

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: 15 April 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 14/2016, influenza activity continued to decrease in the European Region. Decreasing trends were reported by 86% of the countries, with associated lower numbers of specimens being collected, and 34% testing positive for influenza compared with 43% the previous week. As is often seen late in the northern hemisphere's influenza season, a shift towards circulation of type B influenza virus has occurred: 72% of detections in sentinel sources were type B in week 14/2016. The proportion of type B detections in hospitalised cases was 36-39%. The number of cases of severe disease reported were fewer than in previous weeks but varied between countries.

Non EU Threats

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 30 March 2016

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), more than one million refugees arrived in Europe in 2015 and around 150 000 in 2016. To date, there have been reports of cases of acute respiratory tract infections, louse-borne relapsing fever, cutaneous diphtheria, scabies, measles, meningococcal meningitis, shigellosis, typhoid fever, hepatitis A, tuberculosis and malaria among refugees. While these cases do not represent a significant disease burden for the host countries, the diseases pose a potential threat, particularly to the health of the refugees themselves.

→ Update of the week

No new events of epidemiological relevance have been reported during the past week.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 7 April 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 14 April 2016, 48 countries and territories have reported autochthonous cases of Zika virus infection during 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 an outbreak of Zika virus in 2014–2015. Since 1 February 2016, Zika virus infection and the clusters of microcephaly cases and other neurological disorders constitute a PHEIC. Based on a growing body of preliminary research, there is scientific consensus that Zika virus is a cause of microcephaly and Guillain-Barré syndrome. 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:

In the week to the 13 April, Belize reported for the first time mosquito-borne Zika virus transmission.

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

Microcephaly and other foetal malformations potentially associated with Zika virus infection or suggestive of congenital infection have been reported in Brazil (1 113 cases), Cape Verde (two cases), Colombia (seven cases), French Polynesia (eight cases), Martinique (three cases) and Panama (three cases).

In the context of Zika virus circulation, 13 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.

Publications

NEJM 13 April: [Zika Virus and Birth Defects — Reviewing the Evidence for Causality](#)

The authors reviewed available data using Shepard's and Bradford Hill criteria and concluded that sufficient evidence has accumulated to infer a causal relationship between prenatal Zika virus infection and microcephaly and other serious brain anomalies.

Epidemiology and Infection 4 April: [Potential exposure to Zika virus for foreign tourists during the 2016 Carnival and Olympic Games in Rio de Janeiro, Brazil](#)

The resulting risk for Zika infection for tourists visiting Rio during the one week Carnival festivities in February and the three weeks of the Olympic Games in August are 36 per million tourists and 1.8 per million tourists, respectively.

MMWR 14 April 2016: [Sexual Transmission of Zika Virus – Texas, January 2016](#)

A case of Zika virus transmission associated with sexual contact between a male traveler (patient A) who returned to Dallas, Texas from an area of active Zika virus transmission and his male non-traveling partner (patient B) is supported by epidemiological, laboratory, and environmental investigations.

NEJM 13 April 2016: [Evidence of Sexual Transmission of Zika Virus](#)

Hypothesis of sexual transmission (either oral or vaginal) of ZIKV from Patient 2 to Patient 1, which cannot rule out the possibility that transmission occurred not through semen but through other biologic fluids, such as pre-ejaculate secretions or saliva exchanged through deep kissing.

Outbreak of yellow fever - Africa - 2016

Opening date: 17 March 2016

Latest update: 8 April 2016

There is an ongoing outbreak of yellow fever in Angola that started in December 2015 in the municipality of Viana, Luanda province, and then spread to other provinces of Angola. As of 07 April 2016, 1 708 suspected cases including 238 deaths have been reported from 16 of the country's 18 provinces. Cases were also reported among citizens of Cape Verde, Congo, China, DR Congo, Eritrea, India, North Korea and Kenya living in Angola. Interventions are ongoing to enhance surveillance. A mass immunisation campaign is taking place in Luanda. A cluster of seven confirmed yellow fever cases has been reported during the past two weeks in the Masaka district of Uganda. At the moment there is no evidence that these cases are linked with the outbreak in Angola.

→Update of the week

Cross border and international spread of the disease from Angola has been documented with cases exported to China, Kenya, DR Congo and Mauritania.

According to [media](#), Uganda has confirmed seven yellow fever cases in the central region, in Masaka district. Another [media](#) report says that there have been 10 fatalities due to haemorrhagic fever, suspected to be yellow fever, in the same area during the past two weeks. Evidence of a link between the cluster in Uganda and the outbreak in Angola has not been established. Investigations are ongoing and a vaccination campaign in Masaka district is under preparation.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014

Latest update: 8 April 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 10 April 2016, WHO has reported 28 616 cases of Ebola virus disease related to the outbreak in West Africa, including 11 310 deaths. Sierra Leone was declared Ebola-free by WHO on 7 November 2015, Guinea on 29 December 2015 and Liberia on 14 January 2016. On 29 March 2016, WHO declared the end of the PHEIC and advised that all temporary recommendations previously adopted should now be terminated.

However, since the end of February 2016 and as of 10 April, there have been seven confirmed and three probable cases of EVD in Guinea. Of these cases, eight have died. Since 31 March 2016, three confirmed EVD cases have been reported in Liberia. The first case was a woman who had recently travelled from Guinea to Liberia and who died; the other two cases are her two children.

→Update of the week

Between 7 and 14 April, there have been no new cases reported in Guinea.

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

Opening date: 24 September 2012

Latest update: 17 March 2016

Since April 2012 and as of 14 April 2016, 1 741 cases of MERS, including 675 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 17 March 2016 and as of 14 April 2016, Saudi Arabia has reported 25 new cases of MERS-CoV, in addition one case has been reported in Bahrain in a Saudi male. Twenty-one of the 26 cases were male, ages ranging from 21 to 78 years with mean age of 60 years. The ages of the five female cases ranged from 29 to 84 years with a mean age of 75 years. Seven of the 26 cases reported camel contact. Seven of the 26 cases were fatal. The cases were reported from Buraidah (10), Hail (2), Abha (1), Alkharj (1), Alrass (1), Dammam (1), Hufoof (1), Jazan (1), Khaiber (1), Kharj (1), Najran (1), Riyadh (3) and Turabah (1).

The Saudi Arabia Ministry of Health stated in their [weekly report](#) that many hospital-linked outbreaks started in emergency departments and that there is still lack of awareness about the disease among doctors and a lack of adherence to infection control and prevention practices. The Ministry noted that other factors include inadequate triage, inappropriate case referral, and discharge against medical advice. In addition overcrowding and irregular control of hospital entrances can contribute to MERS-CoV spread, as can lapses in controlling visitors.

According to a report by the [World Organization for Animal Health](#) (OIE) Saudi Arabia's agriculture ministry reported three additional MERS-CoV outbreaks in camels, all associated with confirmed human cases and each in a different part of the country (Al-Kharj in the central part of the country, Bishah in the southwestern part of Saudi Arabia and Hafar Al Batin in the northeast). There were 18 susceptible camels among the three locations since the beginning of the outbreaks in January.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 8 April 2016

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission of the virus has completely stopped and the world becomes polio-free. Polio was declared a Public Health Emergency of International Concern (PHEIC) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 1 March 2016, the Temporary Recommendations in relation to the PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide.

→Update of the week

During the past week, WHO reported one new wild poliovirus type 1 (WPV1) case in Pakistan. There were no cVDPV cases reported.

The globally synchronised switch from the trivalent (tOPV) to bivalent (bOPV) oral polio vaccine will start on 17 April 2016.

II. Detailed reports

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

Opening date: 2 October 2015

Latest update: 15 April 2016

Epidemiological summary

This season influenza A(H1N1)pdm09 viruses have predominated in most countries in the Region, although type B has dominated since week 9/2016.

Influenza activity, based on laboratory-confirmed mild and severe cases in sentinel and non-sentinel sources, peaked in weeks 5–7/2016. The countries first affected were in general located in the eastern part of the Region.

Most severe cases were associated with A(H1N1)pdm09 infection and were in people aged 15–64 years.

Data from the 17 countries or regions reporting to the European monitoring of excess mortality for public health action project (EuroMOMO) suggest a pattern of excess all-cause mortality among those aged 15–64 years since the end of 2015. This is similar to the pattern of the 2012–2013 winter season and lower than that of the 2014–2015 winter season.

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

Recommendations on the composition of the seasonal influenza vaccines for the 2016–2017 season in the northern hemisphere call for replacement of the A(H3N2) component with a more recent virus and inclusion of a B/Victoria-lineage virus in trivalent vaccines.

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.

ECDC assessment

Most of the viruses antigenically and/or genetically characterised so far have been similar to those recommended for inclusion in the trivalent or quadrivalent vaccines for this season in the northern hemisphere. There are no indications among the majority of currently circulating seasonal influenza viruses of reduced susceptibility to neuraminidase inhibitors oseltamivir or zanamivir.

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](#).

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 30 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. The risk of infectious diseases varies with the seasons particularly for respiratory, gastrointestinal and mosquito-borne diseases. The risk of infectious diseases in refugees increases with overcrowding and lack of access to water and sanitation. 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.

5/17

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 mostly encountered in certain reception facilities for refugees.

Actions

Following the request of the Greek authorities an ECDC senior expert has been in the field to review the risk assessment for communicable diseases on the basis of the current situation, supported the revision of the protocol for Point of Care public health surveillance for refugees and advised on response procedures and priority settings. Two EPIET fellows were deployed to Greece on 13 April 2016 for one month to support communicable disease surveillance and response operations.

An [ECDC expert opinion](#) on the public health needs of irregular migrants, refugees or asylum seekers across the EU's southern and south-eastern borders was published on the ECDC website in September 2015.

ECDC prepared:

- an [RRA](#) on the risk of communicable disease outbreaks in refugee populations in the EU/EEA
- an updated [RRA](#) on louse-borne relapsing fever amongst migrants in the EU/EEA
- an [RRA](#) on cutaneous diphtheria among recently arrived refugees and asylum seekers in the EU
- an [RRA](#) on the risk of importation and spread of malaria and other vector-borne diseases associated with the arrival of migrants in the EU
- an [RRA](#) on shigellosis among refugees in the EU.

ECDC, in collaboration with Member States, the European Commission and WHO, continues to closely monitor the situation to rapidly identify and assess potential communicable disease threats.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 7 April 2016

Epidemiological summary

Brazil

Between October 2015 and as of the 9 April 2016, Brazil reported 7 015 suspected cases of microcephaly from 1 386 municipalities in all states and in the Federal District. Of these cases, 1 113 are reported as confirmed cases of microcephaly with 189 having laboratory confirmation of Zika virus infection. Of the remaining cases, 2 066 were investigated and discarded as they did not fit the case definition, while 3 836 cases are still under investigation.

Among the 7 015 suspected cases of microcephaly, 235 intrauterine or neonatal deaths were reported. Of these, 50 cases were investigated and confirmed (microcephaly and/or central nervous system malformations). One hundred and fifty-five cases are still under investigation, and 30 cases have been discarded.

Colombia

Since the beginning of 2016, 33 microcephaly cases have been detected in Colombia, which is not unexpected. Of these 30 are under investigation for Zika virus and three have been discarded.

Since December 2015 and as of epidemiological week 13 2016, 416 cases of neurological syndromes including GBS have been associated with Zika virus infection.

Congenital zika syndrome and GBS

As of 14 April 2016, microcephaly and other foetal malformations potentially associated with Zika virus infection or suggestive of congenital infection have been reported in six countries (Brazil, Cape Verde, Colombia, French Polynesia, Martinique and Panama). Two additional cases, each linked to a stay in Brazil, were detected in Slovenia and the United States of America. One more case was reported in a returning traveller from the affected countries in the United States of America.

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

Imported cases to Europe

As of 14 April 2016, ECDC has recorded 409 imported cases in 17 EU/EEA countries. Twenty-three of the imported cases are pregnant women. In addition, one confirmed case was published following the diagnosis in a Slovenian hospital. The number of imported cases reported is not based on a systematic reporting surveillance systems hence cannot be considered exhaustive.

As of 14 April 2016, thirteen cases of non-vector-borne transmission of Zika virus, probably through sexual transmission have been reported by seven countries: Argentina (1), Chile (1), France (1), Italy (1), New Zealand (1), Portugal (in the Autonomous Region of Madeira) (1) and the United States of America (7).

EU's Outermost Regions and Territories

Martinique: As of 14 April 2016, 17 990 suspected cases have been reported, an increase of 1 340 since last week. Since the beginning of the outbreak to 7 April 2016, two microcephaly cases and one additional congenital abnormality have been reported with confirmed Zika virus infection. Additionally, 10 cases with neurological complications have been detected in Zika virus confirmed cases.

French Guiana: As of 14 April 2016, 4 090 suspected and 411 laboratory-confirmed cases have been reported, an increase of 470 suspected and 28 laboratory-confirmed cases since last week. Two cases with neurological complications have been identified since the beginning of the outbreak.

Guadeloupe: As of 14 April 2016, 1 335 suspected and 239 laboratory-confirmed cases have been reported, an increase of 245 suspected and 48 laboratory-confirmed cases since last week. One case with neurological complications has been reported since the beginning of the outbreak.

Saint Martin: As of 14 April 2016, 175 suspected and 43 laboratory-confirmed cases have been reported, this is an increase of ten suspected and one laboratory-confirmed cases during the past week.

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

ECDC assessment

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

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

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

Actions

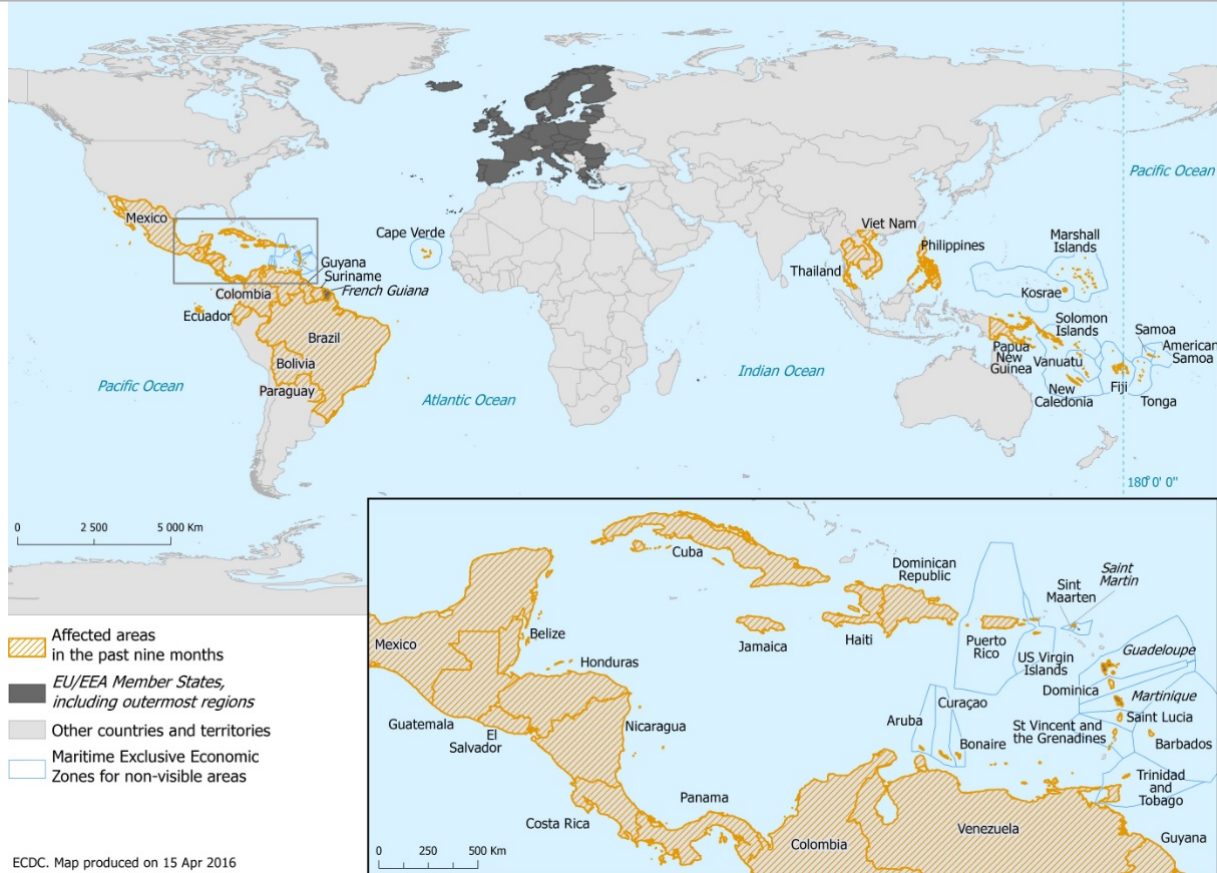
ECDC publishes an [epidemiological update](#) every Friday and [maps](#) with information on countries or territories which have reported confirmed autochthonous cases of Zika virus infection.

ECDC published an update of the [rapid risk assessment](#) on 11 April 2016 and has updated the [ECDC Zika page](#) with [Frequently Asked Questions](#).

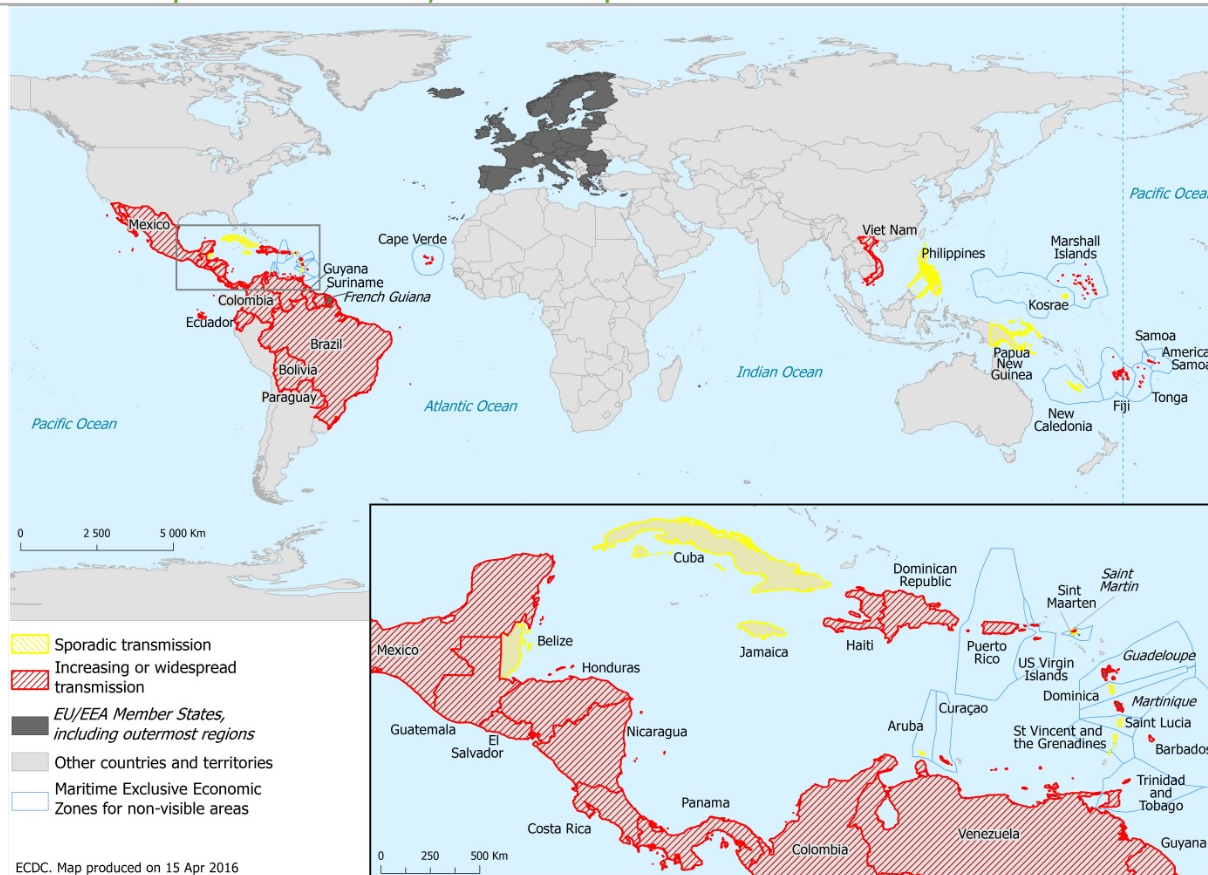
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months and past nine months, as of 15 April 2016

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

Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months, as of 15 April 2016



Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months, as of 15 April 2016



Outbreak of yellow fever - Africa - 2016

Opening date: 17 March 2016

Latest update: 8 April 2016

Epidemiological summary

Angola

Since the initial cases were detected in Luanda province, Angola, there has been a rapid increase in the number of suspected cases recorded since mid-January 2016. Local transmission is no longer restricted to Luanda. As of 7 April, 16 of 18 provinces across the country have reported suspected cases.

The immunisation campaign in Luanda, which started on 2 February in Viana municipality, has been completed in 7 out of the province's 12 districts and is still ongoing in the remaining five districts. As of 7 April, a total of 5 892 901 (90%) people had been vaccinated in Luanda. A vaccination campaign has started in two districts in Huambo on 12 April and is under preparation in three districts of Benguela.

Uganda

A cluster of seven confirmed yellow fever cases has been reported in March and April 2016 in the Masaka district of Uganda with

10/17

no known link to the outbreak in Angola.

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

ECDC assessment

WHO estimates that 508 million people are living in 31 African countries at risk for transmission of yellow fever. Therefore, the large outbreak of yellow fever in Angola is of concern with regards to the risk of introduction of the virus through viraemic travellers to countries at risk of transmission, especially in neighbouring countries.

Yellow fever in an urban setting is considered as a public health emergency that may result in a large number of cases. Vaccination is the single most important measure for preventing yellow fever. Therefore, additional cases in unvaccinated populations related to this urban outbreak should be expected, until a sufficient proportion of the susceptible population is immunised. The outbreak in Angola is not yet controlled and is currently expanding to additional provinces challenging the ongoing mass vaccination campaign. The control of the outbreak in Angola is needed in order to prevent further spread in the region and beyond.

A link between the outbreak in Angola and the cluster of yellow fever cases reported in central Uganda has not been established.

Proof of vaccination is required for all travellers aged 1 year and above entering Angola. WHO recommends vaccination for all travellers older than 9 months of age in areas where there is evidence of persistent or periodic yellow fever virus transmission. European citizens travelling to or residing in Angola should be vaccinated against yellow fever as per their national health authorities' recommendations. Vaccine should be administered at least 10 days before travelling.

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

Actions

ECDC published a [rapid risk assessment](#) on 25 March 2016 and an [epidemiological update](#) on 1 April.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014

Latest update: 8 April 2016

Epidemiological summary

Since the end of February 2016 and as of 10 April, there have been seven confirmed and three probable cases of EVD in N'Zerekore, Guinea. Of these cases, eight have died. Initial tests suggest that the recently reported cases in Guinea are part of a known transmission chain and not a new introduction from the animal population. On 1 April, WHO confirmed a new case of EVD in Liberia that was linked to the Guinean cluster. Since then, WHO reported two additional confirmed cases in Liberia, both children of the initial above mentioned case in Liberia.

Official WHO figures as of 10 April 2016:

- **Liberia:** 10 666 cases, including 4 806 deaths. Liberia was declared EVD-free on 3 September 2015. However, since the end of March and as of 10 April 2016, three confirmed cases have been reported by WHO.
Sierra Leone: 14 122 cases, including 3 955 deaths. The country was declared EVD-free on 7 November 2015. However, two epidemiologically linked sporadic cases were reported on 14 and 20 January 2016.
- **Guinea:** 3 804 cases including 2 536 deaths. The country was declared EVD-free on 29 December 2015. However, since the end of February and as of 10 April 2016, seven confirmed and three probable sporadic cases have been reported by WHO.

Guinea

In total, 1 033 contacts linked to the cluster have been identified so far, 171 of whom are considered to be high risk. All but 10 contacts have been traced. Additional cases are likely because of the large number of contacts. Vaccination teams began

vaccination of contacts and contacts of contacts on 22 March. One suspected case reported on 30 March is currently under observation in an Ebola treatment centre.

Liberia

On 1 April, [WHO](#) confirmed a new case of EVD in Liberia in a 30-year-old woman who died on 31 March while being transferred to a hospital in the capital Monrovia. Investigation showed that this case was coming from Guinea where her husband died recently. According to WHO, her 5-year-old child was confirmed positive for EVD on 5 April. Media reported that another son, a 2-year-old, was confirmed for EVD on 7 April. WHO reports that more than 100 contacts of the confirmed cases have been identified in Liberia and placed under voluntary medical observation.

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

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

ECDC assessment

The detection of new sporadic cases and small clusters of cases in Guinea and Liberia is not unexpected and highlights the importance of maintaining heightened surveillance and early detection of cases during the coming months as the risk of additional small outbreaks remains. Sporadic cases have been identified previously and are likely to be the result of the virus persisting in survivors even after recovery.

In Guinea, following the recent cases, the vaccination of contacts has started while the preparation of the vaccination campaign in Liberia is on-going.

Actions

An [epi-update](#) was published on 23 March 2016.

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

On 16 October 2015, ECDC published [Recent development on sexual transmission of Ebola virus](#).

On 31 July 2015, ECDC published [Positive preliminary results of an Ebola vaccine efficacy trial in Guinea](#).

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

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

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

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

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

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

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

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

On 10 September 2014, ECDC published an [EU case definition](#).

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

Opening date: 24 September 2012

Latest update: 17 March 2016

Epidemiological summary

As of 14 April 2016, 1 741 cases of MERS, including 675 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 it is likely that zoonotic transmission is the starting point of most clusters, human-to-human transmission is the most common mode of transmission for MERS-CoV. Human-to-human transmission occurs mostly in healthcare settings and, to a much more limited extent, within communities, mainly within households. So far, the majority of cases have been reported from hospital outbreaks in Saudi Arabia, the United Arab Emirates and South Korea. Most nosocomial transmissions occur when infection prevention and control precautions are suboptimally applied and before a specific case is suspected or confirmed. The successful prevention of amplification of MERS-CoV infections associated with healthcare facilities depends on the effective implementation of infection prevention and control programmes.

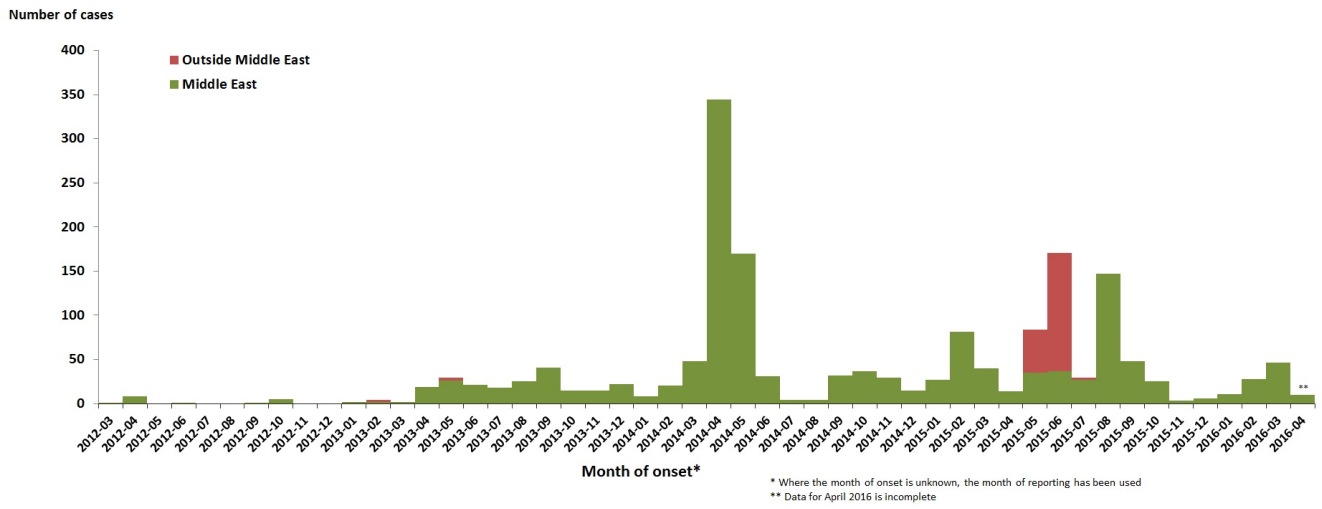
Actions

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

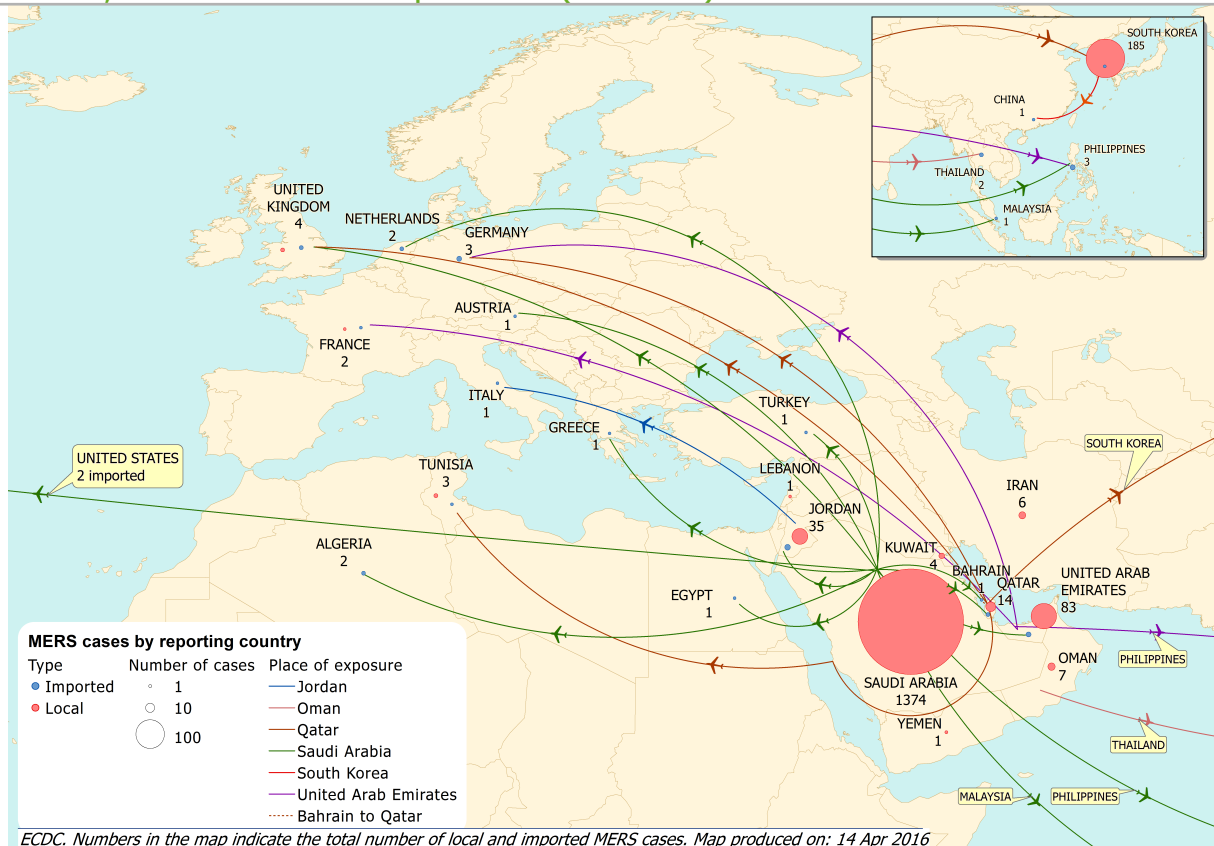
Distribution of confirmed cases of MERS-CoV by country of reporting, March 2012 – 14 April 2016 (n=1 741)

Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1374	587
	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
	Bahrain	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	1741	675

Distribution of confirmed cases of MERS-CoV by region of reporting, March 2012 – 14 April 2016 (n=1 741)



Distribution of confirmed cases of MERS-CoV by first available date, and probable place of infection, March 2012 – 14 April 2016 (n=1 741)



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 8 April 2016

Epidemiological summary

In 2016, ten cases of wild poliovirus type 1 (WPV1) have been reported, compared with 22 cases for the same period in 2015. The cases were detected in Pakistan (eight cases) and in Afghanistan (two cases).

As of 14 April 2016, three cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO in 2016, all from Laos. There was one cVDPV case during the same period in 2015.

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#) | [Temporary Recommendations to Reduce International Spread of Poliovirus](#) | [WHO Statement on the Seventh Meeting of the International Health Regulations Emergency Committee on Polio](#)

ECDC assessment

The last locally-acquired wild polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent wild

15/17

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.