

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: 22 April 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 14 2022 and as of week 15 2022, 5 608 900 new cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) and 30 281 new deaths have been reported worldwide.

Since 31 December 2019 and as of week 15 2022 503 697 135 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 6 215 805 deaths.

As of week 15 2022, 133 127 799 cases and 1 072 170 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 7 April 2022 and as of 21 April, Omicron variant BA.2 with any amino-acid substitution at Spike gene position 452 (L452X) was added to the list of variants under monitoring (VUM) because the mutation is antigenically relevant and the variant has rapidly increased in proportions in New York, United States.

As of 21 April 2022, detections of BA.2 + L452X have been reported to GISAID by 16 EU/EEA countries: Belgium (156), Denmark (153), France (139), Germany (75), Ireland (1), Italy (7), Lithuania (1), Luxembourg (1), Netherlands (28), Norway (9), Poland (1), Portugal (19), Romania (1), Slovakia (49), Spain (10) and Sweden (71).

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: 22 April 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

### Week 15 2022 (11–17 April 2022)

Twelve of thirty-seven countries across the Region reported widespread influenza activity.

The percentage of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms that tested positive for an influenza virus has remained at similar levels (25-30%) for the last six weeks.

Countries, mostly in the western-central part of the Region, reported seasonal influenza activity above 30% positivity in sentinel primary care: Netherlands (74%), France (55%), Luxembourg (53%), Poland (47%), Norway (42%), Estonia (37%), Switzerland (36%), Italy (32%), Serbia (31%) and Spain (30%).

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

Hospitalised, laboratory-confirmed influenza cases were most frequently infected with A(H3) 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: 22 April 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 20 April 2022, the total number of people fleeing Ukraine reached 5 085 360. In total, 2 847 540 have crossed the Polish border, 763 769 the Romanian border, 476 213 the Hungarian border and 346 175 the Slovakian border. In addition, Czechia's [Ministry of the Interior](#) reported 301 889 special visa concessions to Ukrainian applicants as of 20 April 2022. Outside of the EU/EAA, 428 577 people have sought safety in the Republic of Moldova ([United Nations](#)).

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

## Non EU Threats

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

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Opening date: 13 April 2022

Latest update: 22 April 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.

→Update of the week

An increase of acute hepatitis referrals continues to be reported by the UK Health Security Agency (UKHSA). As of 21 April 2022, the UK has identified a total of 108 children, aged 10 years and under, with acute hepatitis of unknown aetiology. Of these cases, eight children have received a liver transplant. The UKHSA informs that 77% of the tested cases were positive for adenovirus.

Following the reports from the UK, around 30 cases of acute hepatitis among children aged 10 years and under have also been reported from nine EU/EEA countries (Belgium [1], Denmark [5], France [2], Ireland [<5], Italy [3], the Netherlands [4], Norway [2], Romania [1] and Spain [7]). In some countries, the number reported is above what is expected, whereas in other countries this is not the case. Seven cases have tested positive for adenovirus. Four cases have required a liver transplant.

On 15 April 2022, nine cases of acute hepatitis among children aged from one to six years who also tested positive for adenovirus were reported by public health authorities in the state of Alabama in the United States, some of which have tested positive for adenovirus serotype 41. Investigations are ongoing by the US Centre for Disease Prevention and Control (CDC). On 21 April 2022, media quoting health authorities in the state of North Carolina reported two additional cases of acute hepatitis among children. Also on 21 April 2022, the US CDC issued a nationwide alert for clinicians to report cases of acute hepatitis in children. In addition, on 19 April 2022, the Israeli Ministry of Health reported 12 cases of acute hepatitis among young children, two of which received liver transplants.

Currently, there is no clear connection between the reported cases. No obvious epidemiological risk factors have been identified among the cases or association with travel.

## Poliomyelitis – Multi-country (World) – Monitoring global outbreaks

Opening date: 9 December 2019

Latest update: 22 April 2022

Global public health efforts to eradicate polio are continuing by immunising every child until transmission of the virus has stopped and the world becomes polio-free. On 5 May 2014, polio was declared a Public Health Emergency of International Concern (PHEIC) by the World Health Organization (WHO) due to concerns over the increased circulation and international spread of wild poliovirus in 2014. The Emergency Committee under the International Health Regulations (2005) stated that the risk of the international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC). On 28 February 2022, the [31st meeting](#) of the Emergency Committee was held under the International Health Regulations (2005) (IHR) on the international spread of poliovirus.

In June 2002, WHO's European Region was officially declared polio-free.

→Update of the week

Since the previous update on 18 March 2022 and as of 19 April 2022, 87 new cases of acute flaccid paralysis (AFP) caused by circulating vaccine-derived poliovirus (cVDPV2) have been reported (37 in 2022 and 50 in 2021).

### Wild poliovirus (WPV1):

- No new cases of AFP caused by WPV1 have been reported.

### Circulating vaccine-derived poliovirus (cVDPV):

- No new cases of AFP caused by cVDPV1 have been reported.

- 87 new cases of AFP caused by cVDPV2 have been reported from four countries: Yemen (53), Democratic Republic of the Congo (19), Nigeria (13) and Niger (2).

- No new cases of AFP caused by cVDPV3 have been reported. However, additional asymptomatic cases have been reported relating to an [outbreak](#) in Israel (bringing the total since 6 March 2022 to: one AFP case, six confirmed asymptomatic cVDPV3 cases and two suspected cVDPV3 cases).

## Circulating vaccine derived poliovirus type 3 (cVDPV3), Israel \* – 2022

Opening date: 10 March 2022

Latest update: 22 April 2022

On 6 March 2022, a case of poliomyelitis was detected through routine acute flaccid paralysis (AFP) surveillance in the Jerusalem region, Israel. The case is an unvaccinated child, aged three years and nine months. Investigations and contact tracing are ongoing to identify other possible cases.

→Update of the week

On 15 April 2022, WHO [announced](#) a new confirmed cVDPV3 case, bringing the total number of cases with confirmed cVDPV3 infection to seven. Of these confirmed cases, one has incomplete polio immunisation and the other six are unvaccinated. The vaccine-derived poliovirus isolates, previously classified as ambiguous, have now been reclassified as circulating. Two additional cases with cVDPV3 were detected using in-house molecular techniques are undergoing further confirmation.

*\*The previous Communicable disease threat report about this item had indicated circulation of this VDPV3 in occupied Palestinian territory as well; further field investigations concluded that although circulation in occupied Palestinian territory cannot be ruled out at this time, circulation can only be confirmed in Israel. However, this classification does not change the risk classification that this cVDPV3 presents to occupied Palestinian territory, nor for planned response activities.*

## II. Detailed reports

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

Opening date: 7 January 2020

Latest update: 22 April 2022

#### Epidemiological summary

Since 31 December 2019 and as of week 15 2022, 503 697 135 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 6 215 805 deaths.

#### Cases have been reported from:

**Africa:** 11 614 769 cases; the five countries reporting most cases are South Africa (3 741 230), Morocco (1 164 381), Tunisia (1 038 668), Egypt (515 645) and Libya (501 834).

**Asia:** 127 160 487 cases; the five countries reporting most cases are India (43 045 527), South Korea (16 353 495), Vietnam (10 432 547), Japan (7 358 627) and Iran (7 206 959).

**America:** 152 438 949 cases; the five countries reporting most cases are United States (80 686 455), Brazil (30 261 088), Argentina (9 060 923), Colombia (6 089 791) and Mexico (5 727 832).

**Europe:** 206 079 547 cases; the five countries reporting most cases are France (27 731 272), Germany (23 442 557), United Kingdom (21 747 638), Russia (18 084 151) and Italy (15 712 088).

**Oceania:** 6 402 678 cases; the five countries reporting most cases are Australia (5 225 150), New Zealand (828 906), French Polynesia (72 596), Fiji (64 513) and New Caledonia (60 457).

Other: 705 cases have been reported from an international conveyance in Japan.

#### Deaths have been reported from:

**Africa:** 252 560 deaths; the five countries reporting most deaths are South Africa (100 147), Tunisia (28 509), Egypt (24 613), Morocco (16 063) and Ethiopia (7 509).

**Asia:** 1 287 743 deaths; the five countries reporting most deaths are India (521 966), Indonesia (155 746), Iran (140 829), Philippines (59 976) and Vietnam (42 944).

**America:** 2 720 421 deaths; the five countries reporting most deaths are United States (988 912), Brazil (662 076), Mexico (323 949), Peru (212 654) and Colombia (139 751).

**Europe:** 1 944 657 deaths; the five countries reporting most deaths are Russia (373 713), United Kingdom (171 396), Italy (161 687), France (158 061) and Germany (132 958).

**Oceania:** 10 418 deaths; the five countries reporting most deaths are Australia (6 786), Fiji (862), Papua New Guinea (649), French Polynesia (648) and New Zealand (564).

**Other:** 6 deaths have been reported from an international conveyance in Japan.

#### EU/EEA:

As of week 15 2022, 134 697 493 cases have been reported in the EU/EEA: France (27 731 272), Germany (23 442 557), Italy (15 712 088), Spain (11 751 738), Netherlands (8 021 909), Poland (5 993 672), Austria (4 108 981), Belgium (3 996 678), Czechia (3 879 059), Portugal (3 745 417), Greece (3 242 366), Romania (2 813 948), Denmark (2 785 428), Sweden (2 496 738), Slovakia (2 261 212), Hungary (1 884 292), Ireland (1 505 714), Norway (1 419 857), Lithuania (1 386 385), Bulgaria (1 149 225), Croatia (1 113 510), Slovenia (997 766), Finland (949 583), Latvia (813 173), Estonia (552 602), Cyprus (464 494), Luxembourg (239 046), Iceland (132 955), Malta (88 946) and Liechtenstein (16 882).

As of week 15 2022, 1 075 121 deaths have been reported in the EU/EEA: Italy (161 687), France (158 061), Germany (132 958), Poland (116 212), Spain (103 744), Romania (61 367), Hungary (44 760), Czechia (39 943), Bulgaria (36 782), Belgium (31 249), Greece (28 638), Netherlands (22 166), Portugal (22 082), Slovakia (19 374), Sweden (18 649), Austria (16 242), Croatia (15 735), Lithuania (9 117), Ireland (6 932), Slovenia (6 557), Latvia (6 317), Denmark (5 013), Finland (3 517), Norway (2 783), Estonia (2 388), Luxembourg (1 058), Cyprus (988), Malta (634), Iceland (87) and Liechtenstein (81).

The latest situation update for the EU/EEA is available [here](#).

In week 15 2022, in the EU/EEA overall, the reported weekly cases decreased by 21.4% compared to the previous week. Weekly increases were observed in Portugal. The countries with the highest 14-day notification rates per 100 000 population were: Cyprus (2 778), France (2 643), Germany (1 989) and Luxembourg (1 868). Overall, 29 of the 30 EU/EEA countries (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, Spain and Sweden) reported a decrease in 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.

For the latest COVID-19 country overviews, please see the [dedicated web page](#).

Since the last update on 7 April 2022 and as of 21 April 2022, Omicron variant BA.2 with any amino-acid substitution at Spike gene position 452 (L452X) was added to the list of variants under monitoring (VUM) because the mutation is antigenically relevant and the variant has rapidly increased in proportions in New York, United States.

As of 21 April 2022, detections of BA.2 + L452X have been reported to GISAID by 16 EU/EEA countries: Belgium (156), Denmark (153), France (139), Germany (75), Ireland (1), Italy (7), Lithuania (1), Luxembourg (1), Netherlands (28), Norway (9), Poland (1), Portugal (19), Romania (1), Slovakia (49), Spain (10) and Sweden (71).

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](#), [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.

#### **ECDC assessment**

For the most recent risk assessment, please visit [ECDC's dedicated web page](#).

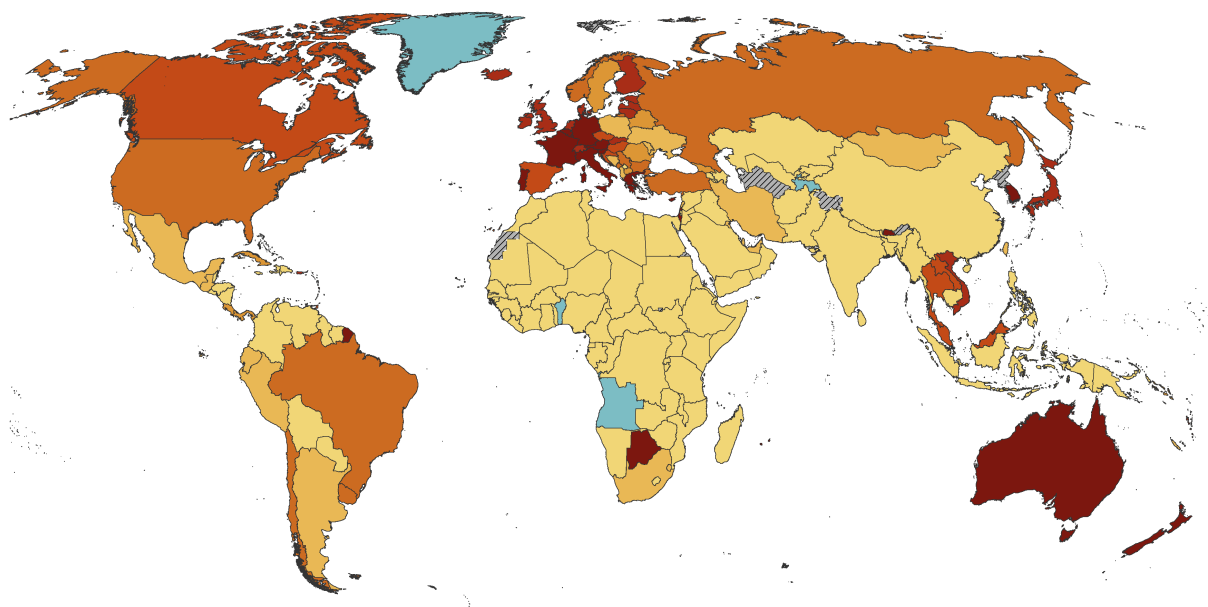
#### **Actions**

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-w14 to 2022-w15

Source: ECDC



14-day COVID-19 case notification rate per 100 000, 2022-w14 to 2022-w15



Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat. The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union.

Date of production: 21/04/2022

## Influenza – Multi-country – Monitoring 2021/2022 season

Opening date: 15 October 2021

Latest update: 22 April 2022

### Epidemiological summary

#### Week 15 2022 (11–17 April 2022)

Twelve of thirty-seven countries across the Region reported widespread influenza activity.

The percentage of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms that tested positive for an influenza virus has remained at similar levels (25-30%) for the last six weeks.

Countries, mostly in the western-central part of the Region, reported seasonal influenza activity above 30% positivity in sentinel primary care: Netherlands (74%), France (55%), Luxembourg (53%), Poland (47%), Norway (42%), Estonia (37%), Switzerland (36%), Italy (32%), Serbia (31%) and Spain (30%).

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

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Hospitalised, laboratory-confirmed influenza cases were most frequently infected with A(H3) viruses.

### 2021/22 season overview

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

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), declining thereafter until week 4 2022, when it increased again, reaching a plateau phase (25-30% positivity) as of week 10 2022.

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 of the A(H3N2) and the B/Victoria-lineage components. The full report can be found [here](#).

[Preliminary results](#) of 2021/22 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 to 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 that were not 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 so far 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 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: 22 April 2022



## Epidemiological 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 people are women, children and the elderly. 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](#)

## 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 suboptimal 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 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](#) and [Ensuring high-quality of HIV care for displaced people from Ukraine](#).

Additionally, 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.

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

Opening date: 13 April 2022

Latest update: 22 April 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. On 12 April, the UK reported that, in addition to the cases in Scotland, there were approximately 61 further cases under investigation in England, Wales and Northern Ireland, with most of these cases aged between two and five years. On 14 April, Scotland reported that of the 13 cases under investigation, two pairs of cases were epidemiologically linked.

The cases in the UK 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 rare cases presented with fever. Most children were hospitalised and

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required admission to specialist paediatric liver units.

Laboratory testing excluded hepatitis types A, B, C, D and E in all cases. The [UKHSA](#) has ruled out a link to the COVID-19 vaccine, as none of the currently confirmed cases in the UK have been vaccinated. A large proportion of the initially reported cases in Scotland tested positive for adenovirus. Thus, according to the UKHSA, one of the potential causes under investigation is that of adenovirus. However, while the finding of adenovirus infections among many of these cases does suggest this virus may be related to the recent increase in cases, other possible causes are also being actively investigated, including coronavirus and other infectious or environmental causes.

**Sources:** [UK Government](#), [UK Health Security Agency](#), [Public Health Scotland](#), [Public Health Wales](#), [Public Health Agency Northern Ireland](#), [Media](#), [US CDC](#), [Israeli Ministry of Health](#), [Eurosurveillance](#), media [1](#), [2](#), direct reports to ECDC.

## ECDC assessment

There is a recent increase in the number of children presenting with acute hepatitis of unknown aetiology in the UK, and possibly among countries in the EU/EEA. Investigations are ongoing in all countries reporting cases, but at present the exact cause of hepatitis in these children remains unknown. The incident team in the UK, where most of the cases have occurred to date, considers an infectious agent to be most likely, based on the clinical and epidemiological features of the cases under investigation. Currently, adenovirus infection is considered the most likely cause.

Adenovirus infections are common and usually result in a mild illness, with cold-like symptoms, vomiting and diarrhoea. The majority of people infected with adenovirus do not have any complications. While adenoviruses do not commonly cause hepatitis, it is a known rare complication, usually among immunocompromised individuals.

The most effective way to minimise the spread of adenoviruses is to practice good hand and respiratory hygiene and supervise thorough handwashing in younger children. Actions are being taken to raise awareness among healthcare professionals and parents to determine if there are any further possible cases. UKHSA have published testing guidelines for clinicians that can be found [here](#).

## Actions

ECDC is working in collaboration with countries where cases have been reported, WHO, the European Association for the Study of the Liver (EASL), the European Society for Clinical Microbiology and Infectious Diseases (ESCMID) and the European Society for Paediatric Infectious Diseases (ESPID) to support the ongoing investigations and to facilitate the sharing of information and tools for investigations. A statement has been published on ECDC's [website](#) and an item has been opened in EpiPulse to inform and facilitate the communication between Member States. Member States are encouraged to report cases to the event EpiPulse and to subscribe to updates. ECDC recommends that countries view this item as it contains additional information around the case definition, testing algorithm and questionnaire for cases.

To ensure standardisation in reporting of the results, ECDC encourages countries to use the case definition developed by the UK when reporting to EpiPulse. ECDC is also in the process of setting up case-based reporting through TESSy and will update Member States when this is ready. ECDC will continue to work with its partners and the affected Member States to support the ongoing investigations. ECDC will also monitor this event through its epidemic intelligence activities. ECDC is producing a rapid risk assessment with envisaged publication on Tuesday, 26 April.

### Case definition (currently used in the UK):

- Confirmed: A person presenting with an acute hepatitis (non-hepatitis viruses A, B, C, D, E) with aspartate transaminase (AST) or Alanine transaminase (ALT) over 500 U/L, who is 10 years old and under, since 1 January 2022.
- Possible: A person presenting with an acute hepatitis (non-hepatitis viruses A-E) with AST or ALT over 500 IU/L, who is 11-16 years old, since 1 January 2022.
- Epi-linked: A person presenting with an acute hepatitis (non-hepatitis viruses A-E) of any age who is a close contact of a confirmed case since 1 January 2022.

## Poliomyelitis – Multi-country (World) – Monitoring global outbreaks

Opening date: 9 December 2019

Latest update: 22 April 2022

### Epidemiological summary

#### Wild poliovirus:

In 2022, and as of 19 April 2022, one case of AFP caused by WPV1 has been reported from the endemic country, Afghanistan.

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In 2021, and as of 19 April 2022, six cases of AFP caused by WPV1 were reported from two endemic countries, Afghanistan (4) and Pakistan (1), and from the non-endemic country Malawi (1).

#### **Circulating vaccine-derived poliovirus (cVDPV):**

In 2022, and as of 19 April 2022, one case of AFP caused by cVDPV1 has been reported from Madagascar. Forty-four cases of AFP caused by cVDPV2 have been reported from four countries: Democratic Republic of the Congo (22), Nigeria (16), Yemen (5) and Somalia (1). One case of AFP caused by cVDPV3 has been reported from Israel, which is part of an [outbreak](#) involving an additional six asymptomatic confirmed cVDPV3 cases and two suspected cVDPV3 cases.

In 2021, and as of 19 April 2022, 16 cases of AFP caused by cVDPV1 were reported from Madagascar (13) and Yemen (3). There were 672 cases of AFP caused by cVDPV2 reported from 21 countries: Nigeria (415), Yemen (61), Afghanistan (43), Tajikistan (32), Democratic Republic of the Congo (28), Niger (17), Senegal (17), Ethiopia (10), South Sudan (9), Pakistan (8), Guinea (6), Sierra Leone (5), Benin (3), Cameroon (3), Guinea-Bissau (3), Liberia (3), Burkina Faso (2), Congo (2), Mozambique (2), Ukraine (2) and Somalia (1). No cases of AFP caused by cVDPV3 were reported.

**Sources:** [Global Polio Eradication Initiative](#) | [ECDC](#) | [ECDC Polio interactive map](#) | [WPV3 eradication certificate](#)

### ECDC assessment

The WHO European Region has remained polio-free since 2002. Inactivated polio vaccines are used in all EU/EEA countries. However, as long as there are non- or under-vaccinated population groups in European countries and poliomyelitis is not eradicated, the risk of the virus being reintroduced into Europe remains. According to the May 2019 report of the European Regional Commission for Certification of Poliomyelitis Eradication, one EU/EEA country (Romania) and two neighbouring countries (Bosnia and Herzegovina, and Ukraine) remain at high risk of a [sustained polio outbreak](#). According to the same report, an additional 15 EU/EEA countries are at intermediate risk of sustained polio outbreaks, following wild poliovirus importation or the emergence of cVDPV due to sub-optimal programme performance and low population immunity. The continuing circulation of wild poliovirus type 1 (WPV1) in two countries shows that there is still a risk of the disease being imported into the EU/EEA. Furthermore, the worrying occurrence of outbreaks of circulating vaccine-derived poliovirus (cVDPV), which only emerge and circulate due to lack of polio immunity in the population, shows the potential risk for further international spread.

To limit the risk of reintroduction and sustained transmission of WPV and cVDPV in the EU/EEA, it is crucial to maintain high vaccine coverage in the general population and increase vaccination uptake in pockets of under-immunised populations. Despite the current COVID-19 challenges, Member States should review their polio vaccination coverage data and ensure that vaccination gaps are bridged as soon as possible.

[ECDC](#) endorses WHO's temporary recommendations with regard to EU/EEA citizens who are resident in or long-term visitors (>4 weeks) to countries with the potential risk of international spread.

**ECDC links:** [ECDC comment on risk of polio in Europe](#) | [ECDC risk assessment](#)

### Actions

ECDC provides updates on the polio situation on a monthly basis. The Agency also monitors polio cases worldwide through its epidemic intelligence activities in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being reintroduced into the EU/EEA.

ECDC maintains an [interactive map](#) showing countries that are still endemic for polio and have ongoing outbreaks of cVDPV.

## Circulating vaccine derived poliovirus type 3 (cVDPV3), Israel \* – 2022

Opening date: 10 March 2022

Latest update: 22 April 2022

### Epidemiological summary

In total, as of 15 April 2022, Israel has reported one case of AFP caused by cVDPV3, six asymptomatic children with confirmed cVDPV3 infection, and two suspected cVDPV3 infections (confirmation ongoing). On 10 March 2022, the Global Polio Eradication Initiative (GPEI) reported an outbreak of circulating vaccine-derived poliovirus type 3

(cVDPV3) in Israel.

On 6 March 2022, the index case, an unvaccinated four-year-old girl, was identified through routine acute flaccid paralysis (AFP) surveillance. Further testing of the sample revealed genetic links to VDPV3 strains detected in environmental samples collected from the Jerusalem and Bethlehem regions between September 2021 and January 2022. These isolates, previously classified as ambiguous VDPV3, have now been reclassified as circulating VDPV3 (cVDPV3). This classification confirms an outbreak of cVDPV3.

On 10 March 2022, the Ministry of Health in Israel [announced](#) they had found evidence of poliovirus in two additional stool samples in the Jerusalem region. In addition, as part of ongoing sewage monitoring, several positive samples for poliovirus were found in sewage waters from the following areas: Beit Shemesh, Modi'in Illit and Tiberias. On 29 March 2022, Israel's authorities [reported](#) that four additional samples from asymptomatic children had tested positive for cVDPV3, bringing the total number of asymptomatic children with confirmed cVDPV3 infection to six.

Local health authorities are conducting investigations to determine the source of the outbreak and the potential risk of further spread. The Ministry of Health, together with WHO and other partners, is responding to the outbreak. The Ministry of Health is making efforts to boost vaccination coverage in the country. Since the start of the catch-up [vaccination campaign](#), and as of 11 April 2022, 23 033 children have been vaccinated in the Jerusalem region.

### ECDC assessment

These are the first cVDPV3 cases reported from Israel. The last cVDPV3 cases were reported from Somalia in 2018. In Israel, the last cases of wild poliovirus type 1 (WPV1) occurred in 1988, during an outbreak in the Hadera district resulting in 15 cases of acute flaccid paralysis (AFP).

The WHO European Region, including the EU/EEA, has remained polio-free since 2002. However, as long as there are unvaccinated or partially vaccinated population groups in European countries and poliomyelitis is not eradicated, the risk of the virus being reintroduced into Europe remains. To limit the risk of reintroduction and sustained transmission of poliovirus in the EU/EEA, it is crucial to maintain high vaccine coverage in the general population and to increase the vaccination uptake in the pockets of under-immunised populations. Israel has a high level of Polio (Pol 3) vaccination coverage, as indicated in the [WHO Global Health observatory data repository](#). However, the risk of further spread in the country remains, especially in under-immunised pockets of the population. Outbreak investigation activities are ongoing in order to detect additional infections.

### Actions

ECDC is in contact with the WHO Regional Office for Europe and will continue to monitor the event through epidemic intelligence activities.

The Communicable Disease Threat Report may include unconfirmed information which may later prove to be unsubstantiated.