

I. Executive summary

EU Threats

Increase in cases of *Salmonella* Enteritidis MLVA profile 2-9-7-3-2 and 2-9-6-3-2 - multistate - Europe - 2016

Opening date: 4 March 2016

Latest update: 16 December 2016

A multi-country outbreak of *Salmonella* Enteritidis phage type (PT) 8 with multiple locus variable-number tandem repeat analysis (MLVA) profiles 2-9-7-3-2 and 2-9-6-3-2, linked to egg consumption, is ongoing in the EU/EEA. Confirmed and probable cases were reported from May to early December 2016. Based on whole genome sequencing (WGS), isolates are part of two distinct but related genetic clusters. Control measures were applied by national and EU food authorities with regards to the egg packing centre and the related farms involved in this outbreak.

→ Update of the week

The number of new confirmed or probable cases reported by the ten affected EU/EEA countries peaked at the beginning of October 2016. Control measures have been implemented since early October. Since then, the number of new reported cases has decreased, but new reported cases are still being reported on weekly basis.

Influenza - Multistate (Europe) - Monitoring 2016-2017 season

Opening date: 13 October 2016

Latest update: 16 December 2016

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

→ Update of the week

This week influenza activity remained low, but is increasing across the region.

Non EU Threats

Candida auris in healthcare settings – Europe – 2016

Opening date: 9 December 2016

Latest update: 16 December 2016

Hospital outbreaks caused by *Candida auris* have been reported this year in the United Kingdom.

→ Update of the week

These hospital outbreaks have been difficult to control despite enhanced control measures. Isolated *C. auris* cases have also been detected in Germany and Norway.

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

Opening date: 15 June 2005

Latest update: 16 December 2016

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

→Update of the week

Between 17 November and 15 December 2016 no new human infections with A(H5N1) viruses were reported by [WHO](#).

On 7 December 2016, [WHO](#) reported two human cases of A(H5N6) in China.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 16 December 2016

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 15 December 2016, 807 cases have been reported to WHO, including at least 320 deaths. No autochthonous cases have been reported outside China. Most cases are isolated, and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak.

→Update of the week

Between 17 November to 15 December 2016, China reported seven human cases of A(H7N9).

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 16 December 2016

From 1 February to 18 November 2016, Zika virus infection and the related clusters of microcephaly cases and other neurological disorders constituted a public health emergency of international concern. Since 2015 and as of 15 December 2016, 71 countries and territories have reported evidence of mosquito-borne transmission of the virus. According to a World Health Organization report, as of 14 December, 29 countries or territories have reported microcephaly and other central nervous system malformations in newborns potentially associated with Zika virus infection.

→Update of the week

USA

In Florida, as of 14 December, two new locally-acquired cases have been reported since the last CDTR. According to the [Florida Health Department](#), despite limited local transmission still occurring, all areas in Florida have been declared free of active transmission. According to the Florida Health Department one case does not mean that ongoing active transmission is taking place.

In [Texas](#), five cases of locally acquired Zika virus infection have been reported as of 13 December. For this reason, [CDC](#) guidance has been updated and Brownsville in Cameron County has been identified as a 'Zika cautionary area'.

France (ex Angola)

A traveller presented symptoms and serologic signs compatible with Zika virus infection after returning from Angola to France. However, conclusive diagnosis of Zika virus infection is precluded because of previous yellow fever vaccination and sero-positivity for other flaviviruses. Further investigation to determine if there is ongoing Zika virus transmission in Angola is ongoing.

In the ECDC maps of countries and territories with autochthonous vector-borne transmission of Zika virus infection, the status of Saint Vincent and the Grenadines will change to past transmission.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 16 December 2016

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission of the virus has completely stopped and the world becomes polio-free. Polio was declared a public health emergency of international concern (PHEIC) by the World Health Organization (WHO) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 11 November 2016, at the eleventh [meeting of the Emergency Committee](#), the temporary recommendations in relation to the PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 (WPV2) eradicated worldwide.

→Update of the week

No new case nor new circulating vaccine-derived poliovirus (cVDPV) were reported in the past week.

Three wild poliovirus type 1 (WPV1) positive environmental samples were reported in the past week in Pakistan.

II. Detailed reports

Increase in cases of *Salmonella* Enteritidis MLVA profile 2-9-7-3-2 and 2-9-6-3-2 - multistate - Europe - 2016

Opening date: 4 March 2016

Latest update: 16 December 2016

Epidemiological summary

From 1 May to 12 December 2016, ten EU/EEA countries have reported 183 confirmed cases belonging to two distinct WGS clusters and 246 probable cases sharing the *S. Enteritidis* MLVA profiles 2-9-7-3-2 or 2-9-6-3-2. Outbreak cases, both confirmed and probable, have been reported by Belgium, Denmark, Finland, France, Greece, Luxembourg, the Netherlands, Norway, Sweden and the United Kingdom. Sixteen of the confirmed cases are associated with a travel history to Austria (1), Cyprus (1), Greece (1), Hungary (3), Italy (1), Poland (8) or Portugal (1), these countries are also considered to be affected by this outbreak. In addition, Croatia reported a cluster of *S. Enteritidis* cases, including a fatal case, with an epidemiological link to the outbreak. The characterisation of the Croatian isolates is currently ongoing. Germany and Italy are also reporting an increase in *S. Enteritidis*. WGS is ongoing in Italy.

ECDC assessment

The number of confirmed and probable cases peaked in October 2016 when the source(s) of infection was identified in a large egg packing centre and control measures were implemented. Although the number of new cases reported per week decreased since October, about 15 new cases were reported in each week of November. New cases have also been reported in the first two weeks of December. Most of the latest cases were reported from the Netherlands, the United Kingdom (England and Wales) and Belgium. ECDC and affected EU/EEA countries will continue monitoring the occurrence of new cases associated with this outbreak to assess the effectiveness of control measures and inform risk managers. A detailed rapid outbreak assessment, jointly produced with EFSA, has been published on 27 October.

Actions

ECDC and EFSA are liaising with relevant authorities in the Member States and at the EU level to facilitate the coordination of investigation and response measures.

Influenza - Multistate (Europe) - Monitoring 2016-2017 season

Opening date: 13 October 2016

Latest update: 16 December 2016

Epidemiological summary

Week 49/2016 (5–11 December 2016)

The proportion of virus detections among sentinel surveillance specimens increased to 28%. The majority of influenza viruses detected for this week were A(H3N2). Laboratory-confirmed influenza cases from hospital settings increased in some countries.

ECDC assessment

Influenza activity remained low this week.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report 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.

Candida auris in healthcare settings – Europe – 2016

4/12

Opening date: 9 December 2016

Latest update: 16 December 2016

Epidemiological summary

C. auris can cause invasive infections, and most *C. auris* isolates are resistant to fluconazole. Resistance to other antifungal agents has also been reported, and multidrug-resistant *C. auris* isolates with resistance to all three main classes of antifungal drugs have been described. Unlike other *Candida* species, *C. auris* seems to have a high propensity for transmission in healthcare settings, possibly related to environmental contamination. Commercially available laboratory tests might fail to identify *C. auris*.

ECDC assessment

C. auris poses a risk for patients in healthcare facilities in Europe due to its propensity to cause outbreaks and its antifungal resistance. Difficulties with laboratory identification and lack of awareness of this new *Candida* species might result in transmission and outbreaks remaining unnoticed. There is a need to raise awareness in European healthcare facilities to adapt testing strategies in laboratories and implement enhanced control measures early enough to prevent further hospital outbreaks.

Actions

ECDC is preparing a rapid risk assessment, to be circulated on 16 December 2016.

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

Opening date: 15 June 2005

Latest update: 16 December 2016

Epidemiological summary

Influenza A(H5N1)

From 2003 to 15 December 2016, 856 laboratory-confirmed cases of human infection with avian influenza A(H5N1) virus, including 452 deaths, have been reported from 16 countries.

Influenza A(H5N6)

On [7 December 2016](#) the following cases were reported:

On 21 November 2016, a human case of infection with avian influenza A(H5N6) virus was reported in a 47-year-old female living in Wugang Prefecture, Hunan Province who developed symptoms on 18 November 2016. She was admitted to hospital on the same day in critical condition. On 20 November 2016, the case was confirmed as infected with avian influenza A(H5N6) virus by laboratory testing, supplemented with clinical and epidemiological findings. The epidemiological investigation is ongoing.

On 1 December 2016, an additional human case of infection with avian influenza A(H5N6) virus was reported in a 30-year-old female living in Guangxi Province who developed the disease on 8 November 2016. She was admitted to hospital on 18 November 2016, and at the time of notification, was in critical condition. She had a history of exposure to dead poultry prior to illness onset. 127 close contacts are being monitored, and at the time of notification, none of the close contacts have experienced symptoms. The epidemiological investigation is ongoing.

Since 2013, 16 laboratory-confirmed cases of human infection with avian influenza A(H5N6) virus, including six deaths, have been detected in China.

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

ECDC assessment

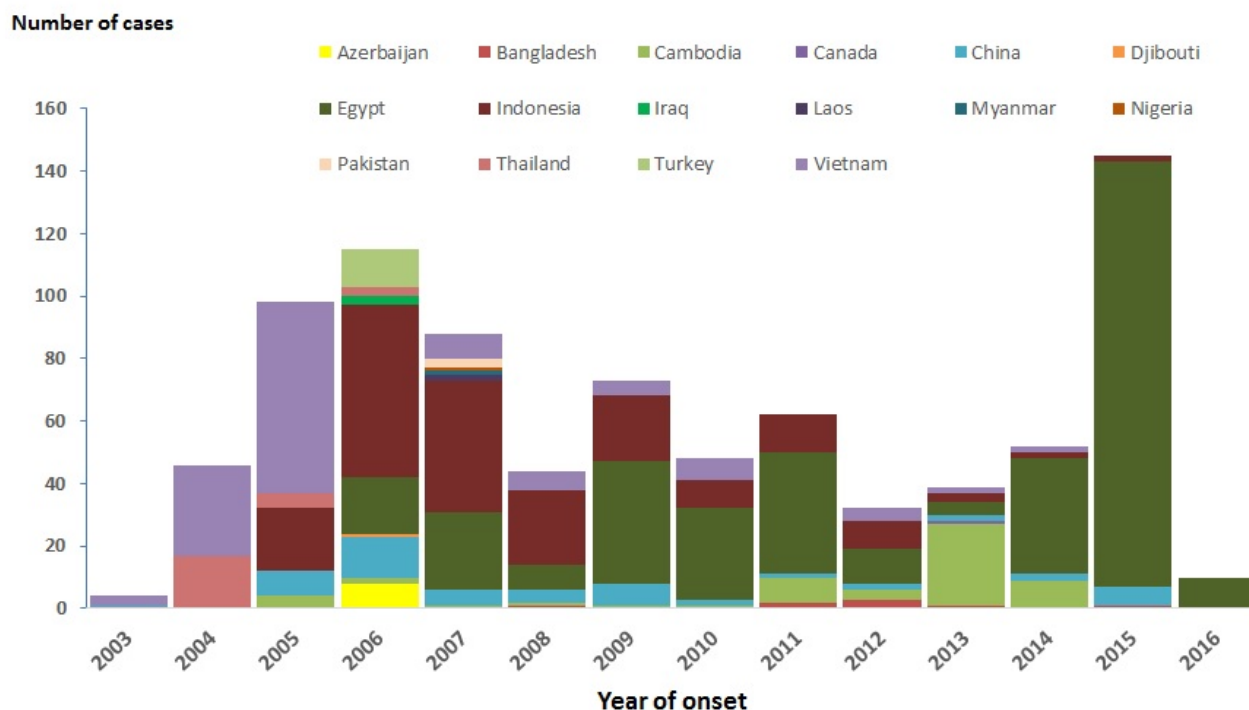
When avian influenza viruses circulate in poultry, sporadic infections or small clusters of human cases are possible among people exposed to infected poultry or contaminated environments, especially in households and at live bird markets. The viruses remain poorly adapted to humans, and transmission from birds to humans is infrequent. Only limited clusters of human cases have been reported since the first human epidemic of A(H5N1). No sustained human-to-human transmission has been observed. The risk of foodborne transmission, e.g. through the consumption of eggs or meat, is considered to be extremely low.

Actions

ECDC monitors avian influenza strains through epidemic intelligence activities in order to identify significant changes in the

epidemiology of the virus. ECDC re-assesses the potential of the A(H5N1) risk to humans on a regular basis.

Distribution of confirmed cases of A(H5N1) by country of reporting 2003 - 2016



Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 16 December 2016

Epidemiological summary

The cases detected between 17 November and 15 December were:

On 9 December 2016

A man aged 81 from Meizhou, Guangdong.

On 13 December 2016

A man aged 59 from Fuzhou, Fujian, exposed to poultry market, in serious condition.

A male farmer aged 58 from Kunshan, Jiangsu, in serious condition.

A man aged 63 from Nantong, Jiangsu, exposed to poultry market, in serious condition.

A man aged 32 from Kunshan, Jiangsu, exposed to poultry market, in serious condition.

A man aged 64 from Suzhou, Jiangsu, exposed to poultry market, in serious condition.

On 14 December 2016

A man aged 28 from [Macau](#), exposed to poultry market, asymptomatic.

The human cases of influenza A(H7N9) reported by China since March 2013 have the following geographical distribution: Zhejiang (220), Guangdong (196), Jiangsu (109), Fujian (75), Shanghai (51), Anhui (38), Hunan (34), Hong Kong (16), Jiangxi (14), Xinjiang Uyghur (10), Beijing (8), Shandong (8), Guangxi (4), Henan (4), Hebei (3), Hubei (2), Jilin (2), Tianjin (2), Guizhou (2), Liaoning (1), Macau (1) and four cases in Taiwan. Three imported cases have also been reported: one in Malaysia and two in Canada.

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

ECDC assessment

This outbreak is caused by a novel reassortant avian influenza virus capable of causing severe disease in humans. This is a

zoonotic outbreak, in which the virus is transmitted sporadically to humans in close contact with the animal reservoir, similar to the influenza A(H5N1) situation.

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

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

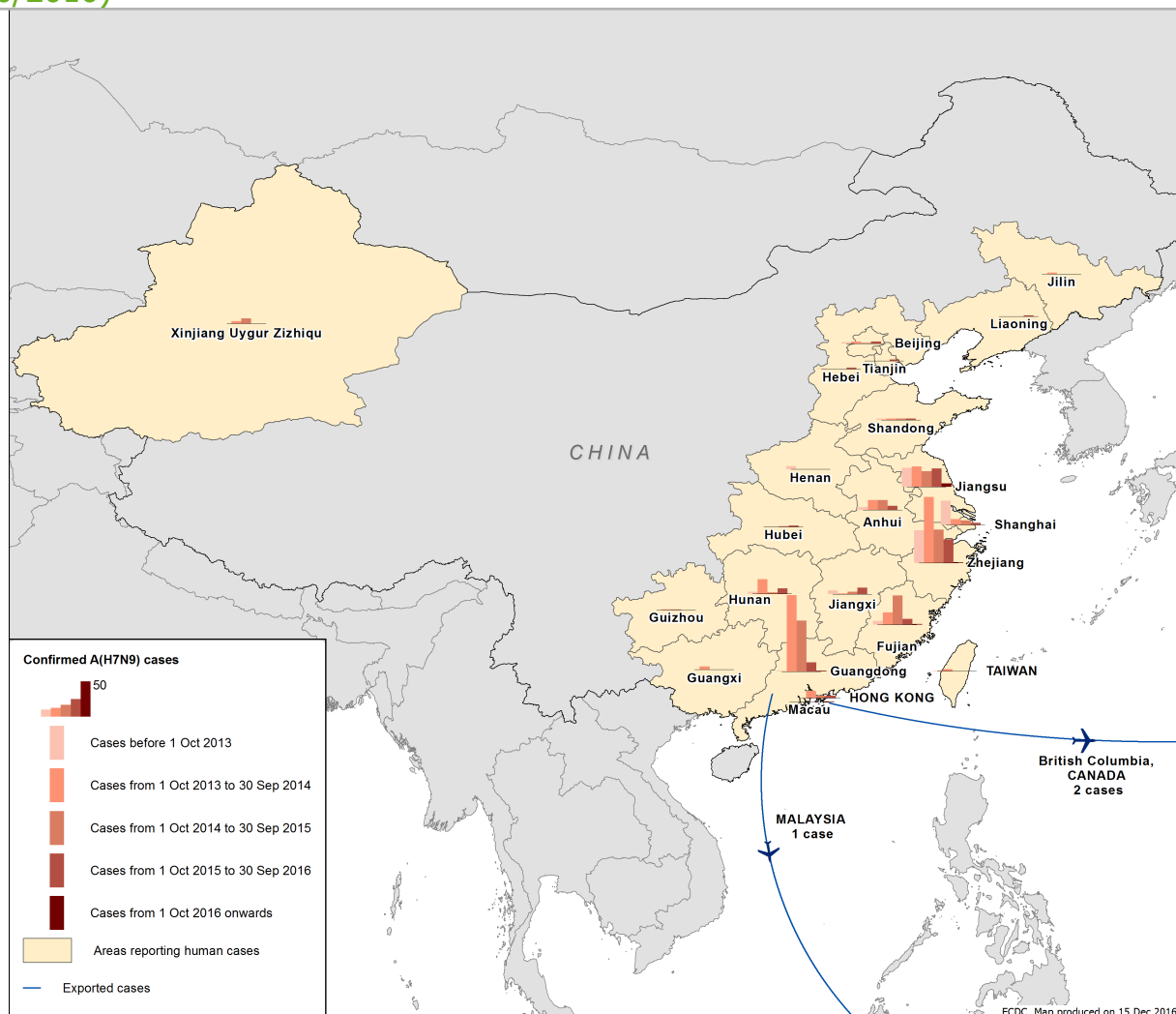
Actions

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

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

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

Distribution of confirmed cases of A(H7N9) by four periods of reporting (weeks 07/2013 to 50/2016)



Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 16 December 2016

Epidemiological summary

1. Update on the public health emergency of international concern

The fifth meeting of the Emergency Committee (EC) convened by the Director-General under the International Health Regulations (IHR) regarding Zika virus infection, microcephaly and other neurological disorders was held on 18 November 2016. The EC originally recommended a public health emergency of international concern (PHEIC) on 1 February 2016 on the basis of an extraordinary cluster of microcephaly and other neurological disorders reported in Brazil, following a similar cluster in French Polynesia and geographic and temporal association with Zika virus infection which required urgent and coordinated and research. Because research has now demonstrated the link between Zika virus infection and microcephaly, the EC felt that a robust longer-term technical mechanism was now required to manage the global response and research agenda. Although Zika virus infection and its associated consequences remain a significant enduring public health challenge requiring intense action, it no longer represents a PHEIC as defined under the IHR. The EC recommended that a sustained programme of work with dedicated resources should be implemented to address the long-term nature of the disease and its associated consequences. Based on this advice, the Director-General declared the end of the PHEIC.

8/12

2. Update on number of cases

Worldwide

Since 2015 and as of 15 December 2016, 71 countries and territories have reported evidence of mosquito-borne transmission of the virus. Since February 2016 and as of 14 December 2016, 13 countries or territories have reported evidence of person-to-person transmission of the virus, probably via sexual transmission.

USA

In Florida, two new locally-acquired cases have been reported since the last CDTR and as of 14 December. According to the Florida Health Department, despite limited local transmission still occurring, all the areas in Florida have been declared free of active transmission. According to the Florida Health Department one case does not mean that ongoing active transmission is taking place. As of 14 December, 251 locally-acquired and 992 travel-related cases have been reported in Florida.

In Texas, five cases of locally acquired Zika virus infection have been reported as of 13 December. For this reason, CDC guidance has been updated and Brownsville in Cameron County has been identified as a 'Zika cautionary area'.

EU/EEA imported cases:

Since June 2015 (week 26), 21 countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom) have reported 2 043 travel-associated Zika virus infections through [The European Surveillance System \(TESSy\)](#). Over the same time period, nine EU/EEA Member States reported 100 Zika cases among pregnant women.

3. Update on microcephaly and/or central nervous system malformations potentially associated with Zika virus infection

As of 14 December 2016, 29 countries or territories have reported microcephaly and other CNS malformations in newborns potentially associated with Zika virus infection. Brazil reports the highest number of cases. As of 14 December 2016, 20 countries or territories have reported GBS potentially associated with Zika virus infection.

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

ECDC assessment

The spread of the Zika virus in the Americas and Asia is likely to continue as the vectors (*Aedes aegypti* and *Aedes albopictus* mosquitoes) are widely distributed there. The likelihood of travel-related cases in the EU is increasing. A detailed [risk assessment](#) was published on 28 October 2016. As neither treatment nor vaccines are available, prevention is based on personal protection measures. Pregnant women should consider postponing non-essential travel to Zika-affected areas.

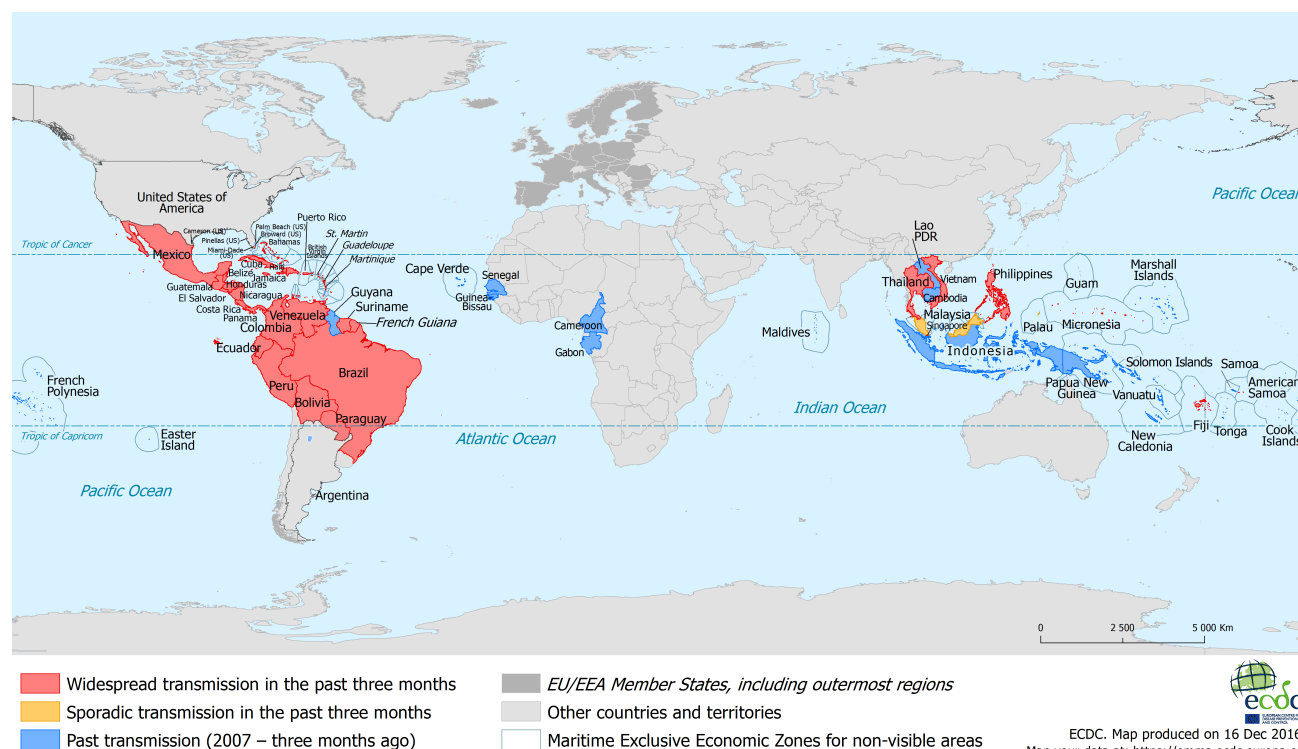
Actions

ECDC publishes an [epidemiological update](#) every Friday together with [maps](#) containing information on countries or territories which have reported confirmed autochthonous cases of Zika virus infection. A Zika virus infection atlas is also available on the ECDC [website](#).

ECDC publishes information concerning vector distribution on the [ECDC website](#), showing the distribution of the vector species at 'regional' administrative levels (NUTS3).

Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past three months, as of 16 December 2016

ECDC



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 16 December 2016

Epidemiological summary

As of 14 December 2016, 34 cases of WPV1 have been reported to WHO in 2016, compared with 66 for the same period in 2015. The cases were detected in Pakistan (18), Afghanistan (12) and Nigeria (4). Three cases of cVDPV have been reported in 2016, compared with 24 for the same period in 2015. The three cases were all reported from Laos.

Web sources: [Polio eradication: weekly update](#) | [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

Continued detection of positive environmental samples throughout 2016 in Pakistan confirms that virus transmission remains geographically widespread across the country, despite strong improvements in response measures. 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 reintroduced to the EU. Following the declaration of polio as a PHEIC, ECDC updated its [risk assessment](#). ECDC has also prepared a background document with travel recommendations for the EU.

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