COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 37, 12-18 September 2021

All users

This weekly bulletin provides updates on threats monitored by ECDC.

NEWS

ECDC's podcast – *ECDC: On Air* – live and in a podcast directory close to you!

ECDC recently launched its podcast – ***ECDC: On Air*** – which gives a peek behind the scenes at the Centre. Meet experts from a wide range of fields and listen to them discuss the issues that matter. Get a crash-course in epidemiology and stay up to date with the latest developments in the field in Europe.

Episodes are released every second week, and are available on all major podcasting directories (Apple Podcasts, Google Podcasts, Spotify), as well as YouTube and SoundCloud.

Six episodes are already available:
Episode 1 – Andrea Ammon – *The Director's Insights*
Episode 2 – Thomas Mollet – *Looking for Signals*
Episode 3 – Agoritsa Baka – *How Prepared Can We Be?*
Episode 4 – Piotr Kramarz – *Giving the Immune System a Boost*
Episode 5 – John Kinsman – *Vaccine Hesitancy and Misinformation*
Episode 6 – Adam Roth – *The Disease Detectives*

Direct link to ***ECDC: On Air***: anchor.fm/ecdc

I. Executive summary

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EU Threats

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

Opening date: 7 January 2020 Latest update: 17 September 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 2021-35 and as of week 2021-36, 3 808 724 new cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) and 62 482 new deaths have been reported.

Since 31 December 2019 and as of week 2021-36, 225 166 539 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 4 636 120 deaths.

As of week 2021-36, 37 330 981 cases and 759 933 deaths have been reported in the EU.

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

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

Opening date: 4 June 2021 Latest update: 17 September 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 3) 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 10 and 16 September 2021, European Union (EU) and European Economic Area (EEA) countries reported 11 human cases of West Nile virus (WNV) infection and no deaths related to WNV infections. Cases were reported by Italy (5), Romania (3), Hungary (2), and Germany (1). EU-neighbouring countries reported one fatal human case of WNV infection in Serbia.

Non EU Threats

New! Human cases of swine influenza A(H3N2) variant virus – Multi-country – 2021

Opening date: 15 September 2021 Latest update: 17 September 2021

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

➔Update of the week

A new case of human infection with swine influenza A(H3N2) virus variant was reported in Iowa sate, the United States of America, on 10 September 2021.

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Nipah virus – India – 2021

Opening date: 9 September 2021 Latest update: 17 September 2021

A case of Nipah virus infection has been reported in Kerala state, India, in September 2021. The case was hospitalised and has since died.

➔Update of the week

As of 15 September 2021, media reports quoting health authorities stated that test results for 140 close contacts of the index case, including the boy's parents and healthcare workers who treated him, were confirmed to be negative. Samples from other close contacts continue to be sent for testing. The type of laboratory test performed has not been communicated. Laboratory testing is performed in the National Institute of Virology, Pune (WHO Collaborating Centre) and the Kozhikode Medical College Hospital. Over 250 contacts have been identified and the high risk contacts are in isolation at the Kozhikode Medical College Hospital.

In addition, a One Health approach is being applied by the local authorities. Samples have been sent for testing from the two goats owned by the family of the case and from fruits of rambutan trees in the proximity of the residence. An animal husbandry team has identified a fruit bat habitat close to the residence and a team from the National Institute of Virology in Pune has been tasked with collecting further samples from bats and other animals in accordance with the local Nipah outbreak management plan.

Meningitis – Democratic Republic of the Congo – 2021

Opening date: 10 September 2021 Latest update: 17 September 2021

On 8 September 2021, the Democratic Republic of the Congo declared an outbreak of meningitis in the north-eastern Tshopo Province.

➔Update of the week

Since the previous report, and as of 11 September 2021, 69 additional suspected cases, including 22 deaths, have been reported. Eight out of 29 samples collected have been confirmed for *Neisseria meningitidis* serogroup W.

Since 1 June 2021, and as of 11 September 2021, 330 suspected cases, including 151 deaths (case fatality ratio of 46%) have been reported in Kisangani district in the Democratic Republic of the Congo.

Plague – Madagascar – 2021

Opening date: 9 September 2021 Latest update: 17 September 2021

On 29 August 2021, an alert was made by the health authorities of the Arivonimamo district, in the Itasy region of Madagascar, regarding cases of pneumonic plague.

➔Update of the week

Since the last report on 3 September 2021 and as of 6 September, an additional five suspected cases of pneumonic plague, including six confirmed cases and four deaths have been reported.

Since 29 August 2021 and as of 6 September, health authorities of the Arivonimamo district in Madagascar have reported 35 cases of pneumonic plague, including 18 confirmed cases and 11 deaths (CFR = 31.4%).

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

Opening date: 1 June 2021 Latest update: 17 September 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.

➔Update of the week

Two new cases of human infection with influenza A(H1N2)virus variant were reported on 3 and 10 September 2021 from France and the United States of America (Iowa), respectively.

Human cases of swine influenza A(H1N1) variant virus – Multi-country – 2021

Opening date: 11 June 2021 Latest update: 17 September 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.

➔Update of the week

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Two confirmed human cases with swine-origin influenza A(H1N1) virus variant (A(H1N1)v) infection were reported on 14 August 2021 in Wisconsin state in the United States of America.

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

Opening date: 30 January 2019 Latest update: 17 September 2021

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

➔Update of the week

Since the previous monthly update published on 23 July 2021, and as of 14 September 2021, three new cases of human infection with avian influenza A(H9N2) were reported, all from China. All cases had a mild disease. Two cases were children 1–2 years of age and one case was an adult, aged 78 years. No further cases were detected among contacts of these patients.

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

Opening date: 17 January 2018 Latest update: 17 September 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.

➔Update of the week

Since the previous monthly update published on 23 July 2021, and as of 14 September 2021, Chinese authorities notified of 10 new cases, including three deaths, of human infection with avian influenza A(H5N6) virus. All new cases were adults from 48 to 66 years of age from five Provinces in China (Chongqing, Guangdong, Guangxi, Hunan, and Sichuan). All cases had exposure to poultry except one, whose exposure history remains unknown. No further cases were detected among contacts of these cases.

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II. Detailed reports

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

Opening date: 7 January 2020 Latest update: 17 September 2021

Epidemiological summary

Since 31 December 2019 and as of week 2021-36, 225 166 539 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 4 636 120 deaths.

Cases have been reported from:
Africa: 8 062 402 cases; the five countries reporting most cases are South Africa (2 858 195), Morocco (904 647), Tunisia (685 799), Libya (323 930) and Ethiopia (323 104).
Asia: 64 838 008 cases; the five countries reporting most cases are India (33 264 175), Iran (5 275 567), Indonesia (4 170 088), Philippines (2 227 367) and Malaysia (1 979 698).
America: 86 605 572 cases; the five countries reporting most cases are United States (40 955 260), Brazil (20 890 779), Argentina (5 226 764), Colombia (4 931 563) and Mexico (3 516 043).
Europe: 65 455 649 cases; the five countries reporting most cases are United Kingdom (7 226 276), Russia (7 140 070), France (6 905 071), Turkey (6 658 251) and Spain (4 915 265).
Oceania: 204 203 cases; the five countries reporting most cases are Australia (75 324), Fiji (48 986), French Polynesia (43 711), Papua New Guinea (18 412) and Guam (12 553).
Other: 705 cases have been reported from an international conveyance in Japan.

Deaths have been reported from:
Africa: 202 911 deaths; the five countries reporting most deaths are South Africa (84 877), Tunisia (24 244), Egypt (16 871), Morocco (13 546) and Algeria (5 578).
Asia: 1 002 831 deaths; the five countries reporting most deaths are India (442 874), Indonesia (139 165), Iran (113 824), Philippines (35 145) and Bangladesh (26 931).
America: 2 153 219 deaths; the five countries reporting most deaths are United States (659 975), Brazil (586 851), Mexico (267 969), Peru (198 799) and Colombia (125 687).
Europe: 1 274 567 deaths; the five countries reporting most deaths are Russia (193 468), United Kingdom (134 200), Italy (129 919), France (115 517) and Germany (92 618).
Oceania: 2 586 deaths; the five countries reporting most deaths are Australia (1 098), French Polynesia (551), Fiji (535), Papua New Guinea (196) and Guam (168).
Other: 6 deaths have been reported from an international conveyance in Japan.

EU/EEA:
As of week 2021-36, 37 521 784 cases have been reported in the EU/EEA: France (6 905 071), Spain (4 915 265), Italy (4 606 413), Germany (4 083 151), Poland (2 893 919), Netherlands (1 970 853), Czechia (1 683 315), Belgium (1 210 698), Sweden (1 139 499), Romania (1 122 653), Portugal (1 056 042), Hungary (815 605), Slovakia (785 264), Austria (706 648), Greece (615 157), Bulgaria (471 272), Croatia (384 082), Ireland (366 659), Denmark (352 636), Lithuania (309 855), Slovenia (277 853), Norway (176 134), Latvia (147 193), Estonia (146 884), Finland (133 638), Cyprus (117 931), Luxembourg (76 632), Malta (36 793), Iceland (11 279) and Liechtenstein (3 390).

As of week 2021-36, 760 853 deaths have been reported in the EU/EEA: Italy (129 919), France (115 517), Germany (92 618), Spain (85 393), Poland (75 425), Romania (35 036), Czechia (30 414), Hungary (30 089), Belgium (25 471), Bulgaria (19 522), Netherlands (18 069), Portugal (17 866), Sweden (14 728), Greece (14 169), Slovakia (12 560), Austria (10 623), Croatia (8 447), Ireland (5 155), Slovenia (4 797), Lithuania (4 721), Denmark (2 614), Latvia (2 609), Estonia (1 313), Finland (1 047), Luxembourg (834), Norway (827), Cyprus (528), Malta (449), Liechtenstein (60) and Iceland (33).

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

In week 2021-36, overall, the reported weekly cases decreased by 9.4 % compared to the previous week. The highest weekly increase was observed in Romania, Slovenia, Czechia, Poland and Slovakia. The countries with the highest 14-day notification rate were: Ireland (434), Greece (380), Estonia (367), Slovenia (347) and Norway (343). Sixteen of the 29 EU/EEA countries (Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Netherlands, Norway, Portugal and Spain) reported a decrease in the weekly cases.

At the end of week 36 (week ending Sunday 12 September 2021), the overall epidemiological situation in the European Union and

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European Economic Area (EU/EEA) was characterised by a high, slowly decreasing overall case notification rate and a low, stable death rate, with these trends forecast to continue over the next two weeks. Hospitalisations and ICU admissions are forecast to remain stable. Case notification rates among those aged 15 to 24 years, the most affected age group, have continued to decrease across the EU/EEA and may have begun to stabilise among children under 15 years of age following a recent increase. The picture varies considerably at the Member State level, with increasing trends in case notification rates reported mainly in eastern and northern parts of the EU/EEA. Several countries are reporting increases in severity indicators, including cases in older age groups, hospitalisation, and mortality.

The overall COVID-19 case notification rate for the EU/EEA was 171.0 per 100 000 population (187.2 the previous week). This rate has been decreasing for two weeks. The 14-day COVID-19 death rate (14.9 deaths per million population, compared with 14.5 deaths the previous week) has been stable for one week. Of 29 countries with data on hospital/ICU admissions or occupancy up to week 36, 14 reported an increasing trend in at least one of these indicators compared to the previous week.

ECDC's assessment of each country's epidemiological situation derives from a composite score based on the absolute value and trend of five weekly COVID-19 epidemiological indicators. As shown below, for week 36, the epidemiological situation in the EU/EEA overall was categorised as of moderate concern (of low concern the previous week). One country was categorised as of very high concern, six countries as of high concern, 12 countries as of moderate concern and 11 countries as of low concern. Compared to the previous week, four countries (Czechia, Liechtenstein, Norway and Romania) moved to a higher category, three countries (France, Greece and Italy) moved to a lower category and 23 countries stayed in the same category.

By the end of week 36, the median cumulative uptake of at least one vaccine dose among adults aged 18 years and older was 77.1% (country range: 23.0–96.9%). The median cumulative uptake of full vaccination among adults aged 18 years and older was 71.3% (country range: 21.4–90.5%).

The estimated distribution (median and range of values from 16 countries for weeks 34 to 35, 23 August to 5 September 2021) of variants of concern (VOC) was 99.4% (71.0–100.0%) for B.1.617.2 (Delta), 0.0% (0.0–0.7%) for P.1 (Gamma) and 0.0% (0.0–0.3%) for B.1.351 (Beta). The distribution was 0.1% (0.0–13.7%) for B.1.1.7 (Alpha), which has been downgraded from the list of VOCs.

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 eight 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: ECDC published the 15th update of its rapid risk assessment on 10 June 2021 and a Threat Assessment Brief on the implications of the circulation of SARS-CoV-2 Delta on 23 June 2021. A dashboard with the latest updates is available on ECDC's website.

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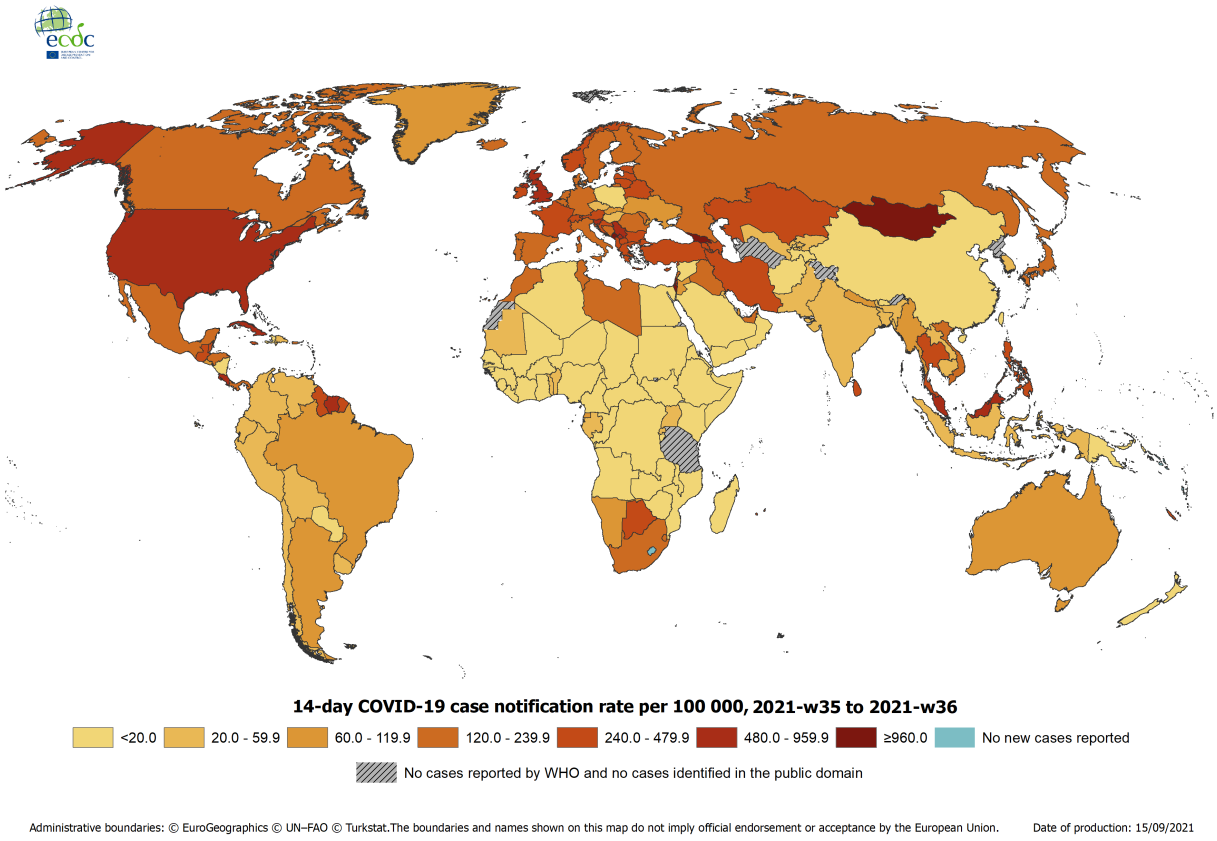
Geographic distribution of 14-day cumulative number of reported COVID-19 cases per 100 000 population, worldwide, 2021-w35 to 2021-w36

Source: ECDC



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

Opening date: 4 June 2021 Latest update: 17 September 2021

Epidemiological summary

Between 10 and 16 September 2021, European Union (EU) and European Economic Area (EEA) countries reported 11 human cases of West Nile virus (WNV) infection and no deaths related to WNV infections. Cases were reported by Italy (5), Romania (3), Hungary (2), and Germany (1). EU-neighbouring countries reported one fatal human case of WNV infection in Serbia.
This week, among the reporting countries, the following NUTS 3 or GAUL1 regions have reported human cases of WNV infection for the first time: Spree-Neiße in Germany.

Since the beginning of the 2021 transmission season and as of 16 September 2021, EU/EEA countries have reported 98 human cases of WNV infection in Greece (43), Italy (32), Romania (7), Spain (5), Hungary (5), Austria (3) and Germany (3), and five deaths in Greece (3), Spain (1), and Romania (1). EU-neighbouring countries have reported 13 human cases of WNV infection in Serbia (13) and three deaths in Serbia.

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During the current transmission season, within the reporting countries, human cases of WNV infection were reported from 41 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, 10 outbreaks among equids and one outbreak among birds have been reported by EU/EEA countries. Outbreaks among equids have been reported by Spain (7) and Germany (3). One outbreak among birds has been reported by Spain.

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, cases in this period of the year are not unexpected in the affected countries and further cases will very probably occur in the coming weeks.

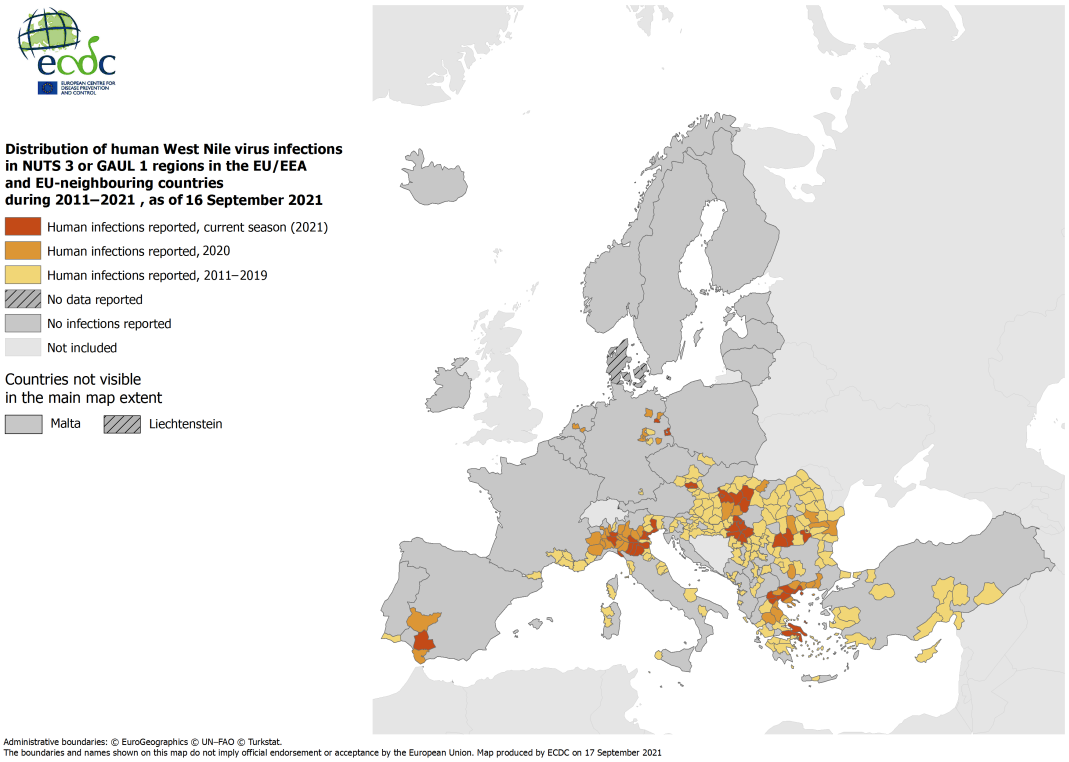
In accordance with Commission Directive 2014/110/EU, prospective blood donors should be deferred for 28 days after leaving a risk area for locally acquired WNV infection, unless the result of an individual nucleic acid test is negative.

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 16.09.

ECDC



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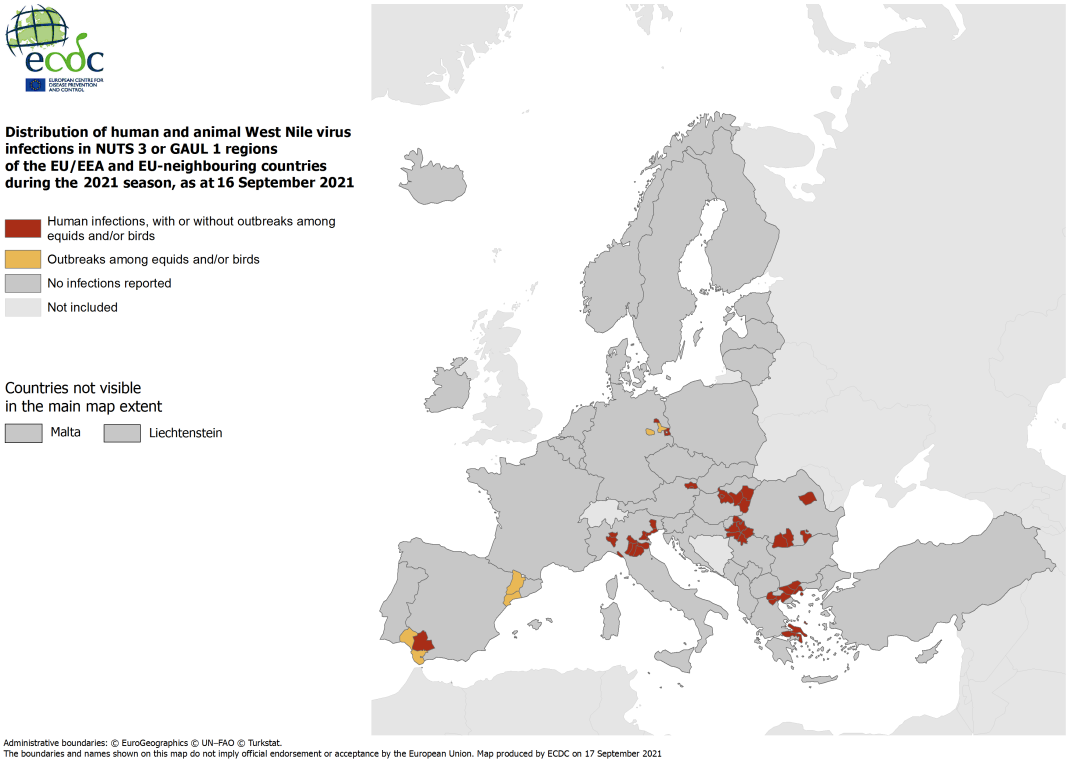
Distribution of West Nile virus infections among humans and outbreaks among equids and/or birds in the EU as of 16.09.

ECDC and ADIS



New! Human cases of swine influenza A(H3N2) variant virus – Multi-country – 2021

Opening date: 15 September 2021 Latest update: 17 September 2021

Epidemiological summary

On 10 September 2021, the US CDC confirmed a new human case with swine influenza A(H3N2) virus variant infection in Iowa state. The case was a child, was not hospitalised and has fully recovered. Household members of the patient kept or cared for swine. No human-to-human transmission has been associated with the case.

To date this year, the US CDC has recorded nine variant flu cases: two A(H3N2)v, two A(H1N2)v, and five A(H1N1)v. Five 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.

Source: US CDC | media

ECDC assessment

Sporadic transmission of swine influenza viruses from pigs or contaminated environment to humans has been observed in recent years, often related to exposure to pigs during large public agricultural fairs in the US, and these cases are therefore not unexpected.

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.

Nipah virus – India – 2021

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Opening date: 9 September 2021 Latest update: 17 September 2021

Epidemiological summary

As of 15 September 2021, media reports quoting health authorities stated that test results for 140 close contacts of the index case, including the boy's parents and healthcare workers who treated him, were confirmed to be negative. Samples from other close contacts continue to be sent for testing. The type of laboratory test performed has not been communicated. Laboratory testing is performed in the National Institute of Virology, Pune (WHO Collaborating Centre) and the Kozhikode Medical College Hospital. Over 250 contacts have been identified and the high risk contacts are in isolation at the Kozhikode Medical College Hospital.

In addition, a One Health approach is being applied by the local authorities. Samples have been sent for testing from the two goats owned by the family of the case and from fruits of rambutan trees in the proximity of the residence. An animal husbandry team has identified a fruit bat habitat close to the residence and a team from the National Institute of Virology in Pune has been tasked with collecting further samples from bats and other animals in accordance with the local Nipah outbreak management plan.

Background: Nipah virus (NiV) is a highly pathogenic virus of the family *Paramyxoviridae*, genus *Henipavirus*. It was first isolated and identified in 1999 during an outbreak in Malaysia and Singapore. Since then, several outbreaks of NiV infection in Southern and South-Eastern Asia were reported, most cases being reported from Bangladesh. This is the third outbreak of NiV infection in Kerala state: 2018 (Kozhikode district), 2019 (Ernakulum district) and 2021 (Kozhikode district).

NiV infection can cause mild to severe disease with symptoms typically appearing four to 14 days following exposure to the virus. However, incubation periods as long as 45 days have been previously reported. Initial symptoms including fever, headache, myalgia, vomiting, sore throat, and difficulty breathing, and can be followed by more severe symptoms, such as disorientation, drowsiness, altered consciousness, and neurological signs that indicate acute encephalitis.

NiV is most commonly transmitted by fruit bats of the family *Pteropodidae*, which are the natural host of the virus. The virus can be transmitted to humans and animals through contact with infected bats or their body fluids, including saliva, urine, and blood. Human-to-human transmission has been reported from close contact through nasal or respiratory droplets, urine, and blood. This kind of spread is most common among the family of the patient or the caregivers, including healthcare professionals.

In addition, NiV infections in pigs and other domesticated animals such as horses, goats, sheep, cats and dogs have previously been reported. NiV is highly pathogenic in pigs, and outbreaks among humans in Malaysia and Singapore have been associated with close contact to infected pigs.

The case fatality rate is estimated at 40% to 75%. Treatment is limited to supportive care, and no vaccine is available.

Sources: Kerala Health and Family Welfare Department, Facebook Kerala Health Services, media, Government of Kerala, media, OIE, WHO, US CDC

ECDC assessment

To date, one case has been confirmed and none of the tested contacts were positive. The case lived in the district where the 2018 NiV infection outbreak occurred, which suggests that NiV is likely to be circulating in the wildlife reservoir.

The likelihood of exposure and infection by NiV for EU/EEA citizens travelling or residing in Kozhikode district is currently very low. The single case is deceased and no other close contacts have been found to be positive, despite extensive testing; symptomatic individuals are in isolation. Exposure to the primary source and/or vehicle of infection of the case cannot be excluded, but the most likely place of infection of the index case has been sealed. As a general precaution, EU/EEA travellers and residents in India should not handle domestic or wild animals and avoid contact with their excreta. The virus may be present on food items contaminated by bats; washing, peeling, and cooking fruit and vegetables before consumption is generally recommended. Raw date palm sap should not be consumed.

Considering the severity of the symptoms and the high fatality rate of the disease, and that the number of cases among EU/EEA citizens travelling or residing in Kozhikode district is expected to be limited, the local impact of infection is considered to be low. As a result, the risk of infection by NiV for EU/EEA citizens travelling or residing in Kozhikode district is currently low.

The most likely route of introduction of the virus into the EU/EEA is via infected travellers. While importation of the virus cannot be excluded, it is currently very unlikely to occur considering that so far there is only one confirmed case in Kerala and that identified high risk contacts are in isolation. The current number of travellers arriving from India is expected to be relatively low due to the COVID-19 restrictions. Should a case be imported, nonetheless, the likelihood of spread of the virus within the EU/EEA is considered to be very low. It should be highlighted that the natural reservoir host of NiV is not native to Europe. As stated

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above, the impact of infection is considered to be low and consequently the risk of spread of the virus within the EU/EEA is considered to be low.

As a general precaution, travellers returning from India and presenting symptoms such as fever, headache, myalgia and/or vomiting should seek medical advice, even if the symptoms appear several weeks after return. The state of Kerala has recently faced an outbreak of Zika virus disease, dengue virus is also circulating, and the weekly number of COVID-19 cases is currently very high. The symptoms of NiV infection are unspecific and could be confused with a multitude of diseases, including dengue, Zika virus disease and COVID-19. Should a case be imported, this could potentially delay the diagnosis of NiV infection in the EU/EEA.

The laboratory network EVD-LabNet has mapped the capability of its network members for the diagnosis of NiV infections and the result is available in EVD-LabNet directory. Thirteen network laboratories within the EU/EEA can perform laboratory diagnostics for NiV infection.

Actions

ECDC is monitoring this event through its epidemic intelligence activities.

Meningitis – Democratic Republic of the Congo – 2021

Opening date: 10 September 2021 Latest update: 17 September 2021

Epidemiological summary

On 8 September 2021, the Democratic Republic of the Congo declared an outbreak of meningitis in the north-eastern Tshopo Province, with 261 suspected cases and 129 deaths reported (case fatality ratio of 49%). Confirmatory tests carried out by Institut Pasteur in Paris detected *Neisseria meningitidis,* one of the most frequent types of bacterial meningitis with the potential to cause large epidemics. Health authorities have deployed an initial emergency team, and the World Health Organization (WHO) is supporting the response. A crisis response committee has been set up in Banalia, the community affected by the outbreak, as well as in Kisangani, the capital of Tshopo, to accelerate the outbreak control efforts. WHO has provided medical supplies in Banalia, and plans to deploy more experts and resources.

Since 1 June 2021, and as of 11 September 2021, 330 suspected cases, including 151 deaths (case fatality ratio of 46%) have been reported in Kisangani district in the Democratic Republic of the Congo. Eight out of 29 samples collected have been confirmed for Neisseria meningitidis serogroup W.

Background: Meningitis is a serious infection of the meninges, the membranes covering the brain and spinal cord. The disease can be caused by many different pathogens, including bacteria, fungi or viruses, but the highest global burden is seen with bacterial meningitis. Several different bacteria can cause meningitis. *Streptococcus pneumoniae, Haemophilus influenzae* and *Neisseria meningitidis* are the most frequent ones. *N. meningitidis*, causing meningococcal meningitis, is the one with the potential to produce large epidemics. There are 12 serogroups of *N. meningitidis* that have been identified, six of which (A, B, C, W, X and Y) can cause epidemics. Meningococcal meningitis can affect anyone of any age, but mainly affects babies, preschool children, and young people. The disease can occur in a range of situations, from sporadic cases and small clusters to large epidemics throughout the world, with seasonal variations. Geographic distribution and epidemic potential differ according to serogroup. The largest burden of meningococcal meningitis occurs in the meningitis belt, an area of sub-Saharan Africa, which stretches from Senegal in the west to Ethiopia in the east and comprises 26 countries.

Sources: World Health Organization [1] [2] [3]

ECDC assessment

Meningitis outbreaks have occurred in several provinces of the Democratic Republic of Congo in the past. In 2009, an outbreak in Kisangani infected 214 people and caused 15 deaths (case fatality ratio of 8%). More than 1.6 million people aged between one and 29 years were vaccinated in a large campaign in 2016 in Tshopo. The risk to EU/EEA citizens is low.

Actions

ECDC will monitor the epidemiological situation through its epidemic intelligence activities.

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Plague – Madagascar – 2021

Opening date: 9 September 2021 Latest update: 17 September 2021

Epidemiological summary

On 29 August 2021, an alert was made by the health authorities of the Arivonimamo district, in the Itasy region of Madagascar, regarding cases of pneumonic plague.

The first case was in a patient who had an onset of illness on 23 August 2021.

Since 29 August 2021 and as of 6 September, health authorities of the Arivonimamo district in Madagascar have reported 35 cases of pneumonic plague, including 18 confirmed cases and 11 deaths (CFR = 31.4%).

A total of 916 contacts have been identified, are monitored and received chemoprophylaxis.

All cases were geographically located in three communities of Arivonimamo district: Ampahimanga, Manalalondo and Miandranda.

The municipality of Miandrandra is in the Arivonimamo district, Itasy region of Madagascar, in the centre of the island and 40 km southwest of the capital, Antananarivo. The municipality has been quarantined. Internal movement is banned for residents of the six municipalities of the Arivonimamo district.

Active case finding and chemoprophylaxis for high-risk contacts are ongoing. Further activities include: regular meetings of the plague control committees at regional and health district levels; mass sensitisation activities; contact tracing; and vector and animal reservoir control activities. An awareness campaign is being carried out in parallel about the practice of *famadihana*, or ceremony of turning the dead, considered as one of the possible mechanisms of spreading the disease.

Background: Plague is endemic in Madagascar. The last large outbreak of plague in Madagascar in 2017 resulted in 2 417 confirmed, probable and suspected cases, including 209 deaths (case fatality rate 8.7%) reported from 57 of 114 districts in the country. Of these, 1 854 (77%) were clinically classified as pneumonic plague, 355 (15%) were bubonic plague, one was septicaemic, and 207 were not classified. At least 81 healthcare workers contracted plague during the outbreak. Of the 1 854 clinical cases of pneumonic plague, 390 (21%) were confirmed.

For more information about the disease, visit ECDC's factsheet about plague.

Sources: media 1, media 2, Facebook Ministry of Health 1, Facebook Ministry of Health 2 , WHO 1, WHO 2

ECDC assessment

Despite plague being endemic in Madagascar, the report of 30 cases of pneumonic plague is unusual. The likelihood of infection among EU/EEA citizens in Madagascar is very low, as it is unlikely that EU/EEA citizens visiting or residing in Madagascar would be in contact with an infectious individual or the animal reservoir. The likelihood of infection might, however, be higher for people visiting friends and family. The impact of infection is considered to be low considering the severity of the symptoms and the high fatality rate of the disease if not treated, but the number of cases among EU/EEA citizens travelling or residing in the affected areas is expected to be limited. As a result, the risk of infection by Yersinia pestis for EU/EEA citizens travelling or residing in Itasy region is currently low.

However, it should be noted that there is a high likelihood that the outbreak could spread to other regions due to the proximity of the outbreak to the capital city of Antananarivo, regular commutes between the capital and the affected area, limited response capacity, and the current strain caused by the response to COVID-19. Moreover, the main transmission season of *Yersinia pestis* is between September and April, which may suggest that the number of cases will continue to increase.

The introduction of the pathogen into mainland EU/EEA and also into the French outermost regions of Réunion and Mayotte cannot be excluded. So far, the number of cases remains relatively limited, although likely underestimated, and the reduction of air traffic due to the COVID-19 restrictions minimise the likelihood of exportation of cases. There are currently no flights between Mayotte and Madagascar, and one flight every two weeks between Réunion and Madagascar. In 2017, during the large outbreak of plague in Madagascar, one travel-related case was reported by Seychelles, which highlights the potential of spread of the pathogen to other countries and the importance of raising awareness among travellers and clinicians. However, no cases were exported to mainland EU/EEA and the French overseas territories despite high air traffic.

Should a case be imported, in mainland EU/EEA, Réunion and Mayotte the likelihood of spread of the bacteria would be very low. As above, the impact is considered to be low. As a result, should a case be imported to mainland EU/EEA, Réunion and Mayotte,

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the risk of spread would be low.

Actions

ECDC monitors the plague epidemiological situation worldwide through its epidemic intelligence activities and reports when relevant.

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

Opening date: 1 June 2021 Latest update: 17 September 2021

Epidemiological summary

Two new cases of human infection with influenza A(H1N2)virus variant were reported on 3 and 10 September 2021 from France and the United States of America (Iowa), respectively.

On 3 September 2021, the French National Reference Center for respiratory diseases (NRC) confirmed a human infection with influenza A(H1N2)v virus of swine origin clade 1.C.2.4 for the first time in France. The case is an adult male residing in the Côtes-d'Armor departement, Brittany region, western metropolitan France. The case had a history of exposure to pigs from a livestock farm run by his family. He has no travel history.

On 10 September 2021, the US CDC confirmed a new case of human infection with swine origin influenza A(H1N2) virus variant infection in Iowa state. The case is a child, was not hospitalised, and has fully recovered. The child had direct contact with swine. No human-to-human transmission has been associated with the case.

To date this year, the CDC has recorded nine variant flu cases: two A(H3N2)v, two A(H1N2)v, and five A(H1N1)v. Five 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: Santé Publique France | media | the US CDC

ECDC assessment

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

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.

Human cases of swine influenza A(H1N1) variant virus – Multi-country – 2021

Opening date: 11 June 2021 Latest update: 17 September 2021

Epidemiological summary

On 14 August 2021, two confirmed human cases with A(H1N1)v virus infection were reported in Wisconsin state in the United States of America. Both cases were over 18 years old and both attended the same county fair where pigs were being exhibited. No human-to-human transmission of A(H1N1)v virus associated with either patient has been identified. One patient was hospitalised, and both fully recovered.

ECDC assessment

The sporadic transmission of swine influenza viruses from pigs or contaminated environment to humans has been observed in

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recent years in the US and the EU/EEA. This is often related to exposure to pigs during large public agricultural fairs in the US, and these cases are therefore not unexpected.

Testing for influenza virus should always be considered in patients with respiratory symptoms reporting prior contact to pigs. This helps to identify such events early and initiate follow-up investigations to identify any human-to-human transmission. Unsubtypable influenza viruses should be shared with national influenza centres or reference laboratories, as well as WHO Collaborating Centres, for further virus characterisation analysis.

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.

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

Opening date: 30 January 2019 Latest update: 17 September 2021

Epidemiological summary

Since the previous monthly update published on 23 July 2021, and as of 14 September 2021, three new cases of human infection with avian influenza A(H9N2) were reported, all from China. All cases had a mild disease. Two cases were children 1–2 years of age and one case was an adult, aged 78 years. No further cases were detected among contacts of these patients. The cases are listed as follows:

1. Two-year-old male from Sichuan Province with onset of symptoms on 27 April 2021. The patient had mild disease and a history of exposure to poultry.
2. 78-year-old female form Jiangsu Province with onset of symptoms on 20 April 2021. The patient had mild symptoms and a history of exposure to poultry.
3. One-year-old female (20 months of age) from Changsha, Hunan Province, with onset of mild illness on 23 August 2021, was hospitalised on 24 August. The patient had a history of exposure to poultry.

Since 1998, and as of 14 September 2021, 92 laboratory-confirmed cases of human infection with avian influenza A(H9N2) viruses have been reported, from China (80), Egypt (4), Bangladesh (3), Cambodia (1), Oman (1), Pakistan (1), India (1), and Senegal (1). Most of the cases were children with mild disease.

Sources: ECDC avian influenza page | Joint ECDC, EFSA and EU Reference Laboratory scientific for avian influenza report: Avian influenza overview May – August 2020 | WHO Surveillance - Avian influenza weekly reports | Centre for health Protection, the Government of the Hong Kong Special Administrative Region

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 31 May 2020 and the next will be published on 30 September 2021.

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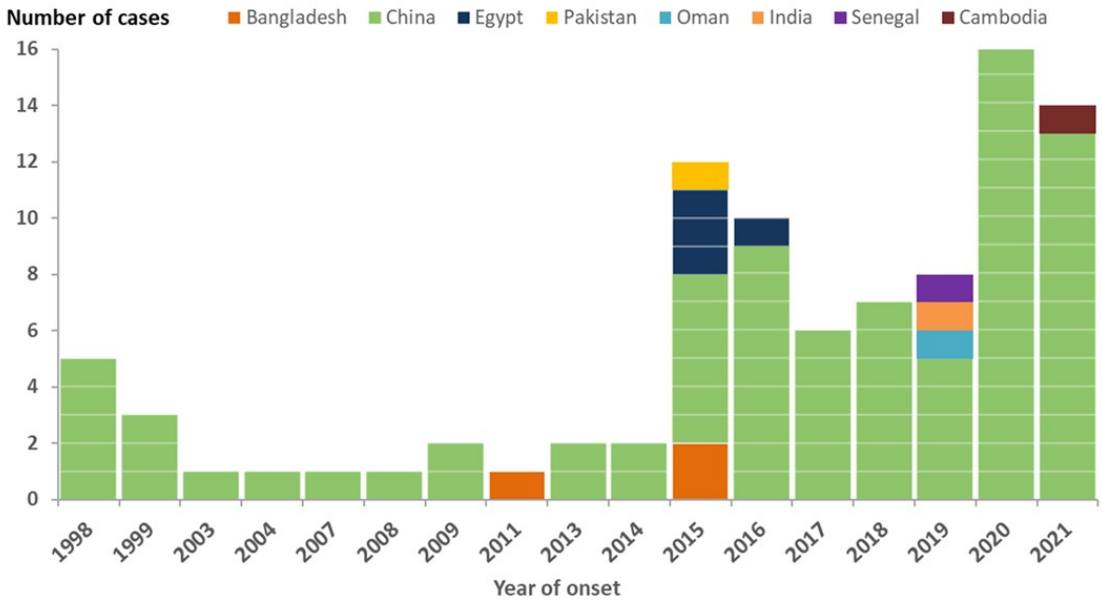
Distribution of confirmed human cases with avian influenza A(H9N2) virus infection by onset year and country, 1998–2021

Source: ECDC



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

Opening date: 17 January 2018 Latest update: 17 September 2021

Epidemiological summary

Since the previous monthly update published on 23 July 2021, and as of 14 September 2021, Chinese authorities notified of 10 new cases, including three deaths, of human infection with avian influenza A(H5N6) virus. All new cases were adults from 48 to 66 years of age from five Provinces in China (Chongqing, Guangdong, Guangxi, Hunan, and Sichuan). All cases had exposure to poultry except one, whose exposure history remains unknown. No further cases were detected among contacts of these cases. Epidemiological details of the new cases are listed as follows:

1. 51-year-old female from Dazhou city, Sichuan Province, developed symptoms on 25 June 2021, was hospitalised in critical condition on 2 July and died on 4 July. The patient had a history of exposure to poultry.
2. 57-year-old male from Kaijiang, Sichuan Province developed symptoms on 22 June 2021, was hospitalised in critical condition on 5 July and died subsequently. The patient had a history of exposure to poultry.
3. 66-year-old male from Tongnan, Chongqing Province developed symptoms on 23 June 2021, was hospitalised in critical condition on 30 June. The patient had a history of exposure to poultry.
4. 61-year-old female from Guilin, Guangxi Province, developed symptoms on 6 July 2021, was hospitalised on 9 July. The patient had a history of exposure to poultry.
5. 65-year-old female from Yibin City, Sichuan Province, developed symptoms on 8 July 2021, was hospitalised in critical condition on 13 July. The patient had a history of exposure to poultry.
6. 55-year-old female from Chenzhou, Hunan Province, developed symptoms on 26 July 2021, was hospitalised on 30 July in critical condition. The patient had a history of exposure to poultry.
7. 54-year-old male from Chenzhou, Hunan Province, developed symptoms on 2 August 2021, was hospitalised on 2 August. The patient had a history of exposure to poultry.
8. 52-year-old female from Huizhou City, Guangdong Province, developed symptoms on 31 July 2021, was hospitalised on 31 July in severe condition. The patient had a history of exposure to poultry.
9. 55-year-old male from Laibi, Guangxi Province, developed symptoms on 12 August 2021, was hospitalised on 17 August in critical condition and died subsequently. The patient's history of exposure is unknown.
10. 48-year-old female, a pediatrician, from Liuzhou, Guangxi Province, developed symptoms on 25 August 2021, was hospitalised on 29 August in critical condition. The patient had a history of exposure to poultry.

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Summary: Since 2014, and as of 9 September 2021, 43 cases, including 20 deaths (CFR: 46.5%), of human influenza A(H5N6) virus infection have been reported from China (42) 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 14 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 | WHO Influenza at the human-animal interface summary and assessment | Government of Hong Kong Special Administrative Region |

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.

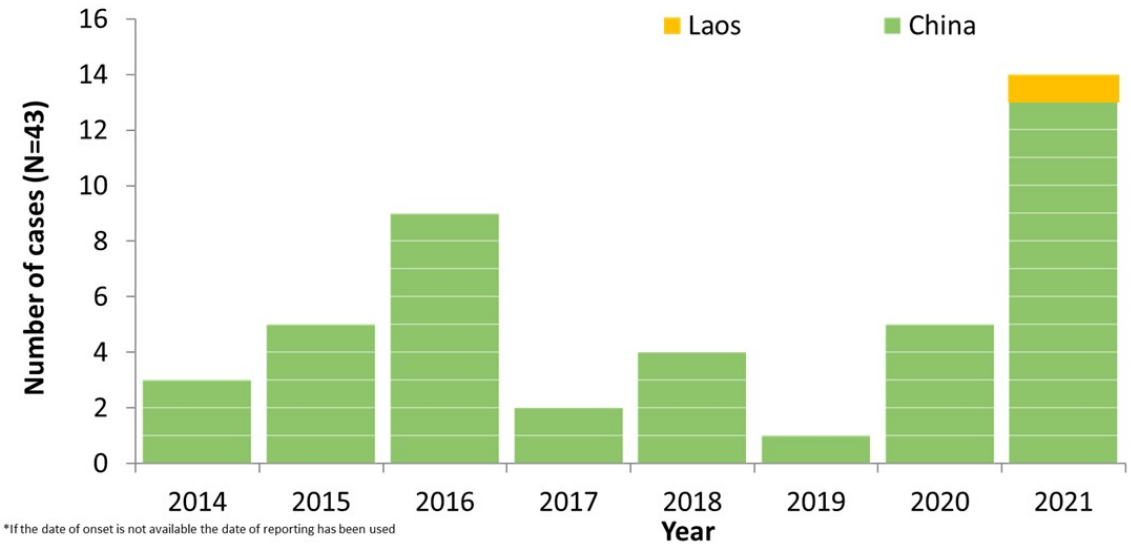
Sporadic zoonotic transmission cannot be excluded; the use of personal protective measures for people directly exposed to potentially infected poultry and birds with avian influenza viruses will minimise the remaining risk. The risk of zoonotic influenza transmission to the general public in EU/EEA countries 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 31 May 2021 and the next will be published on 30 September 2021.

Distribution of confirmed human cases with avian influenza A(H5N6) virus infection by onset year and country, 2014–2021

Source: ECDC



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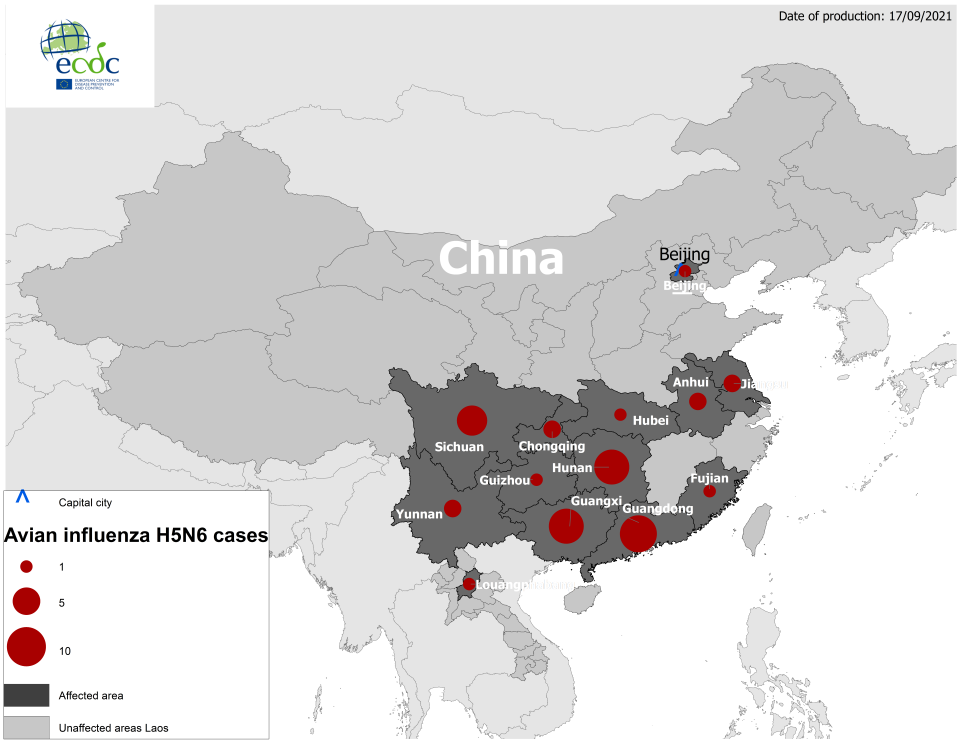
Geographical distribution of confirmed cases of A(H5N6), China, 2014 – 2021

Source: ECDC



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