COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 5, 31 January-6 February 2016

All users

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: 5 February 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

During week 4, 31 of the 50 countries and territories that reported epidemiological data from ILI and ARI surveillance indicated increasing rates, with 34 countries reporting influenza virus detections in specimens from sentinel sources for week 04/2016, indicating increased influenza activity in the WHO European Region as a whole. Belarus, Greece, Ireland and Malta indicated high-intensity influenza activity, as in the previous week, and Finland, the Russian Federation and Ukraine reported very high activity.

A(H1N1)pdm09 viruses are predominating, accounting for 67% of sentinel surveillance detections of influenza in the WHO European Region. The predominance of A(H1N1)pdm09 correlates with an increase in cases of severe disease, mainly in people aged 15–64. For week 4/2016, countries reported increasing numbers of cases with severe acute respiratory infection (SARI) with simultaneous high percentage of influenza-positive specimens.

Non EU Threats

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 4 February 2016

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 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 the wintery weather due to low temperatures and overcrowding in shelters.

➔Update of the week

No new events relating to migrants have been detected during the past week.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 4 February 2016

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then and up to 4 February 2016, 702 cases have been reported to WHO, including 278 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

During the past week, two new human cases of avian influenza A(H7N9) were reported in China. A 33-year-old male from Hunan province and a 74-year-old male from Guangdong province.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 4 February 2016

Zika virus infections are spreading in previously unaffected areas of the world. Since the beginning of 2015, 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. Since then, Zika virus infections have spread to 36 countries or territories. Possible 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 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 a link between Zika virus infection and *Guillain–Barré syndrome* (GBS) are ongoing in Brazil and French Polynesia. On 1 February 2016 WHO declared a Public Health Emergency of International Concern (PHEIC), following the first meeting of the Emergency Committee convened by the Director-General under the IHR 2005, regarding clusters of microcephaly cases and other neurologic disorders in some areas affected by Zika virus.

➔Update of the week

On 1 February 2016 WHO declared a Public Health Emergency of International Concern (PHEIC), following the first meeting of the IHR Emergency Committee, convened by the Director-General under the IHR 2005, regarding clusters of microcephaly cases and other neurologic disorders in some areas affected by Zika virus. The full statement about the PHEIC and temporary recommendations can be accessed on the WHO website.

Since last week, five additional countries or territories have reported laboratory-confirmed autochthonous transmission in the past two months: American Samoa, Samoa, Costa Rica, Jamaica and Tonga. Several Outermost EU regions continue to report autochthonous transmission: Martinique, Guadeloupe, Saint Martin, French Guiana and Curaçao.

As of 4 February, no autochthonous Zika virus transmission has been reported in the EU. However, in 2015 and 2016, media quoting Ministries of Health reported several EU countries with imported cases who had recently travelled in affected countries/territories. These countries include Austria, Denmark, Finland, France Germany, Ireland, Italy, Portugal, the Netherlands, Spain, Sweden, and the UK. This list may not be exhaustive. In addition, the French Ministry of Health reported that one of the nine imported cases of Zika infection recorded in mainland France so far this year has developed neurological symptoms.

In Brazil, according to the weekly epidemiological update on the monitoring of microcephaly published by the Ministry of Health on 2 February (data as of 30 January), 4 783 suspected cases of microcephaly have been reported since week 43-2015, of which 1 132 (24%) were investigated and classified. Of these cases, 404 (36%) have confirmed microcephaly and/or central nervous system malformations, 17/404 (4%) were positive for Zika virus infection. On 2 February 2016, Campinas Health Department reported a case of Zika virus transmission through blood transfusion which occurred in Sao Paulo state in early 2015.

In USA, Dallas County Health and Human Services received confirmation from the US CDC of a Zika virus case acquired through sexual transmission in Dallas County, Texas, in 2016. The patient was infected after having had sexual contact with an ill person who returned from a country affected by the Zika epidemic.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 4 February 2016

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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013 Latest update: 4 February 2016

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 (especially in the Pacific region), but at a lower level compared with the same period last year. 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.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 4 February 2016

The largest ever epidemic of Ebola virus disease (EVD) has affected West Africa from December 2013 - 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 03 February 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, which underlines the need to maintain effective surveillance even after EVD-free status is declared. On 20 January, the Sierra Leone Ministry of Health reported a second case, epidemiologically linked to the first one.

➔Update of the week

According to WHO, no new confirmed cases have been reported in Sierra Leone during the past week. The most recent case was reported on 20 January 2016.

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

Opening date: 24 September 2012 Latest update: 4 February 2016

Since April 2012 and as of 4 February 2016, 1 657 cases of MERS, including 639 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

During the past week, Saudi Arabia reported two new male MERS-CoV cases with one of the cases reporting camel contact. The cases were from Riyadh and Taif.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 4 February 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, there was one new wild poliovirus type 1 (WPV1) case reported in Pakistan with onset of disease on 31 December 2015. No new cases of circulating vaccine-derived poliovirus were reported to WHO.

An assessment of the outbreak response in Ukraine, while acknowledging the efforts of Ministry of Health staff and partners, has concluded that major and rapid improvements are required in campaign quality and surveillance to ensure that the outbreak is stopped within six months.

For the first time in history, Africa has had four months without any wild or circulating vaccine-derived poliovirus cases, nor any environmental positive samples.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

II. Detailed reports

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

Opening date: 2 October 2015 Latest update: 5 February 2016

Epidemiological summary

So far, the 2015–2016 influenza season has been characterised by a predominance of influenza A(H1N1)pdm09 viruses which, compared to A(H3N2) viruses, may cause more severe disease and death in adults aged 15-64. Since week 52/2015, several European countries with severe acute respiratory infections (SARI) sentinel surveillance systems have reported increasing numbers of cases associated with A(H1N1)pdm09 infection. Similarly, countries reporting laboratory-confirmed influenza cases in hospitals and intensive care units have detected influenza A virus in the majority of cases since the start of the season, with A (H1N1)pdm09 being the dominant subtype (94%).

ECDC assessment

Most of the viruses characterised so far are genetically similar to the strains recommended for inclusion in this winter's trivalent or quadrivalent vaccines for the northern hemisphere.

Actions

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

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 4 February 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 not currently 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 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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

and south-eastern borders was posted 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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 4 February 2016

Epidemiological summary

Cases reported by China since March 2013 have the following geographical distribution: Zhejiang (197), Guangdong (187), Jiangsu (80), Fujian (63), Shanghai (50), Hunan (27), Anhui (30), Hong Kong (13), Xinjiang Uygur Zizhiqu (10), Jiangxi (12), Beijing (6), Shandong (7), Guangxi (3), Henan (4), Taiwan (4), Jilin (2), Guizhou (2), Hubei (1) and Hebei (1). 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 influence 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.

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

Actions

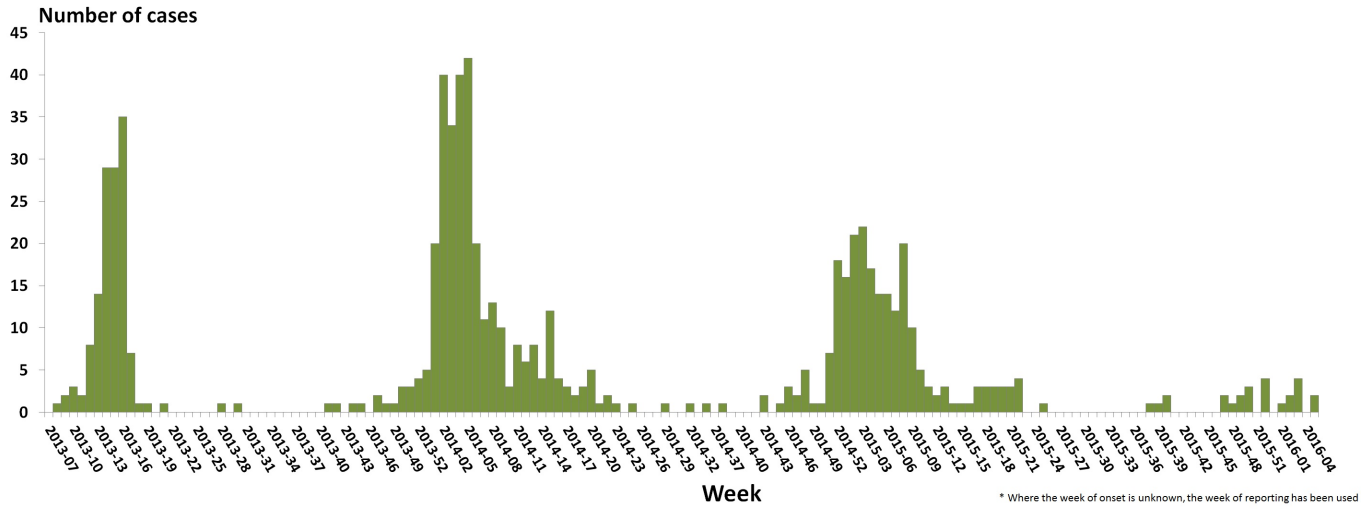
The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation, and scientific research.

ECDC published an updated Rapid Risk Assessment on 3 February 2015.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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

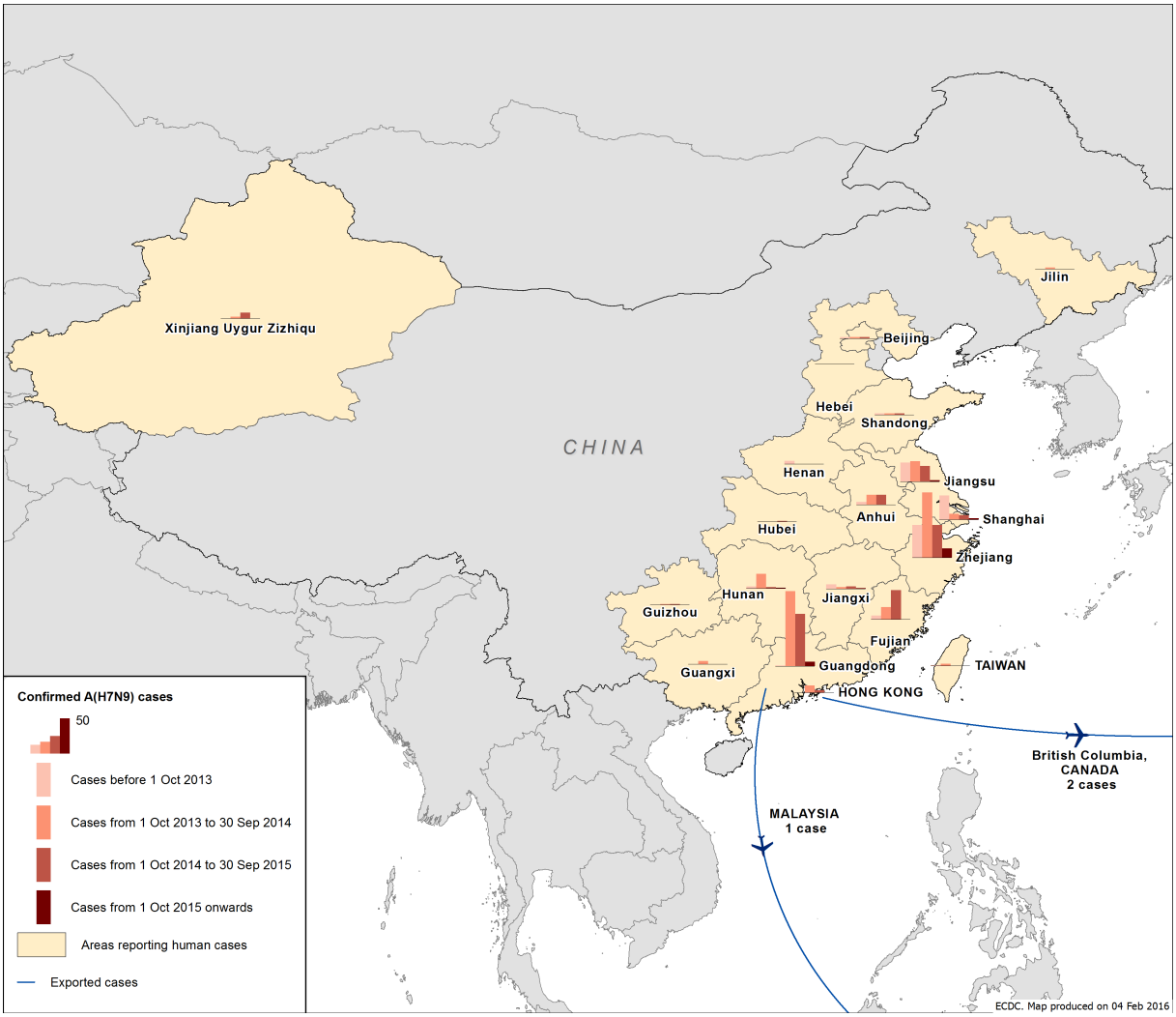
Distribution of confirmed cases of A(H7N9) by four periods of reporting (weeks 07/2013 to 05/2016)



European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of A(H7N9) by week of reporting (weeks 07/2013 to 05/2016)

ECDC



Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 4 February 2016

Epidemiological summary

As of 4 February 2016, several countries or territories have reported confirmed autochthonous cases of Zika virus infection in the past nine months: American Samoa, Barbados, Bolivia, Brazil, Cape Verde, Colombia, Costa Rica, Curaçao, Dominican Republic, Ecuador, El Salvador, Fiji, French Guiana, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Maldives, Martinique, Mexico, New Caledonia, Nicaragua, Panama, Paraguay, Puerto Rico, Saint Martin, Samoa, Solomon Islands, Suriname, Thailand, Tonga, 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

This is the first documented case of ZIKV acquired through sexual transmission reported in a non-traveller in the continental USA

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

since the emergence of Zika in the Americas. One previous case of sexual transmission of Zika virus was reported in 2008 in a traveller from the US infected with Zika virus in Senegal who infected his wife upon his return. There have also been cases where the virus has been shown to be present in semen, although it is not yet known how long the virus can persist. Although the risk of sexual transmission is considered low, more studies on viral persistence and sexual transmission are needed to properly assess the risk.

The spread of Zika virus epidemic in the Americas is likely to continue as the competent 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. Despite growing evidence of a link between intra-uterine Zika virus infection and adverse pregnancy outcomes, a causal link between these events has not yet been firmly confirmed.

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 who have reported confirmed autochthonous cases of Zika virus infection.

ECDC published an update of the rapid risk assessment on 22 January 2016.

Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months and past two months, as of 5 February 2016

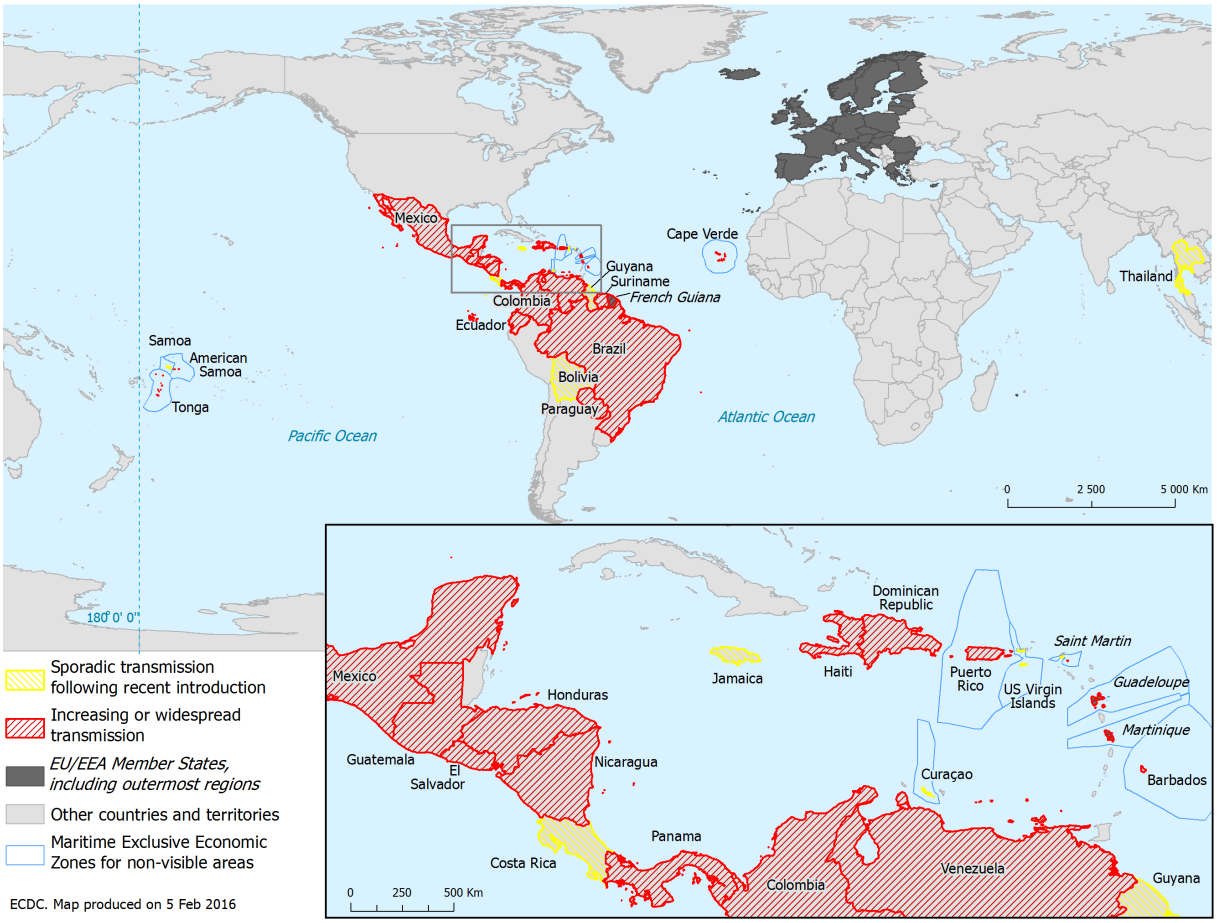
ECDC

	Affected in the past 9 months	Affected in the past 2 months
American Samoa	Yes	Increasing or widespread transmission
Barbados	Yes	Increasing or widespread transmission
Bolivia	Yes	Sporadic transmission following recent introduction
Brazil	Yes	Increasing or widespread transmission
Cabo Verde	Yes	Increasing or widespread transmission
Colombia	Yes	Increasing or widespread transmission
Costa Rica	Yes	Sporadic transmission following recent introduction
Curaçao	Yes	Sporadic transmission following recent introduction
Dominican Republic	Yes	Increasing or widespread transmission
Ecuador	Yes	Increasing or widespread transmission
El salvador	Yes	Increasing or widespread transmission
Fiji	Yes	No
French Guiana	Yes	Increasing or widespread transmission
Guadeloupe	Yes	Increasing or widespread transmission
Guatemala	Yes	Increasing or widespread transmission
Guyana	Yes	Sporadic transmission following recent introduction
Haiti	Yes	Increasing or widespread transmission
Honduras	Yes	Increasing or widespread transmission
Jamaica	Yes	Sporadic transmission following recent introduction
Maldives	Yes	No
Martinique	Yes	Increasing or widespread transmission
Mexico	Yes	Increasing or widespread transmission
New Caledonia (France)	Yes	No
Nicaragua	Yes	Increasing or widespread transmission
Panama	Yes	Increasing or widespread transmission
Paraguay	Yes	Increasing or widespread transmission
Puerto Rico	Yes	Increasing or widespread transmission
Saint Martin	Yes	Sporadic transmission following recent introduction
Samoa	Yes	Sporadic transmission following recent introduction
Solomon Islands	Yes	No
Suriname	Yes	Increasing or widespread transmission
Thailand	Yes	Sporadic transmission following recent introduction
Bolivarian Republic of Venezuela	Yes	Increasing or widespread transmission
Tonga	Yes	Increasing or widespread transmission
Vanuatu	Yes	No
Virgin island (US)	Yes	Sporadic transmission following recent introduction

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months, as of 5 February 2016

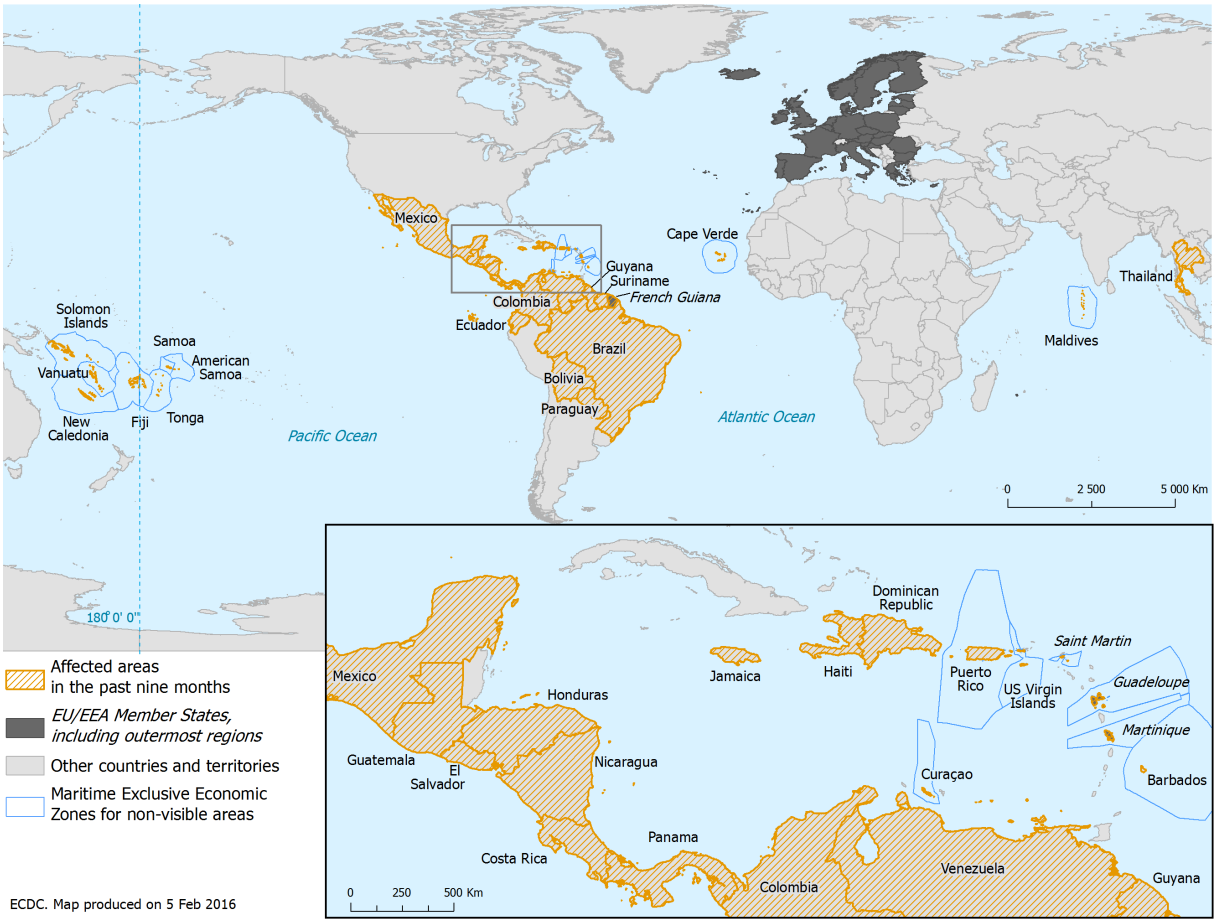
ECDC



European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months, as of 5 February 2016

ECDC



Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 4 February 2016

Epidemiological summary

Europe

No new autochthonous cases reported since the last monthly update.

Asia

Since the start of the year and as of 25 January, 2 752 dengue cases have been reported across 75 provinces of **Thailand**, according to media quoting the Thai Ministry of Health. No deaths have been recorded so far this year. In **Singapore**, 2 441 dengue cases were reported in January 2016, an unusually high number given that it is normally the low season for dengue activity. However, Singapore is currently seeing an increase in the *Aedes* mosquito population and experiencing a slightly warmer than usual end of year weather due to the El Niño phenomenon, according to the Ministry of Health. In addition, the number of DENV-2 cases has increased recently and accounts for about two-thirds of all dengue cases serotyped in Singapore, according to the National Environmental Agency (NEA)

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Americas
As of 15 January 2016, nearly 2.9 million probable and confirmed dengue fever cases have been reported in the Americas and Caribbean region, according to the Pan American Health Organization (PAHO).

In **Brazil**, nearly 1.65 million probable cases of dengue have been reported nationally since 2015, according to media quoting the Ministry of Health. This is the highest number of cases recorded since 1990. The majority of cases (62%) were registered in the south east region of the country followed by the north east (18.9%), midwest (13.4%), south (3.4%) and north (2.1%). The highest incidence of dengue in 2015 occurred in April, with 229.1 cases per 100 000 inhabitants. In 2015, there were 863 deaths from dengue. The regions that registered the highest number of fatalities were the south east (563) and central west (130). During the first two weeks of 2016, an increasing trend of dengue cases was recorded in the states of Minas Gerais, Mato Grosso, Mato Grosso do Sul, Pernambuco, Rio de Janeiro and Sao Paulo. On 11 January 2016, the Ministry of Public Health and Social Welfare in **Paraguay** issued a nationwide epidemiological alert for dengue, chikungunya and Zika, according to media sources.

In **Argentina**, since the start of the year up to 20 January 2016, 194 dengue cases have been reported across eight provinces. The most affected provinces are Buenos Aires (30), Misiones (35) and Formosa (74).

Pacific Islands and Territories
There is active circulation of DENV-1 in **French Polynesia** and DENV-3 in **Samoa** and **American Samoa**. In **New Caledonia**, two locally-acquired cases of DENV-1 were reported, according to the New Caledonia Department of Health and Social Affairs. **Fiji** reports increased dengue activity with 93 cases reported since the start of the year. The highest number of cases have been reported in the Northern Health Division, according to media. There is currently an ongoing DENV-2 outbreak in **Papua New Guinea** with 170 cases recorded (between 4 November 2015 and 8 January 2016) at the Daru (capital of the Western Province). As of 24 January 2016, there have been 117 Dengue-Like-Illness (DLI) cases in **Kiribati** seen since 3 January 2016, according to PACNET.

As of 3 February, 248 cases of dengue fever have been laboratory-confirmed on **Hawaii Island,** according to the Department of Health. Of the confirmed cases, 224 are Hawaii Island residents and 24 are visitors. In addition, 203 were adults and 45 children. Onset of illness ranged between 11 September 2015 and 28 January 2016.

Africa
In **Sudan**, the cumulative number of suspected dengue fever cases reported since the beginning of the outbreak in August 2015 stands at 573 cases, including 104 deaths. Darfur remains the most affected region, accounting for 92 percent of all reported cases (521) and 95 percent of deaths (99 deaths). However, there has been a significant drop in the number of fatal dengue cases across Sudan since the outbreak started, according to media quoting the UN Office for the Coordination of Humanitarian Affairs.

Web sources: ECDC Dengue | Healthmap Dengue | MedISys | ProMed Asia, Middle East, Americas, Africa and Pacific |

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.

Chikungunya- Multistate (world) - Monitoring global outbreaks
Opening date: 9 December 2013 Latest update: 4 February 2016

Epidemiological summary

Europe
No autochthonous cases of chikungunya virus infection have been reported in EU Member States so far in 2016.

Americas

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

During the past month, the number of new chikungunya cases continued to steadily increase in the Americas and Caribbean with 11 383 new suspected and confirmed cases reported between 8 and 29 January 2016, according to the latest data published by the WHO Pan American Health Organization (WHO PAHO).

USA
As of 12 January 2016, 679 chikungunya virus disease cases with disease onset in 2015 have been reported from 44 US states, 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 is an ongoing outbreak on Tuvalu, according to the Pacific Public Health Surveillance Network. Media report two imported cases of chikungunya virus infection in New Caledonia.

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.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 4 February 2016

Epidemiological summary

Distribution of cases as of 3 February 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 Ebola-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.

Sierra Leone
According to the latest situation report published by WHO on 3 February, no new confirmed cases were reported during the past week. The last reported case, a 38-year-old aunt and caregiver of the 22-year-old woman who died of EVD on 12 January at her family home in the district of Tonkolili in Sierra Leone, was reported by the Sierra Leone Ministry of Health on 20 January. She is currently receiving treatment in a military hospital in Freetown. As of 2 February, 112 contacts of the index case are under follow-up, of which the four that were deemed to be at the highest risk of developing EVD were transferred to voluntary quarantine facilities for the duration of their 21-day follow-up period. Hundred and eight contacts associated with the index case will complete their 21-day follow-up period on 3 February. Out of these contacts, 48 remain untraced, 18 of whom are high risk. Efforts to locate them will continue for at least 21 days from 3 February.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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

Situation among healthcare workers

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 distribution of confirmed cases of Ebola virus disease by week of reporting in Sierra Leone, weeks 01/2015 to 05/2016.
Map: The map shows the distribution of confirmed cases in Sierra Leone during the past six weeks.

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 a new cases in Sierra Leone is not an unexpected event 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.

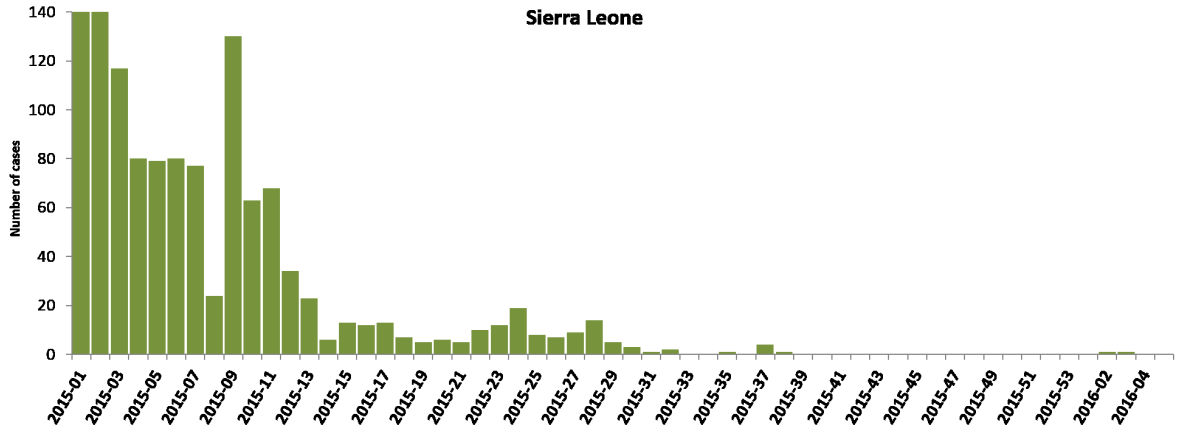
On 22 September 2014, ECDC published assessment and planning for medical evacuation by air to the EU of patients with Ebola virus disease and people exposed to Ebola virus.

On 10 September 2014, ECDC published an EU case definition.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of Ebola virus disease by week of reporting in Sierra Leone (weeks 01/2015 to 05/2016)

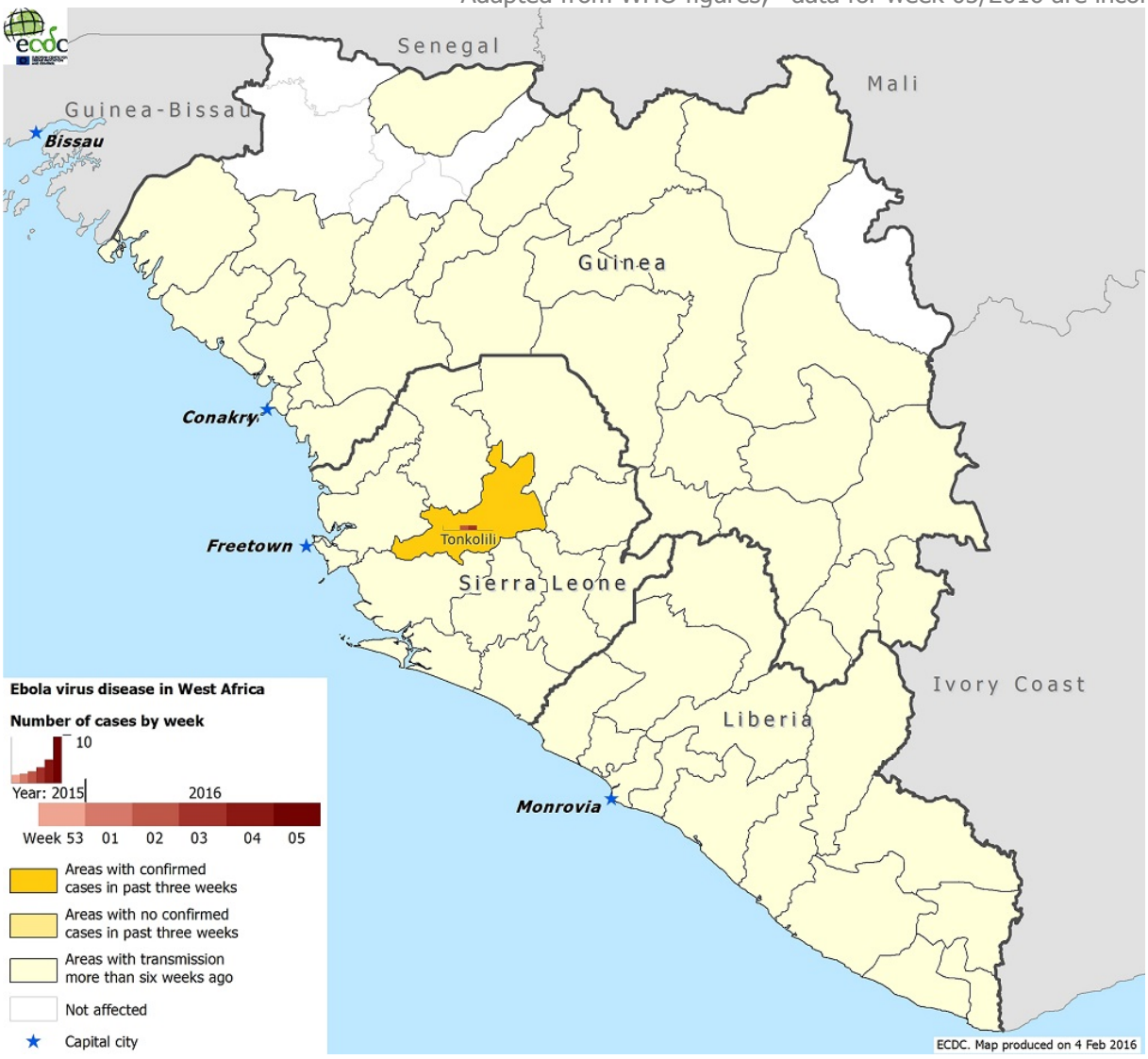
Adapted from WHO figures; *data for week 05/2016 are incomplete



European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of EVD by week of reporting in Sierra Leone (as of week 05/2016)

Adapted from WHO figures; *data for week 05/2016 are incomplete



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

Opening date: 24 September 2012 Latest update: 4 February 2016

Epidemiological summary

As of 4 February 2016, 1 657 cases of MERS, including 639 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

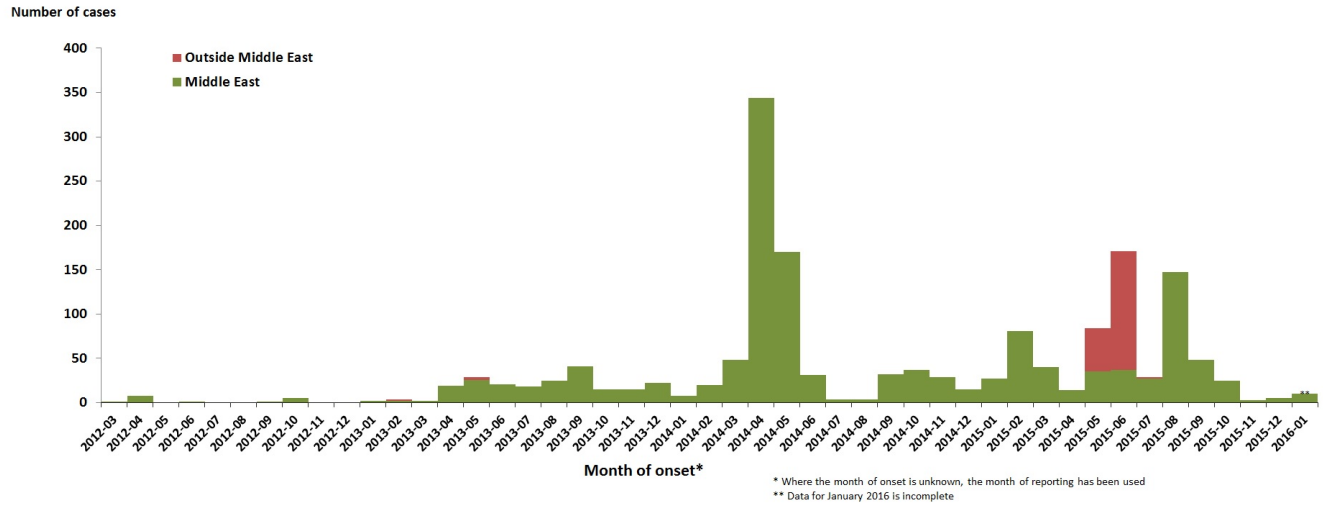
The MERS outbreak in the Middle East poses a low risk to the EU. Efforts to contain the nosocomial clusters in the affected countries are vital to prevent wider transmission. Although sustained human-to-human community transmission is unlikely, the residential cluster of cases reported from Saudi Arabia 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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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 – 31 January 2016 (n=1 655)



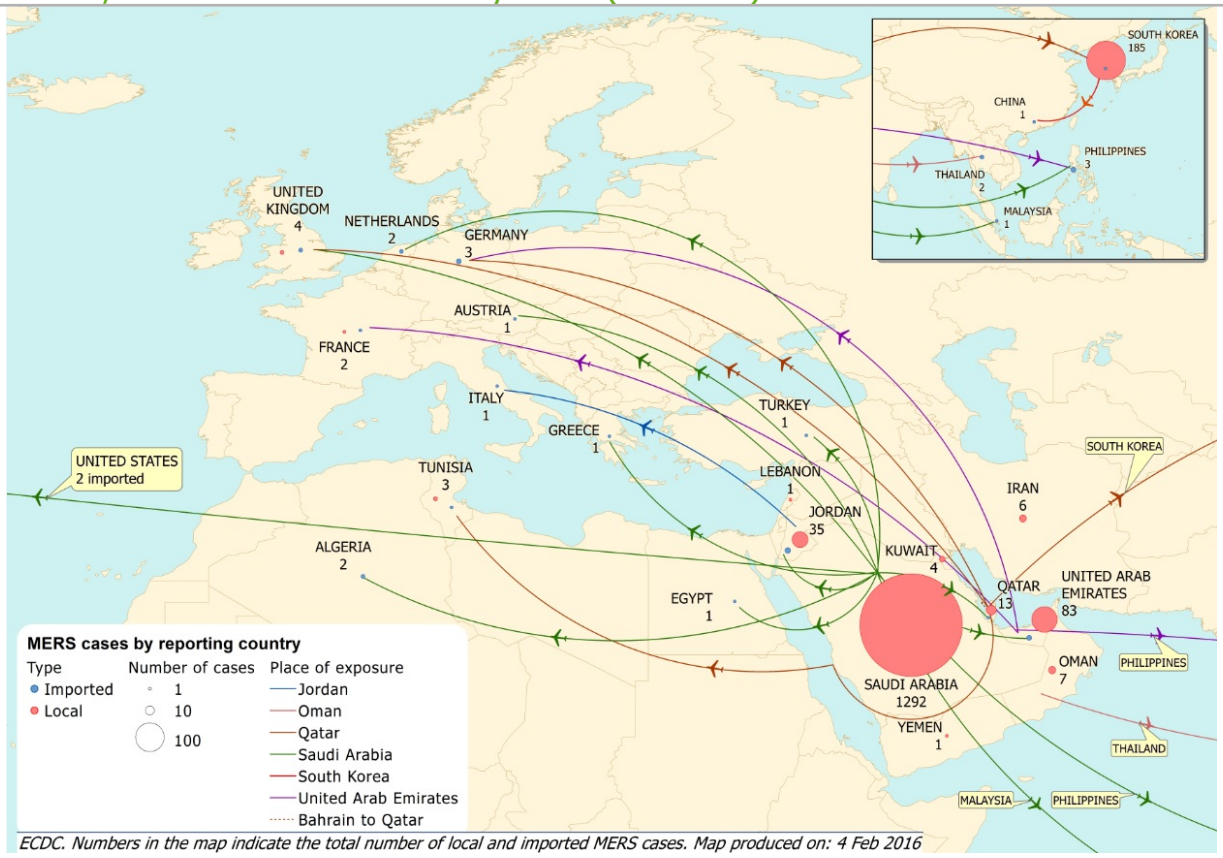
European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of MERS-CoV by country of reporting, March 2012 – 4 February 2016 (n=1 657)

Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1292	551
	United Arab Emirates	83	12
	Qatar	13	5
	Jordan	35	14
	Oman	7	3
	Kuwait	4	2
	Egypt	1	0
	Yemen	1	1
	Lebanon	1	0
	Iran	6	2
Europe	Turkey	1	1
	UK	4	3
	Germany	3	2
	France	2	1
	Italy	1	0
	Greece	1	1
	Netherlands	2	0
	Austria	1	0
Africa	Tunisia	3	1
	Algeria	2	1
Asia	Malaysia	1	1
	Philippines	3	0
	South Korea	185	38
	China	1	0
	Thailand	2	0
Americas	United States of America	2	0
	Global	**1657**	**639**

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of MERS-CoV by first available date, and probable place of infection, March 2012 – 4 February 2016 (n=1 657)



ECDC. Numbers in the map indicate the total number of local and imported MERS cases. Map produced on: 4 Feb 2016

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 4 February 2016

Epidemiological summary

In 2016, no cases of wild polio virus type 1 (WPV1) have been reported, compared with six cases for the same period in 2015.

As of 4 February 2016, no cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO this year. There were also no cases reported for 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 polio outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu