

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

UEFA EURO 2016 - mass gathering - France

Opening date: 23 May 2016

Latest update: 17 June 2016

The UEFA European Championship is currently being held (10 June to 10 July 2016) in ten venues in France. Twenty-four European teams are participating. The majority of the participating teams are from EU countries with the exception of Ukraine, Turkey, Switzerland, Albania and Russia. ECDC has stepped up its epidemic intelligence activities to target events related to communicable diseases that may occur during the games. The enhanced monitoring starts one week before the event and will continue until one week after the end of the Championship.

→ Update of the week

The UEFA football cup started on 10 June 2016. No relevant events related to communicable diseases have been reported so far.

West Nile virus - Multistate (Europe) - Monitoring season 2016

Opening date: 30 May 2016

Latest update: 17 June 2016

During the June to November transmission season, ECDC monitors the situation in EU Member States and neighbouring countries in order to inform blood safety authorities of WNF-affected areas and identify significant changes in the epidemiology of the disease.

→ Update of the week

As of 16 June, no human cases of West Nile fever have been reported in the EU and neighbouring countries.

Enterovirus A71 outbreak - Catalonia, Spain - 2016

Opening date: 30 May 2016

Latest update: 17 June 2016

An outbreak of enterovirus with neurological complications has been ongoing in Catalonia since mid-April 2016, mostly affecting children. The causative agent has been identified as enterovirus A71.

→ Update of the week

As of 14 June, 91 probable cases have been detected and most have recovered. The cases are widespread in Catalonia. No cases have been reported from other regions in Spain.

ECDC published a [rapid risk assessment](#) on 16 June 2016.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 17 June 2016

Measles, a highly transmissible vaccine-preventable disease, is still endemic in some EU countries where vaccination uptake remains below the level required to interrupt the transmission cycle. Elimination of measles requires consistent vaccination uptake above 95% with two doses of measles vaccine in all population groups, strong surveillance and effective outbreak control measures. In 2014, 16 EU/EEA countries were above the measles vaccination coverage target of 95% for the first dose, and six countries for the second dose. Fourteen countries in the EU have coverage rates of <95% for the first dose and 20 countries for the second dose.

→Update of the week

During the past month, ongoing measles outbreaks were detected in Ireland, Germany, Russia, New Zealand, the United States of America, Mali and the Democratic Republic of Congo.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 17 June 2016

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease which often passes unnoticed. The main reason for immunising against rubella is the high risk of congenital malformations associated with rubella infection during pregnancy. All EU Member States recommend vaccination against rubella with at least two doses of vaccine for both boys and girls. The vaccine is given at the same intervals as the measles vaccine as part of the MMR vaccine. No new outbreaks have been detected in the EU since June 2015.

→Update of the week

No new outbreaks have been detected since the last monthly update.

Non EU Threats

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 17 June 2016

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), more than one million refugees arrived in Europe in 2015 and around 150 000 in 2016. To date, there have been reports of cases of acute respiratory tract infections, louse-borne relapsing fever, cutaneous diphtheria, scabies, measles, meningococcal meningitis, shigellosis, typhoid fever, hepatitis A, tuberculosis and malaria among refugees. While these cases do not represent a significant disease burden for the host countries, the diseases pose a potential threat, particularly to the health of the refugees themselves.

→Update of the week

No outbreaks were detected in refugee populations during the past week.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 17 June 2016

As of 15 June 2016, 52 countries and territories have reported autochthonous cases of Zika virus infection during the past nine months. On 1 February 2016, WHO declared that Zika virus infection and the related clusters of microcephaly cases and other neurological disorders constitute a public health emergency of international concern (PHEIC). The 3rd meeting of the emergency Committee declared the continuation of PHEIC on 14 June 2016. There is now a scientific consensus that Zika virus is a cause of microcephaly and Guillain-Barré syndrome.

→Update of the week

As of 15 June 2016, WHO reports 60 countries and territories with continuing mosquito-borne transmission. Of these, 52 countries and territories have reported autochthonous cases of Zika virus infection during the past nine months. Ten countries have reported evidence of person-to-person transmission of Zika virus, probably via a sexual route.

An article on the Zika outbreak in Colombia was published in [NEJM](#) on 16 June 2016. Preliminary findings included:

- Overall Zika incidence in women was twice that of men, which reflects factors such as increased testing in reproductive-age women because of the microcephaly threat or the role of sexual transmission.
- More than 90% of mothers who were infected during their third trimesters had given birth, and no infants with microcephaly or brain abnormalities were found.
- Four infants with laboratory evidence of congenital Zika virus disease were born to asymptomatic mothers.

Yellow fever outbreak- Multistate (world) - Monitoring global outbreaks

Opening date: 17 March 2016

Latest update: 17 June 2016

An outbreak of yellow fever in Angola started in December 2015 in the municipality of Viana, Luanda province, and spread to all 18 provinces of Angola. The neighbouring Democratic Republic of Congo (DRC) reports both imported and autochthonous cases of yellow fever. An outbreak of yellow fever, not linked to the outbreak in Angola, has been reported in several districts in Uganda. Another unrelated outbreak of yellow fever is reported in Peru.

→Update of the week

Outbreaks of yellow fever are ongoing in Angola (3 137 suspected cases), DRC (1 044 suspected cases) and Uganda (68 suspected cases). Peru is experiencing an outbreak of yellow fever since the beginning of the year, with 56 suspected cases including four deaths (as of 16 June 2016). The Republic of Congo, Brazil, Chad, Colombia, Ethiopia, and Ghana are currently reporting yellow fever outbreaks or sporadic cases not linked to the Angolan outbreak.

Yellow fever cases in people who travelled from Angola have been reported in China (11 cases), Democratic Republic of the Congo (51 confirmed cases) and Kenya (two cases).

Influenza A(H5N1) and other strains of avian flu - Non EU/EEA countries

Opening date: 15 June 2005

Latest update: 17 June 2016

Highly pathogenic avian influenza viruses A(H5) of Asian origin are highly infectious for several bird species, including poultry. The human infections with influenza A(H5) viruses have been caused by influenza A(H5N1) virus in several non EU/EEA countries and by influenza A(H5N6) virus in China. Other avian influenza subtypes, including H7N7 and H9N2, have infected people sporadically. Many of these infections have been mild or even subclinical in humans, but some have been severe and have resulted in deaths.

ECDC is following the development of these viruses and is monitoring infections in humans.

→Update of the week

No new laboratory-confirmed human cases of avian influenza A(H5N1) virus infection were reported by WHO in the previous month.

On 8 June 2016, China notified WHO of one laboratory-confirmed case of human infection with avian influenza A(H5N6) virus. The case was exposed to poultry.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 17 June 2016

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 15 June 2016, 781 cases have been reported to WHO, including at least 303 deaths. No autochthonous cases have been reported outside China. Most cases are isolated, and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak.

→Update of the week

During the past month no cases have been reported by WHO.

According to the United Nations Food and Agriculture Organization (FAO), there have been 792 confirmed cases of A(H7N9) and 307 deaths since February 2013. According to the FAO, the recent increase of human cases were reported from northern parts of China, which is unusual for the time of the year. The cases were reported from Tianjin (two cases), Hebei Province (two cases), bordering Tianjin and Jiangsu Province (two cases).

Plasmid-mediated colistin resistance mechanism MCR-1 in Gram-negative bacteria - Multistate (world) - 2016

Opening date: 30 May 2016

Latest update: 17 June 2016

The recent discovery of the *mcr-1* gene, which encodes the first transferable resistance mechanism to colistin (a last-resort antimicrobial agent for infections caused by multidrug-resistant (MDR) gram-negative bacteria) raised widespread concern that its dissemination within the human microbiome could lead to nosocomial outbreaks of virtually untreatable infections. Follow-up reports have revealed worldwide spread of the *mcr-1* gene by plasmid transfer to diverse species and strains of Enterobacteriaceae, including MDR strains. In May 2016, the US CDC reported the first human *mcr-1* positive *E. coli* isolate detected in the United States.

→Update of the week

ECDC has published a [rapid risk assessment](#) on 13 June 2016.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 17 June 2016

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission of the virus has completely stopped and the world becomes polio-free. Polio was declared a Public Health Emergency of International Concern (PHEIC) by WHO on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 20 May 2016, in the 9th meeting of the emergency committee, the temporary recommendations in relation to the PHEIC were extended for another three months. The World Health Organization recently declared wild poliovirus type 2 eradicated worldwide.

→Update of the week

One new case of wild poliovirus type 1 (WPV1) was reported last week in Afghanistan. No circulating vaccine-derived poliovirus cases were reported.

Local [media](#) in India report a positive environmental sample in Hyderabad taken from a sewerage treatment plant on 17 May 2016. Vaccination is planned for 300 000 children in the area.

II. Detailed reports

UEFA EURO 2016 - mass gathering - France

Opening date: 23 May 2016

Latest update: 17 June 2016

Epidemiological summary

The UEFA European Championship is currently being held (10 June to 10 July 2016) in ten venues in France. Twenty-four European teams are participating. The majority of the participating teams are from EU countries with the exception of Ukraine, Turkey, Switzerland, Albania and Russia. ECDC has stepped up its epidemic intelligence activities to target events related to communicable diseases that may occur during the games. The enhanced monitoring starts one week before the event and will continue until one week after the end of the Championship. No relevant events related to communicable diseases have been reported so far.

ECDC assessment

Mass gathering events involve a large number of visitors in an area at the same time. This may increase the risk of communicable disease outbreaks and non-communicable health risks, including heat stroke, crowd injury and drug- and alcohol-related conditions.

Actions

During June 2016, ECDC will undertake enhanced event-based daily surveillance as part of its routine epidemic intelligence activities. The epidemic intelligence team will adapt the media screening tools and its daily procedures to detect infectious disease threats in both the host and the participating countries. Detected events that require further attention are reported through the weekly CDTR.

West Nile virus - Multistate (Europe) - Monitoring season 2016

Opening date: 30 May 2016

Latest update: 17 June 2016

Epidemiological summary

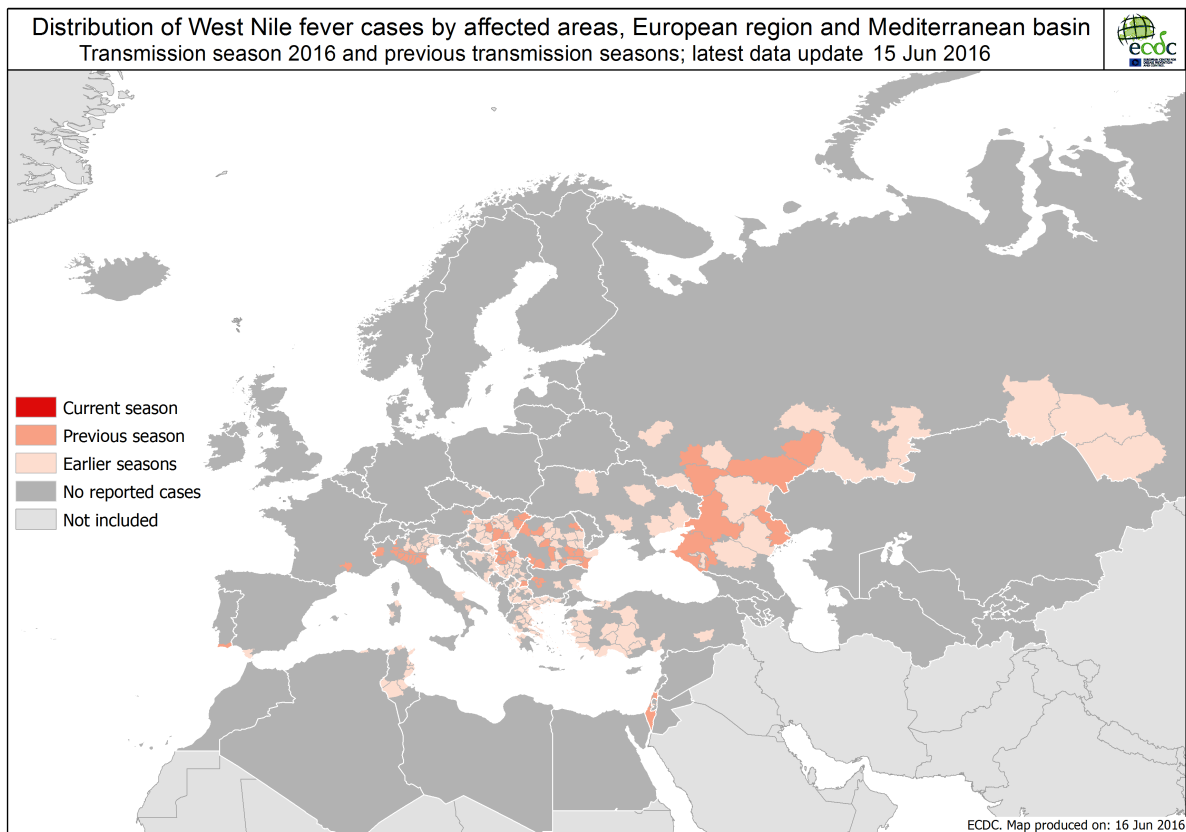
In week 22, 2016 ECDC started the seasonal monitoring of West Nile fever. During the season, ECDC will publish updated [West Nile maps](#) for the 2016 transmission season, also starting in week 22. As of 16 June, no human cases of West Nile fever have been reported in the EU and neighbouring countries.

ECDC assessment

West Nile fever in humans is a notifiable disease in the EU. National health authorities consider the implementation of control measures important for ensuring blood safety when human cases of West Nile fever occur. In accordance with the [EU blood directive](#), efforts should be made to defer blood donations from affected areas with ongoing virus transmission.

Actions

From week 22 onwards, ECDC is producing weekly West Nile fever (WNF) maps during the transmission season (June to November) to inform blood safety authorities regarding WNF-affected areas.



Enterovirus A71 outbreak - Catalonia, Spain - 2016

Opening date: 30 May 2016

Latest update: 17 June 2016

Epidemiological summary

An outbreak of enterovirus with neurological complications has been ongoing in Catalonia since mid-April 2016, mostly affecting children. The causative agent has been identified as enterovirus A71. As of 14 June, 91 probable cases have been detected and most have recovered. The cases are widespread in Catalonia. No cases have been reported from other regions in Spain.

Web sources: [Department of Health, Catalonia|Media](#)

ECDC assessment

Enterovirus A71 (EV-A71) is a major cause of hand, foot and mouth disease (HFMD) and is particularly prevalent in parts of Southeast Asia, affecting thousands of children and infants each year. There are only four larger outbreaks of EV-A71 in Europe documented in the published literature. The last epidemics of EV-A71 infection in Europe occurred in Bulgaria in 1975 with over 705 cases, of which 149 cases developed paralysis and 44 died. Hungary experienced an outbreak of EV-A71 in 1978 involving 323 cases (13 poliomyelitis-like paralysis, 145 encephalitis, 161 aseptic meningitis, 4 HFMD).

EV-A71 infection is transmitted from person to person by direct contact with nose and throat discharges, saliva, fluid from blisters, or the stool of infected persons, and therefore outbreaks are difficult to control. The virus can also be shed up to 11

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weeks after recovery in stool, which makes the transmission within close contacts possible, even when no symptoms in the primary case are visible. EV-A71 is the most neuropathogenic non-polio enterovirus in humans, causing a variety of neurological diseases including aseptic meningitis, encephalitis, brainstem encephalitis and poliomyelitis-like paralysis and any outbreak of it needs therefore careful assessment. As many of the patients in Catalonia have presented with severe illness requiring admission to intensive care, the epidemic causes considerable burden on paediatric intensive care units.

Actions

ECDC published a [rapid risk assessment](#) on 16 June 2016.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 17 June 2016

Epidemiological summary

EU/EEA Member States

Ireland

The Irish health authorities are currently investigating an ongoing measles outbreak in different parts of Ireland. Nineteen measles cases linked to the outbreak have been identified as of 9 June 2016, of which 13 are confirmed and six are probable. All cases have occurred in individuals under 30 years of age, with most cases occurring in the 15–19 year age group. It is believed that the source of infection most likely came from another European country where measles outbreaks are occurring. Most of those who have been infected as a result of this outbreak did not know that they had been in contact with measles and most had not received the MMR vaccine.

Germany

German [newspapers](#) reported a measles outbreak at a Waldorf school in Überlingen, Baden-Württemberg, with 15 cases. Students and teachers without proof of MMR vaccination were sent home until the end of incubation period, 17 June. Another outbreak in Germany is occurring in [Berlin](#) with 52 cases as of 10 June, affecting young adults in the age group of 18 to 29 year old. Nearly half of the patients were hospitalised. The last large outbreak in Berlin occurred during the end of 2014 to late summer 2015 with a total of 1 360 cases.

Russia

News media reported an outbreak of measles in Irkutsk with 25 cases as of 3 June 2016. A vaccination campaign is ongoing.

New Zealand – update

News media reported 60 measles cases, most of them linked to Hamilton. This is an increase of 38 cases since the last ECDC update. The first case, a resident of Hamilton, contracted the disease in April while on an overseas trip and then infected two others. Since April, there have been cases in Nelson, Northland and MidCentral.

US

An outbreak of measles that began with an inmate at a federal detention centre for immigrants in central Arizona has grown to 16 confirmed cases as of 10 June 2016. The outbreak began when an infected inmate was brought to the facility and spread the disease to a worker, who had been vaccinated but caught the disease anyway.

Mali

News media reported a measles outbreak in the health district of Ansongo, Gao region. Immunisation response in the health district is ongoing.

Democratic Republic of the Congo

Two measles outbreaks are ongoing in South Kivu, with 382 reported cases of as of 5 June 2016.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC/Euronews documentary](#) | [MedISys Measles page](#) | [EUVAC-net ECDC](#) | [ECDC measles factsheet](#) | [4th Meeting of the European Regional Verification Commission for Measles and Rubella Elimination \(RVC\) \(2016\)](#)

ECDC assessment

Measles is targeted for elimination in Europe. Elimination is defined as the absence of endemic cases in a defined geographical area for a period of at least 12 months, in the presence of a well-performing surveillance system. Regional elimination can be declared after 36 or more months of the absence of endemic measles or rubella in all Member States.

Although progress has been made towards elimination, it has not yet been achieved. At the fourth meeting of the Regional Verification Commission for measles and rubella in October 2015, as of the end of 2014, endemic measles transmission was interrupted in 32 Member States. Based on its conclusions for the period 2012–2014, the RVC could for the first time verify interruption over a 36-month period, and thereby declare that 21 Member States eliminated measles.

Actions

ECDC monitors measles transmission and outbreaks in EU and neighbouring countries in Europe on a monthly basis through enhanced surveillance and epidemic intelligence activities.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 17 June 2016

Epidemiological summary

No new outbreaks have been detected in the EU since June 2015.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC rubella factsheet](#) | [WHO epidemiological brief summary tables](#) | [WHO epidemiological briefs](#) | [Progress report on measles and rubella elimination](#) | [European Regional Verification Commission for Measles and Rubella Elimination \(RVC\) \(2016\)](#)

ECDC assessment

WHO has targeted the elimination of measles and rubella in the 53 Member States of the WHO European Region. Elimination is defined as the absence of endemic cases in a defined geographical area for a period of at least 12 months, in the presence of a well-performing surveillance system. Regional elimination can be declared after 36 or more months of the absence of endemic measles or rubella in all Member States. Although progress has been made towards elimination, this goal has not yet been achieved.

According to a meeting report by the European Regional Verification Commission for Measles and Rubella Elimination (RVC), endemic rubella transmission was interrupted in 32 WHO Europe Member States in the period 2012–2014. The RVC declared that 20 Member States eliminated rubella during this period.

Actions

ECDC closely monitors rubella transmission in Europe by analysing the cases reported to the European Surveillance System and through its epidemic intelligence activities on a monthly basis. Twenty-four EU and two EEA countries contribute to the enhanced rubella surveillance. The purpose of the enhanced rubella monitoring is to provide regular and timely updates on the rubella situation in Europe in support of effective disease control, increased public awareness, and the achievement of the 2015 rubella and congenital rubella elimination target.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 17 June 2016

Epidemiological summary

Emerging episodes of communicable diseases have been reported to affect refugee populations, including acute respiratory tract infections, louse-borne relapsing fever, cutaneous diphtheria, scabies, measles, meningococcal meningitis, shigellosis, typhoid fever, hepatitis A, tuberculosis and malaria.

ECDC assessment

Refugees are currently not a public health threat to Europe with regard to communicable diseases, but they are a priority group for communicable disease prevention and control efforts as they are more vulnerable.

[WHO, UNHCR and UNICEF](#) jointly recommend that refugees, asylum seekers and migrants – irrespective of their legal status – should have non-discriminatory, equitable access to healthcare services, including vaccines and vaccination. They should be provided with timely immunisation against vaccine-preventable diseases, particularly measles and polio. All countries should have effective disease surveillance and reporting systems, outbreak investigation ability and case management and response capacity.

The risk to European residents of being affected by outbreaks occurring among refugee populations remains extremely low.

Actions

One EPIET fellow is currently deployed to Greece to support communicable disease surveillance and response operations.

An [ECDC expert opinion](#) on the public health needs of irregular migrants, refugees or asylum seekers across the EU's southern and south-eastern borders was published on the ECDC website in September 2015.

ECDC prepared:

- an [RRA](#) on the risk of communicable disease outbreaks in refugee populations in the EU/EEA
- an updated [RRA](#) on louse-borne relapsing fever amongst migrants in the EU/EEA
- an [RRA](#) on cutaneous diphtheria among recently arrived refugees and asylum seekers in the EU
- an [RRA](#) on the risk of importation and spread of malaria and other vector-borne diseases associated with the arrival of migrants in the EU
- an [RRA](#) on shigellosis among refugees in the EU.

ECDC, in collaboration with Member States, the European Commission and WHO, continues to closely monitor the situation to rapidly identify and assess potential communicable disease threats.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 17 June 2016

Epidemiological summary

EU/EEA imported cases:

As of 17 June 2016, ECDC has recorded 838 imported cases in 20 EU/EEA countries. The number of imported cases reported is not based on a systematic reporting surveillance system and cannot be considered exhaustive.

EU's Outermost Regions and Territories

Martinique: As of 16 June 2016, 30 000 suspected cases have been reported, an increase of 1 070 since last week. The weekly number of cases has been stable over the last four weeks.

French Guiana: As of 16 June 2016, 7 830 suspected cases have been detected, an increase of 290 since last week. The weekly number of cases has been decreasing over the last three weeks.

Guadeloupe: As of 16 June 2016, 13 030 suspected cases have been detected, an increase of 2 840 suspected cases since last week. The weekly number of cases is continuously increasing.

St Martin: As of 16 June 2016, 830 suspected cases have been detected, an increase of 140 suspected cases since last week. The weekly number of cases is still reported as very high.

St Barthélemy: As of 16 June 2016, 70 suspected cases have been detected, an increase of 17 suspected cases since last week. The weekly number of cases is still increasing.

Update on microcephaly and/or central nervous system (CNS) malformations potentially associated with Zika virus infection

As of 15 June 2016, microcephaly and other central nervous system (CNS) malformations associated with Zika virus infection or suggestive of congenital infection have been reported by twelve countries or territories. In the EU, Spain (2) and Slovenia (1) reported congenital malformations associated with Zika virus infection after travel in the affected areas.

Thirteen countries and territories worldwide reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

Brazil: Between October 2015 and 11 June 2016, Brazil has reported 7 936 suspected cases of microcephaly and other nervous system disorders suggestive of congenital infection; this is an increase of 106 cases since the last update; 1 581 are confirmed cases of microcephaly, 226 of which are laboratory-confirmed for Zika virus infection.

Web sources: [ECDC Zika Factsheet](#) | [PAHO](#) | [Colombian MoH](#) | [Brazilian MoH](#) | [Brazilian microcephaly case definition](#) | [SAGE MOH Brazil](#)

ECDC assessment

The spread of the Zika virus epidemic in the Americas is likely to continue as the vectors (*Aedes aegypti* and *Aedes albopictus* mosquitoes) are widely distributed there. The likelihood of travel-related cases in the EU is increasing. A detailed risk assessment is available [here](#).

As neither treatment nor vaccines are available, prevention is based on personal protection measures. Pregnant women should consider to postpone non-essential travel to Zika-affected areas.

Actions

ECDC publishes an [epidemiological update](#) every Friday and [maps](#) with information on countries or territories which have reported confirmed autochthonous cases of Zika virus infection.

Yellow fever outbreak- Multistate (world) - Monitoring global outbreaks

Opening date: 17 March 2016

Latest update: 17 June 2016

Epidemiological summary

In **Angola**, as of 13 June 2016, 3 137 cases and 345 deaths have been reported since the beginning of the outbreak in December 2015. Of these, 847 are confirmed. The number of cases in the country is slowly decreasing, though new clusters of cases are being reported in new districts. Yellow fever virus circulation continues to extend to other provinces, and the risk for exportation to other countries with close linkages to Angola still exists. The epidemiological situation in Lunda Norte is of particular concern. This province shares borders with the DRC and regularly experiences a high flow of people and goods in and out of DRC. To date, three laboratory-confirmed cases, imported from Lunda Norte, have been reported by DRC. As of 10 June, 10 641 209 people have been vaccinated and the country has received 11 635 800 doses of vaccine. Mass vaccination campaigns have taken place in all districts of Luanda, seven districts of Benguela, five districts of Cuanza Sul, five districts of Huambo, three districts of Huila, and two of Uige. Vaccination is ongoing in two districts of Lunda Norte and one in Zaire, all of which border DRC. Additional mass vaccination campaigns are being planned in these and other provinces, including Cuando Cubango, Cunene and Namibe. Reactive vaccination has taken place in Cafunfu town (Lunda Norte) and the city of Lubango (Huila), among others. 'Mop up' campaigns are planned in areas with low vaccination coverage in Luanda and Benguela.

As of 13 June 2016, 1 044 suspected cases of yellow fever, including 71 deaths, have been reported by the **DRC** national surveillance system. Of these, 61 were confirmed cases in 22 health zones: 53 were imported from Angola, two are sylvatic and six are autochthonous cases in Ndjili, Kimbanseke and Kisenso districts (in Kinshasa), in Matadi (Kongo Central) and in Kwango province. Two of the newly confirmed cases are autochthonous cases reported in a new area, the Kisenso health zone in Kinshasa. Another seven cases in Kinshasa, Kongo central and Kwango are still under investigation. Vaccination campaign was recently carried out in Kongo Central and Kinshasa where 2 097 087 people (106%) were vaccinated against yellow fever (two health zones in Kinshasa and nine in Kongo Central).

In **Uganda**, health authorities reported 68 yellow fever cases between 26 March and 4 June 2016, of which seven were laboratory confirmed and seven fatal.

In **Ethiopia**, investigation is ongoing on 22 suspected yellow fever cases, including five deaths reported in two districts of South Omo zone. So far, one of the 19 samples was positive for yellow fever at the national laboratory (IgM positive). The last outbreak of yellow fever in this area was in 2013, which triggered a reactive vaccination campaign.

Ghana reported four suspected cases from two regions: three in Brong-Ahafo region and one from Volta region. Investigations are ongoing to determine the vaccination status of the cases and to rule-out a link with Angola or DRC. These are most likely sylvatic cases as these areas are known to be endemo-epidemic for yellow fever.

Chad reported a sylvatic case of yellow fever that had symptom onset back on the 15 January 2016.

Republic of Congo reported two suspected cases of yellow fever in Bouenza department last week. Further investigations and laboratory analysis are needed to assess whether they are confirmed cases, their vaccination status and their link to Angola.

Colombia has reported a sylvatic case of yellow fever with symptom onset on 19 May 2016.

In **Brazil**, one sporadic fatal yellow fever case was reported in São Paulo state in March 2016. The case did not have a history of yellow fever vaccination.

As of 8 June 2016, **Peruvian** authorities have reported 52 yellow fever cases in the country since the beginning of the year. Most of these cases (35) have been reported from Junin department. One case was reported in the capital, Lima, and three cases were in Cusco, a tourist area. This outbreak is not related to the current African outbreaks.

Web sources: [ECDC factsheet](#) / [WHO yellow fever page](#) | [WHO AFRO](#) | [WHO SitRep 2 June2016](#) | [WHO-DRC](#) | [PAHO](#) | [MoH Peru](#) | [ECDC updated risk assessment](#)

ECDC assessment

WHO estimates that 508 million people living in 31 African countries are at risk for transmission of yellow fever. Therefore, the large outbreak of yellow fever in Angola is of concern with regard to the risk of introduction of the virus through viraemic travellers to countries at risk of transmission, especially in neighbouring countries. Yellow fever in an urban setting is considered a public health emergency that may result in a large number of cases. Vaccination is the single most important measure for preventing yellow fever. The outbreak in Angola is not yet controlled and is currently expanding to other provinces, challenging the ongoing mass vaccination campaign. The control of the outbreak in Angola is needed in order to prevent further spread. There are concerns that if yellow fever spreads to other countries in Africa and Asia, there would be a need to further prioritise vaccine supplies, which would interrupt routine immunisation programmes in some countries.

In DRC, the confirmation of autochthonous circulation in the capital is a major concern as Kinshasa is densely populated, representing a risk of extension to Brazzaville, the capital of Republic of the Congo, that is located across the Congo river.

Proof of vaccination is required for all travellers aged nine months and above entering Angola and DRC. WHO recommends vaccination for all travellers older than nine months of age in areas where there is evidence of persistent or periodic yellow fever virus transmission. European citizens travelling to, or residing in, Angola should be vaccinated against yellow fever as per their national health authorities' recommendations. Vaccine should be administered at least 10 days before travelling.

The competent vector for yellow fever, the *Aedes aegypti* mosquito, is not present in continental EU but is present in the island of Madeira, an autonomous region of Portugal where the weather conditions will be suitable soon for mosquito activity.

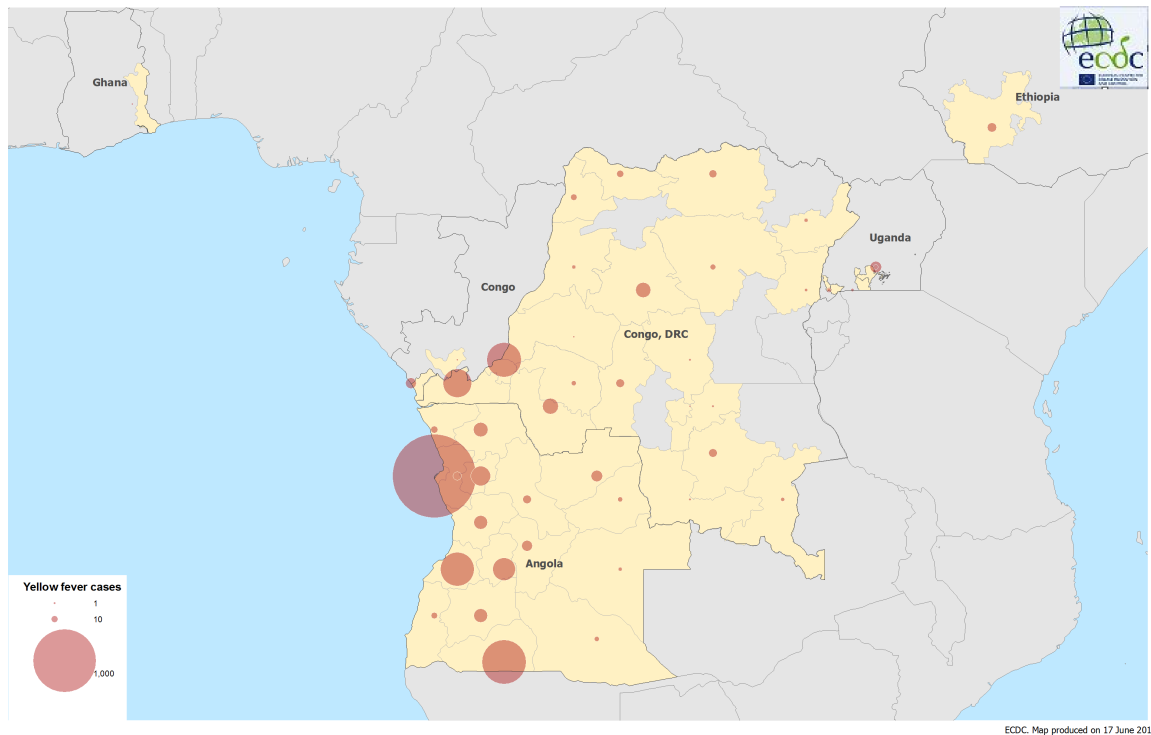
Actions

More than ten million people in Angola have been vaccinated through a large-scale vaccination campaign since the beginning of February, using vaccines mobilised through the yellow fever vaccine emergency stockpile made available through the International Coordinating Group for Vaccine Provision, with support from Gavi, the UN Central Emergency Response Fund, and a vaccine donation from Brazil.

One EPIET fellow is currently deployed in DRC.

ECDC published a [rapid risk assessment](#) on 25 March 2016 and an updated [risk assessment](#) on 30 May 2016.

Yellow fever cases distribution in Africa, week 1 to 24, 2016



Influenza A(H5N1) and other strains of avian flu - Non EU/EEA countries

Opening date: 15 June 2005

Latest update: 17 June 2016

Epidemiological summary

From 2003 to 15 June 2016, 850 laboratory-confirmed cases of human infection with avian influenza A(H5N1) virus, including 449 deaths, have been reported from 16 countries. In addition, 15 laboratory-confirmed cases of human infection with avian influenza A(H5N6) virus, including six deaths, have been detected in China since 2013.

Web sources: [ECDC Rapid Risk Assessment](#) | [Avian influenza on ECDC website](#) | [EMPRES](#) | [QIE](#) | [WHO](#)

ECDC assessment

The identification of sporadic cases in Egypt is not unexpected as avian influenza A(H5N1) viruses are known to be circulating in poultry in the country.

When avian influenza viruses circulate in poultry, sporadic infections or small clusters of human cases are possible in people exposed to infected poultry or contaminated environments, especially in households and at live bird markets. The viruses remain

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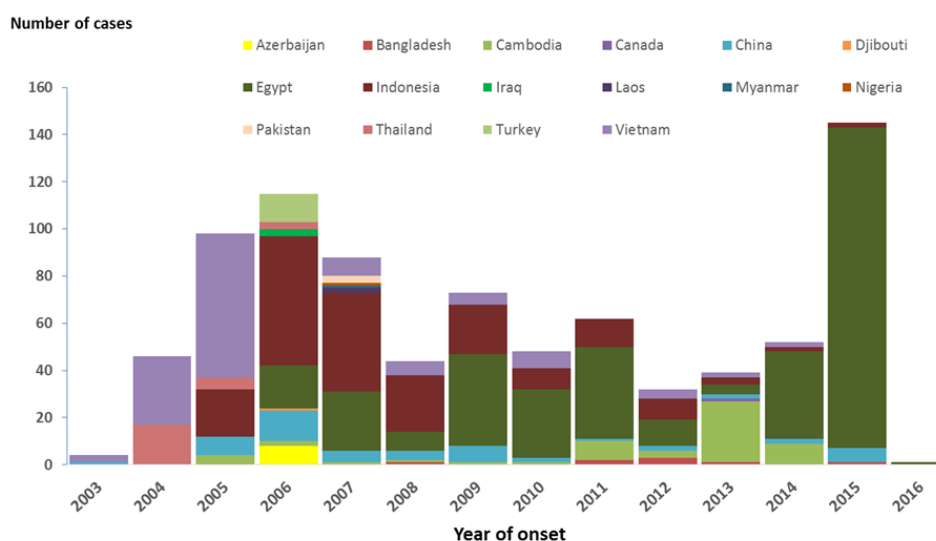
poorly adapted to humans and transmission from birds to humans is infrequent. Only limited clusters of human cases have been reported since the first human epidemics of A(H5N1). No sustained human-to-human transmission has been observed. The risk of foodborne transmission, e.g. through the consumption of eggs or meat, is considered extremely low.

Actions

ECDC monitors avian influenza strains through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of the A(H5N1) risk to humans on a regular basis.

Distribution of confirmed cases of influenza A(H5N1) by country of reporting

Adapted from WHO figures



Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 17 June 2016

Epidemiological summary

The human cases of influenza A(H7N9) reported by China to WHO since March 2013 have the following geographical distribution: Zhejiang (218), Guangdong (194), Jiangsu (101), Fujian (72), Shanghai (51), Anhui (37), Hunan (34), Hong Kong (16), Jiangxi (12), Xinjiang Uyghur (10), Shandong (8), Beijing (6), Taiwan (4), Henan (4), Guangxi (4), Guizhou (2), Hubei (2), Jilin (2) and Hebei (1). Three imported cases have also been reported: one in Malaysia and two in Canada.

Web sources: [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [ECDC](#) | [WHO avian influenza updates](#)

ECDC assessment

This outbreak is caused by a novel reassortant avian influenza virus capable of causing severe disease in humans. This is a zoonotic outbreak, in which the virus is transmitted sporadically to humans in close contact with the animal reservoir, similar to the influenza A(H5N1) situation.

In the past 12 months, there have been continued avian influenza A(H7N9) virus detections in the animal population in several provinces of China, indicating that the virus persists in the poultry population. If the pattern of human cases follows the trends seen in previous years, the number of human cases may rise over the coming months. Further sporadic cases of human infection with avian influenza A(H7N9) virus are therefore expected in neighbouring areas and in areas that are already affected.

Imported cases of influenza A(H7N9) may be detected in Europe. However, the risk of the disease spreading among humans following an importation to Europe is considered to be very low. People in the EU presenting with severe respiratory infection and a history of potential exposure in the outbreak area will require careful investigation.

Actions

The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation, and scientific research.

ECDC published an updated [Rapid Risk Assessment](#) on 3 February 2015.

ECDC published a guidance document [Supporting diagnostic preparedness for detection of avian influenza A\(H7N9\) viruses in Europe](#) for laboratories on 24 April 2013.

Distribution of confirmed cases of A(H7N9) by four periods of reporting (weeks 07/2013 to 24/2016)



Plasmid-mediated colistin resistance mechanism MCR-1 in Gram-negative bacteria - Multistate (world) - 2016

Opening date: 30 May 2016

Latest update: 17 June 2016

Epidemiological summary

On 18 November 2015, Liu et al. reported the first description of plasmid-mediated colistin resistance (*mcr-1* gene) in food-producing animals, food and humans in China. On 3 March 2016, a literature review published in *Eurosurveillance* summarised the available information and knowledge on the geographic and longitudinal spread of the *mcr-1* gene, the variety of host species, associated resistance genes, and the rate of transferability of the plasmid-mediated *mcr-1* gene. The study showed that, within three months of its discovery, the *mcr-1* gene was reported from most continents and found in bacteria from various food animals, the environment, various types of meat and vegetables, infected patients and asymptomatic human carriers. In the EU/EEA, the *mcr-1* gene has been identified in human samples since 2011 (Denmark, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom); in food-producing animals since 2005 (Belgium, France, Germany, Italy, the Netherlands, Spain and the United Kingdom); in food since 2009 (Belgium, Denmark, France, Portugal, the Netherlands and the

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United Kingdom). The first report on 26 May 2016 of the *mcr-1* gene in an *E. coli* isolate from a human specimen in the United States further extends the geographic distribution of the gene, which, to date, has been reported in 27 countries.

Source: [AAC](#) | [Eurosurveillance](#) | [EMA](#) | [Lancet](#) | [ScienceDirect](#)

ECDC assessment

This plasmid-mediated gene epidemic is of exceptional public health concern because it further limits treatment options in patients with infections caused by multidrug-resistant (MDR) gram-negative bacteria and can spread colistin resistance more easily between bacteria and humans than colistin resistance resulting from chromosomal mutation. MDR gram-negative bacteria, including carbapenem-resistant Enterobacteriaceae strains that acquire the *mcr-1* gene, remain susceptible to only a few antimicrobial agents, which means that infections caused by these strains are very difficult to treat and result in excess mortality. As the limited development of new antimicrobials is unlikely to provide a solution anytime soon, it is crucial to take measures to control the spread of *mcr-1* and thus protect the activity of colistin.

Actions

On 13 June 2016 ECDC published a [rapid risk assessment](#), including options for actions to reduce identified risks, prevent transmission in healthcare settings, and prevent further spread in the community.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 17 June 2016

Epidemiological summary

In 2016, 17 cases of wild poliovirus type 1 (WPV1) have been reported, compared with 28 cases for the same period in 2015. The cases were detected in Pakistan (11 cases) and in Afghanistan (six cases).

As of 16 June 2016, three cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO in 2016, all from Laos. There were two cVDPV cases during the same period in 2015.

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#) | [Temporary Recommendations to Reduce International Spread of Poliovirus](#) | [WHO Statement on the Seventh Meeting of the International Health Regulations Emergency Committee on Polio](#)

ECDC assessment

The last locally-acquired wild polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent wild polio outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases.

References: [ECDC latest RRA](#) | [Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA](#) | [Wild-type poliovirus 1 transmission in Israel - what is the risk to the EU/EEA?](#) | [RRA Outbreak of circulating vaccine-derived poliovirus type 1 \(cVDPV1\) in Ukraine](#)

Actions

ECDC monitors reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being re-introduced to the EU. Following the declaration of polio as a PHEIC, ECDC updated its [risk assessment](#). ECDC has also prepared a background document with travel recommendations for the EU.

Following the detection of the cases of circulating vaccine-derived poliovirus type 1 in Ukraine, ECDC published a rapid risk assessment on its [website](#).

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