 13 May 2022

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Epidemiological summary

Week 18 2022 (02 May – 08 May 2022)
Thirteen of 40 countries across the Region reported widespread influenza activity.

The percentage of all sentinel primary care specimens from patients presenting with influenza-like illness (ILI) or acute respiratory infection (ARI) symptoms that tested positive for an influenza virus decreased to 14% from 17% in the previous week.

Two countries reported seasonal influenza activity above 30% positivity in sentinel primary care: Finland (70%) and the Netherlands (35%).

Both influenza type A and type B viruses were detected, with A(H3) viruses being dominant across all monitoring systems.

Hospitalised patients with laboratory-confirmed influenza infections were infected with both type A and B viruses.

2021/22 season overview
For the Region as a whole, influenza activity reached levels well above that observed in the 2020/21 season.

Influenza activity, based on sentinel primary care specimens from patients presenting with ILI or ARI symptoms, first peaked in week 52/2021 (when it reached 19% positivity), before declining until week 4/2022, when it increased again to reach a plateau phase (25-30% positivity) between weeks 10 and 15/2022 (this represents late activity compared to most previous seasons) and a subsequent two week decline.

Different levels of activity have been observed between the countries and areas of the Region, with a dominance of A(H3) viruses in most countries.

During the influenza Vaccine Composition Meeting for the northern hemisphere 2022/23 season, held in February 2022, WHO recommended updating the A(H3N2) and the B/Victoria-lineage components. The full report can be found here.

Preliminary results of 2021-2022 seasonal influenza vaccine effectiveness (VE) estimates from the United States showed that VE against medically attended outpatient acute respiratory infection associated with A(H3N2), the dominant influenza virus in circulation, was 16% (95% CI = -16% to 39%).

The European I-MOVE network estimated influenza VE using a multicentre test-negative design among symptomatic patients presenting at primary care between October 2021 and March 2022. Preliminary influenza VE against influenza A among seven study sites and among all ages was 36% (95% CI: 13–53) and 41% (95% CI: 15–59) among those aged 18–64 years. All-age VE against influenza A(H3N2) was 35% (95% CI: 6–54) and 37% (95% CI: 3–59) among those aged 18–64 years. There were too few influenza-positive cases among other age groups to allow VE estimations.

In Sweden, the vaccine effectiveness against laboratory-confirmed influenza was estimated to be 47% for individuals over 65 years of age.

According to preliminary data in mainland France, the VE was estimated to be 50% (95% CI: 14-71) against all circulating influenza viruses, 77% (95% CI: 36-92) for A(H1N1)pdm09 and 31% (95% CI: -29-64) for A(H3N2).

For children aged two to six years in Denmark, the estimated VE against influenza A viruses was estimated at 63% (95% CI: 10.9–84.4) in those hospitalised, and 64% (95% CI: 50.5–74.1) in those non-hospitalised.

With increased circulation of influenza viruses clinicians should consider early antiviral treatment of patients in at-risk groups with influenza virus infection, according to local guidance, to prevent severe outcomes. The majority of viruses analysed to date have remained susceptible to neuraminidase inhibitors and baloxavir marboxil.

Source: Flu News Europe

ECDC assessment

For the Region as a whole, influenza activity has increased and remains well above what was seen in 2020/21, but is still at lower levels compared with seasons prior to the COVID-19 pandemic.

With increased circulation of influenza virus, clinicians should consider early antiviral treatment of patients in at-risk groups with influenza virus infection, according to local guidance, to prevent severe outcomes. Viruses analysed so far have remained

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susceptible to neuraminidase inhibitors and baloxavir marboxil.

Actions

ECDC and WHO monitor influenza activity in the WHO European Region. Data will be updated on a weekly basis and are available on the Flu News Europe website.

Arrival of people displaced from Ukraine to the EU following Russia's aggression in Ukraine - Multistate – 2022

Opening date: 24 February 2022 Latest update: 13 May 2022

Epidemiological summary

According to the United Nations, between 24 February and as of 11 May, the total number of people who fled Ukraine reached 6 029 705. In total, 3 272 943 have crossed the Polish border; 895 828 the Romanian; 583 066 the Hungarian; and 409 527 the Slovakian. In addition, Czechia's Ministry of the Interior reported 338 830 special visa concessions to Ukrainian applicants as of 11 May. Outside of the EU/EEA, 459 546 people have sought safety in the Republic of Moldova (United Nations). As of 5 May 2022, overall, 2.4 million people have moved beyond the neighbouring countries (UNCHR). In addition, according to United Nations, up to 1 626 500 people have returned to Ukraine since 28 February.

On 12 May 2022, the World Health Organization published the eleventh situation report on the emergency in Ukraine, according to which approximately eight million persons are internally displaced within Ukraine.

No major outbreaks or other events related to communicable diseases have been detected since the previous update.

Summary: On 24 February 2022, Ukraine declared martial law following Russia's invasion. Shortages of food and water supplies; lack of sanitation, electrical power, transportation and healthcare provision and the overall lack of security are resulting in large numbers of people fleeing Ukraine. The majority of these are women, children and elderly people. They are finding temporary shelter in neighbouring countries and are currently reported to be mostly dispersing into the community. A number of dedicated reception centres have been set up.

Sources: Relief Web | United Nations | WHO | European Union Asylum Agency

ECDC assessment

The displacement of large numbers of people into neighbouring countries, irrespective of the type of accommodation, will result in difficulties for the displaced people in accessing healthcare, meaning that they may be at greater risk of complications from acute or chronic conditions. Furthermore, situations of overcrowding could favour outbreaks of infectious diseases, in particular respiratory infections. This includes influenza and COVID-19, which are currently circulating in some of the reception countries, as well as tuberculosis (TB). Detection of cases of influenza, COVID-19 or TB among the displaced population is not unexpected. Vaccination coverage in Ukraine is sub-optimal for several vaccine-preventable diseases, including COVID-19. Vaccination against poliomyelitis and measles should be considered as a priority, especially among the paediatric population, as well as DTP (DTaP-IPV combination vaccine for children, with Hib-component only for children <6 years; Td for adults). In addition, COVID-19 vaccination should be offered, and the elderly and other risk groups should be prioritised. Public health authorities should increase awareness among healthcare providers in order to detect priority infectious diseases that could present among displaced Ukrainian people.

In recent weeks, the number of displaced people entering EU/EEA countries from Ukraine has stabilised. The situation is dynamic and current trends may evolve further in the upcoming weeks. Secondary population movements are expected once displaced populations enter into EU/EEA countries. The number of Ukrainian people seeking asylum and temporary protection in EU/EEA countries could serve as a reference to estimate secondary population movements.

Actions

ECDC is working closely with the countries that are receiving displaced persons from Ukraine, in collaboration with the European Commission, other Member States, WHO and other international partners. ECDC will continue to closely monitor the situation through epidemic intelligence activities, regular meetings with the public health authorities of the involved countries and field activities. To date, the following documents have been published by ECDC to provide guidance to healthcare and frontline workers: *Operational public health considerations for the prevention and control of infectious diseases in the context of the*

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military aggression in Ukraine, *Testing for tuberculosis infection and screening for tuberculosis disease among refugees arriving in EU from Ukraine*, *Information to guide individual health assessment of refugees fleeing the war in Ukraine - Considerations for healthcare workers*, *Guidance for the prevention and control of COVID-19 in temporary reception centres in the context of the large numbers of people fleeing Ukraine* and *Ensuring high-quality of HIV care for displaced people from Ukraine*.

In addition, ECDC has opened an item in EpiPulse and encourages Member States to report public health events related to the crisis in EpiPulse and to share documents relevant to the response that could be of interest to other Member States.

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

Opening date: 9 February 2011 Latest update: 13 May 2022

Epidemiological summary

Since the previous monthly measles update in ECDC's Communicable Disease Threats Report (CDTR) on 15 April 2022, 16 new cases have been reported by five countries in the EU/EEA: Bulgaria (1), Germany (6), Hungary (2), Ireland (1), and Poland (6). Other countries did not report new cases of measles.

So far, in 2022, no deaths have been reported in the EU/EEA.

Relevant updates outside the EU/EEA are available for Ukraine, the Republic of Congo, Democratic Republic of the Congo, WHO Regional Office for Europe (EURO), WHO Regional Office for Africa (WHO AFRO), WHO Pan American Health Organization (PAHO) and WHO Regional Office for Eastern Mediterranean (EMRO). No updates were available for WHO Regional Office for South-East Asia (SEARO), and WHO Western Pacific Regional Office (WPRO).

WHO and UNICEF in their press release published on 27 April 2022 warn of 'serious outbreaks of vaccine-preventable illnesses' as a number of reported measles cases increased by 79% in January and February 2022. Worldwide 17 338 measles cases were reported in this period, compared to 9 665 reported in the same period in 2021. Over 43 million children missed vaccinations in 2020 and 2019, indicating a risk of outbreaks of measles along with other vaccine-preventable diseases. The press release is available here.

Disclaimer: *the monthly measles report published in the CDTR provides the most recent data on cases and outbreaks from the publicly available information of 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 updates since last month

Bulgaria reported one case in 2022 as of week 18 (ending on 8 May 2022)

Germany reported 33 confirmed and suspected cases in weeks 1 to 18 in 2022 (ending 08 May 2022), an increase of six cases since week 14 (ending 10 April 2022).

Hungary reported three cases in week 15 (ending on 17 April 2022) an increase of two cases since week 4 (ending 30 January 2022).

Ireland reported three cases of measles in 2022 as of week 17 (ending 30 April 2022) and increase of one case since week 13 (ending 2 April 2022).

Poland reported 12 cases in January–April 2022, an increase of six cases since the previous monthly report for January-March 2022.

Relevant epidemiological summary for countries outside the EU/EEA

A global provisional monthly measles and rubella overview by month and country is available from the WHO website.

Ukraine reported three cases of measles in January to March 2022, according to data available on 10 May 2022.

According to WHO's Regional Office for Europe (EURO) data for January–March 2022 (data access on 10 May 2022) sporadic cases of measles were reported in the following non-EU/EEA countries: Bosnia and Herzegovina (1), Georgia (2), Russia (4), Tajikistan (60), Turkey (2), Ukraine (2), United Kingdom (1). According to the same report in the EU/EEA, confirmed cases were

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reported in Belgium (2), France (1), Germany (5), Ireland (1), Italy (1), Poland (3), Romania and (1). Numbers of measles cases are provided to WHO for EU/EEA countries via ECDC (TESSy data).

According to WHO Regional Office for Africa (AFRO) report as of 1 May 2022 (week 18), cases and outbreaks of measles in 2022 were reported in the following countries: Cameroon, Chad, the Republic of Congo (Congo), Democratic Republic of the Congo (DRC), Ethiopia, Guinea, Liberia, Mali, Mozambique, Niger, Nigeria, Sierra Leone, South Sudan, Togo. Due to varying reporting periods by the countries please visit the latest weekly bulletin available here. According to the same bulletin, Congo reported 5 594 confirmed measles cases, including 132 deaths (CFR: 2.3%) between 1 January 2022 and 27 March 2022. Confirmed outbreaks have been reported in 21 of 52 districts. Of all cases, 56.6% are children below 5 years of age, the same age group is seen in 83% of measles related deaths. Vaccination coverage is low in the country with 4% of infants (less than 12 months of age) vaccinated, and 18% of children 12–59 months of age who received at least one dose of measles vaccine. In the previous month, Congo reported an outbreak of measles with over 3 000 cases. The outbreak of measles is continuing in DRC where 37 573 suspected measles cases have been reported, including 585 measles-related deaths (CFR: 1.6%) in the period from 1 January 2022 to 10 April. Confirmed outbreaks are reported in 21 out of 26 provinces. Provinces with a large number of reported suspected cases are Tanganyika, Haut Lomami, Sud Ubangi, Maniema, Haut Katanga and Sankuru.

According to WHO's Pan American Health Organization (PAHO) report (Vol. 28, No. 17) in 2022 week 17 (ending 30 April 2022) 21 cases were reported in four countries: Brazil (17), the United States of America (2), Argentina (1), and Canada (1).

According to the WHO Regional Office for Eastern Mediterranean (EMRO) report for January–February 2022, 2 343 measles cases (confirmed, Epi-linked and clinically compatible) were reported in 11 countries: Afghanistan, Iran, Iraq, Kuwait, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, the United Arab Emirates and Yemen. Most of the cases were reported by Afghanistan (1 057) and Pakistan (546).

ECDC assessment

The substantial decline in measles cases reported by EU/EEA countries after March 2020, and continuing through 2022, 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 COVID-19 pandemic measures could explain the observed decline in cases. 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) for 30 EU/EEA countries. ECDC published a risk assessment entitled 'Who is at risk of measles in the EU/EEA?' on 28 May 2019.

New! Monkeypox – United Kingdom – 2022

Opening date: 10 May 2022 Latest update: 13 May 2022

Epidemiological summary

On 29 April 2022 the case reported developing a rash and flew back from Lagos to London on 3-4 May. Due to the development of more systemic symptoms, the case presented to a hospital in London on 4 May, where the suspicion of monkeypox was raised at an early stage ensuring rapid isolation and use of appropriate personal protective equipment. The patient has a recent travel history from Nigeria, which is where they are believed to have contracted the infection, before travelling to the UK. Health authorities rapidly set up an incident management team to coordinate identification and management of contacts. Further follow-up is underway for contacts on the flight from Nigeria to the UK.

In recent years, there have been several cases of monkeypox reported in the United Kingdom. Two imported cases from Nigeria and one case of nosocomial transmission in 2018, one imported case from Nigeria in 2019 and one imported case from Nigeria, with two secondary cases in 2021.

ECDC assessment

The likelihood of further spread of the virus is very low due to its moderate transmissibility. However, infections among close contacts cannot be excluded.

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ECDC has previously published a rapid risk assessment, Monkeypox cases in the UK imported by travellers returning from Nigeria, 2018, and a factsheet for health professionals on monkeypox.

Actions

ECDC will continue to monitor this event through epidemic intelligence activities and report relevant news on an ad-hoc basis.

Increase in hepatitis cases of unknown aetiology in children – Multicountry – 2022

Opening date: 13 April 2022 Latest update: 13 May 2022

Epidemiological summary

On 5 April 2022, the UK reported an increase in acute hepatitis cases of unknown aetiology among previously healthy children aged under 10 years from Scotland. Laboratory testing excluded hepatitis types A, B, C, D and E in all cases. On 12 April, the United Kingdom reported that in addition to the cases in Scotland there were approximately 61 further similar cases under investigation in England, Wales and Northern Ireland. These cases presented clinically with symptoms and signs of severe acute hepatitis, including increased levels of liver enzymes (aspartate aminotransaminase/ aspartate transaminase (AST) or alanine aminotransaminase/ alanine transaminase (ALT) greater than 500 IU/L) and jaundice. Some of the cases reported gastrointestinal symptoms such as abdominal pain, diarrhoea and vomiting in the preceding weeks. Only rarely did cases present with fever.

Sources: UK Health Security Agency | Eurosurveillance | Media: Austria, Cyprus, the Netherlands, Poland, Portugal | SSI Denmark | Sante Publique France | Sciensano Belgian Institute for Health
US CDC | Israeli Ministry of Health | Japan Ministry of Health | Wisconsin Department of Health | Indonesian Ministry of Health | Palestinian Ministry of Health | media 1, 2, 3, 4, 5, 6 | direct reports to ECDC

ECDC assessment

The current leading hypothesis is that a cofactor affecting young children having an adenovirus infection, which would be mild in normal circumstances, triggers a more severe infection or immune-mediated liver damage. Other aetiologies (e.g. other infectious or toxic agents) are still under investigation and have not been excluded but are considered less plausible. The disease pathogenesis and routes of transmission are also still unknown. The disease is quite rare and evidence on human-to-human transmission remains unclear; cases in the EU/EEA are sporadic with an unclear trend. As a result, the risk for the European paediatric population cannot be accurately assessed. However, considering the reported cases with acute liver failure, with some cases requiring liver transplantation, the potential impact for the affected paediatric population is considered high. Access to highly specialised paediatric intensive care and transplantation services may further impact outcomes. Considering the unknown aetiology, the affected paediatric population, and the potential severe outcome, this currently constitutes a public health event of concern.

Actions

ECDC continues to work in collaboration with countries where cases have been reported, WHO and partner organisations to support the ongoing investigations and to facilitate the sharing of information and tools for investigations.

ECDC has established reporting of case-based data for cases of acute hepatitis of unknown aetiology in TESSy. The reporting protocol is available here. Reporting should be based on the case definition described in the rapid risk assessment published on 28 April 2022, and reproduced below. A summary of cases so far reported to TESSy is available in the ECDC and WHO joint surveillance bulletin on hepatitis outbreak published on 13 May 2022.

It is essential to establish surveillance at the national level for EU/EEA countries as soon as possible to collect detailed epidemiological, clinical, virological, and other information, including toxicological analyses, on cases. Additional information for hypothesis testing should be collected in the context of analytical studies looking at other factors and potential co-factors such as recent infections, personal and environmental determinants. Specific studies should be designed to identify risk factors for infection and for severe illness, to investigate routes of potential transmission, to describe the full clinical spectrum, and to ascertain whether the same aetiological agent causes different clinical presentations depending on age and other conditions. ECDC will provide guidance and coordination to EU/EEA countries planning to set up such studies.
Further investigations include an assessment of the underlying level of acute viral infections circulating in the community, in particular adenoviruses, by age, and whether this is above what would normally be expected.

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It is also essential to review available data sources to determine whether the number of cases reported are above what would be expected.

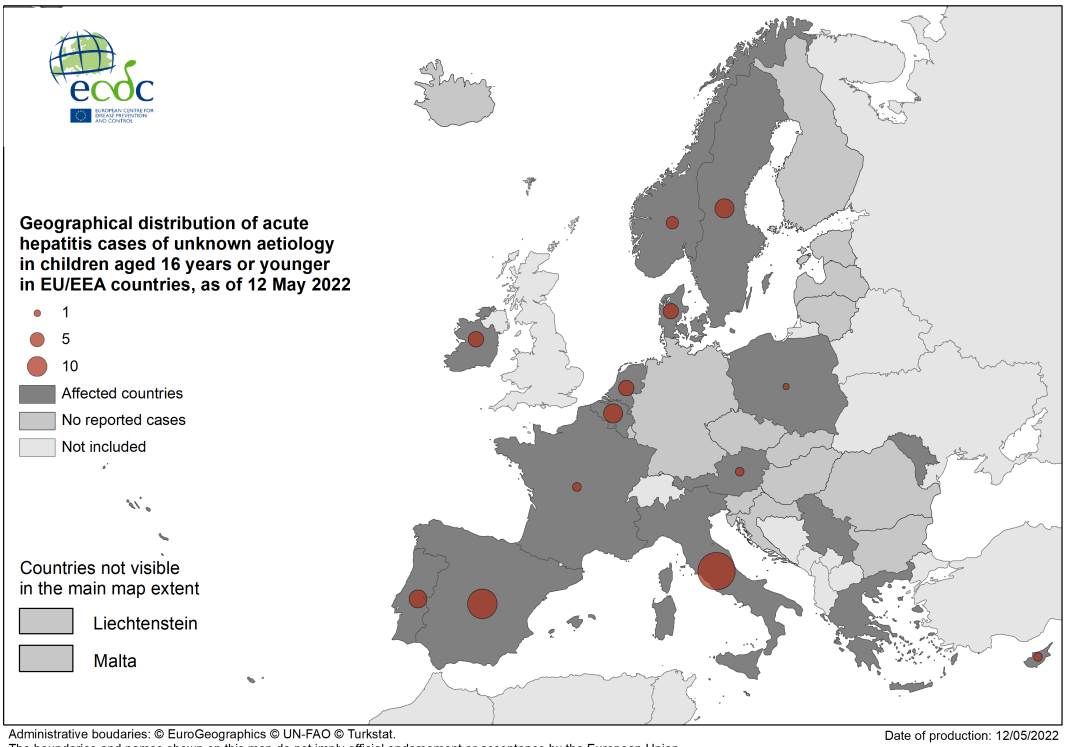
On 11 May 2022, ECDC published an epidemiological update on hepatitis of unknown aetiology in children, which is available on its website.
An EpiPulse item is available to Member States to inform and facilitate the communication between Member States and ECDC. Member States are encouraged to report cases in TESSy and updates on their investigations in EpiPulse.

ECDC will continue to monitor this event through its epidemic intelligence activities.

Cases of hepatitis of unknown origin should be reported to TESSy if they meet any of the following criteria:
- **Confirmed:** N/A
- **Probable:** A person presenting with an acute hepatitis (non-hepatitis viruses A, B, C, D and E*) with aspartate transaminase (AST) or alanine transaminase (ALT) over 500 IU/L, who is 16 years old or younger, since 1 October 2021.
- **Epi-linked:** A person presenting with an acute hepatitis (non-hepatitis viruses A, B, C, D and E*) of any age who is a close contact of a probable case since 1 October 2021.

Geographical distribution of acute hepatitis cases of unknown aetiology in children aged 16 and younger in EU/EAA countries, as of 13 May 2022

Source: ECDC



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