I. Executive summary

REGISTRATIONS OPEN FOR ESCAIDE 2021

The European Scientific Conference on Applied Infectious Disease Epidemiology – (ESCAIDE 2021) will be online this year with free registration for all. The conference will take place from 16 to 19 November to discuss current issues facing infectious disease prevention and control, hear the latest high-quality research in the field and meet fellow public health professionals and researchers.

Register here.

Registration closes on 12 November 2021 (presenters must register by 7 November).

I. Executive summary
**EU Threats**

**COVID-19 associated with SARS-CoV-2 – Multi-country (World) – 2019 - 2021**

Opening date: 7 January 2020  
Latest update: 22 October 2021

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 and eighth 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 and 14 July 2021, respectively. The Committee concluded during these meetings that the COVID-19 pandemic continues to constitute a PHEIC.

**Update of the week**

Since week 2021-40 and as of week 2021-41, 2,893,450 new cases of COVID-19 and 47,940 new deaths have been reported worldwide.

Since 31 December 2019 and as of week 2021-41, 2,413,667,220 cases of COVID-19 have been reported worldwide, including 4,903,963 deaths.

In the EU/EEA, as of week 2021-41, 39,409,415 cases have been reported, including 783,762 deaths.

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.


**West Nile virus - Multi-country (World) - Monitoring season 2021**

Opening date: 4 June 2021  
Latest update: 22 October 2021

During the transmission season for West Nile virus (WNV), which usually runs from June to November, ECDC monitors the occurrence of infections in the European Union (EU), the European Economic Area (EEA), and EU-neighbouring countries. ECDC publishes weekly epidemiological updates to inform blood safety authorities. Data reported through The European Surveillance System (TESSy) are presented at the NUTS 3 (nomenclature of territorial units for statistics) level for EU/EEA Member States and at the GAUL 1 (global administrative unit layers 1) level for EU-neighbouring countries.

**Update of the week**

Between 15 and 21 October 2021, European Union (EU) and European Economic Area (EEA) countries reported two human cases of West Nile virus (WNV) infection and no deaths related to WNV infections. Cases were reported by Italy (2). EU-neighbouring countries reported no human cases of WNV infection in and no deaths related to WNV infections.

**Non EU Threats**

**Ebola - Democratic Republic of the Congo - 2021**

Opening date: 14 October 2021  
Latest update: 22 October 2021

On 8 October 2021, the Ministry of Health for the Democratic Republic of Congo announced a new laboratory-confirmed case of Ebola virus disease (EVD) in Butsili Health Area in Beni Health Zone, in North Kivu Province. This Health Area is about 50km from Butembo city, where the DRC’s 12th EVD outbreak occurred for around three months, until it was declared over on 3 May 2021. The city of Beni is a commercial hub with links to the neighbouring countries of Uganda and Rwanda.

**Update of the week**

Three new confirmed cases including two deaths of EVD were reported by WHO AFRO, two adults and one child. Initial genomic sequencing at INRB Pathogen Genomic Sequencing laboratory in Kinshasa indicate that the new cases likely represent a new flare-up event from the 2018-2020 North Kivu/Ituri outbreak. WHO AFRO elevated the number of identified contacts to 369 and the number of monitored contacts to 308.
Reported influenza activity in Europe remains at inter-seasonal levels.

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

Opening date: 15 October 2021  
Latest update: 22 October 2021

Influenza activity was low throughout the European Region, but Croatia and Kyrgyzstan experienced early influenza activity related to A(H3) circulation. Influenza viruses were detected sporadically in specimens from persons with respiratory illness presenting to medical care with a slight increase compared to the previous week. Both influenza A and B type viruses were detected, with A(H3) subtype predominating. Type A virus infection was reported for two patients in intensive care units and seven patients with SARI in hospital settings were infected with A(H3) viruses.

### Influenza A(H9N2) - Multi-country (World) - Monitoring human cases

Opening date: 30 January 2019  
Latest update: 22 October 2021

Avian influenza viruses that infect people are considered novel to humans and have the potential to become pandemic threats.

As of 18 October 2021 and since the previous monthly report published in CDTR on 17 September 2021, two new cases of human infection with avian influenza A(H9N2) were reported from China. Both cases were children with mild symptoms. No further cases were detected among contacts of these patients.

### Cholera — Multi-country (World) – Monitoring global outbreaks

Opening date: 20 April 2006  
Latest update: 22 October 2021

Several countries in Africa and Asia have reported cholera outbreaks in 2021. Major ongoing outbreaks are being reported from Bangladesh, Nigeria and Niger. Haiti reported its last laboratory-confirmed case in February 2019.

Since the last update on 24 September 2021, new cholera cases have been reported worldwide. Countries reporting most of the new cases since the previous update are Mozambique, Yemen, Nigeria, Bangladesh, and the Democratic Republic of Congo. A list of all countries reporting new cases since our previous update on 24 September 2021 can be found below.

### Influenza A(H5N6) – Multi-country – Monitoring human cases

Opening date: 17 January 2018  
Latest update: 22 October 2021

Animal influenza viruses that cross the animal-human divide to infect people are considered novel to humans and have the potential to become pandemic threats. Highly pathogenic avian influenza viruses A(H5) of Asian origin are extremely infectious for several bird species, including poultry. In 2014, a novel avian influenza A(H5N6) reassortant causing a human infection was detected in China. To date, only sporadic human cases of avian influenza A(H5N6) virus infection have been reported, mainly from China.

As of 18 October 2021 and since the previous monthly report published in CDTR on 17 September 2021, six new cases of human infection with avian influenza A(H5N6) virus, including two deaths, were reported from China. All new cases were adults with onset of symptoms in August and October 2021 who had exposure to poultry. No further cases were detected among contacts of these cases.

### Human cases of swine influenza A(H1N2) variant virus – Multi-country – 2021

Opening date: 1 June 2021  
Latest update: 22 October 2021

Animal influenza viruses that infect people are considered novel to humans and have the potential to become pandemic threats. Sporadic cases of swine origin influenza A(H1N2) virus variant infections in humans are reported from EU countries, Canada, and the United States of America.

Two new cases of human infection with swine influenza A(H1N2) virus variant were reported in September 2021 from Austria and the United States of America (Ohio).
II. Detailed reports

COVID-19 associated with SARS-CoV-2 – Multi-country (World) – 2019 - 2021

Epidemiological summary

Since 31 December 2019 and as of week 2021-41, 241 366 720 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 4 903 963 deaths.

Cases have been reported from:
Africa: 8 433 885 cases; the five countries reporting most cases are South Africa (2 916 593), Morocco (942 132), Tunisia (710 953), Ethiopia (359 247) and Libya (350 628).
Asia: 68 814 480 cases; the five countries reporting most cases are India (34 081 315), Iran (5 773 419), Indonesia (4 234 758), Philippines (2 720 368) and Malaysia (2 390 687).
America: 92 481 229 cases; the five countries reporting most cases are United States (45 008 990), Brazil (21 644 464), Argentina (5 273 463), Colombia (4 982 575) and Mexico (3 758 469).
Europe: 71 339 690 cases; the five countries reporting most cases are United Kingdom (8 449 165), Russia (7 992 687), Turkey (7 630 163), France (7 089 052) and Spain (4 988 878).
Oceania: 296 731 cases; the five countries reporting most cases are Australia (143 135), Fiji (51 777), French Polynesia (45 439), Papua New Guinea (24 041) and Guam (16 900).
Other: 705 cases have been reported from an international conveyance in Japan.

Deaths have been reported from:
Africa: 215 449 deaths; the five countries reporting most deaths are South Africa (88 612), Tunisia (25 100), Egypt (17 970), Morocco (14 544) and Ethiopia (6 217).
Asia: 1 063 962 deaths; the five countries reporting most deaths are India (452 290), Indonesia (142 952), Iran (123 876), Philippines (40 675) and Pakistan (28 280).
America: 2 266 998 deaths; the five countries reporting most deaths are United States (725 330), Brazil (603 282), Mexico (284 477), Peru (199 882) and Colombia (126 886).
Europe: 1 353 954 deaths; the five countries reporting most deaths are Russia (223 312), United Kingdom (138 584), Italy (131 541), France (117 265) and Germany (126 628).
Oceania: 3 594 deaths; the five countries reporting most deaths are Australia (1 531), Fiji (663), French Polynesia (632), Papua New Guinea (266) and New Caledonia (242).
Other: six deaths have been reported from an international conveyance in Japan.

EU/EEA:
As of week 2021-41, 39 409 415 cases have been reported in the EU/EEA: France (7 089 052), Spain (4 988 878), Italy (4 717 899), Germany (4 377 845), Poland (2 941 126), Netherlands (2 047 641), Czechia (1 709 716), Romania (1 467 401), Belgium (1 289 803), Sweden (1 162 508), Portugal (1 080 097), Slovakia (837 848), Hungary (836 389), Austria (772 344), Greece (693 886), Bulgaria (540 619), Croatia (428 233), Ireland (415 114), Lithuania (372 585), Denmark (369 403), Slovenia (310 170), Norway (196 348), Latvia (185 616), Estonia (173 335), Finland (149 897), Cyprus (122 362), Luxembourg (79 720), Malta (37 466), Iceland (12 614) and Liechtenstein (3 500).

As of week 2021-41, 783 762 deaths have been reported in the EU/EEA: Italy (131 541), France (117 265), Germany (94 628), Spain (87 030), Poland (76 115), Romania (42 042), Czechia (30 554), Hungary (30 402), Belgium (25 782), Bulgaria (22 274), Netherlands (18 248), Portugal (18 100), Greece (15 375), Sweden (14 963), Slovakia (12 854), Austria (10 932), Croatia (8 907), Lithuania (5 489), Ireland (5 306), Slovenia (4 995), Latvia (2 890), Denmark (2 688), Estonia (1 429), Finland (1 116), Norway (884), Luxembourg (839), Cyprus (562), Malta (459), Liechtenstein (60) and Iceland (33).

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

In week 2021-41, in the EU/EEA overall, the reported weekly cases increased by 17.7 % compared to the previous week. The highest weekly increases in descending order were observed in Liechtenstein, Czechia, Belgium, Poland and Hungary. The countries with the highest 14-day notification rates per 100 000 population are: Latvia (1 257), Lithuania (1 163), Estonia (1 087), Romania (1 000) and Slovenia (625). Five of the 29 EU/EEA countries (Italy, Malta, Norway, Spain and Sweden) reported a decrease in the weekly cases.
ECDC’s assessment of each country’s epidemiological situation is based on a composite score based on the absolute value and trend of five weekly COVID-19 epidemiological indicators. As shown below, for week 41, six countries (Bulgaria, Croatia, Estonia, Latvia, Lithuania and Romania) were categorised as of very high concern, seven countries (Belgium, Finland, Greece, Hungary, Ireland, Slovakia and Slovenia) as of high concern, 10 countries (Austria, Cyprus, Czechia, Denmark, Germany, Iceland, Liechtenstein, Luxembourg, Netherlands and Poland) as of moderate concern, six countries (France, Malta, Norway, Portugal, Spain and Sweden) as of low concern and one country (Italy) as of very low concern. Compared with the previous week, 10 countries (Belgium, Cyprus, Czechia, Finland, France, Greece, Hungary, Iceland, Liechtenstein and Slovenia) moved to a higher category and 20 countries stayed in the same category.

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

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 and eighth 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 and 14 July 2021, 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 webpage.

Actions
Actions: On 30 September 2021, ECDC published the rapid risk assessment, ‘Assessing SARS-CoV-2 circulation, variants of concern, non-pharmaceutical interventions and vaccine rollout in the EU/EEA’. A dashboard with the latest updates is available on ECDC’s website.
West Nile virus - Multi-country (World) - Monitoring season 2021

Opening date: 4 June 2021
Latest update: 22 October 2021

Epidemiological summary

Between 15 and 21 October 2021, European Union (EU) and European Economic Area (EEA) countries reported two human cases of West Nile virus (WNV) infection and no deaths related to WNV infections. Cases were reported by Italy (2). EU-neighbouring countries reported no human cases of WNV infection and no deaths related to WNV infections.

Since the beginning of the 2021 transmission season and as of 21 October 2021, EU/EEA countries have reported 135 human cases of WNV infection in Greece (55), Italy (54), Hungary (7), Romania (7), Spain (6), Austria (3) and Germany (3) and nine deaths in Greece (7), Spain (1) and Romania (1). EU-neighbouring countries have reported 18 human cases of WNV infection in Serbia (18) and three deaths in Serbia (3).

During the current transmission season, within the reporting countries, human cases of WNV infection were reported from 45 different NUTS 3 or GAUL 1 regions, of which the following regions reported human cases of WNV infection for the first time: Spree-Neiße in Germany and La Spezia in Italy.

Since the beginning of the 2021 transmission season, 34 outbreaks among equids and 8 outbreaks among birds have been reported.
reported by EU/EEA countries. Outbreaks among equids have been reported by Germany (15), Spain (10), Portugal (4), Hungary (3), Greece (1) and France (1). Outbreaks among birds have been reported by Spain (7) and Slovenia (1).

**ECDC assessment**

Human WNV infections have been reported in seven EU Member States where seasonal circulation of the virus has been previously reported. According to the data from previous years and the epidemiology of WNV infections, the number of new infections are expected to decrease during this period of the year. However, further cases will very probably be reported to ECDC in the coming weeks due to reporting delays.

In accordance with Commission Directive 2014/110/EU, prospective blood donors should be deferred for 28 days after leaving a risk area for locally-acquired WNV infection, unless the result of an individual nucleic acid test is negative.

**Actions**

During transmission seasons ECDC publishes a set of WNV transmission maps, a dashboard, and an epidemiological summary every Friday.

**Distribution of human West Nile virus infections by affected areas as of 21 October 2021**

![Map of West Nile virus distribution](image)
Distribution of West Nile virus infections among humans and outbreaks among equids and/or birds in the EU as of 21 October 2021

Ebola - Democratic Republic of the Congo - 2021

Opening date: 14 October 2021 Latest update: 22 October 2021

Epidemiological summary

Since the start of the outbreak (on 8 October 2021), and as of 15 October 2021, eight EVD cases (five confirmed and three probable), including six deaths (three among confirmed cases), have been reported in the North Kivu province, in the eastern region of the DRC. Initial genomic sequencing at INRB Pathogen Genomic Sequencing laboratory in Kinshasa indicates that the new cases likely represent a flare-up event from the 2018-2020 North Kivu/Ituri outbreak. On 8 October 2021, the Ministry of Health for the Democratic Republic of Congo announced a new laboratory-confirmed case of Ebola virus disease (EVD) in Butsili Health Area in Beni Health Zone, in North Kivu Province. The index case was a three-year-old male who developed symptoms of EVD early October 2021. He died on 6 October. On 7 October 2021, samples were tested at the National Institute of Biomedical Research (INRB) laboratory in Beni. On 8 October, laboratory samples were sent to the Rodolphe Mérieux INRB Laboratory, Goma, and EVD was confirmed by RT-PCR the same day. Three neighbours of the case (a father and two children) had died on 14, 19 and 29 September after developing symptoms consistent with Ebola. However, none were tested for EVD. No samples were taken for EVD testing. No specific precautions were taken during the burial ceremonies. Malaria, EVD, measles and meningitis were retrospectively listed as potential causes. On 14 October 2021, a second confirmed case of EVD in a 42-year-old female in Beni Health Zone, in North Kivu Province was reported and on 18 October 2021, three new confirmed cases of EVD were reported by WHO AFRO. A 32-year-old female, 41-year-old male and a three-year-old female, were the three-year-old female died the 16 October 2021. WHO AFRO elevated the number of identified contacts to 369 and the number of monitored contacts to 308. About 1000 doses of the rVSV-ZEBOV Ebola vaccine and other medical supplies were delivered to Goma city in North Kivu Province and around 200 doses have been sent onward to Beni city. Vaccinations have started in Beni Health Zone using the “ring vaccination” approach, where contacts and contacts of contacts are vaccinated.

Source: WHO HQ, WHO AFRO

ECDC assessment

These EVD cases are the second outbreak reported in North Kivu, DRC, since the tenth outbreak was declared over in June 2020 (see the Threat Assessment Brief published on 22 February 2021 for more information). Despite the health authorities in DRC having extensive experience in responding to EVD outbreaks, the ongoing outbreak may spread to other areas within DRC and/or to neighbouring countries. The ongoing COVID-19 pandemic and other ongoing outbreaks (such as malaria and meningitis) might...
challenge the response. The age distribution of these EVD cases is unusual as half of them are children. Investigations are ongoing to identify the source of the outbreak. Overall, the current risk for EU/EEA citizens living in or travelling to Beni Health Zone in DRC is estimated to be low, as, while disease in unvaccinated people is severe and most EU/EEA citizens are not commonly vaccinated against the disease, there is a very low likelihood of infection of EU/EEA citizens in the DRC. The current risk for citizens in the EU/EEA is considered very low, as, while disease in unvaccinated people is severe and most EU/EEA citizens are not commonly vaccinated against the disease, there is a very low likelihood of infection of EU/EEA citizens in the DRC. The current risk for citizens in the EU/EEA is considered very low, as the likelihood of introduction and secondary transmission within the EU/EEA is very low.

Actions
ECDC is following the situation through Epidemic Intelligence. ECDC published a threat assessment brief (TAB) "Outbreak of Ebola virus disease in North Kivu, DRC" on 22 February 2021, where options for response measures are described.

Influenza – Multi-country – Monitoring 2021/2022 season
Opening date: 15 October 2021 Latest update: 22 October 2021

Epidemiological summary
2021-2022 season overview
For the Region as a whole, influenza activity has been at baseline level with sporadic detections, mostly of A(H3) viruses. During the influenza Vaccine Composition Meeting for the southern hemisphere 2022 season, held in September 2021, WHO recommended the replacement of the A(H3N2) and the B/Victoria-lineage component. The full report can be found here.

Sources: EuroMOMO | Flu News Europe | Influenzanet

ECDC assessment
Reported influenza activity remains at a very low level.

Actions
ECDC and WHO monitor influenza activity in the WHO European Region. Data will be updated on a weekly basis until the end of the regular influenza season (week 20 data) and on a monthly basis during the interseason period. The data are available on the Flu News Europe website.

Influenza A(H9N2) - Multi-country (World) - Monitoring human cases
Opening date: 30 January 2019 Latest update: 22 October 2021

Epidemiological summary
As of 18 October 2021, and since the previous monthly report published in CDTR on 17 September 2021, two new cases of human infection with avian influenza A(H9N2) were reported from China. Both cases were in children of three and 11 years of age with mild symptoms. No further cases were detected among contacts of these patients. A list of cases is as follows:

1. **11-year-old male** from Qiannan Buyi and Miao Autonomous Prefecture, Guizhou Province with onset of symptoms on 6 September 2021. The patient had mild disease and history of exposure to poultry.

2. **3-year-old female** from Meizhou, Guangdong Province with onset of symptoms on 26 September 2021. The patient had mild symptoms and a history of exposure to poultry.

Summary: As of 18 October 2021 and since 1998 a total of 93 laboratory-confirmed cases of human infection with avian influenza A(H9N2) viruses have been reported, from China (81), Egypt (4), Bangladesh (3), Cambodia (1), Oman (1), Pakistan (1), India (1), and Senegal (1). Most of the cases were children with mild disease.
ECDC assessment
Sporadic human cases of avian influenza A(H9N2) have been previously observed. No human-to-human transmission has been reported, and further investigations on exposure as well as on the virus characteristics are needed to understand the circumstances of the transmission to humans.

Sporadic zoonotic transmission cannot be excluded; the use of personal protective measures for people directly exposed to potentially infected poultry and birds with avian influenza viruses will minimise the remaining risk. The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be very low.

Actions
ECDC monitors avian influenza strains through its epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC, together with EFSA and the EU reference laboratory for avian influenza, produces a quarterly updated report on the avian influenza situation. The most recent report was published on 30 September 2021.

Distribution of confirmed human cases with avian influenza A(H9N2) virus infection by onset year and country, 1998–2021

Cholera – Multi-country (World) – Monitoring global outbreaks
Opening date: 20 April 2006  Latest update: 22 October 2021

Epidemiological summary

Americas
Haiti: No new cases have been reported since the last update. In 2021, no confirmed cholera cases were reported in Haiti.

Dominican Republic: No new cases have been reported since the last update. In 2021, and as of 18 October 2021, no cholera cases were reported in the Dominican Republic.

Africa

DR Congo: 1,862 new cases including 10 deaths have been reported since the last update. In 2021, and as of 3 October, 5,424 suspected cholera cases including 105 deaths have been reported from 74 health zones across 14 provinces of the Democratic Republic of the Congo.

Nigeria: Since the previous CDTR, Nigeria has reported 15,794 cholera cases and 1,982 deaths. Between 1 January and 3 October 2021, a total of 88,704 suspected cases cholera, 366 confirmed cases including 3,208 deaths have been reported from 31 Nigerian states and FCTs.

Niger: Since the previous CDTR, Niger has reported 1,425 cholera cases including 34 deaths. In 2021, and as of 10 October 2021, a total of 5,281 cases including 155 deaths (CFR = 2.9%) have been reported in Niger. Seven regions out of eight have reported cases so far (Tahoua, Niamey, Tillaberi, Dosso, Maradi, Zinder and Diffa). The rainy season is still ongoing in the country and causing floods that might contribute to the spread of the outbreak.

Burkina Faso: Since the previous CDTR update, no new cases have been reported in Burkina Faso. In 2021 and as of 10 October 2021, a total of two imported cholera cases have been reported in the country.

Kenya: No new cases have been reported since the last update. In 2021 and as of 18 October 2021, 38 cholera cases including 14 confirmed cases, have been recorded in Garissa and Turkana Counties. Garissa’s outbreak was linked to the Dagahaley Refugee Camp.

Cameroon: Since the previous CDTR update, no new cases have been reported in Cameroon. In 2021, and as of 10 October, a total of 16 cholera cases including one death have been reported in the north-west region of Cameroon.

Mali: Since the last update, five suspected cholera cases including one death have been reported in Mali. In 2021, and as of 10 October, 11 cases including four deaths have been reported in Mali’s northern region of Gao. Among these cases, two were confirmed by culture test.

Mozambique: In 2021, and as of 3 October 2021, 28,602 cases of Acute Watery Diarrhoea (AWD) have been registered. According to media, a cholera outbreak in Cabo Delgado has been declared.

Benin: In 2021, and as of 10 October 2021, a total of 121 cholera cases have been reported, where eight cases were confirmed by culture test.

Ethiopia: In 2021, and as of 26 September 2021, 561 suspected cholera cases were reported, including 10 suspected deaths.

No updates were available on the outbreaks reported in Togo earlier this year.

Asia

Bangladesh: Since the previous CDTR update, 8,746 Acute Watery Diarrhoea (AWD) cases were reported in Bangladesh. In 2021, and as of 12 September 2021, a total of 105,723 suspected cholera cases including two deaths were reported in Rohingya Refugee Camp in Cox’s Bazar, Bangladesh. Among these cases, 194 tested positives by means of a cholera rapid diagnostic test or culture test.

India: Since the previous CDTR update, 68 watery diarrhoea (AWD) cases were reported in Zirakpur in Mohali district, Panjab. As of 13 October 2021, a total of 1,751 suspected cholera cases, including two deaths were reported in different parts of India.

Nepal: In 2021, and as of 19 October, 885 cases of cholera including four deaths have been reported in Nepal. According to media, there is an ongoing cholera outbreak in Krishnanagar Municipality.

Yemen: Since the previous CDTR update, 11,028 Acute Watery Diarrhoea (AWD) cases including 15 deaths were reported in


Yemen. In 2021, and as of 15 October, 26 891 suspected cholera cases including 17 deaths have been reported in Yemen.

Disclaimer: Data presented in this report originate from several sources, both official public health authorities and non-official, such as the media. Data completeness depends on the availability of reports from surveillance systems and their accuracy, which varies between countries. All data should be interpreted with caution as there may be areas of under-reporting and figures may not reflect the actual epidemiological situation.

ECDC assessment
Cholera cases continue to be reported in eastern Africa, the Horn of Africa and the Gulf of Aden. Cholera outbreaks have also been reported in the western and southern part of Africa and in some areas of Asia. Despite the high number of cholera outbreaks reported worldwide, few cases are reported each year among returning EU/EEA travellers. The risk of cholera infection in travellers visiting countries with ongoing outbreaks remains low, although sporadic infections among EU/EEA travellers are possible. In 2018, 26 cases were reported in EU/EEA Member States, while 17 and 23 cases were reported in 2017 and 2016, respectively. All cases had travel history to cholera-affected areas. The risk of further transmission of *Vibrio cholerae* within the EU/EEA is very low.

According to WHO, vaccination should be considered for travellers at higher risk of infection, such as emergency and relief workers who are likely to be directly exposed. Vaccination is generally not recommended for other travellers.

Travellers who plan to visit cholera-endemic areas should seek advice from travel health clinics ahead of their travel to assess their personal risk and be informed on precautionary sanitary and hygiene measures to prevent infection. These include drinking bottled water or water treated with chlorine, carefully washing fruit and vegetables with bottled or chlorinated water before consumption, regularly washing hands with soap, eating thoroughly cooked food, and avoiding the consumption of raw seafood products.

Actions
ECDC monitors cholera outbreaks globally through its epidemic intelligence activities in order to identify significant changes in epidemiology and to inform public health authorities. Reports are published on a monthly basis. The worldwide overview of cholera outbreaks is available on ECDC's website.
Geographical distribution of cholera cases reported worldwide from August to October 2021

ECDC

Influenza A(H5N6) – Multi-country – Monitoring human cases
Opening date: 17 January 2018 Latest update: 22 October 2021

Epidemiological summary
As of 18 October 2021 and since the previous monthly report published in CDTR on 17 September 2021, six new cases of human infection with avian influenza A(H5N6) virus, including two deaths, were reported from China. All new cases were adults from 26 to 72 years of age from four Provinces in China (Chongqing, Guangdong, Guangxi, and Hunan) with onset of symptoms in August and October 2021. All cases had exposure to poultry. No further cases were detected among contacts of these cases. Epidemiological details of the new cases are listed as follows:

1. 40-year-old female from Yongzhou, Hunan Province, developed symptoms on 8 September 2021, was hospitalised in critical condition on 9 September. The patient had a history of exposure to poultry market.

2. 53-year-old male from Guilin City, Guangxi Province, developed symptoms on 23 August 2021, was hospitalised on 19 September. The patient had a history of exposure to poultry.

3. 55-year-old male from Dongguan, Guangdong Province, developed symptoms on 13 September 2021, was hospitalised in critical condition on 30 August. The patient had a history of exposure to poultry.

4. 72-year-old male from Tongan, Chongqing Province, developed symptoms on 16 September 2021, was hospitalised in critical condition on 19 September and died on 24 September. The patient had a history of exposure to poultry.

5. 26-year-old female from Guilin, Guangxi Province, developed symptoms on 14 August 2021, was hospitalised in critical condition on 19 August and died on 19 August. The patient had a history of exposure to poultry.

6. 60-year-old female from Changde city, Hunan Province, developed symptoms on 3 October 2021, was hospitalised in critical condition on 13 October. The patient worked as a farmer and had a history of exposure to dead poultry.

Summary: Since 2014, and as of 18 October 2021, 49 cases, including 25 deaths (CFR: 51%), of human influenza A(H5N6) virus infection have been reported from China (48) and Laos (1). One case in China from 2015 was detected in the literature and is...
included in the total number of cases in the country. There is a recent increase in 2021, with 20 cases reported so far this year, compared to one to nine cases reported annually since 2014.

Sources: ECDC Avian influenza page | Joint ECDC, EFSA, EURLAI report: Avian influenza overview August – December 2020 | WHO Avian Influenza Weekly Update 8 October 2021 | WHO Avian Influenza Weekly Update 1 October 2021 | media

ECDC assessment

Sporadic human cases of avian influenza A(H5N6) have been previously observed. No human-to-human transmission has been reported, and further investigations on exposure as well as on the virus characteristics are needed to understand the circumstances of the transmission to humans.

Sporadic zoonotic transmission cannot be excluded; the use of personal protective measures for people directly exposed to potentially infected poultry and birds with avian influenza viruses will minimise the remaining risk. The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be very low.

Actions

ECDC monitors avian influenza strains through its epidemic intelligence activities and in collaboration with EFSA and the EU reference laboratory in order to identify significant changes in the epidemiology of the virus. ECDC, together with EFSA and the EU reference laboratory for avian influenza, produces a quarterly updated report of the avian influenza situation. The most recent report was published on 30 September 2021.

Geographical distribution of confirmed human cases with avian influenza A(H5N6) infection in China and Laos, 2014–2021

Source: ECDC
Human cases of swine influenza A(H1N2) variant virus – Multi-country – 2021

Opening date: 1 June 2021  
Latest update: 22 October 2021

Epidemiological summary

Two new cases of human infection with swine influenza A(H1N2) variant virus were reported in September 2021 from Austria and the United States of America (Ohio).

Austria has reported a case with swine influenza A(H1N2) variant virus in September 2021. An adult patient, who later recovered, is residing in a farm where pigs are kept. There was no human-to-human transmission detected. In 2021, overall in EU/EEA, there were four reported human cases with swine influenza infection: two cases with A(H1N1)v in Germany and Denmark, and two cases with A(H1N2)v in Austria and France.

On 18 September 2021, according to media reports, the US authorities reported a human case with A(H1N2) variant virus infection in an individual under 18 years of age. Neither the person nor the contacts reported direct contact with pigs. It is possible that limited human-to-human transmission occurred. No ongoing human-to-human transmission has been identified.

To date this year, the US CDC has reported ten variant flu cases: two A(H3N2)v, three A(H1N2)v, and five A(H1N1)v. Six cases have involved children, and four involved adults, all with direct or indirect contact with swine. No instances of human-to-human spread have occurred.

Sources: EWRS | WHO | the US CDC | media

ECDC assessment

Sporadic transmission of swine influenza viruses from pigs or contaminated environment to humans has been observed over the last years in EU/EEA, Canada, China and in the US, therefore, these cases are not unexpected. Swine influenza virus infection should always be considered in patients with respiratory symptoms reporting prior contact to pigs. This helps to identify transmission events to humans early to initiate follow-up investigations. Unsubtypable influenza viruses should be shared with national influenza centres or reference laboratories as well as WHO Collaborating Centres for further virus characterisation.
Actions

ECDC is monitoring zoonotic influenza events through its epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. Cases should be reported immediately to EWRS and IHR.
The Communicable Disease Threat Report may include unconfirmed information which may later prove to be unsubstantiated.