

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Fatal case of diphtheria in unvaccinated child - Belgium -2016

Opening date: 17 March 2016

Latest update: 17 March 2016

On 15 March, a fatal case of toxigenic diphtheria caused by *Corynebacterium diphtheriae* was reported in Belgium in an unvaccinated child.

Haemolytic uraemic syndrome (HUS) cases in young children – Romania

Opening date: 16 February 2016

Latest update: 18 March 2016

As per 17 March, the Ministry of Health in Romania reported an outbreak of 10 confirmed cases with Shiga toxin producing *Escherichia coli* (STEC) O26 and 9 probable cases with clinical haemolytic uraemic syndrome (HUS). All cases were in children aged 5 to 38 months from Arges (n=12), Bucharest (n=1), Bachau (n=1), Colj (n=1), Ialomita (n=1) and Sibiu (n=1) districts. Dates of onset of all cases were between 25 January and 4 March. Three of the cases died. Environmental investigation identified a milk processing establishment in Arges district where various cheese tested positive for *E. coli* O26 or stx genes. On 15 March, the Ministry of Health in Italy reported one case of HUS in a 14 month-old-child of Romanian origin.

→Update of the week

One new confirmed case (VTEC O26 case), one new probable case (HUS case) and one new suspected case (suspected HUS case) were identified this week from Ialomita district.

One additional new confirmed case was identified in Sibiu district this week.

The four cases were in children aged between six and 14 months and had onset between 3 February and 4 March.

According to the Italian [Ministry of Health](#) on 15 March 2016, a 14-month-old child of Romanian origin has been hospitalised with HUS in Florence. The investigation is implicating a soft cheese imported from Romania as a possible vehicle of infection. The cheese had been produced in the same milk processing establishment implicated in the Romanian investigation. The cheese is reported to have been distributed to France and Germany as well. Other cheeses from the same Romanian milk processing establishment have been distributed to Belgium, Germany, Italy and Spain in 2016 (Rapid Alert System for Food and Feed (RASFF) news from 9 March 2016, updated to RASFF alert on 17 March).

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

Opening date: 2 October 2015

Latest update: 17 March 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 10/2016, 19 out of 43 Member States in the WHO European Region reported widespread influenza activity. As only one country reported high-intensity activity, influenza may have peaked in some parts of the Region, a development which is also suggested by reports of decreasing or stable trends in 93% of the countries that reported on this indicator. The proportion of sentinel specimens positive for influenza virus is 48% this week, representing a slight increase compared to 44% for the previous week.

Non EU Threats

New! Lassa fever - Germany ex Togo - 2016

Opening date: 17 March 2016

Latest update: 17 March 2016

On 10 March 2016, Germany reported a fatal case of Lassa fever in an American medical worker who had been medically evacuated from Togo. On 17 March 2017, the Robert Koch Institute (RKI) reported a second laboratory-confirmed case of Lassa fever in a funeral home employee who had handled the corpse of the first imported case. On 11 March 2016, another American medical worker working with an NGO in Togo was medically evacuated from Togo to the USA. An outbreak of Lassa fever is currently ongoing in Nigeria and in neighbouring Benin. This is the first time that Lassa fever is diagnosed in cases exposed in Togo.

New! Outbreak of yellow fever - Angola - 2016

Opening date: 17 March 2016

There is an ongoing outbreak of yellow fever in Angola with the first cases identified in December 2015 in the municipality of Viana, Luanda province. Yellow fever is endemic in Angola, however, this is the first outbreak reported since 1988. An immunisation campaign is ongoing.

→ Update of the week

A rapid increase in the number of suspected cases of yellow fever has been observed since mid-January 2016, according to a WHO situation report on 14 March regarding the outbreak in Angola. Since 20 January 2016, imported cases have been detected in the provinces of Huambo, Huila, Benguela, Cuanza Sul, Cunene, Bie and Zaire. All cases were imported from Luanda. The highest transmission was in February, epidemiological weeks 5 to 8, when 87/121 (72%) of the total confirmed cases occurred. The trend has been on a gradual decline since week 9. Given the trend in the frequency of imported cases reported from other provinces, and the local climatic and environmental conditions, as well as the presence of the vector, there is a high risk of spread of the epidemic in the provinces with imported cases.

Since 2 February 2016, a vaccination campaign started in the Viana district, which reached 80% of the targeted population 12 days after its start. The campaign has progressively continued in the districts of Belas, Cazenga and Cacuaco. Currently, vaccination is ongoing in the districts of Kilama, Kiaksi and Maianga, and will continue in the remaining six districts of the province in the following days.

On 13 March 2016, China confirmed the first ever imported yellow fever case in Beijing in a 32-year-old man returning from Luanda. On 16 March, a Kenyan man died in Nairobi due to yellow fever after returning from Angola. The second imported case from Angola was reported in [Kenya](#) on 17 March.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 17 March 2016

Since the beginning of 2014, autochthonous Zika cases have been reported in the Pacific region. In addition, autochthonous transmission of Zika virus has been reported in Brazil since April 2015. As of 17 March 2016, 44 countries and territories have reported autochthonous cases of Zika virus infection in the past nine months. Links between Zika virus infection in pregnancy and microcephaly of the foetus have been under investigation since October 2015, when the Brazilian Ministry of Health reported an unusual increase in cases of microcephaly following the Zika virus outbreak in the north-eastern states. French Polynesia reported an increase in cases of central nervous system malformations during 2014–2015 following the Zika virus infection outbreak from September 2013 to March 2014. On 1 February 2016, WHO declared this a Public Health Emergency of International Concern (PHEIC) during a first meeting of the Emergency Committee convened by the Director-General under the International Health Regulations 2005. A second meeting of the Emergency Committee on 8 March 2016 confirmed the continuation of the PHEIC. Considering the growing body of 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

Since last week, [Cuba](#) and [Dominica](#) confirmed the first autochthonous cases of Zika virus transmission.

Venezuela: On 14 March, [media](#) reported the first case of a foetal death associated with intrauterine infection with Zika virus in Monagas, Venezuela. The mother presented with Zika-related symptoms on 5 January in the 13th week of pregnancy and on 16 February, a sonogram revealed severe reduction in the amount of amniotic fluid and intracerebral calcified structures in the foetus. Central nervous system malformations were diagnosed three days after foetal death in utero, and initial PCR test results showed the presence of Zika RNA in the blood, umbilical cord and amniotic fluid.

Cape Verde: The [Ministry of Health](#) reported the first case of possible Zika congenital syndrome*. On 14 March, the birth of a child with clinical evidence of microcephaly was reported from Praia. The mother described having symptoms consistent with Zika virus infection during pregnancy. Samples have been collected from both mother and child for laboratory analysis.

Bangladesh and Papua New Guinea: According to the latest Zika situation report published by [WHO](#) on 17 March, a newly reported Zika virus case from 2014 in Bangladesh is the result of a retrospective study. Similar investigations have also confirmed Zika virus cases from Papua New Guinea in 2015.

Publication

On 15 March, a study based on data from the 2013-14 Zika outbreak in French Polynesia, where mathematical modelling was used to estimate the risk of microcephaly from Zika virus infection, was published in [The Lancet](#). The study estimated a seroprevalence of Zika virus of 66% (95% CI 62-70). The study estimated that the risk of microcephaly is 95 per 10 000 women (34-191) infected with Zika virus during the first trimester of pregnancy. According to the authors, "the analysis strongly supports the hypothesis that infection in the first trimester of pregnancy is associated with an increased risk of microcephaly".

Update on the observed increase of congenital Zika syndrome and other neurological complications

So far only French Polynesia and Brazil have reported an increase in Zika congenital syndrome. In the context of Zika virus circulation, 12 countries or territories have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases, according to the latest [WHO Zika situation report](#) published on 17 March.

Honduras: [Media](#) quoting the Ministry of Health, has reported the first Zika-associated death due to Guillain-Barré syndrome in the country.

Brazil: According to the [Ministry of Health](#), since October 2015 and as of 12 March 2016, there have been 6 480 suspected cases of microcephaly from 1 224 municipalities across 26 states in Brazil. This is an increase of 322 suspected cases since the last weekly update on 12 March. As of 12 March 2016, 863 of the cases have been confirmed to have microcephaly and/or other central nervous system findings suggestive of congenital infection. Of these cases, 97 have been confirmed positive for Zika virus by PCR.

There have been 182 intrauterine or neonatal deaths reported among children notified to have microcephaly and/or central nervous system malformations. Of these, 40 cases were confirmed to have microcephaly and/or central nervous system malformations. One hundred and twenty-four cases are still under investigation and 18 cases have been discarded.

* ECDC will from now on refer to congenital malformations and other nervous system complications as 'congenital Zika syndrome'.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 17 March 2016

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), more than 1 015 000 refugees arrived in Europe in 2015 and 141 000 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. The health conditions of the refugees may worsen with unfavourable weather and overcrowding in shelters.

→ Update of the week

On 13 March, [media](#) quoting the national health authorities, reported a case of hepatitis A among refugees in the Idomeni refugee camp in Greece.

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

Opening date: 24 September 2012

Latest update: 17 March 2016

Since April 2012 and as of 17 March 2016, 1 715 cases of MERS, including 661 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 19 February, Saudi Arabia has reported 51 new cases of MERS-CoV. The cases are from Burayda (23), Riyadh (8), Kharj (3), Jeddah (2), Taif (2), Alzulfi (1), Alrass (1), Afeef (1), Najran (1), Shagraa (1), Hail (3), Jubail (1), Ruwaidah Alard (1), Mahail Aseer (1), Alartawia (1). In addition, one fatal case was reported by Qatar ex Saudi Arabia. Of these cases, ten were healthcare workers (HCWs) and 14 had contact with animals.

On 15 March, the [Saudi Arabia Ministry of Health](#) provided an epidemiological update on the cluster of cases in Qassim Region. Within a three-week period (22 February - 12 March 2016), 23 cases of MERS-CoV were reported from the Qassim Region, predominantly from one hospital. These cases include five primary cases, 12 secondary cases and six HCWs. Three of the HCWs were asymptomatic. Preliminary results of the ongoing outbreak investigation indicate that the diagnosis of MERS-CoV was confirmed late, especially for the first few cases. The overall implementation of Infection Prevention and Control (IPC) within the hospital was probably insufficient, according to the Ministry of Health. Health facilities in Qassim were unable to implement visual triaging properly. This could have been due to difficulties in re-adjusting the designs of the entrances of the hospitals.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014

Latest update: 17 March 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 16 March 2016, WHO has reported 28 603 cases of Ebola virus disease related to the outbreak in West Africa, including 11 301 deaths. The number of cases in the most affected countries peaked in autumn 2014 and has been slowly decreasing since then. Sierra Leone was declared Ebola-free by WHO on 7 November 2015, Guinea on 29 December 2015 and Liberia on 14 January 2016. On 15 January 2016, WHO reported a new sporadic case in Sierra Leone, and on 20 January, a second case, epidemiologically linked to the previous one. On 17 March 2016, WHO declared the end of the recent sporadic transmission of Ebola virus disease in Sierra Leone, 42 days after the last person confirmed to have Ebola virus disease in the country tested negative for the second time. On 18 March, WHO confirmed two new cases of Ebola in Guinea.

→Update of the week

On 17 March 2016, [WHO](#) declared the end of the recent sporadic transmission of Ebola virus disease in Sierra Leone, 42 days after the last person confirmed to have Ebola virus disease in the country tested negative for the second time. WHO continues to stress that Sierra Leone, as well as Liberia and Guinea, are still at risk of sporadic transmission of Ebola, largely due to virus persistence in some survivors, and must remain on high alert and ready to respond. Strong surveillance and emergency response capacity need to be maintained, while care, screening and counselling also need to be provided for survivors.

According to [WHO](#) on 18 March, two new cases of Ebola were confirmed in a rural village in the prefecture of Nzérékoré. On 16 March, Guinean health officials in the region reported three unexplained deaths in recent weeks in the village of Koropara and stated that other members of the same family are currently showing symptoms characteristic of Ebola. Guinea's Ministry of Health, WHO, the US Centers for Disease Control and UNICEF sent in investigators on 17 March. Samples were taken from four individuals. A mother and her 5-year-old son, relatives of the deceased, were confirmed positive for Ebola virus disease in lab tests. The two have been taken to a treatment facility.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 17 March 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 25 November 2015, the Temporary Recommendations in relation to the PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide. The type 2 component of the oral polio vaccine is no longer needed and there are plans for a globally synchronised switch in April 2016 from the trivalent to bivalent oral polio vaccine which no longer contains type 2.

→ Update of the week

During the past week, one new wild poliovirus type 1 (WPV1) case was reported to WHO from Pakistan.

II. Detailed reports

New! Fatal case of diphtheria in unvaccinated child - Belgium -2016

Opening date: 17 March 2016

Latest update: 17 March 2016

Epidemiological summary

A case of diphtheria was confirmed on 15 March in Antwerp, Belgium in a 3-year-old unvaccinated child. The National Reference Centre in Belgium has confirmed the case. The symptoms started on 6 March and she was admitted to an intensive care unit on 11 March. The National Institute for Public Health and the Environment (RIVM), the Netherlands, supplied the anti-toxin on 16 March. The child died on 17 March.

Web source: [Belgian Care and health website \(Zorg en Gezondheid\)](#) |Media

ECDC assessment

Exposure of unvaccinated individuals to carriers of the pathogen is not unexpected, as vaccination does not prevent carriage of the pathogen. Diphtheria is effectively prevented by vaccination.

The limited availability of diphtheria antitoxin in the EU is of concern as early administration of the antitoxin may prevent unfavourable clinical outcomes.

Actions

Belgium regional authorities are assessing the risk and implementing prevention and control measures.

Haemolytic uraemic syndrome (HUS) cases in young children – Romania

Opening date: 16 February 2016

Latest update: 18 March 2016

Epidemiological summary

Since February 2016, the Ministry of Health in Romania reported a STEC outbreak with 10 confirmed cases with STEC O26 and nine probable cases with clinical HUS. All cases were in children aged 5 to 38 months, mostly from southern Romania (Arges (n=12), Bucharest (n=1), Colj (n=1), Ialomita (n=1) districts) and Bachau (n=1) and Sibiu (n=1) districts in northern and central Romania. The dates of onset of the children were between 25 January and 4 March 2016. Three of the children died. The outbreak causative agent was initially confirmed through serology with sera from six of twelve cases testing positive for *E. coli* O26. One of the STEC O26 cases identified through serology and one isolate from one of the other cases tested positive for *E. coli* O157. Only three isolates from cases were obtained and PFGE was performed. All cases were from different districts (Arges, Bacau and Sibiu). The PFGE from these isolates showed some similarities (few bands difference), thus excluding infection from one single strain.

Following initial environmental investigations, *E. coli* O26 was identified in soft cheese samples produced by a milk processing establishment. The company closed voluntarily and the product is no longer available on the market. The PFGE profiles from the cheese isolates showed several bands difference from the three obtained human isolates.

A 14-month-old child of Romanian origin has been hospitalised in Florence with HUS and the investigation is implicating a soft cheese imported from Romania as a possible vehicle of infection. The cheese is reported to also have been distributed to France and Germany. Other cheeses from the same Romanian milk processing establishment have been distributed to Belgium, Germany, Italy and Spain in 2016 (RASFF news from 9 March 2016, updated to RASFF alert on 17 March).

Web sources: [Ministry of Health Romania](#) | [Ministry of Health Italy](#)

ECDC assessment

This is an outbreak of STEC O26 confirmed through serology. The epidemiological investigation suggests a single source. The microbiological information confirmed that 11 of 20 cases in Romania and Italy were positive for O26; however, it was inconclusive in identifying one single outbreak strain. The little molecular information available from the few human and food isolates does not provide sufficient evidence for or against a single strain outbreak. Romanian and Italian authorities continue collecting information from epidemiological, microbiological and environmental investigations in order to identify the source and control this outbreak.

Actions

ECDC is closely monitoring this event.

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

Opening date: 2 October 2015

Latest update: 17 March 2016

Epidemiological summary

Influenza B virus constituted 62% of detections in sentinel samples collected this week, which is higher than previous weeks, indicating a shift towards influenza B as the predominant type. Influenza A(H1N1)pdm09 viruses remained predominant among the influenza A viruses subtyped, accounting for 85% of sentinel subtyped A viruses and 92% of non-sentinel subtyped A viruses.

Cases of severe disease were fewer than for previous weeks, but varied between countries. Most severe cases were associated with A(H1N1)pdm09 and were in people aged 15–64 years.

From the 17 countries or regions reporting to the European monitoring of excess mortality for public health action project (EuroMOMO), there is a pattern suggesting excess all-cause mortality among those aged 15 to 64 years.

ECDC assessment

Most of the viruses characterised so far have been similar to those recommended for inclusion in the trivalent or quadrivalent vaccines for this season in the northern hemisphere. Recommendations for vaccine composition for the 2016–2017 season in the northern hemisphere are to include a virus of the B/Victoria lineage in the trivalent vaccine and a more recent A(H3N2) virus.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its report weekly on the [Flu News Europe website](#). Season risk assessments are available from [ECDC](#) and [WHO](#).

New! Lassa fever - Germany ex Togo - 2016

Opening date: 17 March 2016

Latest update: 17 March 2016

Epidemiological summary

Lassa fever is known to be endemic in Guinea, Liberia, Mali, Sierra Leone, Benin and parts of Nigeria. The disease is thought to exist in other West African countries as well. The number of Lassa virus infections per year in West Africa is estimated at 100 000 to 300 000, with approximately 5 000 deaths. The two evacuated patients are the only confirmed cases reported so far in Togo. The cases worked in Oti district, 600 km north from the capital, Lome. These are the first known cases of Lassa fever in the country.

Web sources: [RKI](#) | [ECDC factsheet](#) | [WHO](#) | [Emory Hospital](#) | [US media](#)

ECDC assessment

Lassa fever is an acute viral haemorrhagic fever illness with an incubation period of 6 to 21 days. The Lassa virus is transmitted to humans via contact with food or household items contaminated with urine or faeces of the main reservoir, the multimammate mouse. Person-to-person infections and laboratory transmission can also occur, particularly in hospitals lacking adequate infection prevention and control measures. About 80% of people who become infected with Lassa virus have no symptoms. The overall case-fatality rate is 1%.

Lassa fever cases have been imported from West Africa to the USA, Germany, the UK and the Netherlands previously and are therefore not unexpected. These two recent cases imported to the USA and Germany respectively are unusual as there is no known ongoing outbreak in Togo. Secondary transmission has not been reported before in Europe. It is not yet known how the second person in Germany got infected. Investigations are ongoing in Germany regarding the circumstances of the secondary transmission.

Actions

ECDC is preparing a rapid risk assessment.

New! Outbreak of yellow fever - Angola - 2016

Opening date: 17 March 2016

Epidemiological summary

According to media, quoting the Ministry of Health, as of 15 March 2016, 250 deaths have been reported in Angola since the end of December.

Several yellow fever cases have been reported in expatriates residing in Angola (nationals of Eritrea, Congo, Cape Verde, Lebanon and India).

On 13 March 2016, China confirmed the first ever imported yellow fever case in Beijing in a 32-year-old man returning from Luanda. On 16 March, a Kenyan man died in Nairobi due to yellow fever after returning from Angola. The second imported case from Angola was reported in [Kenya](#) on 17 March.

Web sources: [ECDC factsheet](#) / [WHO yellow fever page](#)

ECDC assessment

Yellow fever is caused by a *Flavivirus* which is transmitted to humans by the bites of infected *aedes* mosquitoes. Yellow fever is an acute viral haemorrhagic disease. Vaccination is the most important preventive measure against yellow fever.

Yellow fever in an urban setting is a public health emergency that may result in a large number of cases. Therefore, it is not unexpected to see additional cases in unvaccinated populations related to this urban outbreak until a sufficient proportion of the susceptible population is vaccinated. The competent vector for yellow fever, the *aedes* mosquito, is not present in continental Europe. The *aedes aegypti* mosquito is present in the island of Madeira, however, the season is currently not suitable for mosquito activity.

Very few cases of imported yellow fever have been reported in Europe. One fatal case occurred in Belgium in 2001 in a traveller returning from a short trip in the Gambia. Another fatal case was reported in 1999 in Germany in a traveller returning from a three weeks trip to Ivory Coast. Outbreaks of yellow fever have never been reported in Asia, but local conditions with large distribution of *Aedes aegypti*, the main vector of urban yellow fever in Africa and in South America, are suitable for urban yellow fever outbreaks. There is a large Asian community in Africa and the first case of imported yellow fever in Asia coming from an area with on-going transmission is a reminder that tourists visiting and foreign residents living in affected countries should be vaccinated against yellow fever.

Proof of vaccination is required for all travellers 1 year of age or older entering Angola. The US-CDC recommends vaccination of all travellers 9 months of age or older. European citizens travelling to Angola should consult their national health authorities' recommendations regarding yellow fever vaccination, which should be administered at least 10 days before travelling.

Actions

A mass vaccination campaign is ongoing since February aiming to immunise 6.7 million people in Luanda province. According to a WHO situation report, as of 14 March 2016, administrative data indicates a vaccination coverage of 80% for the whole province of Luanda.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 17 March 2016

Epidemiological summary

As of 18 March, no autochthonous Zika virus transmission has been reported in the continental EU. ECDC is collecting data regarding imported cases through the media and official government communication lines. As of 18 March 2016, ECDC has recorded 271 imported cases in 17 EU/EEA countries. In addition, one confirmed case has been published following diagnosis in a Slovenian hospital. Fifteen cases are among pregnant women.

No new update for EU Outermost Regions and territories since 10 March.

As of 18 March 2016, several countries or territories have reported confirmed autochthonous cases of Zika virus infection in the past nine months: American Samoa, Aruba, Barbados, Bolivia, Brazil, Bonaire, Cape Verde, Colombia, Costa Rica, Cuba, Curaçao, Dominica, Dominican Republic, Ecuador, El Salvador, Fiji, French Guiana, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Marshall Islands, Martinique, Mexico, New Caledonia, Nicaragua, Panama, Paraguay, Philippines, Puerto Rico, Saint Martin, Saint Vincent and the Grenadines, Samoa, Sint Maarten, Solomon Islands, Suriname, Thailand, Tonga, Trinidad and Tobago, Vanuatu, Venezuela and the US Virgin Islands.

Web sources: [ECDC Zika Factsheet](#) | [WHO DON](#) | [PAHO](#) | [Colombian MoH](#) | [Brazilian MoH](#) | [Brazilian microcephaly case definition](#)

ECDC assessment

There is growing evidence that transplacental infections with Zika virus can cause severe central nervous system damage and microcephaly. 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. However, a causal link between intrauterine Zika virus infection and adverse pregnancy outcomes has not yet been firmly confirmed.

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

Considering the growing body of evidence of adverse pregnancy outcomes associated with Zika virus infection, ECDC recommends that pregnant women 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, or for six months with partners at risk of getting pregnant. 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. There is a significant increase in the number of babies born with microcephaly in the north-eastern states of Brazil. However, the magnitude and geographical spread of the increase have not yet been well characterised.

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.

Actions

ECDC publishes an [epidemiological update](#) every Friday and daily [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 9 March 2016 and has updated the [ECDC Zika page](#) with [Frequently Asked Questions](#).

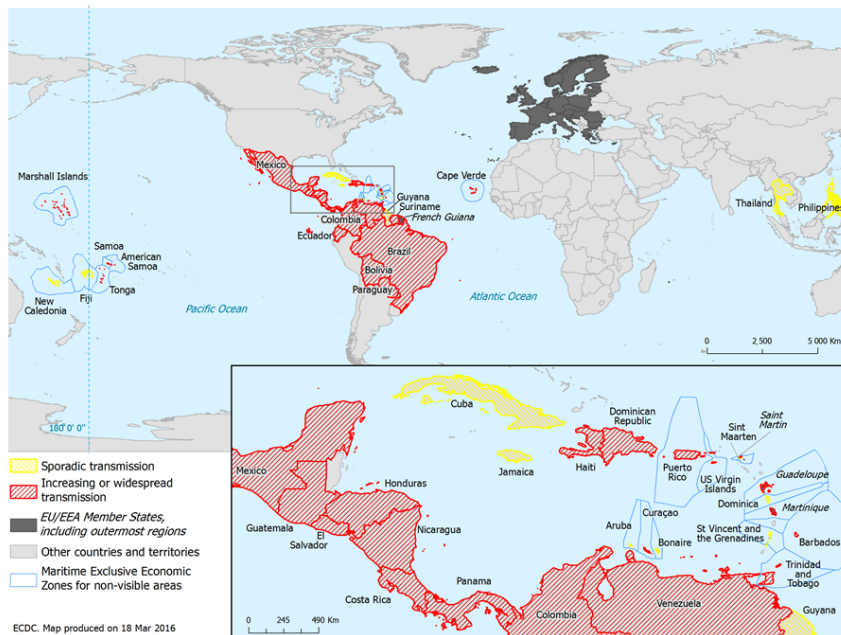
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months and past two months, as of 18 March 2016

ECDC

	Affected in the past 2 months	Affected in the past 9 months
American Samoa	Increasing or widespread	Yes
Aruba	Sporadic transmission	Yes
Barbados	Increasing or widespread	Yes
Bolivia	Increasing or widespread	Yes
Brazil	Increasing or widespread	Yes
Bonaire	Sporadic transmission	Yes
Cape Verde	Increasing or widespread	Yes
Colombia	Increasing or widespread	Yes
Cuba	Sporadic transmission	Yes
Costa Rica	Increasing or widespread	Yes
Curaçao	Increasing or widespread	Yes
Dominica	Sporadic transmission	Yes
Dominican Republic	Increasing or widespread	Yes
Ecuador	Increasing or widespread	Yes
El Salvador	Increasing or widespread	Yes
Fiji	Sporadic transmission	Yes
French Guiana	Increasing or widespread	Yes
Guadeloupe	Increasing or widespread	Yes
Guatemala	Increasing or widespread	Yes
Guyana	Increasing or widespread	Yes
Haiti	Increasing or widespread	Yes
Honduras	Increasing or widespread	Yes
Jamaica	Sporadic transmission	Yes
Marshall Islands	Increasing or widespread	Yes
Martinique	Increasing or widespread	Yes
Mexico	Increasing or widespread	Yes
New Caledonia	Sporadic transmission	Yes
Nicaragua	Increasing or widespread	Yes
Panama	Increasing or widespread	Yes
Paraguay	Increasing or widespread	Yes
Philippines	Sporadic transmission	Yes
Puerto Rico	Increasing or widespread	Yes
Saint Martin	Increasing or widespread	Yes
Saint Vincent and the Grenadines	Sporadic transmission	Yes
Samoa	Increasing or widespread	Yes
Sint Maarten	Sporadic transmission	Yes
Solomon Islands	No	Yes
Suriname	Increasing or widespread	Yes
Thailand	Sporadic transmission	Yes
Tonga	Increasing or widespread	Yes
Trinidad and Tobago	Increasing or widespread	Yes
Vanuatu	No	Yes
Venezuela	Increasing or widespread	Yes
US Virgin Islands	Increasing or widespread	Yes

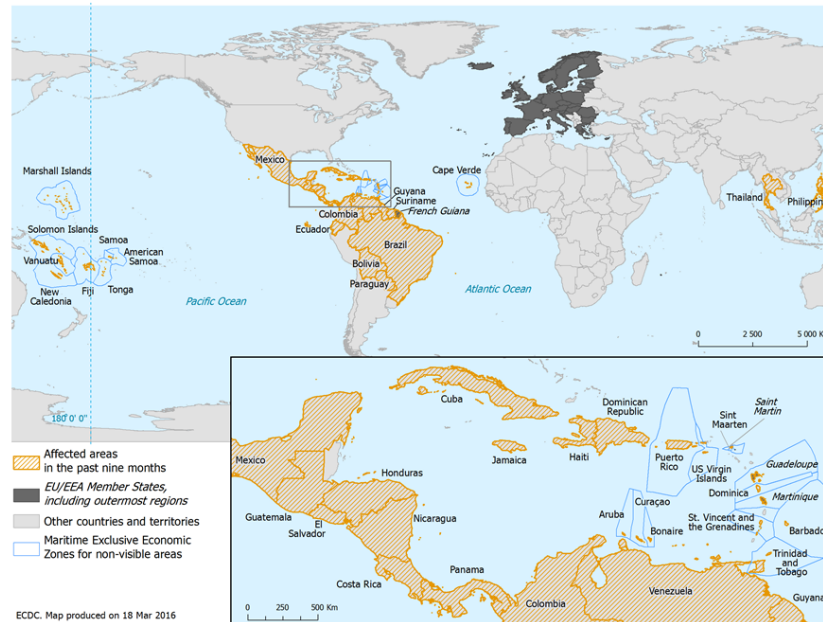
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months, as of 18 March 2016

ECDC



Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months, as of 18 March 2016

ECDC



Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 17 March 2016

Epidemiological summary

There have been reports of emerging episodes of communicable diseases affecting 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.

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. The risk that refugees arriving in Europe will contract communicable diseases has increased because of the current overcrowding at reception facilities.

While the risk of mosquito-borne diseases has been reduced as a result of the winter, the risk of infection from diseases whose spread is facilitated by overcrowding and lower temperatures has increased. It is therefore expected that the incidence of

13/20

respiratory and gastrointestinal conditions will increase in the coming months.

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

[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 because overcrowding, limited access to clean water and poor hygiene levels are only encountered in certain reception facilities for refugees.

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 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.

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

Opening date: 24 September 2012

Latest update: 17 March 2016

Epidemiological summary

As of 17 March 2016, 1 715 cases of MERS, including 661 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](#) | [Saudi Arabia statement](#) | [ECDC factsheet for professionals](#)

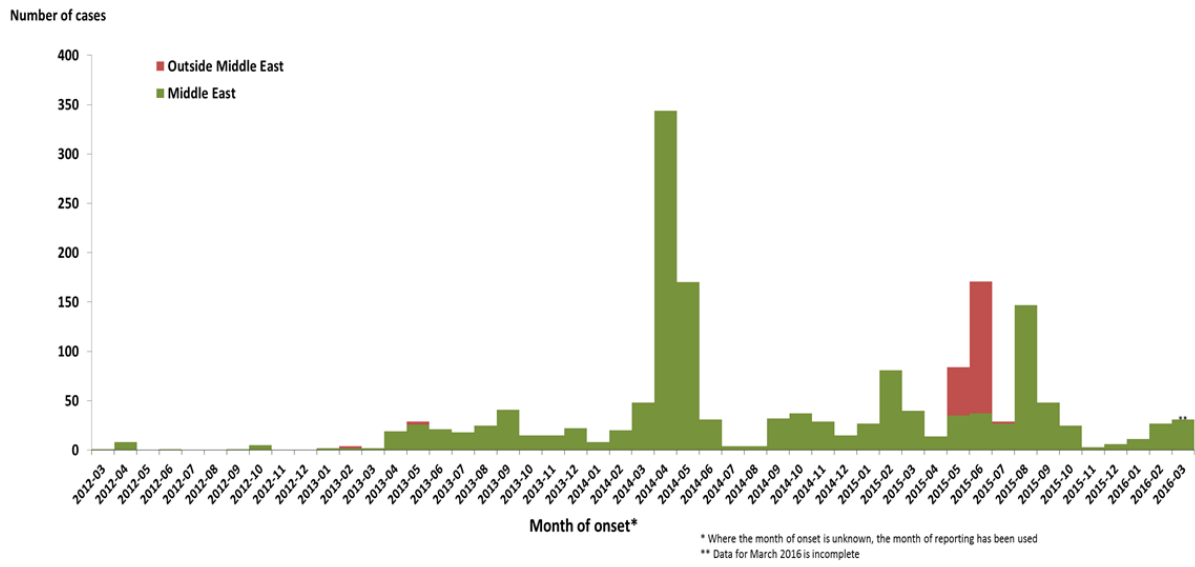
ECDC assessment

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 ongoing outbreak in Saudi Arabia should be a reminder that transmission to unprotected close contacts, not only in healthcare settings, remains possible, as was also documented in outbreaks in South Korea and the United Arab Emirates.

Actions

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

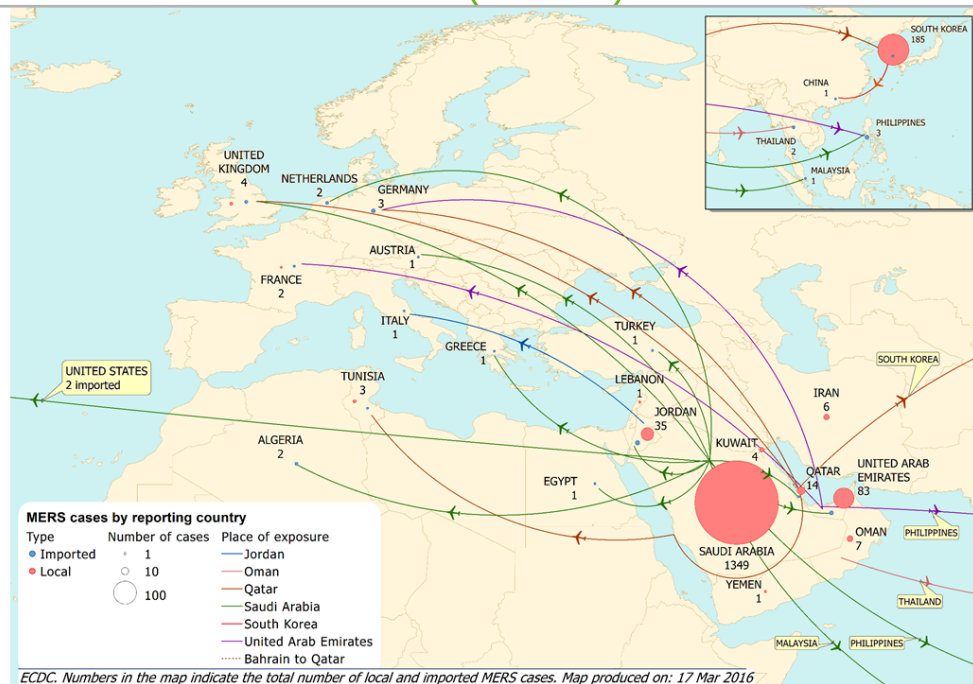
Cases of MERS-CoV by place of reporting, March 2012 – 17 March 2016 (n=1 715)



Distribution of confirmed cases of MERS-CoV by country of reporting, March 2012 – 10 March 2016 (n=1 715)

Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1349	573
	United Arab Emirates	83	12
	Qatar	14	5
	Jordan	35	14
	Oman	7	3
	Kuwait	4	2
	Egypt	1	0
	Yemen	1	1
	Lebanon	1	0
Europe	Iran	6	2
	Turkey	1	1
	UK	4	3
	Germany	3	2
	France	2	1
	Italy	1	0
	Greece	1	1
	Netherlands	2	0
Africa	Austria	1	0
	Tunisia	3	1
Asia	Algeria	2	1
	Malaysia	1	1
	Philippines	3	0
	South Korea	185	38
	China	1	0
Americas	Thailand	2	0
	United States of America	2	0
	Global	1715	661

Distribution of confirmed cases of MERS-CoV by first available date, and probable place of infection, March 2012 – 17 March 2016 (n=1 715)



Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014

Latest update: 17 March 2016

Epidemiological summary

Distribution of cases as of 16 March 2016:

- **Liberia:** 10 675 cases, including 4 809 deaths. Liberia was declared EVD-free on 3 September 2015. However, a family cluster occurred in the week leading up to 22 November 2015.
- **Sierra Leone:** 14 124 cases, including 3 956 deaths. The country was declared EVD-free on 7 November 2015. However, two epidemiologically linked sporadic case were reported on 14 and 20 January 2016.
- **Guinea:** 3 804 cases including 2 536 deaths. Guinea was declared EVD-free on 29 December 2015.

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](#)

ECDC assessment

The detection of new cases in Sierra Leone in January 2016 and Guinea in March 2016 is not unexpected events and highlights the importance of maintaining heightened surveillance in 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.

Actions

In 2015, ECDC deployed 95 experts (on a rotating basis) from within and outside the EU in response to the Ebola outbreak. This included an ECDC-mobilised contingent of experts to Guinea.

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](#).

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 17 March 2016

Epidemiological summary

In 2016, seven cases of wild poliovirus type 1 (WPV1) have been reported, compared with 20 cases for the same period in 2015. The cases were detected in Pakistan (six cases) and in Afghanistan (one case).

As of 16 March 2016, three cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO in 2016, all from Laos.

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](#).

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