

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Type E botulism likely associated with fish consumption – Germany and Spain

Opening date: 29 November 2016

Latest update: 9 December 2016

In November 2016, Spain reported two cases of botulism associated with consumption of salted, dried fish "*Rutilus rutilus*". Germany reported one similar case.

Salmonella Enteritidis 2-10-8-5-2 associated with reptile feeder mice - Europe - 2016

Opening date: 24 November 2016

Latest update: 9 December 2016

A persistent common source multi-country outbreak of *Salmonella* Enteritidis phage type (PT) 8 infection, characterised by MLVA type 2-10-8-5-2, is ongoing in the United Kingdom (UK) since at least 2011 and in Denmark since at least 2014. Cases are further defined through whole genome sequencing (WGS) analysis and are associated with exposure to pet reptiles, in particular corn snakes and feeder mice. The British outbreak investigation team identified the feeder mice as being imported into the UK from a rodent farm in Lithuania. Additional EU/EEA countries where the implicated feeder mice have been distributed are likely to be affected by this outbreak.

→Update of the week

Since 2015, Denmark, the Netherlands and Norway reported respectively six, nine and seven additional cases with the outbreak MLVA profile, the WGS is still ongoing on these isolates. Cases have also been identified in Germany and Ireland.

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

Opening date: 13 October 2016

Latest update: 9 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 nearly half of reporting countries reported increasing activity.

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

Opening date: 30 May 2016

Latest update: 9 December 2016

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

→Update of the week

This week, Hungary reported four additional cases in the counties of Baranya, Csongrad, Fejer and Szabolcs-Szatmar-Bereg, with dates of onset of symptoms in September. No new cases have been reported in the neighbouring countries. As no recent cases have reported in Europe in the recent weeks, this will be the last weekly update for 2016.

Non EU Threats

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 9 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.

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

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 9 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 8 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 7 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, five new locally-acquired cases have been reported since the last CDTR and as of 7 December. According to the [Florida Health Department](#), these cases have been classified as locally-acquired in the past week but had symptom on-set in September and October.

Nicaragua

According to WHO, Nicaragua reported the first two cases of microcephaly potentially associated with Zika virus infection in the past week.

In the ECDC maps of countries and territories with autochthonous vector-borne transmission of Zika virus infection, the status of Cuba has been changed to widespread transmission taking into account the imported cases to EU reported to the European Surveillance System (TESSy).

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

Opening date: 24 September 2012

Latest update: 9 December 2016

Since April 2012 and as of 8 December 2016, 1 875 cases of MERS, including 710 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 as 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 the last update of MERS-CoV on 4 November 2016, there have been 29 cases of MERS-CoV reported in Saudi Arabia and one case in Oman.

II. Detailed reports

Type E botulism likely associated with fish consumption – Germany and Spain

Opening date: 29 November 2016

Latest update: 9 December 2016

Epidemiological summary

On 22 November 2016, Germany reported one confirmed case of foodborne botulism BoNT-type E with onset dates in early November. The patient is an adult man who had exposure to fish products which were bought in a chain of grocery stores specialised in Russian foods. Germany issued a RASFF message pertaining to the recall of "dried and salted roach (*Rutilus rutilus*)" distributed within Germany and to other EU Member States. According the supermarket website, the chain has stores in Belgium, Cyprus, the Czech Republic, Greece, Italy, the Netherlands, Portugal, Spain and the United Kingdom.

On 25 November, Spain reported two suspected botulism cases. The cases were a couple of Russian nationals with residence in Spain who consumed salted "Plötze Salz" fish (*Rutilus rutilus*) and experienced symptoms on 5 and 6 November. The results of the serum samples tested were negative.

Sources: [ECDC botulism page](#) | [RASFF](#) | [Media](#)

ECDC assessment

The temporal clustering of botulism cases in Germany and Spain associated with consumption of salted fish (*Rutilus rutilus*) is highly suggestive of a common exposure to a single contaminated vehicle distributed in both countries. The risk of additional cases occurring in other countries of the EU/EEA may depend on if the fish was bought by consumers prior to it being recalled from the shops, as the fish has a long shelf life. As *Clostridium botulinum* is not transmitted from person-to-person, the risk to the general population in relation to these cases is negligible.

Actions

ECDC is following this outbreak in the Epidemic Intelligence Information System for Food and Waterborne Diseases (EPIS-FWD). ECDC is preparing a joint Rapid Outbreak Assessment with the European Food Safety Authority (EFSA).

Salmonella Enteritidis 2-10-8-5-2 associated with reptile feeder mice - Europe - 2016

Opening date: 24 November 2016

Latest update: 9 December 2016

Epidemiological summary

The British outbreak investigation team identified 275 human cases as part of this outbreak, from January 2012 to 24 November 2016. Cases were distributed across the United Kingdom (UK) and 40% of them were below 10 years of age. Information from routinely collected surveillance data showed that around 30% of cases interviewed in 2015 reported owning or being exposed to reptiles, particularly to corn snakes. A case in Scotland reported being exposed to a bird of prey. A case-control study found that cases were strongly associated with exposure to reptiles and/or feeder mice. The British outbreak investigation team reported also that local authorities sampled feeder mice and rats from three pet shops visited by identified cases. The outbreak strain was identified in the feeder mice from a single chain of pet shops but not from an independent retailer. The outbreak strain was also identified after analysing samples submitted by the UK importer of feeder mice to the veterinary laboratory of the UK Animal and Plant Health Agency (APHA). The feeder mice originated from a rodent farm in Lithuania and were imported frozen to the UK. *Salmonella* spp. were also detected after sampling the rodent farm in Lithuania although these have not been further characterised. Lithuanian authorities informed that the rodent farm was known to export also to Germany and Poland.

In Denmark, three isolates of *Salmonella* Enteritidis with MLVA type 2-10-8-5-2 were found to fulfil the inclusion criteria for the sequence-based cluster definition. The isolates were sequenced in October 2016 and had been sampled in 2014, 2015 and April 2016. It was not possible to establish whether the Danish cases from which the isolates derived had had any contact to snakes/feeder mice. One isolate with this MLVA type, detected in a human case in Luxembourg in 2015, was found to be 25 SNPs away from the British cluster and therefore not considered as part of this outbreak. WGS of isolates with this MLVA type identified in the Netherlands and Norway in 2015 and 2016 is currently on-going.

ECDC assessment

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This is a persistent common source multi-country outbreak ongoing since 2012. The source of infection is likely to be a rodent farm in Lithuania. As the source has not been decontaminated, additional cases have to be expected.

Actions

ECDC published a [rapid risk assessment](#) on 5 December 2016.

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

Opening date: 13 October 2016

Latest update: 9 December 2016

Epidemiological summary

Week 48/2016 (28 November - 4 December 2016)

- The overall proportion of virus detections among sentinel surveillance specimens increased to 19% and was >10% in 15 countries (>10 specimens tested)
- The majority of influenza viruses detected for this week were subtype A(H3N2)
- Intensive care unit cases were reported in France and Spain
- Hospitalised cases were infected by A(H3N2) virus

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.

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

Opening date: 30 May 2016

Latest update: 9 December 2016

Epidemiological summary

Since the beginning of the 2016 transmission season and as of 8 December 2016, 214 cases of West Nile fever in humans have been reported in EU Member States. A total of 267 cases were reported from neighbouring countries.

Source: [ECDC WNF page](#)

ECDC assessment

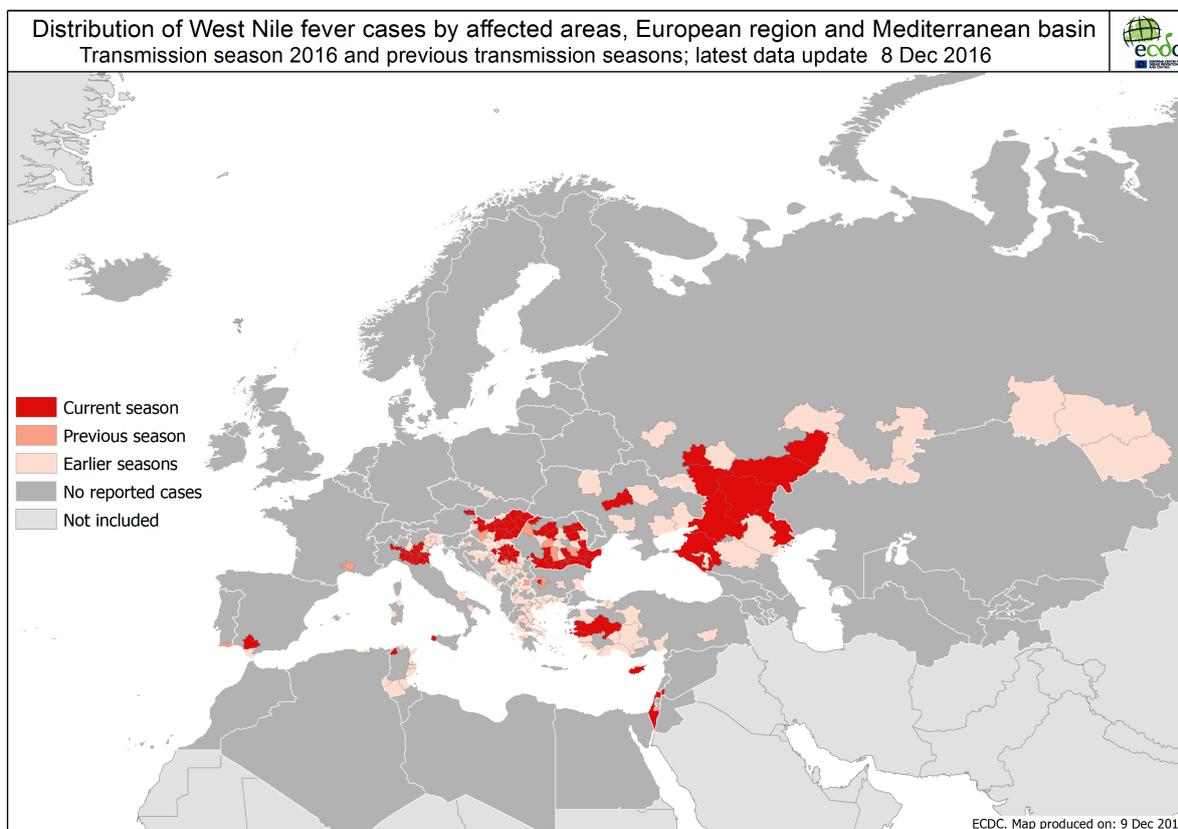
As expected at this time of the year, the weekly number of cases has started to decrease.

Actions

Since the beginning of June 2016, ECDC produces weekly WNF maps during the transmission season to inform blood safety authorities of WNF-affected areas.

Distribution of West Nile fever cases by affected areas, European region and Mediterranean basin

ECDC



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 9 December 2016

Epidemiological summary

As of 7 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 23 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

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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.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 9 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.

2. Update on number of cases

Worldwide

Since 2015 and as of 8 December 2016, 71 countries and territories have reported evidence of mosquito-borne transmission of the virus. Since February 2016 and as of 7 December 2016, 13 countries or territories have reported evidence of person-to-person transmission of the virus, probably via sexual transmission.

USA

In Florida, five new locally-acquired cases have been reported since the last CDTR and as of 7 December. According to the Florida Health Department, these cases have been classified as locally-acquired in the past week but had symptom on-set in September and October. As of 7 December, 249 locally-acquired and 972 travel-related cases have been reported in Florida.

EU/EEA imported cases:

Since June 2015 (week 26), 20 countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Hungary, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom) have reported 2037 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 7 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 7 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.

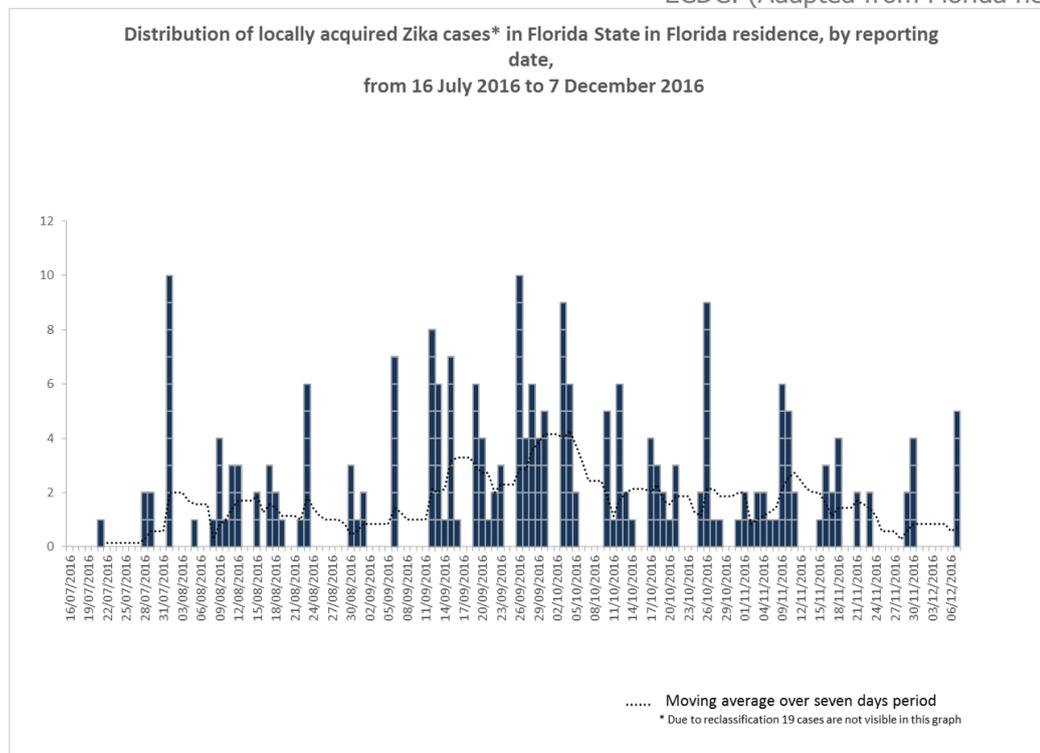
Actions

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).

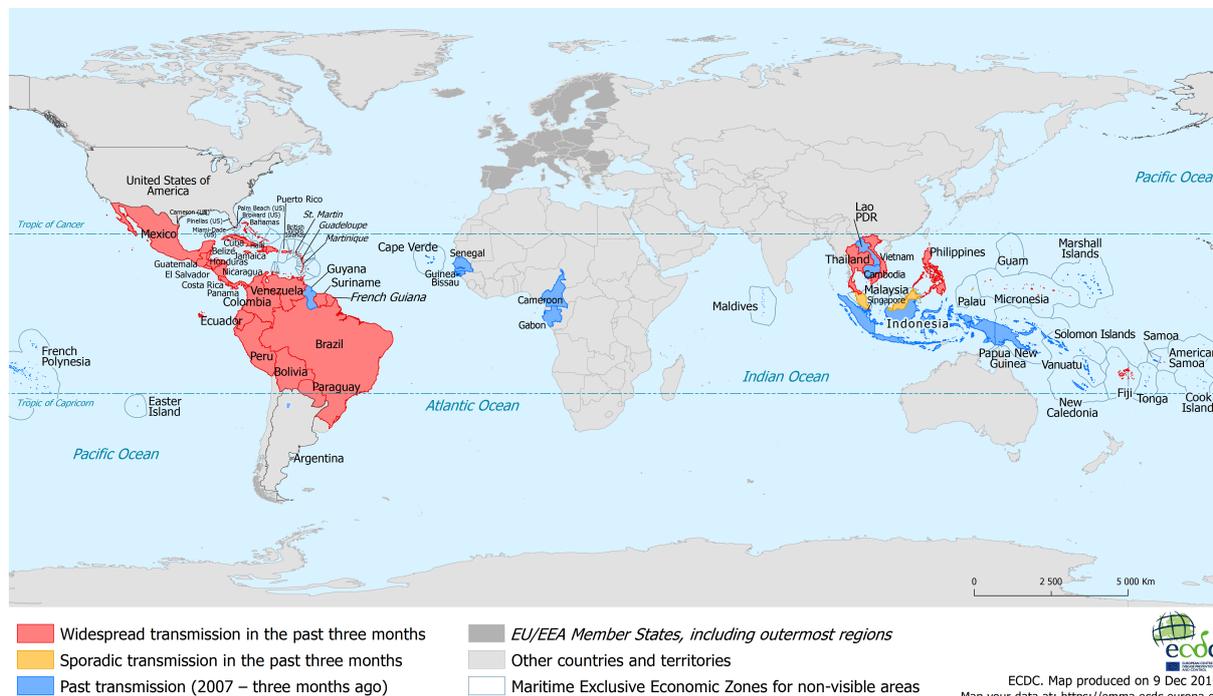
Distribution of locally acquired Zika cases in Florida State (US), by reporting date, from 16 July 2016 to 7 December 2016

ECDC: (Adapted from Florida health department and media)



Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past three months, as of 9 December 2016

ECDC



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

Opening date: 24 September 2012

Latest update: 9 December 2016

Epidemiological summary

As of 8 December 2016, 1 875 cases of MERS, including 710 deaths, have been reported by 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](#) | [ECDC factsheet for professionals](#)

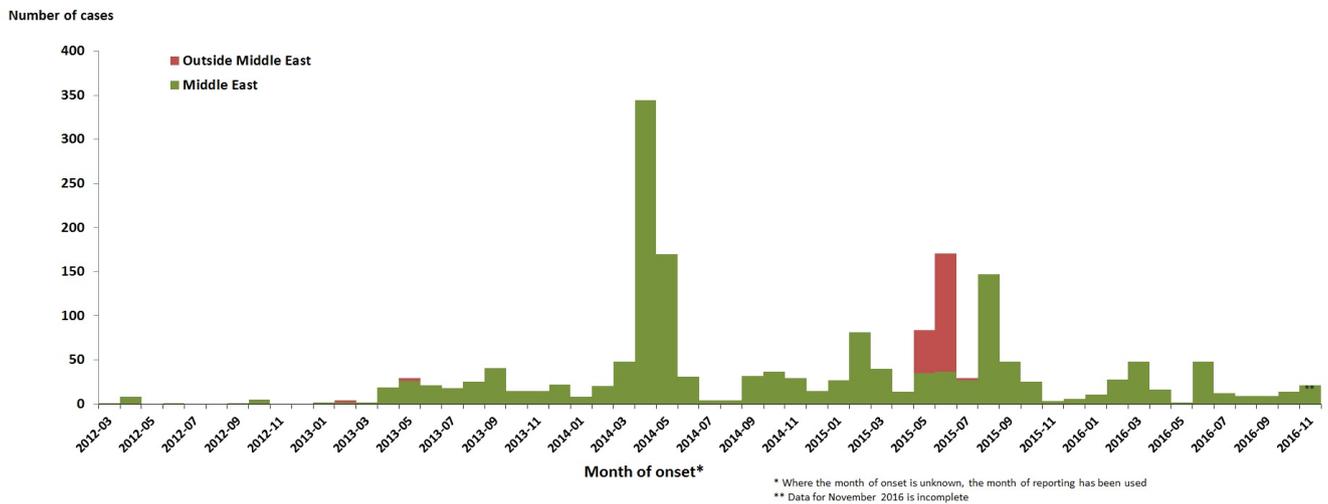
ECDC assessment

The risk of sustained human-to-human transmission in Europe remains very low. The ECDC's conclusion continues to be that the MERS-CoV outbreak poses a low risk to the EU, as stated in a [rapid risk assessment](#) published on 21 October 2014, which provides details on the last case reported in Europe.

Actions

ECDC published the 21st update of its MERS-CoV [rapid risk assessment](#) on 21 October 2015.

Distribution of confirmed cases of MERS-CoV by first available date, and probable place of infection, March 2012 – 30 November 2016 (n=1 864)



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