

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: 18 December 2015

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

For the latest weekly update please visit [Flu News Europe website](#).

#### Non EU Threats

#### Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 31 December 2015

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then and up to 31 December 2015, 683 cases have been reported to WHO, including 275 deaths. No autochthonous cases have been reported outside China. Most cases are isolated and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak.

Update of the week

There have been no new cases reported to WHO during the past week. However, on 26 December 2015 the [health authorities in Hong Kong](#) announced a fatal case due to A(H7N9) in a 61-year-old male from Guangdong Province in China who had underlying illnesses and had contact with live poultry prior to his illness. This case is pending WHO confirmation and is not included to the case count.

#### Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 31 December 2015

Zika virus infections are spreading in previously unaffected areas of the world. In 2014, indigenous circulation of Zika virus was detected in the Americas on Easter Island, Chile for the first time. Since then, Zika virus infections have spread to 13 countries in the Americas. Autochthonous cases have also been reported from Cape Verde recently. In the Pacific area, since the beginning of the year, transmission has been reported in Samoa, Fiji, New Caledonia, the Solomon Islands and Vanuatu. Possible links between Zika virus infection in pregnancy and microcephaly of the foetus have been under investigation since

1/14

October 2015 when the Brazilian Ministry of Health reported an unusual increase in cases of microcephaly after 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. Investigations of an association with Zika virus infection and Guillain–Barré syndrome (GBS) are ongoing in Brazil and French Polynesia.

#### Update of the week

No autochthonous cases of Zika virus infection have been reported in EU/EEA Member States so far in 2015.

According to the [US CDC](#) in December 2015, a locally transmitted case of Zika virus infection was detected in Puerto Rico. This is the first case of Zika virus there. Local transmission means that mosquitoes in Puerto Rico have been infected with Zika virus, spreading it to humans.

As of 31 December 2015, 2 975 suspected cases of microcephaly have been notified in Brazil including 40 deaths, affecting 656 municipalities in 20 states. This is an increase by 193 since the last week.

## Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 18 December 2015

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), more than 944 000 refugees have arrived in Europe in 2015. To date, there have been reports of cases of louseborne 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 the wintery weather due to low temperatures and overcrowding in shelters.

#### Update of the week

No outbreaks involving refugees were reported during the past weeks.

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

Opening date: 24 September 2012

Latest update: 17 December 2015

Since April 2012 and as of 31 December 2015, 1 644 cases of MERS, including 638 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

Saudi Arabia reported two new cases this week and one additional death in a previously reported case.

## Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 31 December 2015

An epidemic of Ebola virus disease (EVD) has been ongoing in West Africa since December 2013, mainly affecting Guinea, Liberia and Sierra Leone. On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Emergency of International Concern (PHEIC). As of 20 December 2015, WHO had reported 28 602 cases of Ebola virus disease related to the outbreak in West Africa, including 11 300 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 and Guinea on 29 December 2015. The risk of spread, regionally and globally, remains until all the countries in West Africa are declared Ebola-free. The need to maintain effective surveillance, even after EVD-free status, is underlined by the recent re-emergence of cases in previously Ebola-free countries.

#### Update of the week

According to [WHO](#), no confirmed cases of Ebola virus disease (EVD) were reported in the week to 27 December 2015. On 29 December, WHO declared that human-to-human transmission of Ebola virus has ended in Guinea, after the completion of 42 days with no cases since the last person confirmed to have EVD received a second consecutive negative blood test for Ebola virus RNA. Guinea has now entered a 90-day period of heightened surveillance.

Human-to-human transmission linked to the most recent cluster of cases in Liberia will be declared to have ended on 14 January 2016, 42 days after the two most recent cases received a second consecutive negative test for Ebola virus, if no further cases are reported.

In Sierra Leone, human-to-human transmission linked to the primary outbreak was declared to have ended on 7 November 2015. The country has now entered a 90-day period of enhanced surveillance scheduled to conclude on 5 February 2016.

The 8th meeting of the Emergency Committee convened by the WHO Director-General under the International Health Regulations (2005) regarding the EVD outbreak in West Africa took place by teleconference on 15 December 2015. Based on the advice of the Committee, the Director-General declared that the 2014–2015 Ebola outbreak continues to constitute a Public Health Emergency of International Concern.

## Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013

Latest update: 31 December 2015

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

Update of the week

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

## Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 31 December 2015

Dengue fever is one of the most prevalent vector-borne diseases in the world. It affects an estimated 50 to 100 million people each year, mainly in the tropical regions of the world. The identification of sporadic autochthonous cases in non-endemic areas in recent years has already highlighted the risk of locally-acquired cases occurring in EU countries where the competent vectors are present.

Update of the week

There are several ongoing outbreaks of dengue fever across the globe.

## Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 31 December 2015

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission of the virus has completely stopped and the world becomes polio-free. Polio was declared a Public Health Emergency of International Concern (PHEIC) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 25 November 2015, the Temporary Recommendations in relation to PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide.

Update of the week

In the past week no new cases of wild poliovirus type 1 were reported to WHO. Two cases of circulating vaccine derived poliovirus type 2 was reported WHO one in Siguiri district and one in the newly infected Kankan district of Kankan province.

According to WHO there are four months to go until the globally synchronised switch from the trivalent to bivalent oral polio vaccine. This will be an important milestone in achieving a polio-free world.

## II. Detailed reports

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

Opening date: 2 October 2015

Latest update: 18 December 2015

#### Epidemiological summary

For the latest weekly update please visit [Flu News Europe website](#).

#### Actions

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

## Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 31 December 2015

### Epidemiological summary

Cases reported by China since March 2013 have the following geographical distribution: Zhejiang (189), Guangdong (182), Jiangsu (78), Fujian (63), Shanghai (48), Hunan (26), Anhui (32), Hong Kong (13), Xinjiang Uygur Zizhiqu (10), Jiangxi (9), Beijing (6), Shandong (6), Guangxi (4), Henan (4), Taiwan (4), Jilin (2), Guizhou (2) and Hebei (2). Three imported cases have also been reported: one in Malaysia and two in Canada.

**Web sources:** [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [ECDC](#) | [WHO avian influenza updates](#)

### ECDC assessment

This outbreak is caused by a novel reassortant avian influenza virus capable of causing severe disease in humans. This is a zoonotic outbreak, in which the virus is transmitted sporadically to humans in close contact with the animal reservoir, similar to the influenza A(H5N1) situation.

During 2015, there have been continued avian influenza A(H7N9) virus detections in the animal population in several provinces in China, indicating that the virus persists in the poultry population. If the pattern of human cases follows the trends seen in previous years, the number of human cases may rise over the coming months. Further sporadic cases of human infection with avian influenza A(H7N9) virus are therefore expected in areas that are already affected and in neighbouring areas.

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

### Actions

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

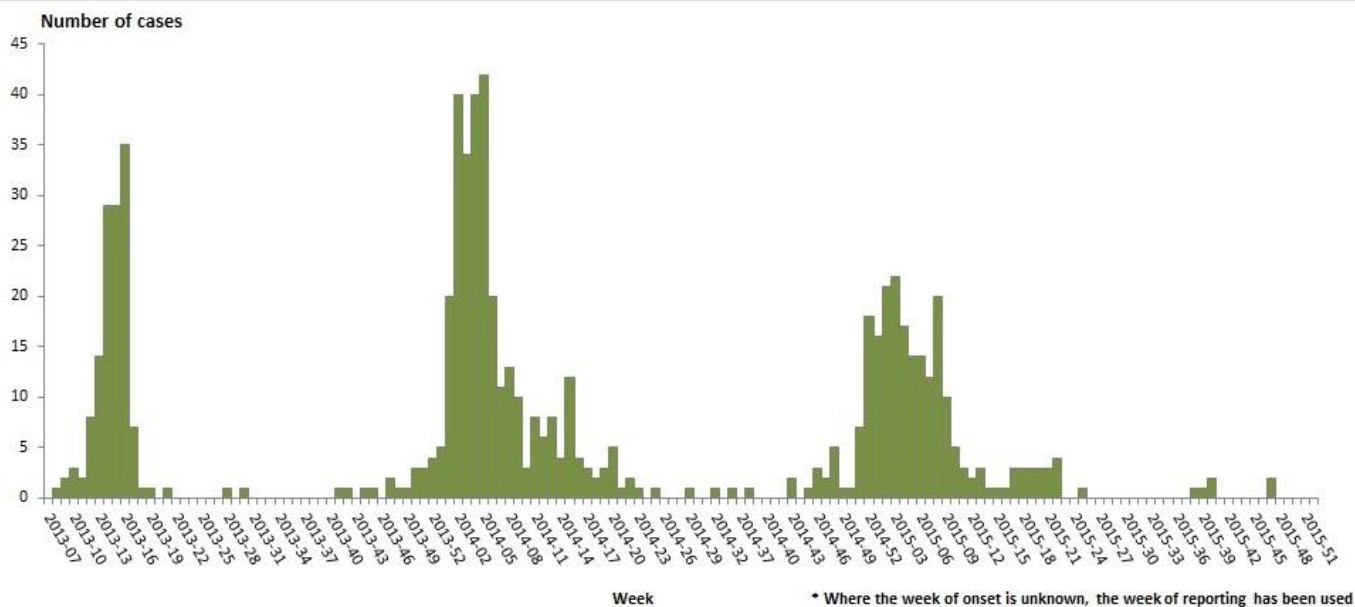
ECDC published an updated [Rapid Risk Assessment](#) on 3 February 2015.

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

Distribution of confirmed cases of A(H7N9) by four periods of reporting (weeks 07/2013 to 52/2015)



Distribution of confirmed cases of A(H7N9) by week of reporting (weeks 07/2013 to 52/2015)



## Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015

Latest update: 31 December 2015

### Epidemiological summary

No autochthonous cases of Zika virus infection have been reported in EU Member States so far in 2015. As of 31 December 2015, 13 countries in the Americas reported locally acquired cases of Zika virus infection: Brazil, Colombia, El Salvador, Guatemala, Mexico, Paraguay, Suriname, Venezuela, Honduras, Martinique, French Guiana, Panama and Puerto Rico.

Outside of the Americas, cases have been confirmed in Cape Verde recently.

Possible links between Zika virus infection in pregnancy and microcephaly of the foetus have been under investigation in Brazil 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.

In French Polynesia investigations are also ongoing following the detection of 17 cases of central nervous system malformations in foetuses and infants that had occurred in pregnancies during 2014-2015 after the 2013-2014 Zika virus outbreak. None of the mothers described clinical signs of Zika virus infection during pregnancy, but four of the women tested were found positive for flavivirus using IgG serology assays, suggesting a possible asymptomatic Zika virus infection. Based on the temporal correlation of these cases with the Zika virus epidemic, the health authorities of French Polynesia hypothesise that Zika virus infection may be associated with these abnormalities if mothers are infected during the first or second trimester of pregnancy.

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

### ECDC assessment

Further cases of Zika virus infection are expected to be reported in other countries, particularly in the Americas, where the mosquito vector is present.

So far, only a few travel-associated cases have been reported in the EU. With the spread of the Zika virus epidemic in the Americas, the likelihood of travel-related cases in the EU is increasing. Imported cases in the EU Overseas Countries and Territories and the EU Outermost Regions, with onward autochthonous transmission in EU Member States in continental Europe during the summer season in areas where *Aedes albopictus* or *Aedes aegypti* are established, cannot be excluded. Vigilance during the mosquito season is therefore required in areas where a potential vector is present because early detection of cases is essential when it comes to reducing the risk of autochthonous transmission.

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

This is the first time that Zika virus infections during pregnancy have been suspected of causing congenital malformations. The information currently available is not sufficient to confirm a causative link between microcephaly and Zika infection during pregnancy or to quantify the magnitude of the public health issue.

Further investigations are being conducted to confirm the link between this increase in microcephaly incidence or other neurological malformations and the Zika virus outbreaks in Brazil and French Polynesia.

### Actions

On 24 November 2015, ECDC published a [rapid risk assessment](#) on microcephaly in Brazil linked to the Zika virus epidemic. ECDC published a second [rapid risk assessment](#) on microcephaly in Brazil on 10 December 2015.

## Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015

Latest update: 18 December 2015



## Epidemiological summary

Recent weeks have seen reports of emerging episodes of communicable diseases affecting the refugee population including shigellosis, scabies, typhoid fever, diphtheria, hepatitis A and tuberculosis.

## ECDC assessment

Refugees are not currently a threat for Europe with respect to communicable diseases, but they are a priority group for communicable disease prevention and control efforts because they are more vulnerable. The risk that refugees arriving in Europe 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 respiratory and gastrointestinal conditions will increase in the coming months.

Low vaccination coverage for some diseases, along with low immunity for some diseases, 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 low 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 posted on the ECDC website in September 2015. ECDC prepared:

- a [RRA](#) on the risk of communicable disease outbreaks in refugee populations in the EU/EEA
- an updated [RRA](#) on louse-borne relapsing fever amongst migrants in the EU/EEA
- a [RRA](#) on cutaneous diphtheria among recently arrived refugees and asylum seekers in the EU
- a [RRA](#) on the risk of importation and spread of malaria and other vector-borne diseases associated with the arrival of migrants in the EU
- a [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 December 2015

## Epidemiological summary

Saudi Arabia reported two new cases this week. One on 27 December 2015 from Jeddah in a 54-year-old male expat and the other on 30 December 2015 in a 59-year-old Saudi male from Unizah, Qassim region. Both cases are indicated as primary cases. As of 31 December, 1 644 cases of MERS, including 638 deaths, had been reported by local health authorities worldwide. **Web sources:** [ECDC's latest rapid risk assessment](#) | [ECDC novel coronavirus webpage](#) | [WHO](#) | [WHO MERS updates](#) | [WHO travel health update](#) | [WHO Euro MERS updates](#) | [CDC MERS](#) | [Saudi Arabia MoH](#) | [Saudi Arabia statement](#) | [ECDC factsheet for professionals](#)

## ECDC assessment

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

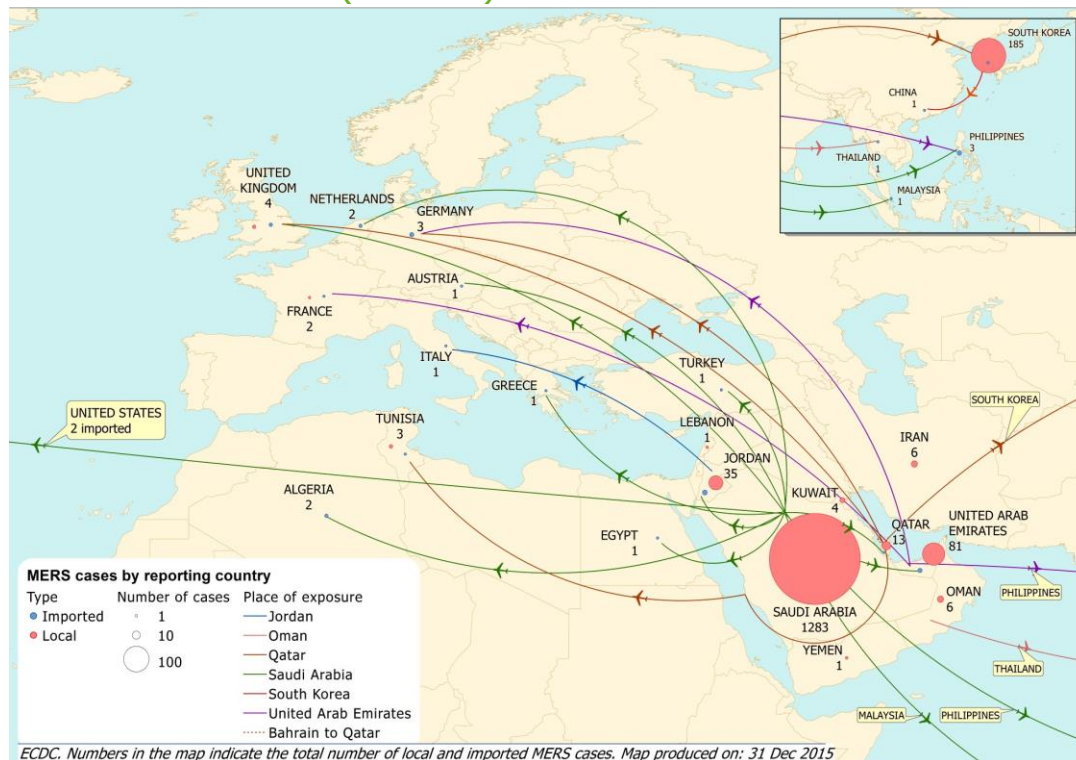
## Cases of MERS-CoV by country of reporting, March 2012 – 31 December 2015 (n=1 644)

Source: ECDC

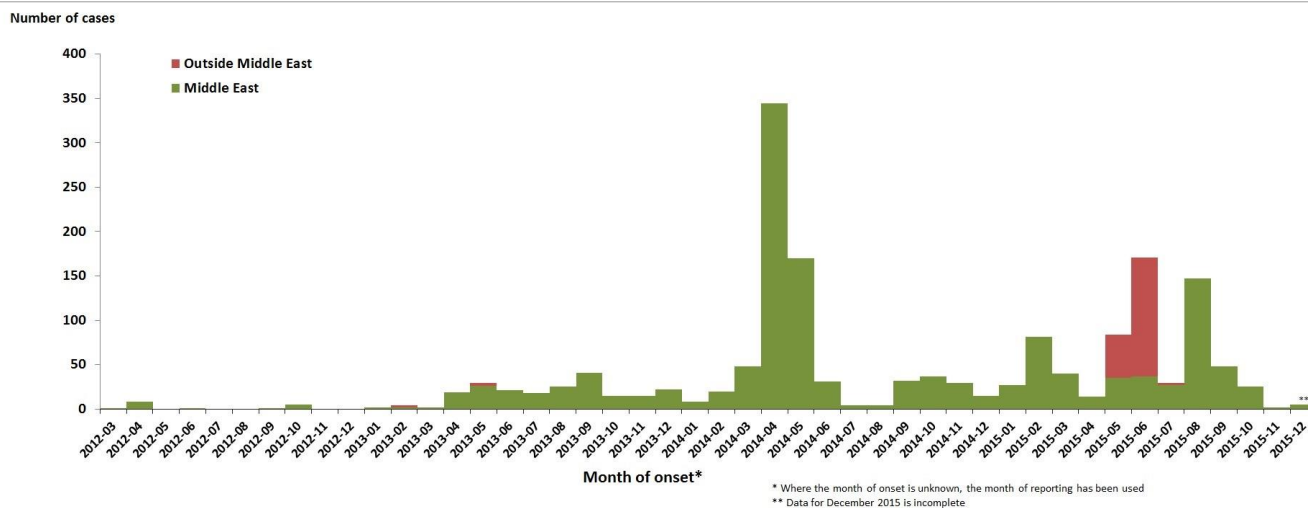
Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1283	551
	United Arab Emirates	81	11
	Qatar	13	5
	Jordan	35	14
	Oman	6	3
	Kuwait	4	2
	Egypt	1	0
	Yemen	1	1
	Lebanon	1	0
Europe	Iran	6	2
	Turkey	1	1
	UK	4	3
	Germany	3	2
	France	2	1
	Italy	1	0
	Greece	1	1
	Netherlands	2	0
Africa	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	1	0
	United States of America	2	0
<b>Global</b>		<b>1644</b>	<b>638</b>



Distribution of confirmed cases of MERS-CoV by place of probable infection, March 2012 – 31 December 2015 (n=1 644)



Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 31 December 2015 (n=1 644)



## Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 31 December 2015

### Epidemiological summary

Distribution of cases as of 31 December 2015:

Countries with ongoing Ebola virus transmission in the human population:

- **Liberia:** 10 675 cases, including 3 160 confirmed, and 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.

Countries with previously widespread and intense transmission:

- **Sierra Leone:** declared Ebola-free on 7 November 2015.
- **Guinea:** 3 805 cases including 3 351 confirmed, and 2 536 deaths, Guinea was declared EVD-free on 29 December 2015.

Countries that have reported an initial case or localised transmission:

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

### Situation in West African countries Guinea

On 29 December, WHO declared that human-to-human transmission of Ebola virus has ended in Guinea, after the completion of 42 days with no cases since the last person confirmed to have EVD received a second consecutive negative blood test for Ebola virus RNA. Guinea has now entered a 90-day period of heightened surveillance.

### Liberia

Human-to-human transmission linked to the most recent cluster of cases in Liberia will be declared to have ended on 14 January 2016, 42 days after the two most recent cases received a second consecutive negative test for Ebola virus, if no further cases are reported.

### Sierra Leone

In Sierra Leone, human-to-human transmission linked to the primary outbreak was declared to have ended on 7 November 2015. The country has now entered a 90-day period of enhanced surveillance scheduled to conclude on 5 February 2016. **Situation among healthcare workers**

No new infections in healthcare workers were reported by WHO in the week leading up to 27 December.

**Outside of the three most affected countries**, with repatriated cases included, there have been eight cases in Mali, 20 in Nigeria, three in Spain (including two repatriated cases), three in the UK (including two repatriated cases), one in Senegal (infected in Guinea), one in Norway (repatriated), two in France (repatriated), one in the Netherlands (repatriated), one in Switzerland (repatriated), 11 in the USA (seven repatriated) and one in Italy (infected in Sierra Leone).

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

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

### ECDC assessment

This is the largest-ever documented epidemic of EVD in terms of number of cases and geographical spread. The epidemic is now coming to an end with two of the three countries having experienced wide-spread transmission now declared transmission free, and Liberia due to be declared transmission free on 14 January if no new cases are identified.

The risk that EU residents and visitors to countries having experienced widespread transmission of EVD is currently extremely low. The recent cluster of cases in Liberia was the result of the re-emergence of Ebola virus that had persisted in a previously infected individual. Although the probability of such re-emergence events is low, the risk of further transmission following a re-emergence underscores the importance of implementing a comprehensive package of services for survivors that includes the testing of appropriate bodily fluids for the presence of Ebola virus RNA.

## Actions

As of 31 December 2015, ECDC has deployed 95 experts (on a rotating basis) from within and outside the EU in response to the Ebola outbreak. This includes an ECDC-mobilised contingent of experts to Guinea. ECDC is reporting this threat on a weekly basis in the CDTR.

On 23 November 2015, ECDC published an [epidemiological update](#).

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](#).

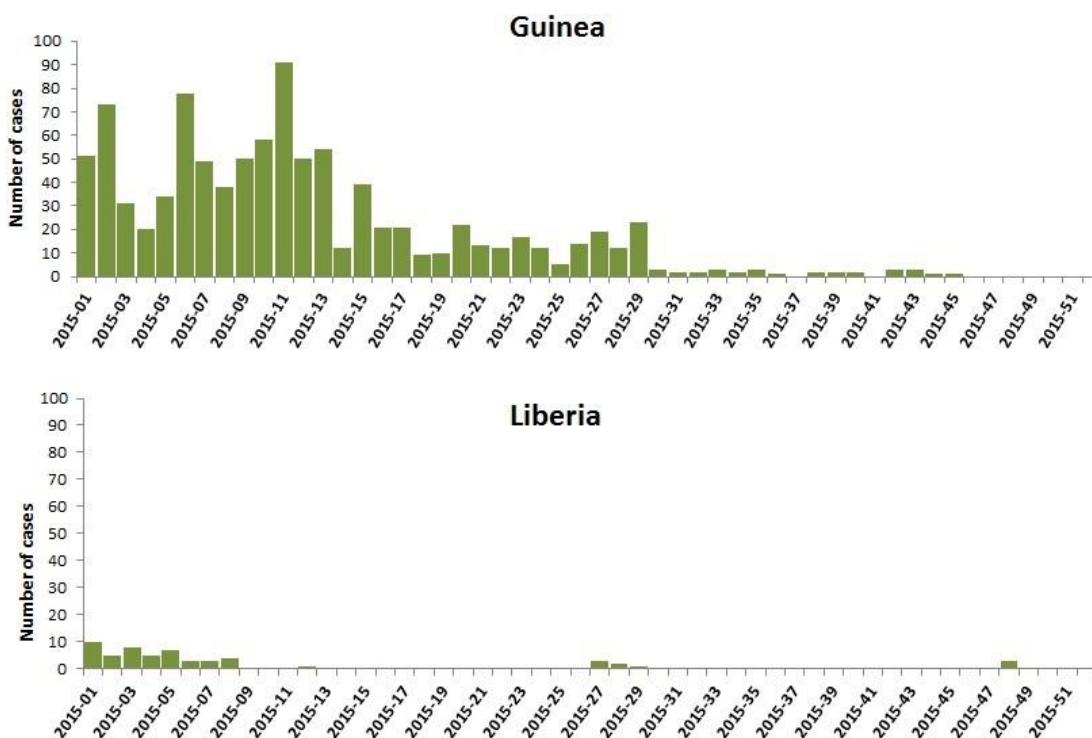
On 6 October 2014, ECDC published [risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU](#).

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](#).

## Distribution of confirmed cases of Ebola virus disease by week of reporting in Guinea and Liberia (weeks 01/2015 to 52/2015)

Source: ECDC



## Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013

Latest update: 31 December 2015

### Epidemiological summary

#### Europe

No autochthonous cases of chikungunya virus infection have been reported in EU Member States so far in 2015. According to [InVS](#), between 1 May and 27 November, 30 imported cases of chikungunya were reported in **France** in areas where the vector is present.

#### Americas

According to the latest update from the [WHO Pan American Health Organization](#) (WHO PAHO), since the beginning of the year and as of 18 December 2015, 642 980 suspected and confirmed cases of chikungunya virus infection and 77 deaths have been reported in the WHO Region of the Americas. **USA**

As of 16 December, 653 chikungunya virus disease cases have been reported from 44 US states so far this year, according to the [US CDC](#). All reported cases occurred in travellers returning from affected areas. No locally transmitted cases have been reported. In addition, 202 chikungunya cases have been reported from US territories. All were locally transmitted cases reported from

**Puerto Rico** and the **US Virgin Islands**.

#### Pacific region

There are ongoing outbreaks on **Marshall Islands**, **Tuvalu** and **Samoa**, according to the [Pacific Public Health Surveillance Network](#).

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

### ECDC assessment

Outbreaks are still ongoing in the Caribbean, Americas and Pacific but at a lower level compared with the same period last year, especially in the Pacific region. Continued vigilance is needed to detect imported cases of chikungunya in tourists returning to the EU from these regions.

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

### Actions

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

ECDC monitors the global chikungunya situation on a monthly basis.

## Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 31 December 2015

### Epidemiological summary

#### Europe

No new autochthonous cases reported since the last monthly update.

#### Asia

##### China

As of 30 November, there were 3 822 cases of dengue reported in 2015 for China, with majority of the cases being reported during September and October 2015. From 1 to 30 November 2015, 470 dengue cases were reported. The number of cases in the month of November in 2015 has decreased threefold compared to case numbers reported in the previous month and considerably lower than the number of cases reported in 2014, for the same reporting period.

### **Malaysia**

As of 5 December 2015, there were 111 285 cases of dengue with 301 deaths reported in Malaysia for 2015. This is 16.3% higher compared with the same reporting period of 2014 (n=95 693). From 29 November to 5 December 2015, there were 2 119 cases of dengue reported, which is higher than the previous week (n=2 087).

### **Philippines**

As of 21 November 2015, there were 169 435 suspected cases of dengue, including 511 deaths, reported in the Philippines. This is 59.5% higher than for the same reporting period in 2014 (n=106 241).

### **Cambodia**

As of 17 November 2015, there were 14 005 cases of dengue, including 35 deaths, reported in Cambodia. The number of cases is decreasing and it follows the seasonal trend between 2011 and 2013.

### **Taiwan**

In Taiwan, the average weekly number of new cases in Kaohsiung City has been declining over the past few weeks. Since this summer, the cumulative number of indigenous dengue cases in Taiwan has reached 43 060, including 22 750 cases in Tainan City, 19 395 cases in Kaohsiung City, 388 cases in Pingtung City in addition imported and sporadic cases in other cities and counties, have been confirmed. 98.5% of the total reported cases have recovered, according to [Taiwan CDC](#).

### **Thailand**

Thailand has notified 84 600 cases and nine deaths between 1 January 2015 and 28 December 2015.

### **Singapore**

Singapore has recorded 10 830 cases of dengue since the beginning of the year until 26 December 2015.

### **Caribbean**

In [Puerto Rico](#), the weekly number of suspected cases reported in weeks 45 and 46 remained below the epidemic threshold and historical average. As of 9 December, 1 696 suspected and 43 confirmed cases have been reported so far in 2015. DENV-2 and DENV-4 have been the predominant serotypes circulating in the last eight weeks, according to the US CDC.

### **Americas**

As of 8 December, more than 2.5 million probable and confirmed dengue fever cases have been reported in the Americas and Caribbean region, according to the Pan American Health Organization (PAHO). Brazil accounts for more than 1.5 million of the cases.

### **Pacific Islands and Territories Australia**

As of 30 November 2015, there were 1 563 laboratory-confirmed dengue cases in Australia. In 2015, 47 cases were reported in November. This is lower than the same reporting period of last year (n=82). The number of reported cases was consistent with previous years (n=1 614) and follows the seasonal trend.

### **French Polynesia**

In the week ending 29 November 2015, 24 confirmed dengue cases were reported in French Polynesia. Dengue virus serotype-1 has been identified in circulation.

### **Papua New Guinea**

There is currently a dengue virus serotype-2 outbreak in the Western Province of Papua New Guinea.

### **Africa**

In Sudan, according to [media](#) reports quoting the local health officials, 557 suspected dengue fever cases, including 130 deaths, were recorded in the country between 29 August and 4 December 2015.

Web sources: [ECDC Dengue](#) | [Healthmap Dengue](#) | [MedISys](#) | [ProMed Asia, Americas, Africa](#) | [WHO WPRO](#)

## **ECDC assessment**

Introduction and autochthonous transmission of dengue fever in Europe is possible where and when competent vectors are present. This underlines the importance of surveillance and vector control in European countries that have competent vectors.

## Actions

ECDC has published a technical [report](#) on the climatic suitability for dengue transmission in continental Europe and [guidance for the surveillance of invasive mosquitoes](#).

ECDC monitors the dengue situation worldwide on a monthly basis.

## Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 31 December 2015

### Epidemiological summary

In 2015, wild poliovirus transmission has been at the lowest level ever, with fewer cases reported from fewer countries than ever before. In 2015, 70 wild poliovirus cases were reported from two countries: Pakistan (51 cases) and Afghanistan (19 cases), compared with 322 cases from nine countries during the same period in 2014.

In 2015, as of 29 December, 26 cases of circulating vaccine-derived poliovirus (cVDPV) had been reported to WHO, compared with 51 for the same period in 2014. The cases this year are from Madagascar (10), Laos (5), Ukraine (2), Pakistan (2), Nigeria (1), Myanmar/Burma (2) and Guinea (4).

**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.

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

**References:** [ECDC latest RRA](#) | [Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA](#) | [Wild-type poliovirus 1 transmission in Israel - what is the risk to the EU/EEA?](#) | [RRA Outbreak of circulating vaccine-derived poliovirus type 1 \(cVDPV1\) in Ukraine](#)

## Actions

ECDC monitors reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being re-introduced into the EU. Following the declaration of polio as a PHEIC, ECDC updated its [risk assessment](#). ECDC has also prepared a background document with travel recommendations for the EU.

Following the detection of the cases of circulating vaccine-derived poliovirus type 1 in Ukraine, ECDC published a rapid risk assessment on its [website](#).

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