COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 21, 22-28 May 2016

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Influenza - Multistate (Europe) - Monitoring 2015-2016 season

Opening date: 2 October 2015 Latest update: 27 May 2016

Influenza transmission in Europe shows a clear seasonal pattern, with peak activity during winter months. ECDC monitors influenza activity in Europe during the winter season and publishes its report weekly on the Flu News Europe website.

➔Update of the week

In week 20/2016, influenza activity continued to decrease in the WHO European Region. Most countries (98%) reported low intensity. The percentage of positive specimens and the absolute number of influenza virus detections decreased from the previous week. Type B viruses accounted for 90% of sentinel influenza detections in specimens from sentinel sources and 72% from non-sentinel sources. Of eight western countries notifying laboratory-confirmed influenza cases, no cases were reported except in the UK that notified eight ICU cases.

Weekly online reporting for the 2015-2016 influenza season ends this week and will start again in week 40 for the next season. During the summer months, weekly reporting continues and online bulletins will be published monthly.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 27 May 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 months measles outbreaks were detected in several of the EU/EEA countries: the UK, Spain, Belgium, Ireland and Denmark. In the rest of the world, measles outbreaks are ongoing in New Zealand, Mongolia, Niger, South Sudan and Pakistan.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
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Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 27 May 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: 27 May 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 new events of epidemiological relevance have been reported during the past week. According to media, on 23 May, the authorities in Greece started to evacuate thousands of migrants from the Idomeni camp on its northern border with Macedonia.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 27 May 2016

As of 26 May 2016, 51 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). There is now a scientific consensus that Zika virus is a cause of microcephaly and Guillain-Barré syndrome. Given this scientific consensus on the evidence of adverse pregnancy outcomes associated with Zika virus infection, ECDC recommends that pregnant women postpone non-essential travel to Zika-affected areas.

➔Update of the week

During the past week, WHO AFRO reported that sequencing of the Zika virus in Cape Verde by Institut Pasteur in Dakar confirmed that the virus currently circulating in Cape Verde is the same as the one circulating in the Americas - the Asian type- and was most likely imported from Brazil. This is the first time that the Asian Zika strain has been detected in Africa.

In Brazil, the Ministry of Health informed the International Olympic Committee about the measures being taken to prevent and control zika virus infections during the Olympics.

Publication

An article published in the *New England Journal of Medicine* suggests that "although much remains unknown about the effects of ZIKV infection during pregnancy, population-level data from French Polynesia and Bahia reveal a clear association between first-trimester ZIKV infection and microcephaly risk".

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

Opening date: 17 March 2016 Latest update: 27 May 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. A mass immunisation campaign is taking place. The neighbouring Democratic Republic of Congo (DRC) reports imported cases of yellow fever and on 2 May the first confirmed autochthonous transmission in Kinshasa, the capital. On 5 may, DRC reported an additional autochthonous case in Kongo Central. An outbreak of yellow fever not linked to the outbreak in Angola has been reported in several districts in Uganda. This week Peru reported 32 cases, however, this outbreak is not related to current outbreaks in Africa.

➔Update of the week

From 21 January to 22 May 2016, the Angolan Ministry of Health notified 2 536 yellow fever cases, of which 747 were confirmed and 301 fatal (case fatality ratio: 11.8%) of which 88 were among confirmed cases (CFR: 11.7%). As of 23 May, 590 cases have been identified in DRC, of which 48 are confirmed. Among these 48 confirmed cases, 41 had a recent travel history to Angola, two are classified as resulting from sylvatic transmission in Tshuapa and le Bas Uélé provinces in January 2016, two are autochthonous cases one in Kinshasa and one in Kongo Central province. Three additional cases are under investigation. On 20 May 2016, WHO issued an update on the yellow fever outbreak in Uganda, which is unrelated to the outbreak in Angola. Between 26 March and 19 May 2016, health authorities reported 60 yellow fever cases, including seven deaths.

Outside of Africa, since the beginning of the year to week 18, WHO notified 32 yellow fever cases, including three for the week 18. Out of these 32 cases, 14 have been laboratory confirmed.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 27 May 2016

The largest-ever epidemic of Ebola virus disease (EVD) affected West Africa from December 2013 to January 2016, mainly affecting Guinea, Liberia and Sierra Leone. On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Emergency of International Concern (PHEIC). As of 11 May 2016, WHO has reported 28 616 cases of Ebola virus disease related to the outbreak in West Africa, including 11 310 deaths. Sierra Leone was declared Ebola-free by WHO on 7 November 2015, Guinea on 29 December 2015 and Liberia on 14 January 2016. On 29 March 2016, WHO declared the end of the PHEIC and advised that all temporary recommendations previously adopted should now be terminated. However, since the end of February 2016 up to 10 April, there have been ten cases reported in Guinea and three in Liberia.

➔Update of the week

<?xml:namespace prefix = "o" />There have been no new cases reported since 10 April. Follow-up of contacts related to the recent cases in Guinea and Liberia has been completed.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 27 May 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) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 1 March 2016, the Temporary Recommendations in relation to the PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide.

➔Update of the week

During the past week, WHO reported one new wild poliovirus type 1 (WPV1) case in Pakistan. There were no official circulating vaccine-derived poliovirus (cVDPV) cases reported.
The latest global polio epidemiology is on the agenda of the 69th World Health Assembly (Geneva, 23-28 May, 2016).

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Postal address: ECDC 171 83 Stockholm, Sweden
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II. Detailed reports

Influenza - Multistate (Europe) - Monitoring 2015-2016 season

Opening date: 2 October 2015 Latest update: 27 May 2016

Epidemiological summary

This season, influenza A(H1N1)pdm09 viruses have predominated in most countries in the Region. As is often seen late in the northern hemisphere's influenza season, a shift towards circulation of type B influenza virus has occurred with type B dominating since week 09/2016 in specimens from sentinel sources. Influenza activity, based on laboratory-confirmed mild and severe cases in sentinel and non-sentinel sources, peaked in weeks 05–07/2016. The countries first affected were in general located in the eastern part of the Region. Data from the 18 countries or regions reporting to the European monitoring of excess mortality for public health action (EuroMOMO) project suggested a pattern of excess all-cause mortality among those aged 15–64 years between the end of 2015 and week 14/2016. This may have been associated with influenza, as well as other factors. The level of excess all-cause mortality was similar to that of the 2012–2013 winter season and slightly lower than that of the 2014–2015 winter season.

ECDC assessment

Most of the viruses genetically characterised so far have been similar to those recommended for inclusion in the trivalent or quadrivalent vaccines for the 2015–2016 influenza season in the northern hemisphere. The vast majority of the viruses genetically and/or phenotypically characterised so far show no indications of reduced susceptibility to the neuraminidase inhibitors oseltamivir and zanamivir.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its report weekly on the Flu News Europe website. Risk assessments for the season are available from the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe websites.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 27 May 2016

Epidemiological summary

EU/EEA MS

Spain
On 14 May 2016, media report an outbreak of measles with nine cases in Elche where the primary case was an unvaccinated person from the United Kingdom.

Romania
On 16 May media report that there are measles outbreaks in Arad county with 'hundreds of cases'. Arad is one of the counties where the number of vaccinations against measles dropped significantly. At the same time, according to a government decision, vaccination is a requirement for school entry. Parents have to pay a fine up to 10 000 lei (~€2 220) if they do not comply. Latest data show that the vaccination coverage of measles, mumps and rubella fell below 80% in some areas in Romania. Immunisation for diphtheria and tetanus is around 75% in Bucharest. The risk of outbreaks of vaccine-preventable diseases is high.

Belgium
According to a media report on 13 May 2016, three children, a brother, a sister and their nephew, contracted measles at a reception centre for asylum seekers in Elsenborn (Bütgenbach district). The centre hosts approximately 500 asylum seekers. Control measures were put in place, including a mass vaccination campaign with 300 people vaccinated.

The UK

Public health England report several outbreaks in the East of England and London involving serotype D8 in predominantly in unimmunised adolescents and young adults (aged 14 to 40 years). Many of these cases have been admitted to acute medical wards without isolation including one in intensive care. As these cases have been in older age groups without a history of travel,

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measles has often not been considered as part of the differential diagnosis. As a result, some of the cases have not been notified or investigated in a timely manner. According to media, the measles outbreak in London reached more than 76 cases in the past two months. This is six times as many as would normally be reported in the same period.

Ireland

Health authorities are currently (as of 23 May) investigating an outbreak of measles in West Limerick with an undisclosed number of cases. Health authorities are urging people born after 1978 who have not had the MMR vaccination to contact their GP.

Denmark

SSI reports that an unvaccinated child of one and a half years, exposed in Pakistan, was diagnosed with measles at Aarhus University Hospital on 1 May 2016. The child developed symptoms of fever and rash before departure from Pakistan. He appeared to have encephalopathy at admission in Denmark, but was discharged after a few days fully recovered.

The rest of the world

New Zealand -update

Measles outbreaks are reported by media in several areas of New Zealand. The outbreak in Waikato has now 22 cases confirmed so far, and 12 other possible cases. Some schools advised unvaccinated pupils to stay at home until the incubation period was over.

Mongolia - Update

WHO Western Pacific Region (WHO WPRO) has posted an update on the epidemic of measles in Mongolia. The number of cases in 2016 as of 5 May has reached 23 888 including 105 fatalities. Ninety percent of all fatalities are infants up to 8 months of age. It is unknown where the outbreak started but the first registered case was reported on 18 March 2015 from Chingeltei District of Ulaanbaatar city. Laboratory results showed that the measles virus genotype identified from the first registered case was similar the measles virus circulating in China.

Niger

Media report a measles outbreak ongoing since middle of March with 1 921 cases and 5 deaths as of 24 May 2016.

South Sudan

During 6 to 19 May 2016, 228 suspected cases were reported countrywide bringing the number of suspected cases this year to 1 256. This is approximately double the number of cases that were reported annually during recent years. Out of 139 cases tested, 87 were laboratory-confirmed and 14 deaths were reported.

Pakistan

Media report an outbreak in Bannu with 20 cases and six deaths.

Publication

Eurosurveillance

A measles outbreak occurred from November 2015 to April 2016 in two northern Italian regions, affecting the Roma/Sinti ethnic population leading to nosocomial transmission. Overall, 67 cases were reported. Median age of 43 cases in three Roma/Sinti camps was four years, nosocomial cases were mainly adults. The outbreak was caused by a new measles virus B3.1 variant.

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

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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. 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: 27 May 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: 27 May 2016

Epidemiological summary

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

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Postal address: ECDC 171 83 Stockholm, Sweden
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ECDC assessment

Refugees are currently not a threat to Europe with respect 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 should have non-discriminatory, equitable access to healthcare services, including vaccines, irrespective of their legal status. 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

Two EPIET fellows were 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: 27 May 2016

Epidemiological summary

Brazil

Since October 2015 and as of 21 May 2016, Brazil has reported 7 623 suspected cases of microcephaly and other nervous system disorders suggestive of congenital infection from 25 states in the federation. Of these cases, 1 434 are confirmed cases, 208 of which are laboratory-confirmed. This is an increase of 89 suspected cases and 48 confirmed cases of microcephaly with laboratory-confirmed Zika virus infection since the last update on 14 May. Of the remaining cases, 2 932 were investigated and discarded as they did not meet the case definition, while 3 257 cases are still under investigation.

Colombia

Since week 40 in 2015 and as of week 19 in 2016, 77 487 suspected and 6 402 confirmed cases of Zika virus infection have been reported nationally. Since week 5 in 2016, there continues to be a steady decline in the number of suspected and confirmed cases. Between epidemiological weeks 1 to 19 in 2016, Colombia has reported five confirmed cases of microcephaly associated

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
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with Zika virus infection, 26 cases were discarded and 50 cases were still under investigation, according to the Ministry of Health.

Congenital zika syndrome and GBS
In the context of Zika virus circulation, 13 countries and territories worldwide have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

Imported cases to Europe
As of 26 May 2016, ECDC has recorded 638 imported cases in 18 EU/EEA countries. Thirty-six of the imported cases are pregnant women. In addition, one confirmed case was published following the diagnosis in a Slovenian hospital. The number of imported cases reported is not based on a systematic reporting surveillance systems hence cannot be considered exhaustive.

As of 26 May 2016, twenty-three cases of non-vector-borne transmission of Zika virus, probably through sexual transmission have been reported by nine countries: Argentina (1), Chile (1), France (5), Italy (1), New Zealand (1), Portugal (in the Autonomous Region of Madeira) (1), Peru (1), Canada (1), the United States of America (10) and Germany (1).

EU's Outermost Regions and Territories

Martinique: As of 26 May 2016, 25 650 suspected cases have been reported, an increase of 1 100 since last week. Since the beginning of the outbreak to 26 May 2016, two microcephaly cases and one additional congenital abnormality have been reported with confirmed Zika virus infection. In addition, 20 cases with GBS have been detected. Among these, 19 have been confirmed with Zika virus infection.

French Guiana: As of 26 May 2016, 6 700 suspected cases have been reported, an increase of 455 since last week. Three cases with neurological complications have been identified since the beginning of the outbreak.

Guadeloupe: As of 26 May 2016, 6 320 suspected cases have been reported, an increase of 1 300 suspected cases since last week. One case with neurological complications has been reported since the beginning of the outbreak.

St Martin: As of 26 May 2016, 425 suspected cases have been reported, an increase of 95 suspected cases since last week. One case with neurological complications has been reported. However, an association with Zika virus infection has not been established.

St Barthélemy: As of 26 May 2016, 26 suspected and seven laboratory-confirmed case have been reported, an increase of ten suspected cases and six confirmed cases since last week.

Web sources: ECDC Zika Factsheet | PAHO | Colombian MoH | Brazilian MoH | Brazilian microcephaly case definition

ECDC assessment

Based on a growing body of research, there is scientific consensus that Zika virus is a cause of microcephaly and GBS. Several studies have documented steps in the chain of an intrauterine infection; from symptomatic Zika-like infection in a pregnant mother residing in a Zika-affected area, to detection of microcephaly with brain calcifications in the foetus, and detection of Zika virus either in the amniotic fluid, in the cerebrospinal fluid of the newborn, or in the central nervous system of an aborted foetus or a dead newborn.

The magnitude of the risk that Zika virus infection during pregnancy will result in malformations in the foetus is under investigation, but remains unquantifiable at present.

Given the scientific consensus on the evidence of adverse pregnancy outcomes associated with Zika virus infection, ECDC recommends that pregnant women should consider to postpone non-essential travel to Zika-affected areas. In addition, in order to protect pregnant women, male travellers returning from affected areas should consider using a condom with a pregnant partner until the end of pregnancy. This precautionary advice is based on limited evidence and will be revised as more information becomes available.

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.

With the spread of the Zika virus, the likelihood of travel-related cases in the EU is increasing. As neither treatment nor vaccines are available, prevention is based on personal protection measures similar to those that are applied against dengue and chikungunya infections.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
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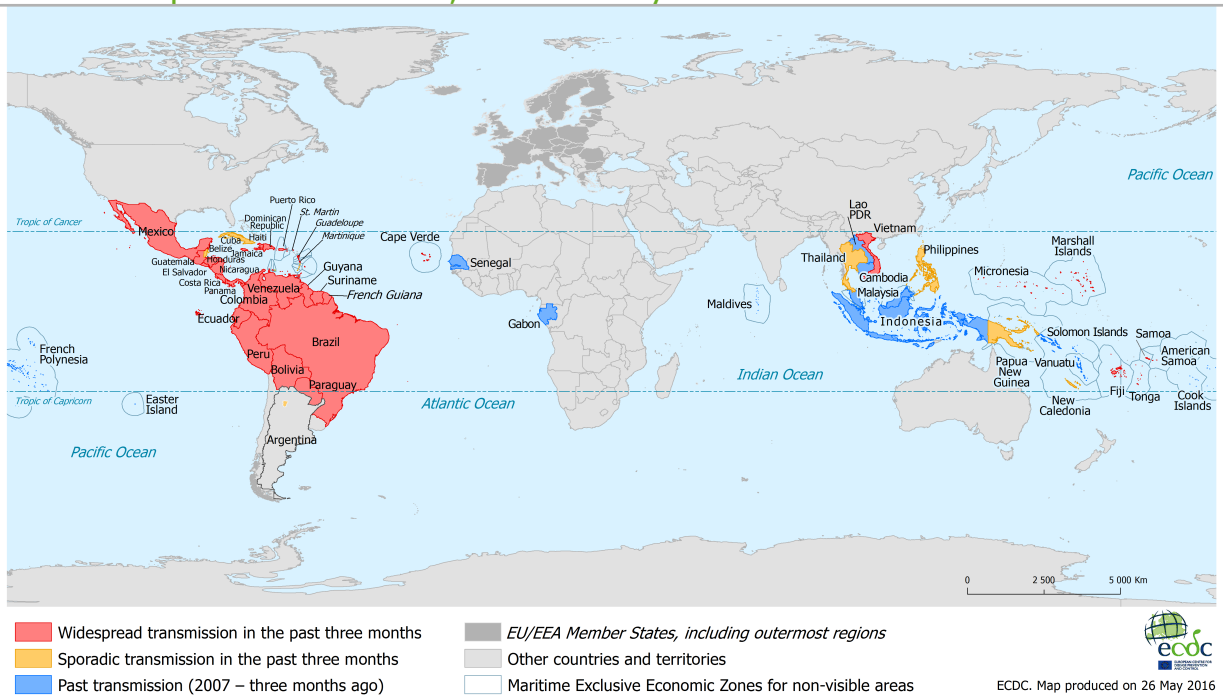
Actions

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.

ECDC published an update of the rapid risk assessment on 23 May 2016 and has updated the ECDC Zika page with Frequently Asked Questions.

Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past three months, as of 26 May 2016



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Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months, as of 26 May 2016

Country	Current Zika transmission	Zika transmission in the past nine months
Aruba	Widespread transmission	Yes
Barbados	Widespread transmission	Yes
Bolivia	Widespread transmission	Yes
Brazil	Widespread transmission	Yes
Cape Verde	Widespread transmission	Yes
Colombia	Widespread transmission	Yes
Costa Rica	Widespread transmission	Yes
Curaçao	Widespread transmission	Yes
Dominica	Widespread transmission	Yes
Dominican Republic	Widespread transmission	Yes
Ecuador	Widespread transmission	Yes
El Salvador	Widespread transmission	Yes
Fiji	Widespread transmission	Yes
French Guiana	Widespread transmission	Yes
Guadeloupe	Widespread transmission	Yes
Guatemala	Widespread transmission	Yes
Guyana	Widespread transmission	Yes
Haiti	Widespread transmission	Yes
Honduras	Widespread transmission	Yes
Jamaica	Widespread transmission	Yes
Marshall Islands	Widespread transmission	Yes
Martinique	Widespread transmission	Yes
Mexico	Widespread transmission	Yes
Micronesia, Federated States of	Widespread transmission	Yes
Nicaragua	Widespread transmission	Yes
Panama	Widespread transmission	Yes
Paraguay	Widespread transmission	Yes
Peru	Widespread transmission	Yes
Puerto Rico	Widespread transmission	Yes
Saint Martin	Widespread transmission	Yes
Saint-Barthélemy	Widespread transmission	Yes
Samoa	Widespread transmission	Yes
Suriname	Widespread transmission	Yes
Tonga	Widespread transmission	Yes
Trinidad and Tobago	Widespread transmission	Yes
US Virgin Islands	Widespread transmission	Yes
Venezuela	Widespread transmission	Yes
Vietnam	Widespread transmission	Yes
Argentina	Sporadic transmission	Yes
Belize	Sporadic transmission	Yes
Bonaire	Sporadic transmission	Yes
Cuba	Sporadic transmission	Yes
Grenada	Sporadic transmission	Yes
New Caledonia	Sporadic transmission	Yes
Papua New Guinea	Sporadic transmission	Yes
Philippines	Sporadic transmission	Yes
Saint Lucia	Sporadic transmission	Yes
Saint Vincent and the Grenadines	Sporadic transmission	Yes
Sint Maarten	Sporadic transmission	Yes
Thailand	Sporadic transmission	Yes

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

Opening date: 17 March 2016 Latest update: 27 May 2016

Epidemiological summary

Angola

From 21 January to 22 May 2016, the Angolan Ministry of Health notified 2 536 yellow fever cases, of which 747 were confirmed and 301 fatal (case fatality ratio: 11.8%) of which 88 were among confirmed cases (CFR: 11.7%). The highest number of suspect and confirmed cases was reported between the first week of February and the first week in April (week 5 and week 14, Figure 2). From week 8 to week 10 2016 (end of February beginning of March), more than 80 confirmed cases were reported per week. In April 2016, about 30 confirmed cases were reported per week. As of 23 May, the province of Luanda has reported the highest number of confirmed cases (n=466). In this province the outbreak peaked between week 8 and 10 2016 (last week of February, second week of March) with 50 confirmed cases reported per week. Since then, the number of cases has somehow decreased with five cases reported both on week 16 and 17 (fourth and fifth week of April). The province of Huambo, central Angola, reported the second highest number of confirmed cases after Luanda province (n=121). The peak of the weekly number of reported cases was from week 8 to week 11 2016 (fourth week of February, third week of March) with 10 confirmed cases reported per week (20 confirmed cases reported on week 9); in the latest weeks the number of confirmed cases consistently

European Centre for Disease Prevention and Control (ECDC)
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decreased with four confirmed cases reported on week 17. The province of Benguela is the third most affected province after Luanda and Huambo with 66 confirmed cases. The number of confirmed cases reported per week increased over the month of April 2016 with the outbreak peaking in week 17 of 2016 (16 confirmed cases reported).

Democratic Republic of Congo (DRC)
As of 23 May, 590 cases have been identified in DRC, of which 48 are confirmed. Among these 48 confirmed cases, 41 had a recent travel history to Angola, two are classified as resulting from sylvatic transmission in Tshuapa and le Bas Uélé provinces in January 2016, two are autochthonous cases one in Kinshasa and one in Kongo Central province. Three additional cases are under investigation. The confirmed cases are reported in the provinces of Kongo central, Kinshasa and Kwango where further suspect cases are under investigation.

Uganda
On 20 May 2016, WHO issued an update on the yellow fever outbreak in Uganda, which is unrelated to the outbreak in Angola. Between 26 March and 19 May 2016, health authorities reported 60 yellow fever cases, including seven deaths. Among them, seven cases and two deaths were laboratory-confirmed. The 60 cases are reported in the districts of Masaka, Rukungiri, Ntungamo, Bukumansimbi, Kalungu, Lyantonde and Rakai. None of the cases had recent travel history to Angola.

Peru
Since the beginning of the year to week 18, WHO notified 32 yellow fever cases, including three for the week 18. Out of these 32 cases, 14 have been laboratory confirmed. Among these cases, eight have died. The cases have been reported in the provinces of Ayacucho (4), Huánuco (2), Junín (21), Loreto (1), San Martín (3) and
Ucayali (1). WHO Pan-American Health Organization (PAHO) confirmed that the number of cases reported in Peru up to epidemiological week 18 of 2016, exceeds twice the total annual number of cases reported in the previous two years. In 2015, seven cases were reported during the same period. This outbreak is not linked to the currents outbreaks in Africa.

WHO
An Emergency Committee (EC) regarding yellow fever was convened by the Director-General under the International Health Regulations (2005) (IHR 2005) by teleconference on 19 May 2016. The Committee decided that based on the information provided the event does not at this time constitute a Public Health Emergency of International Concern (PHEIC). While not considering the event currently to constitute a PHEIC, Members of the Committee strongly emphasised the serious national and international risks posed by urban yellow fever outbreaks and offered technical advice on immediate actions for the consideration of WHO and Member States in the following areas:

- the acceleration of surveillance, mass vaccination, risk communications, community mobilisation, vector control and case management measures in Angola and the Democratic Republic of Congo;
- the assurance of yellow fever vaccination of all travellers, and especially migrant workers, to and from Angola and Democratic Republic of Congo;
- the intensification of surveillance and preparedness activities, including verification of yellow fever vaccination in travellers and risk communications, in at-risk countries and countries having land borders with the affected countries.

The Committee also emphasised the need to manage rapidly any new yellow fever importations, thoroughly evaluate ongoing response activities, and quickly expand yellow fever diagnostic and confirmatory capacity. Recognising the limited international supply of yellow fever vaccines, the Committee also advised the immediate application of the policy of 1 lifetime dose of yellow fever vaccine and the rapid evaluation of yellow fever vaccine dose-sparing strategies by the WHO Strategic Advisory Group of Experts on Immunisation (SAGE).

Web sources: ECDC factsheet / WHO yellow fever page | WHO AFRO |WHO SitRep 12 May 2016 | WHO-DRC | PAHO | MoH Peru

ECDC assessment

WHO estimates that 508 million people are living in 31 African countries at risk for transmission of yellow fever. Therefore, the large outbreak of yellow fever in Angola is of concern with regards 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 as 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 additional provinces challenging the ongoing mass vaccination campaign. The control of the outbreak in Angola is needed in order to prevent further spread in the region and beyond. Concerns exist that if yellow fever should spread 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 highly 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 9 months and above entering Angola and DRC. WHO recommends

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Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
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vaccination for all travellers older than 9 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.

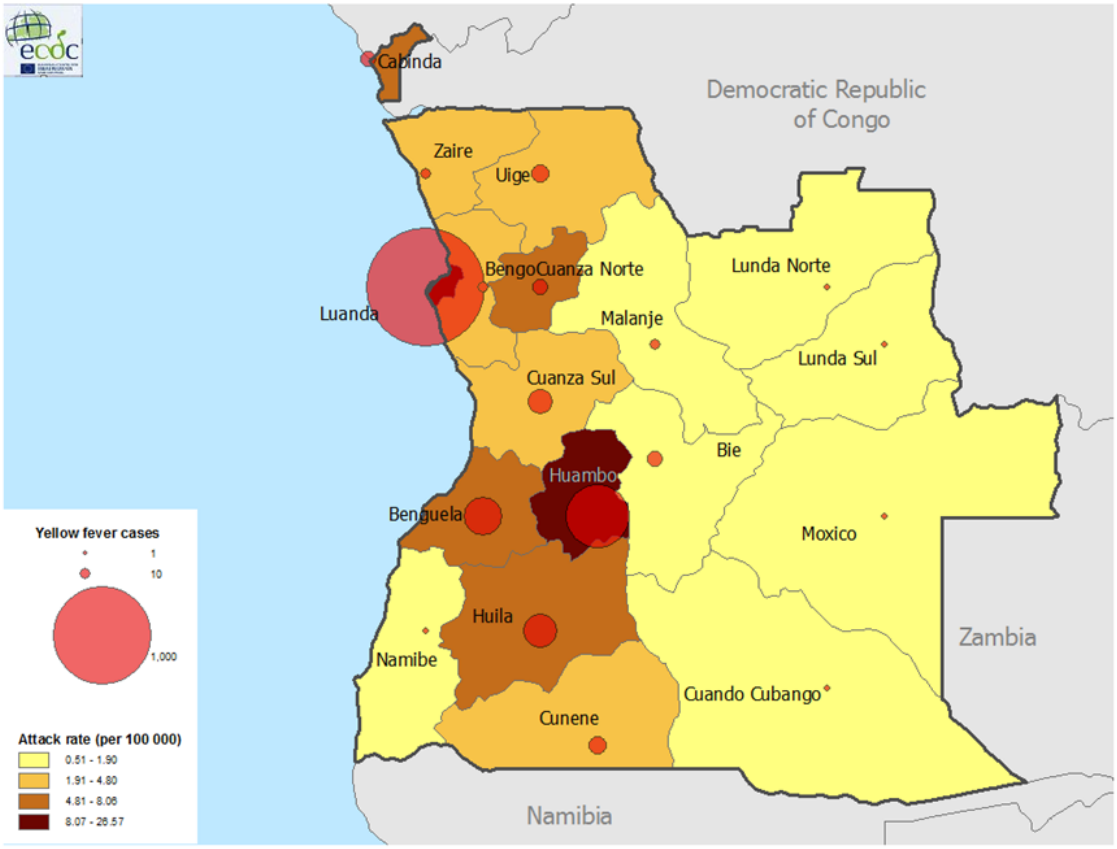
The competent vector for yellow fever, the *Aedes aegypti* mosquito, is not present in the continental EU but is present in the island of Madeira, an autonomous region of Portugal where the weather conditions are not currently suitable for mosquito activity.

Actions

ECDC published a rapid risk assessment on 25 March 2016 and and an epidemiological update on 1 April.
An updated rapid risk assessment have been published on 27 May 2016.
Experts from three EU Member States (Germany, Portugal and Belgium), the European Commission and the European Centre for Disease Prevention and Control have returned from Angola as a public health team under the European Medical Corps.

Distribution of yellow fever cases (suspect and confirmed) and cumulative attack rate by province of reporting, Angola, 5 December 2015–22 May 2016

ECDC



ECDC. Map produced on 24 May 2016

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Visiting address: Tomtebodavägen 11a, Solna, Sweden
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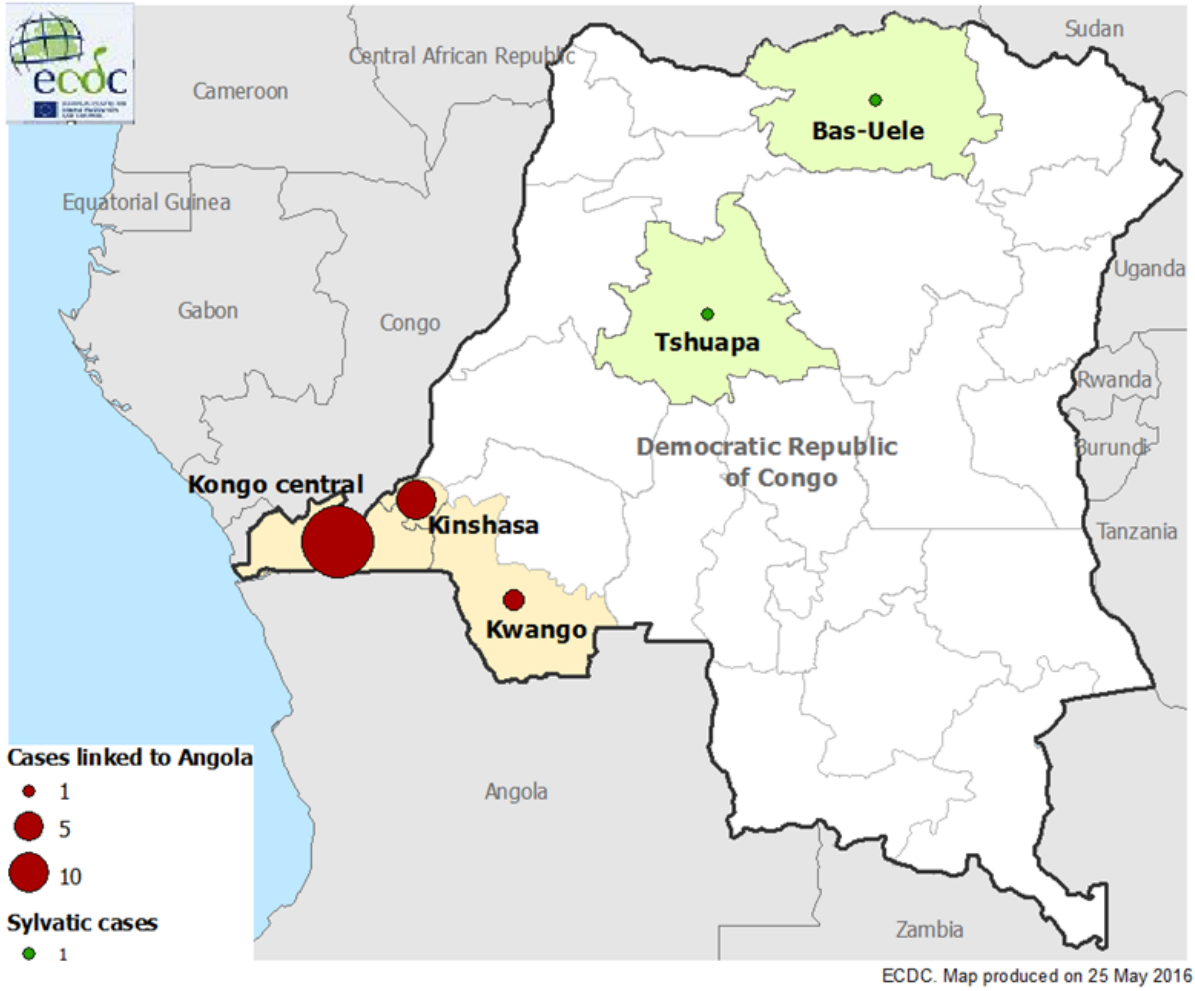
Distribution of yellow fever cases (confirmed) by province of reporting, DRC, 1 January 2016 - 23 May 2016

ECDC



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Distribution of yellow fever cases (confirmed) by province of reporting, Peru, week 1 to 18, 2016

ECDC

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 27 May 2016

Epidemiological summary

Between the end of February 2016 and 10 April, there have been seven confirmed and three probable cases of EVD in N'Zerekore, Guinea. Of these cases, eight have died. On 10 April, WHO reported three cases in Liberia linked to the Guinean cluster. Of these, one was fatal. Investigations suggest that the recent flare up in Guinea is linked to an EVD survivor and not to a new introduction from the animal population.

Official WHO figures as of 12 May 2016:

- **Guinea**: 3 804 cases including 2 536 deaths. The country was declared EVD-free on 29 December 2015. However, between the end of February and 10 April 2016, seven confirmed and three probable sporadic cases have been reported by WHO;

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- **Liberia:** 10 666 cases, including 4 806 deaths. Liberia was declared EVD-free on 14 January 2016. However, between the end of March and 10 April 2016, three confirmed cases have been reported by WHO;
- **Sierra Leone**: 14 122 cases, including 3 955 deaths. The country was declared EVD-free on 7 November 2015. However, two epidemiologically linked sporadic cases were reported on 14 and 20 January 2016.

A 42-day period must elapse before the outbreaks can be declared over in Guinea and Liberia. In Guinea, this is due to end on 31 May and in Liberia it will end on 9 June.

Seven countries have reported an initial case or localised transmission: Nigeria, Senegal, the USA, Spain, Mali, the UK and Italy.

Web sources: ECDC Ebola page | ECDC Ebola and Marburg fact sheet | WHO situation summary | WHO Roadmap | WHO Ebola Factsheet | CDC | Ebola response phase 3: Framework for achieving and sustaining a resilient zero | ReEBOV Antigen Rapid Test Kit | Institut Pasteur will open a lab in Conakry | Emergency Operation Centres in the three affected countries | Entry screening in US | media Liberia | WHO | media

ECDC assessment

The detection of new sporadic cases and small clusters of cases in Guinea and Liberia is not unexpected and highlights the importance of maintaining heightened surveillance and early detection of cases during the coming months as the risk of additional small outbreaks remains. Sporadic cases have been identified previously and are likely to be the result of the virus persisting in survivors even after recovery. Following the recent cases in Guinea and Liberia, WHO acknowledged that the 42-day (two incubation periods) countdown must elapse before the outbreak can be declared over in Guinea and Liberia. In Guinea, this is due to end on 31 May and in Liberia, this is due to end on 9 June.

Actions

An epi-update was published on 23 March 2016.

On 16 October 2015, ECDC published the latest (13th) update of the rapid risk assessment.

On 16 October 2015, ECDC published Recent development on sexual transmission of Ebola virus.

On 31 July 2015, ECDC published Positive preliminary results of an Ebola vaccine efficacy trial in Guinea.

On 22 January 2015, ECDC published Infection prevention and control measures for Ebola virus disease. Management of healthcare workers returning from Ebola-affected areas.

On 4 December 2014, EFSA and ECDC published a Scientific report assessing risk related to household pets in contact with Ebola cases in humans.

On 29 October 2014, ECDC published a training tool on the safe use of PPE and options for preparing for gatherings in the EU.

On 23 October 2014, ECDC published Public health management of persons having had contact with Ebola virus disease cases in the EU.

On 22 October 2014, ECDC published Assessing and planning medical evacuation flights to Europe for patients with Ebola virus disease and people exposed to Ebola virus.

On 13 October 2014, ECDC published Infection prevention and control measures for Ebola virus disease: Entry and exit screening measures.

On 6 October 2014, ECDC published risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU.

On 22 September 2014, ECDC published assessment and planning for medical evacuation by air to the EU of patients with Ebola virus disease and people exposed to Ebola virus.

On 10 September 2014, ECDC published an EU case definition.

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Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 27 May 2016

Epidemiological summary

In 2016, sixteen cases of wild poliovirus type 1 (WPV1) have been reported, compared with 25 cases for the same period in 2015. The cases were detected in Pakistan (11 cases) and in Afghanistan (five cases).

As of 24 May 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 into 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.

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

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