

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: 20 November 2015

Following the 2009 pandemic, influenza transmission in Europe has returned to its seasonal epidemic 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](#). The reporting for the season 2015-2016 has started.

→ Update of the week

In week 46, influenza activity across the WHO European Region was at low levels in most of the 42 countries that reported data.

West Nile virus - Multistate (Europe) - Monitoring season 2015

Opening date: 2 June 2015

Latest update: 12 November 2015

The 2015 transmission season started later than in previous years and West Nile activity this year has been at a lower level compared with last year. As no new cases have been reported in EU Member States for three consecutive weeks, ECDC will close its seasonal monitoring of West Nile virus transmission for 2015. Future outputs will only be updated on an ad hoc basis according to case reporting.

→ Update of the week

During the past week, a number of cases that occurred earlier in the season were retrospectively reported. In EU Member States, Italy reported one case in Cremona province, whose infection occurred in August. Romania reported one case in Cluj county, whose infection occurred in October.

In neighbouring countries, Russia reported 19 cases that occurred between July and October, 12 cases from already affected oblasts: Astrakhanskaya (8), Samarskaya (3), Voronezhskaya (1) and seven cases from three newly affected areas: Krasnodarskiy Kray (1), Lipetskaya (1) and Rostovskaya (5). In addition, in Israel, the place of infection is now available for four cases previously reported last week. All the cases occurred in already affected districts: Central (1), Southern (2), Tel Aviv (1).

Non EU Threats

New! Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 19 November 2015

Zika virus infections are still spreading in previously unaffected areas of the world. Since 2014, indigenous circulation of Zika virus (ZIKV) has been detected in the Americas. In February 2014, the public health authorities of Chile confirmed the first case of autochthonous transmission of Zika virus infection on Easter Island (Chile) and reported cases until June 2014. In 2015, autochthonous cases have been reported for the first time in Brazil, Colombia, Suriname, Indonesia and Cape Verde.

→Update of the week

During the past month, cases of ZIKV infection have been reported across the globe.

New! Increase in microcephaly and temporal association with Zika virus epidemic - Brazil

Opening date: 18 November 2015

Latest update: 19 November 2015

In October 2015, the Brazil Ministry of Health reported an unusual increase in cases of microcephaly in the state of Pernambuco and at a lower level in other north eastern states. On 17 November 2015, the Ministry of Health of Brazil through an international health regulation (IHR) message confirmed molecular identification of Zika virus in amniotic fluid samples collected from two pregnant women from Paraíba state whose foetuses have been confirmed with microcephaly by ultrasound examinations. The significance of this finding is still under investigation.

→Update of the week

On 17 November, the Ministry of Health confirmed the presence of Zika virus (using RT-PCR) in amniotic fluid samples collected from two fetuses with microcephaly in Paraíba state (Northeast Brazil). Both pregnant women presented symptoms of Zika virus infection during early pregnancy. To date, 399 cases of microcephaly have been reported in the following states in Brazil: Pernambuco (268), Sergipe (44), Rio Grande do Norte (39), Paraíba (21), Piauí (10), Ceará (9) and Bahia (8). The same day, the Pan American Health Organization (PAHO) issued an epidemiological alert regarding an increase of microcephaly in the northeast of Brazil. Possible links between Zika virus infection in pregnancy and microcephaly of the foetus are under investigation.

New! Emergence of plasmid-mediated colistin resistance mechanism MCR-1 in E. coli - China

Opening date: 20 November 2015

Latest update: 20 November 2015

The first detection of plasmid-mediated resistance to polymyxins (MCR-1) in China has been reported in an article published in *Lancet Infectious Diseases* on 18 November 2015.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 19 November 2015

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), almost 800 000 refugees have arrived in Europe in 2015. To date, there have been reports of cases of louse-borne relapsing fever, cutaneous diphtheria and malaria among the refugees. While these cases do not represent a significant disease burden, the diseases do pose a potential threat, particularly to the health of the refugees themselves.

→Update of the week

Migrant flows from Turkey to the Greek islands have remained high during the first two weeks of November with over 70 000 migrants and refugees arriving in Greece, according to the [International Organization for Migration \(IOM\)](#). According to IOM's Early Warning Information Sharing Network, the number of people crossing Greece's border with the former Yugoslav Republic of Macedonia (FYROM) during the first ten days of November decreased by 30% compared with the previous ten days, when 66 200 crossings were recorded. Eighty-five per cent of the arrivals are from ten countries (52% from Syria, 10% from Afghanistan and 6% from Iraq).

According to [media](#), there is a need for non-food items to improve winterisation of the humanitarian response to reduce the risk of respiratory infections.

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013

Latest update: 19 November 2015

Chikungunya virus infections are reported from increasingly wider areas of the world. An outbreak of chikungunya virus infection started in the Caribbean in December 2013 later spreading to the Americas and Pacific region. In 2015, there remained ongoing outbreaks in these regions but at a lower level compared with the same period last year, especially in the Pacific region. So far this year, no autochthonous cases of chikungunya virus infection have been detected in Europe. Introduction of the disease in Europe in areas where there is a competent vector is possible.

→Update of the week

Ongoing outbreaks are reported in the Caribbean, Americas, and the Pacific.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 19 November 2015

An epidemic of Ebola virus disease (EVD) has been ongoing in West Africa since December 2013, 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 18 November 2015, WHO has reported 28 598 cases of Ebola virus disease related to the outbreak in West Africa, including 11 299 deaths. The number of cases in the most affected countries peaked in autumn 2014 and has been slowly decreasing since. Liberia was declared Ebola-free by WHO on 3 September 2015 and Sierra Leone on 7 November. Guinea has not reported any new cases in the past week. The risk of spread, regionally and globally, remains until all the countries in West Africa are declared Ebola-free.

→Update of the week

On 20 November, [media](#) quoting the Chief Medical Officer and acting head of the Ebola Case Management System, reported one confirmed case of EVD in a 10-year-old boy in Monrovia. This case has not yet been confirmed by WHO.

According to [WHO](#), no new confirmed cases were reported in Guinea during the week leading up to 15 November.

Middle East respiratory syndrome – coronavirus (MERS CoV) – Multistate

Opening date: 24 September 2012

Latest update: 19 November 2015

Since April 2012 and as of 19 November 2015, 1 638 cases of MERS, including 633 deaths, have been reported by health authorities worldwide. The source of the virus remains unknown, but the pattern of transmission and virological studies point towards dromedary camels in the Middle East being a reservoir from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission is amplified among household contacts and in healthcare settings.

→Update of the week

Since 12 November 2015, no additional cases or deaths have been reported.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 19 November 2015

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, 681 cases have been reported up until 19 November 2015, including 275 deaths. No autochthonous cases have been reported outside of China. Most cases have been unlinked, and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak.

→Update of the week

On 13 November 2015 [WHO](#) acknowledged two additional laboratory-confirmed cases of human infection with avian influenza A (H7N9) virus in China.

The first case is a 62-year-old female from Shengzhou City, Zhejiang Province, who developed symptoms on 1 October. She visited a poultry market and raised poultry at home. The second case is a 51-year-old female from Hangzhou City, Zhejiang Province, who developed symptoms on 3 October. She raised poultry at home.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 13 November 2015

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 17 August 2015, the Temporary Recommendations in relation to PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide.

→Update of the week

Four new wild poliovirus type 1 (WPV1) cases were reported in the past week, three in Afghanistan and one in Pakistan. Two cases of circulating vaccine-derived poliovirus type 2 (cVDPV2) were detected in Pakistan.

II. Detailed reports

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

Opening date: 2 October 2015

Latest update: 20 November 2015

Epidemiological summary

In week 46, influenza activity across the WHO European Region was at low levels in most of the 42 countries that reported data. In line with this low activity, influenza viruses were detected only sporadically: 13 from sentinel sources, 88 from non-sentinel sources and five laboratory-confirmed influenza cases in hospitalised patients.

Representatives of all seasonal influenza viruses (A(H1N1)pdm09, A(H3N2) and B) were detected. To date, low numbers of viruses have been subtyped (type A) or ascribed to lineage (type B), but compared with the 2014-2015 season A(H1N1)pdm09 viruses have been found in greater numbers than A(H3N2), and B/Victoria lineage in greater numbers than B/Yamagata in both sentinel and non-sentinel specimens.

ECDC assessment

As is usual for this time of year, influenza activity in the European Region was low, with few influenza viruses detected. No indication of increased mortality due to influenza has been reported through the European monitoring of excess mortality for public health action project ([EuroMOMO](#)).

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its report weekly on the [Flu News Europe website](#).

West Nile virus - Multistate (Europe) - Monitoring season 2015

Opening date: 2 June 2015

Latest update: 12 November 2015

Epidemiological summary

As of 19 November 2015, 108 cases of West Nile fever in humans have been reported in EU Member States and 193 cases in the neighbouring countries, since the beginning of the 2015 transmission season.

Web sources: [ECDC West Nile fever](#) | [ECDC West Nile fever risk assessment tool](#) | [ECDC West Nile fever maps](#) | [WHO fact sheet](#)

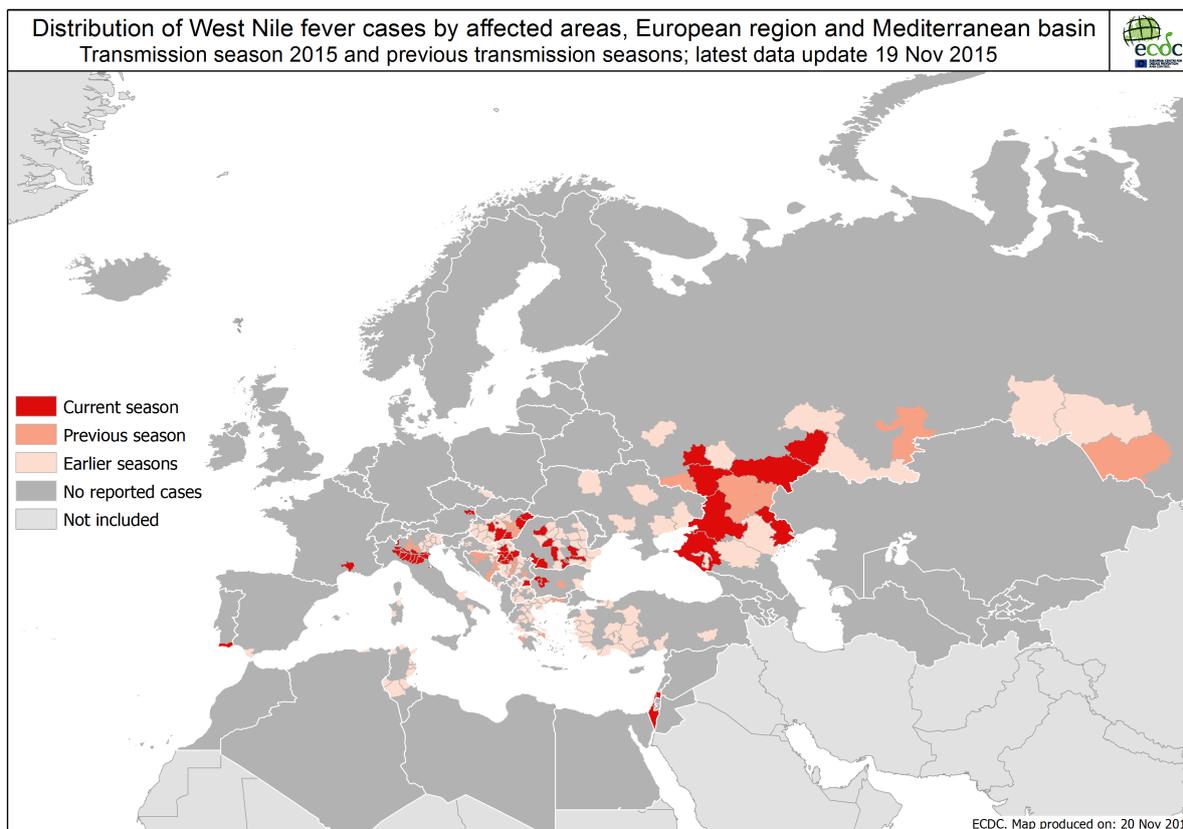
ECDC assessment

No new cases have been reported in EU Member States for three consecutive weeks. ECDC will close its seasonal monitoring of West Nile virus transmission for 2015. Future outputs will only be updated on an ad hoc basis according to case reporting.

Actions

The last weekly West Nile map for the 2015 transmission season will be published on 20 November.

Source: ECDC



New! Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 19 November 2015

Epidemiological summary

Europe

No autochthonous cases of ZIKV infection have been reported in EU Member States so far in 2015.

Asia

Indonesia

On 15 November, Indonesia reported a molecular identification of Zika virus, according to [ProMED](#). No additional information about this case has been provided.

Americas

Brazil

In May 2015, the public health authorities of Brazil confirmed autochthonous transmission of Zika virus in the northeastern part of the country. As of 8 October, autochthonous virus transmission had been confirmed in 14 states: Alagoas, Bahia, Ceará, Maranhão, Mato Grosso, Pará, Paraíba, Paraná, Pernambuco, Piauí, Rio de Janeiro, Rio Grande do Norte, Roraima and São Paulo. In addition, between January and July 2015, 121 cases with neurological symptoms or with Guillain-Barré were reported by states

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in the North East part of Brazil. Investigations are ongoing.

On 17 November, the [Ministry of Health](#) of Brazil confirmed the presence of Zika virus in amniotic fluid samples collected from two pregnant women from the state of Paraíba whose foetuses have been confirmed with microcephaly by ultrasound exams. The significance of this finding is still under investigation. For more details about this event please see the ECDC threat titled "[Increase in microcephaly and temporal association with Zika virus epidemic in Brazil](#)".

Colombia

On 16 October, the first cases of Zika virus infections were reported in Colombia, with nine confirmed cases in the Bolívar department. According to the Ministry of Health on 3 November, 239 cases of Zika were reported in the departments of Bolívar (103), Antioquia (37), San Andres (37), Cucuta (Norte de Santander) (16) and in Sincelejo (Sucre) (12). On 13 November, the Ministry of Health reported 848 cases of Zika virus in 23 out of 36 administrative regions with the main affected regions being Cartagena, Bolivar, Cundinamarca, San Andrés, Sucre and Sta. Marta. Among these cases, 393 had been laboratory confirmed.

Suriname

According to [WHO](#), two autochthonous cases of Zika virus infection were reported from Suriname on 2 November. As of 12 November, four additional confirmed cases of Zika virus infection have been reported, bringing the total to six cases in the country.

Mexico

[Media](#) report the first imported case of Zika virus infection in Mexico.

Pacific region

There are currently no ongoing outbreaks in the Pacific, according to the [Pacific Public Health Surveillance Network](#).

Africa

Cape Verde

On 2 November, [media](#) quoting the Ministry of Health, reported an outbreak of Zika virus in the country, with 17 samples out of 64 confirmed positive for ZIKV, along with approximately 1 000 cases reported from September to October 2015. Cases have so far only been reported in the city of Praia.

Web sources: [WHO DON](#) | [PAHO](#) | [Colombia MoH](#)

ECDC assessment

Imported ZIKV cases in the EU overseas countries and territories and the EU outermost regions, with onward autochthonous transmission in EU Members States in continental Europe during the summer season in areas where *Aedes albopictus* are established, cannot be excluded. Vigilance during the mosquito season is thus required in areas where a potential vector is present as early detection of cases is essential to reduce the risk of autochthonous transmission.

Clinicians and travel medicine clinics should be aware of the evolution of ZIKV in the affected areas and should include ZIKV infection in their differential diagnosis for travellers from those areas. Fever and/or macular or papular rash not attributable to dengue or chikungunya infection among travellers, especially among pregnant womens, returning from areas currently experiencing ZIKV outbreak should prompt a possible investigation for ZIKV infection. In addition, blood safety authorities need to be vigilant regarding the epidemiological situation and might wish to consider deferral of donors with relevant travel history, in line with measures defined for West Nile virus.

Actions

On 26 May 2015, ECDC published a [rapid risk assessment](#) on the Zika virus infection outbreak in Brazil and the Pacific region. ECDC will monitor the global ZIKV situation on a monthly basis.

New! Increase in microcephaly and temporal association with Zika virus epidemic - Brazil

Opening date: 18 November 2015

Latest update: 19 November 2015

Epidemiological summary

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In October 2015, the Brazil Ministry of Health reported an unusual increase in cases of microcephaly in the state of Pernambuco. On average, the state of Pernambuco has reported 10 cases of microcephaly per year. However, as of 11 November, 141 cases of microcephaly have been detected in 44 of the 185 municipalities of the state of Pernambuco since the beginning of the year. The states of Paraíba and Rio Grande do Norte are also reporting a similar increases.

On 17 November, the Brazilian Ministry of Health posted an IHR message confirming the presence of Zika virus in amniotic fluid samples collected from two fetuses with microcephaly in Paraíba state (Northeast Brazil). Both pregnant women presented symptoms of Zika virus infection during early pregnancy. To date, 399 cases of microcephaly have been reported in the following states: Pernambuco (268), Sergipe (44), Rio Grande do Norte (39), Paraíba (21), Piauí (10), Ceará (9) and Bahia (8). Possible links between Zika virus infection in pregnancy and microcephaly of the foetus are under investigation.

On 17 November, PAHO issued an epidemiological alert regarding an increase of microcephaly in the northeast of Brazil. In response to the situation, the Brazilian Ministry of Health declared a national public health emergency on 11 November. National health authorities are investigating the cause of the event. Clinical, laboratory and ultrasound analysis of mothers and newborns is being carried-out.

Web sources: [Brazil Ministry of Health](#) | [PAHO](#) |

ECDC assessment

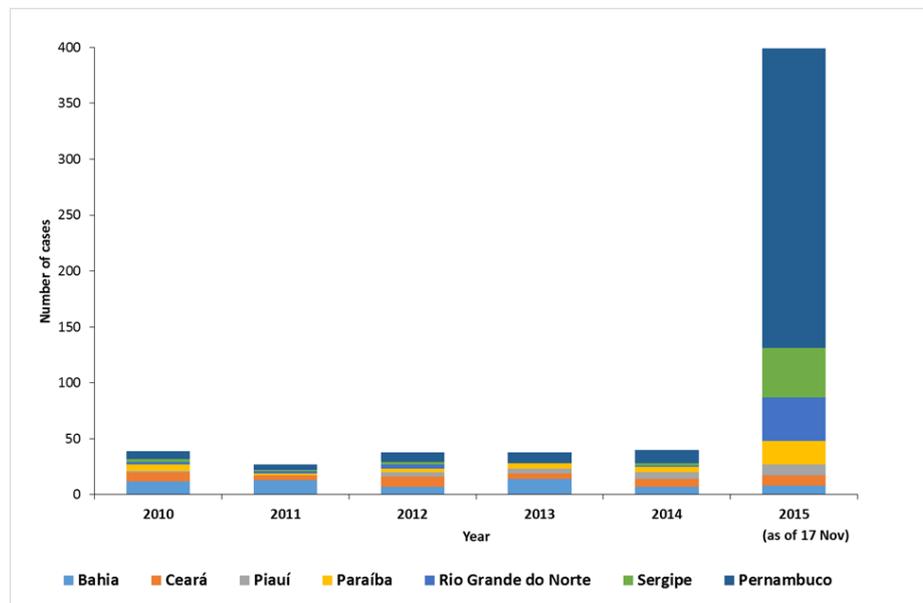
The detection of Zika virus (RNA) in amniotic fluid in two fetuses with microcephaly has not been previously documented. This is an unexpected event and a new development within the *Flaviviridae* family. Further investigations are ongoing to confirm the link between this increase in microcephaly incidence or other neurological disabilities and the Zika virus outbreak in Brazil.

Actions

ECDC is preparing a rapid risk assessment.

Number of cases of microcephaly reported annually in seven states of Brazil 2010-2015

Source: Brazil Ministry of Health



New! Emergence of plasmid-mediated colistin resistance mechanism MCR-1 in *E. coli* - China

Opening date: 20 November 2015

Latest update: 20 November 2015

Epidemiological summary

The first detection of plasmid-mediated resistance to polymyxins (MCR-1) in China has been reported in an article in *Lancet Infectious Diseases* on 18 November 2015. Plasmid carriage of the *mcr-1* gene in *E. coli* isolates was confirmed in 78 (15%) of 523 samples of raw meat, 166 (21%) of 804 animals between 2011 and 2014, as well as in 16 (1%) of 1 322 human clinical samples from inpatients with infection. The authors hypothesise that plasmid-mediated colistin resistance originated in animals and subsequently spread to humans. The emergence of this novel mechanism of resistance is likely related to the high consumption of colistin in animal husbandry in China.

The first occurrence of MCR-1 was detected in retail meat samples from 2011, but publication of the results this week is likely to have it coincide with the first [World Antibiotic Awareness Week](#) (16-22 November) and the [8th European Antibiotic Awareness Day](#) (18 November).

ECDC assessment

The detection of plasmid-mediated resistance to colistin in *E. coli* with the potential for spread to other human pathogens is of concern, as colistin remains a last resort antimicrobial for the treatment of infections caused by Gram-negative bacteria resistant to multiple antibiotics including the carbapenems. Although strains carrying the plasmid with the *mcr-1* gene currently appear confined to China, spread to other countries through trade and travel is possible and may have already occurred since the first retail meat samples with MCR-1-positive *E. coli* were from 2011. Polymyxins, including colistin, are classified by WHO as critically important antibiotics for human medicine. The Joint Interagency Antimicrobial Consumption and Resistance Analysis (JIACRA) report published jointly by ECDC, the European Food Safety Authority (EFSA) and the European Medicines Agency (EMA) in January 2015 shows that the use of polymyxins in the EU/EEA is 600 times in food animals than in humans.

Actions

ECDC has posted an Urgent Inquiry (UI) in the Epidemic Intelligence Information System (EPIS) Antimicrobial Resistance-Healthcare-associated infections (AMR-HAI). In addition, this new development will be taken into account in the 'Expert opinion on the risks from digestive colonisation with multidrug-resistant *Enterobacteriaceae* after international travel and implications for surveillance' that will be produced by ECDC in 2016.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 19 November 2015

Epidemiological summary

Slovenia

The most common medical issues reported in Slovenia among refugees during early November are respiratory infections, diarrhoea and colds, along with frequent reports of fatigue and aggravated chronic conditions. A few isolated cases of scabies and hepatitis were reported up to the end of October, according to [ACAPS](#).

Cholera – Iraq

According to the WHO Regional Office for the Eastern Mediterranean (WHO EMRO), on 12 November, the Government of Iraq with the support of WHO and UNICEF completed the first round of the oral cholera vaccination campaign in the country. The campaign has vaccinated 91% of the targeted population of 255 000 Syrian refugees and internally displaced people.

Source: [EID I](#) | [EID II](#) | [RKI](#) | [Eurosurveillance I](#) | [Eurosurveillance II](#) | [UNHCR](#) | [ScienceDirect](#) | [Reuters](#) | [Media I](#) | [Media II](#) | [French MoH](#)

ECDC assessment

Refugees are not currently a threat for Europe with respect to communicable diseases, but they are a priority group for communicable disease prevention and control efforts because they are more vulnerable. The risk to refugees arriving in Europe of contracting communicable diseases has increased because of the current overcrowding at reception facilities, and the consequent compromising of hygiene and sanitation arrangements.

While the risk of mosquito-borne diseases has been reduced as a result of the winter, the risk of diseases whose spread are facilitated by overcrowding and lower temperatures has increased as a result of the likely increased close gathering of refugees seeking shelter from the cold weather. It is therefore expected that the incidence of respiratory and gastrointestinal conditions will increase in the coming months.

Recent weeks have seen reports of emerging episodes of communicable diseases affecting the refugee population. Of concern is the emergence of 27 cases of louse-borne relapsing fever in different locations along the route that the refugees arriving in Italy are following. The probable transmission of LBRF among refugee communities in the EU indicates that more cases may be seen in the near future, unless appropriate hygiene measures are implemented rapidly.

Low coverage for some vaccines, along with low immunity for some diseases, may result in susceptible refugees developing diseases such as measles and chicken pox, given the high incidence of these in some areas of the EU.

The risk to European residents of being affected by outbreaks occurring among refugee populations remains extremely low since the hygiene levels, overcrowding and limited access to clean water responsible for their transmission are specific to the reception facilities in which they are occurring.

Actions

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 posted on the ECDC website in September 2015.

ECDC prepared:

- a [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.

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.

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013

Latest update: 19 November 2015

Epidemiological summary

Europe

No autochthonous cases of chikungunya virus infection have been reported in EU Member States so far in 2015. According to [InVS](#), 28 imported cases of chikungunya have been reported in France in areas where the vector is present.

Americas

Chikungunya cases in the Caribbean and the Americas continued to slightly increase during the past couple of weeks, but at a much lower level compared with the same period last year. According to the latest update from the WHO Pan American Health Organization (WHO PAHO) on 13 November 2015, 7 282 new suspected and confirmed cases and eight additional deaths have been reported since 30 October. Since the beginning of the year and as of 13 November 2015, WHO PAHO has reported 620 417 suspected and confirmed cases of chikungunya virus infection and 76 deaths in the WHO Region of the Americas.

Colombia and **Mexico** accounted for almost all of the new cases in the past two weeks with 6 373 (suspected and confirmed) and 622 confirmed cases reported respectively.

USA

As of 10 November, 567 chikungunya virus disease cases have been reported from 42 US states so far this year, according to the [US CDC](#). All reported cases occurred in travellers returning from affected areas. No locally-transmitted cases have been reported. In addition, 187 chikungunya cases have been reported from US territories. All reported cases were locally-transmitted cases reported from **Puerto Rico** and the **US Virgin Islands**.

Pacific region

As of 12 November, there is an ongoing outbreak in **Tuvalu**, according to the [Pacific Public Health Surveillance Network](#).

Web sources: [PAHO update](#) | [ECDC Chikungunya](#) | [WHO Factsheet](#) | [Medisys page](#) |

ECDC assessment

Outbreaks are still ongoing in the Caribbean and Americas. Cases continued to slightly increase in the past two weeks in the WHO Region of the Americas but at a lower level compared with the same period last year. The vector is endemic in these regions,

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where it also transmits dengue virus. Continued vigilance is needed to detect imported cases of chikungunya in tourists returning to the EU from these regions.

Europe is vulnerable to the autochthonous transmission of chikungunya virus. The risk for onward transmission in Europe is linked to importation of the virus by viraemic patients in areas with competent vectors (*Aedes albopictus* in mainland Europe, primarily around the Mediterranean, and *Aedes aegypti* on Madeira). Autochthonous transmission from an imported viraemic chikungunya case is possible during the summer season in the EU.

Actions

ECDC published an [epidemiological update](#) on 16 September regarding the false positive case of chikungunya in Valencia province, Spain. Despite the fact that autochthonous transmission has not been confirmed in Spain, the conclusions of ECDC's [rapid risk assessment](#) published on 24 August remain valid.

ECDC monitors the global chikungunya situation on a monthly basis.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 19 November 2015

Epidemiological summary

Distribution of cases as of 18 November 2015:

Countries with intense transmission:

- **Guinea:** 3 804 cases including 3 351 confirmed, and 2 536 deaths

Countries with previously widespread and intense transmission:

Sierra Leone: declared Ebola-free on 7 November 2015.

Liberia: declared Ebola-free on 3 September 2015.

Countries that have reported an initial case or localised transmission:

- Nigeria, Senegal, the USA, Spain, Mali, the UK and Italy.

Situation in West African countries

Guinea

No new cases were confirmed in Guinea during the past week. The most recent case, a child born in an Ebola treatment centre in Conakry, was reported on 29 October. A second consecutive blood sample from the child tested negative for Ebola virus on 16 November. No contacts are associated with this case and as of 14 November, all contacts with previous cases had completed a 21-day follow-up.

Liberia

On 20 November, [media](#) quoting the Chief Medical Officer and acting head of the Ebola Case Management System, reported one confirmed case of EVD in a 10-year-old boy in Monrovia. The boy is a resident of eastern Paynesville and he is currently receiving care at a treatment centre on the outskirts of Monrovia. This case has not yet been confirmed by WHO.

UK

According to a statement by the [Royal Free Hospital](#) on 12 November 2015, the patient with an unusual late complication after EVD was discharged on 11 November and transferred to Queen Elizabeth University Hospital in Glasgow.

Situation among healthcare workers

No new infections in healthcare workers were reported by WHO in the week leading up to 15 November.

Outside of the three most affected countries, with repatriated cases included, there have been 8 cases in Mali, 20 in Nigeria, 3 in Spain (including two repatriated cases), 3 in the UK (including two repatriated cases), 1 in Senegal, 1 in Norway (repatriated), 2 in France (repatriated), 1 in the Netherlands (repatriated), 1 in Switzerland (repatriated), 11 in the USA (7 repatriated) and 1 in Italy (infected in Sierra Leone).

Epicurve: The epicurve shows the confirmed cases in Guinea. In order to better represent the tail of the epidemic, only the data for 2015 are shown.

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](#)

ECDC assessment

This is the largest-ever documented epidemic of EVD, both in terms of numbers and geographical spread. The epidemic of EVD increases the likelihood that EU residents and travellers to the EVD-affected countries will be exposed to infected or ill persons. The risk of infection for residents and visitors in the affected countries through exposure in the community is considered low if they adhere to the recommended precautions. Residents and visitors to the affected areas run a risk of exposure to EVD in healthcare facilities.

The risk of importing EVD into the EU, and the risk of transmission within the EU following an importation, remains low or very low as a result of the range of risk reduction measures that have been put in place by the Member States and by the affected countries in West Africa. However, continued vigilance is essential. If a symptomatic case of EVD presents in an EU Member State, secondary transmission to caregivers in the family and in healthcare facilities cannot be excluded.

The number of confirmed cases has remained low since the end of July. The introduction of an EVD case into unaffected countries remains possible as long as cases exist in any country. With adequate preparation, however, such an introduction can be contained through a timely and effective response. Following the recent report about the previously positive EVD UK nurse, unusual late complications should also be taken into account.

Regarding the reported EVD case in Liberia, ECDC is seeking additional information from WHO. Liberia was declared free of Ebola virus transmission in the human population on 3 September. Following which, Liberia entered a 90-day period of EVD heightened surveillance. Reports of suspected cases during heightened surveillance periods after the tail end of outbreaks has happened before, is not unexpected and is a sign of the correct functioning of the surveillance. If confirmed, the identification of a new EVD case highlights the importance of maintaining surveillance of EVD cases after the tail end of the outbreak.

Actions

As of 19 November 2015, ECDC has deployed 95 experts (on a rotating basis) from within and outside the EU in response to the Ebola outbreak. This includes an ECDC-mobilised contingent of experts to Guinea. ECDC is reporting this threat on a weekly basis in the CDTR.

ECDC has updated its website following the WHO declaration on Sierra Leone which has been Ebola-free since 7 November. The latest (13th) update of the [rapid risk assessment](#) was published on 16 October 2015.

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](#).

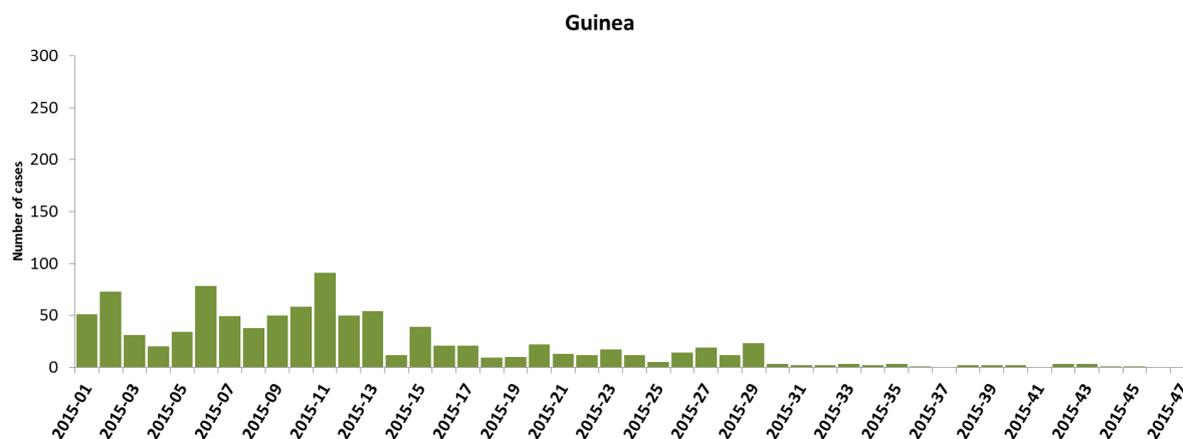
On 6 October 2014, ECDC published [risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU](#).

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](#).

Distribution of confirmed cases of EVD by week of reporting in Guinea (weeks 01/2015 to 47/2015)

Adapted from WHO figures; *data for week 47/2015 are incomplete



Middle East respiratory syndrome – coronavirus (MERS CoV) – Multistate

Opening date: 24 September 2012

Latest update: 19 November 2015

Epidemiological summary

As of 19 November, 1 638 cases of MERS, including 633 deaths, have been reported by local health authorities worldwide.

Web sources: [ECDC's latest rapid risk assessment](#) | [ECDC novel coronavirus webpage](#) | [WHO](#) | [WHO MERS updates](#) | [WHO travel health update](#) | [WHO Euro MERS updates](#) | [CDC MERS](#) | [Saudi Arabia MoH](#) | [Saudi Arabia statement](#) | [ECDC factsheet for professionals](#)

ECDC assessment

The MERS outbreak in the Middle East poses a low risk to the EU. Efforts to contain the nosocomial clusters in the affected countries are vital to prevent wider transmission. Although sustained human-to-human community transmission is unlikely, the residential cluster of cases reported from Saudi Arabia is a reminder that transmission to unprotected close contacts, not only in

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healthcare settings, remains possible, as also documented in outbreaks in South Korea and the United Arab Emirates.

Actions

ECDC published a [rapid risk assessment](#) on 21 October 2015.

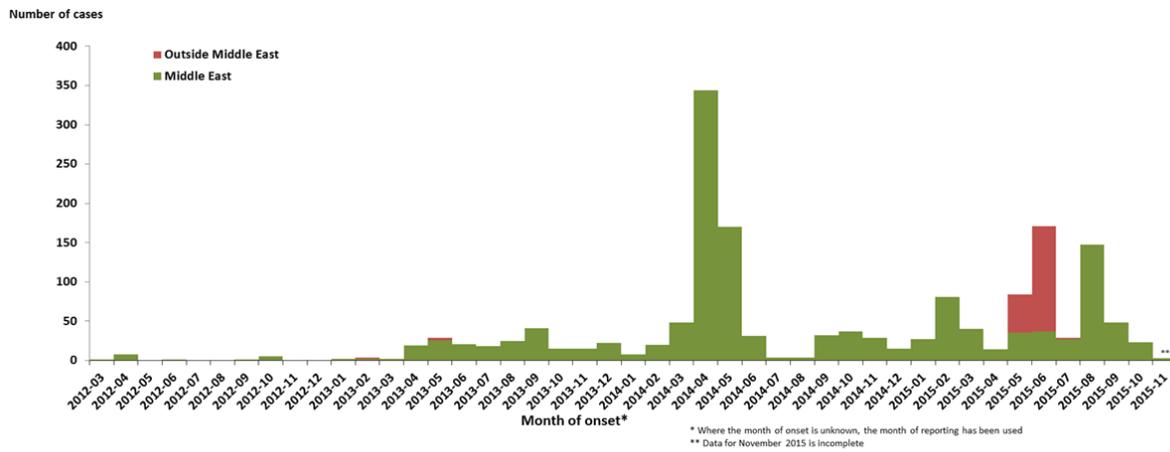
Cases of MERS-CoV by country of reporting, March 2012 – 19 November 2015 (n=1 638)

Source: ECDC

Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1277	547
	United Arab Emirates	81	11
	Qatar	13	5
	Jordan	35	14
	Oman	6	3
	Kuwait	4	2
	Egypt	1	0
	Yemen	1	1
	Lebanon	1	0
	Iran	6	2
Europe	Turkey	1	1
	UK	4	3
	Germany	3	2
	France	2	1
	Italy	1	0
	Greece	1	1
	Netherlands	2	0
	Austria	1	0
Africa	Tunisia	3	1
	Algeria	2	1
Asia	Malaysia	1	1
	Philippines	3	0
	South Korea	185	37
	China	1	0
	Thailand	1	0
Americas	United States of America	2	0
	Global	1638	633

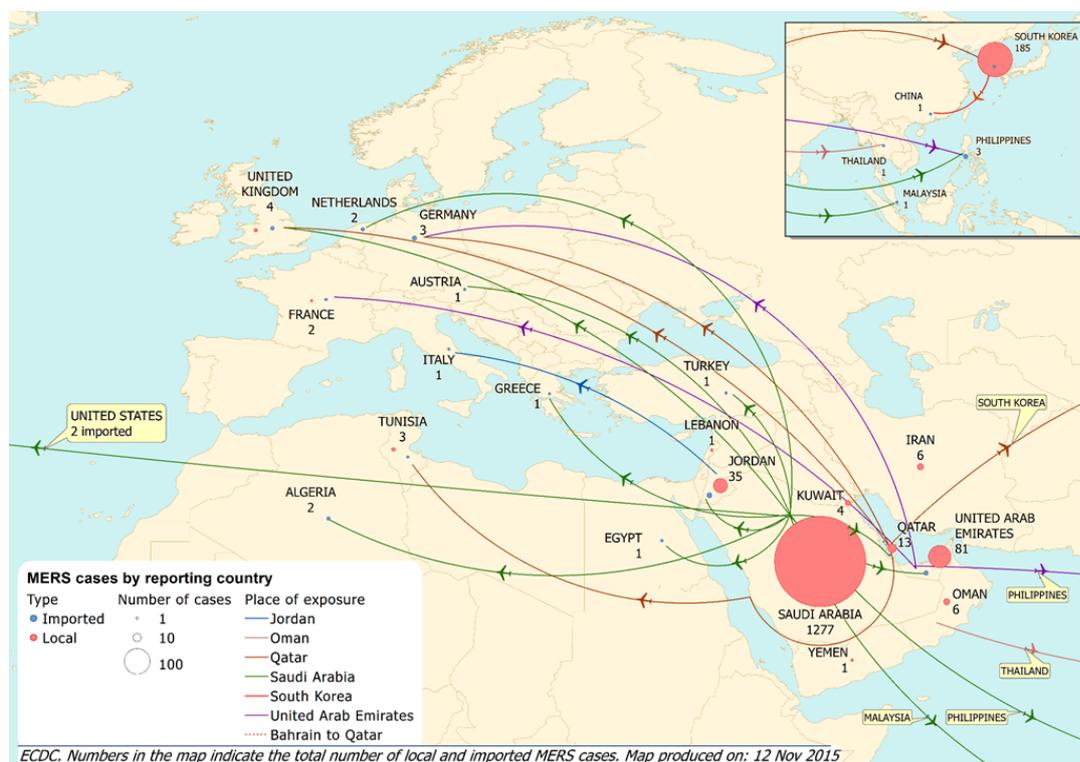
Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 19 November 2015 (n=1 638)

Source: ECDC



Distribution of confirmed cases of MERS-CoV by place of probable infection, March 2012 – 19 November 2015 (n=1 638)

Source: ECDC



Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 19 November 2015

Epidemiological summary

As of 19 November 2015, 681 laboratory-confirmed cases of human infection with avian influenza A(H7N9) viruses, including at least 275 deaths, have been reported.

Cases reported in China since March 2013 have the following geographical distribution: Zhejiang (188), Guangdong (181), Jiangsu (78), Fujian (63), Shanghai (48), Hunan (26), Anhui (32), Hong Kong (13), Xinjiang Uygur Zizhiqu (10), Jiangxi (9), Beijing (6), Shandong (6), Guangxi (4), Henan (4), Taiwan (4), Jilin (2), Guizhou (2) and Hebei (2). 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

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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.

During 2015, there have been continued avian influenza A(H7N9) virus detections in the animal population in multiple provinces in 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 affected and possibly neighbouring areas.

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 in Europe.

Actions

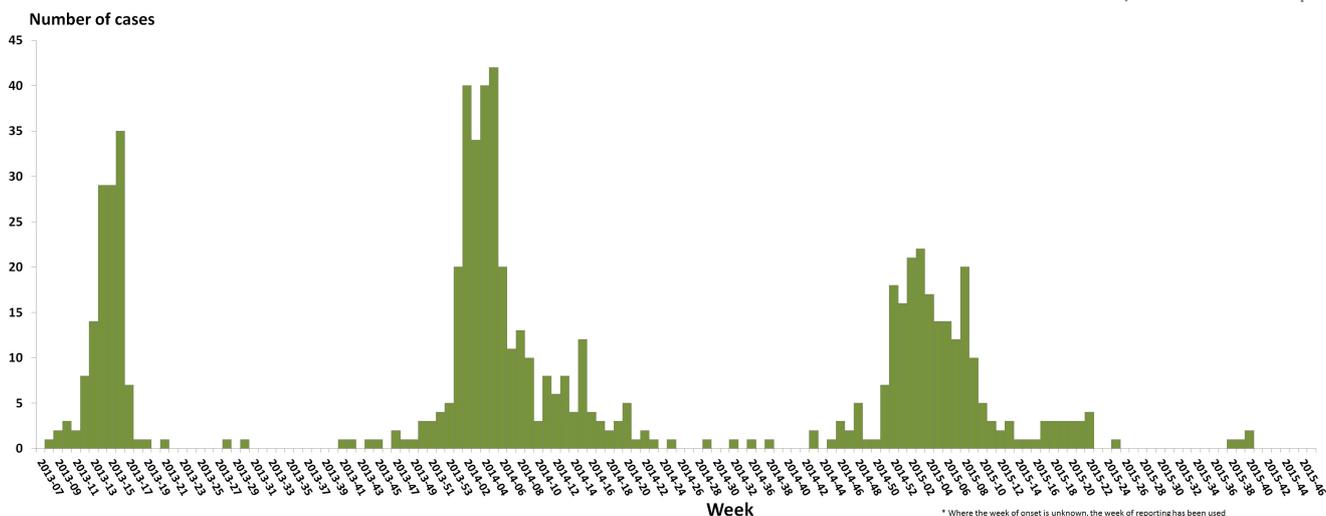
The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation, including scientific research.

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 week of reporting (weeks 07/2013 to 47/2015**)

** Data for week 47/2015 is incomplete



Distribution of confirmed cases of A(H7N9) by week of onset (n=681) from February 2013 until 20 November 2015

Source: ECDC



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 13 November 2015

Epidemiological summary

In 2015, wild poliovirus transmission is at the lowest levels ever, with fewer cases reported from fewer countries than ever before. In 2015, 56 wild poliovirus cases have been reported from two countries: Pakistan (40 cases) and Afghanistan (16 cases), compared to 290 cases from nine countries during the same period in 2014.

In 2015 so far, 19 cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO, compared with 47 for the same period in 2014. The cases this year are from Madagascar (10), Laos (3), Ukraine (2), Pakistan (2 cases), Nigeria (1), and Guinea* (1).

*previously reported in Mali.

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#) | [Temporary](#)

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[Recommendations to Reduce International Spread of Poliovirus](#) | [WHO Statement on the Sixth 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.

The confirmed circulation of wild poliovirus in several countries and the documented exportation of wild poliovirus to other countries support the fact that there is a potential risk of wild poliovirus being re-introduced to the EU/EEA. The highest risk of large poliomyelitis outbreaks occurs in areas with clusters of unvaccinated populations and in people living in poor sanitary conditions, or a combination of the two.

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](#).

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