COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 7, 14-20 February 2016

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

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

Opening date: 16 February 2016 Latest update: 19 February 2016

The Ministry of Health of Romania reports that 12 children aged between 5 to 16 months have been hospitalised in Bucharest and Craiova between January 29 and 9 February while presenting with symptoms of vomiting and diarrhoea, with or without dehydration, and suspected haemolytic uraemic syndrome (HUS). The dates of onset are between 25 January and 9 February. Three of the cases have died, three are under dialysis in an intensive care unit (ICU) , five are admitted in a nephrology ward and one has been discharged. No causative agent has been identified yet.

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

Opening date: 2 October 2015 Latest update: 19 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 6, 21 of the 46 Member States that reported epidemiological data from surveillance for influenza-like illness (ILI) and acute respiratory infection (ARI) indicated increasing rates. 37 countries reported influenza virus detections in specimens from sentinel sources, indicating increased influenza activity in the WHO European Region as a whole.

Belarus, Finland, Greece, Ireland and Switzerland indicated high-intensity influenza activity. Influenza activity in the Russian Federation and Ukraine was reduced from very high-intensity in week 5/2016 to medium intensity for week 6/2016. A(H1N1) pdm09 viruses predominated, accounting for 90% of subtyped influenza A viruses detected through sentinel surveillance. An increase in cases of severe disease, mainly in people aged 15–64 years, was seen again for in week 6/2016, with most of them associated with A(H1N1)pdm09.

Non EU Threats

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Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 18 February 2016

Zika virus infections are spreading in previously unaffected areas of the world. 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. 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 following the Zika virus outbreak in the north-eastern states. French Polynesia reported an increase in cases of central nervous system malformations during 2014–2015 following the Zika virus infection outbreak from September 2013 to March 2014. 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.
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

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Since last week, four additional countries or territories have reported laboratory-confirmed autochthonous transmission: Aruba, Bonaire, Marshall Islands and Trinidad and Tobago.

Aruba and Bonaire
The first confirmed cases of autochthonous Zika virus infection on the Island of Aruba and the Island of Bonaire were reported by the National Institute for Public Health and the Environment (RIVM) on 16 and 15 February.

Trinidad and Tobago
On 17 February, the Trinidad and Tobago Ministry of Health reported the first confirmed case of autochthonous Zika virus infection in the country.

Marshall Islands
According to the Pacific Public Health Surveillance Network, the first confirmed autochthonous case of Zika virus infection was reported in a woman pregnant at 12 weeks gestation on 14 February.

Several Outermost EU regions continue to report autochthonous transmission:

Martinique: From December 2015 to 17 February 2016, 6 050 suspected cases have been reported. This is an increase by 2 130 cases during the past two weeks. Due to the carnival season, not all general practices have been reporting during the past two weeks, thus the epidemic trend cannot be determined.

French Guiana: From December 2015 to 17 February 2016, 889 suspected and laboratory confirmed cases have been reported. This is an increase by 360 cases during the past two weeks.

Guadeloupe: As of 17 February 2016, there have been 246 suspected and laboratory confirmed cases have been reported. This is an increase by 134 cases since the last two weeks.

St Martin: Seven laboratory confirmed cases have been reported as of 17 February, an increase by 6 cases since the last report on 4 February 2016.

As of 19 February 2016, 40 countries or territories have reported autochthonous cases of Zika virus infection in the past nine months.

According to the WHO situation report on Zika and potential complications published on 12 February 2016, six countries have reported an increase in the incidence of cases of microcephaly (Brazil) and Guillain-Barré syndrome (Brazil, French Polynesia, El Salvador, Venezuela, Colombia and Suriname) in conjunction with the Zika virus outbreak.

Brazil - update on microcephaly

According to the Ministry of Health, there have been 5 280 cases of microcephaly notified to date in Brazil. Of these, 3 174 cases (60.1%) were reported in 2015 and 2 106 (39.9%) in 2016. As of 13 February 2016, 508 cases of microcephaly have had confirmation of having microcephaly and/or other disorders of the central nervous system, suggestive of congenital infection. In the previous update from the Ministry of Health in Brazil, with data as of 6 February, of the 462 confirmed cases, 41 (8.9%) had confirmation of Zika virus infection. There remains 3 935 suspected cases of microcephaly under investigation across the country.
There have been 108 reported deaths from microcephaly and/or disorders of the central nervous system after birth or during pregnancy. Of these, 27 cases were investigated and confirmed for microcephaly and/or other disorders of the central nervous system. Another 70 cases are still under investigation and 11 have been discarded.

Atypical presentation of Zika virus infection
According to the Pan American Health Organization (PAHO), on 11 February 2016, Brazil reported on the result of a retrospective investigation of a fatal case with atypical presentation of Zika virus infection. The case is a 20-year-old female resident in Rio Grande do Norte state with no history of previous illness. She fell ill on 11 April 2015 with dry cough, high fever, myalgia, fatigue and dyspnoea. She was admitted to the intensive care unit (ICU) due to worsening condition with heavy bleeding and decompensation, and later died. Blood samples collected on 17 April 2015 were negative for dengue, and viscera fragments (liver, kidneys and lungs) of the patient were positive for Zika virus by RT-PCR. Autopsy revealed diffuse pulmonary infiltrate and bilateral pulmonary abscesses. The investigation into the cause of death is ongoing.

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Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 18 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.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 18 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 17 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 previous 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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 18 February 2016

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then and up to 18 February 2016, 721 cases have been reported to WHO, including 283 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, no new confirmed cases were reported to WHO.

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

Opening date: 24 September 2012 Latest update: 18 February 2016

Since April 2012 and as of 18 February 2016, 1 663 cases of MERS, including 640 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 six new cases of MERS-CoV. All of the cases were male and one case reported camel contact. The cases were from Riyadh (2), Kharj (2), Alkharj (1) and Najran (1). Both cases reported from Kharj died.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 18 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

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During the past week, there were no new wild poliovirus type 1 (WPV1) cases or new cases of circulating vaccine-derived poliovirus (cVDPV) reported to WHO.

The WHO Director-General convened the eighth meeting of the emergency committee for polio under the International Health Regulations on 12 February 2016.

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II. Detailed reports

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

Opening date: 16 February 2016 Latest update: 19 February 2016

Epidemiological summary

According to the Ministry of Health of Romania, 10 children, aged between 5-16 months in Arges county attended the District Paediatric Hospital in Bucharest for vomiting and diarrhoea, with or without dehydration, and suspected Haemolytic uraemic syndrome (HUS) between January 29 and 9 February. The dates of onset are between 25 January and 9 February. Three of the cases have died, three are under dialysis in an ICU, five are admitted in a nephrology ward and one has been discharged. No causative agent has been identified yet.

ECDC assessment

Further investigations are needed to assess the situation and identify the causative agent.

Actions

ECDC is monitoring this event. Two ECDC experts and one EPIET fellow have been deployed to support the outbreak investigation upon request from the Romanian Ministry of Health.

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

Opening date: 2 October 2015 Latest update: 19 February 2016

Epidemiological summary

So far, a pre-dominance of influenza A(H1N1)pdm09 viruses has characterised the 2015–2016 influenza season. This virus subtype may cause more severe disease and deaths in adults aged 15–64 years than A(H3N2) viruses. Since week 52/2015, several European countries with sentinel surveillance systems for severe acute respiratory infection (SARI) 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 (ICUs) have detected influenza A virus in the majority of cases since the start of the season, with A(H1N1)pdm09 being the dominant subtype.

ECDC assessment

Most of the viruses characterised so far have been 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. Season risk assessments are available from ECDC and WHO.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 18 February 2016

Epidemiological summary

As of 19 February, no autochthonous Zika virus transmission has been reported in the continental EU. ECDC is collecting data regarding imported cases through the media and official government communication lines. As of 19 February 2016, ECDC has recorded 114 imported cases in 14 EU/EEA countries: Austria (1), Denmark (1), Finland (2), France (18), Germany (20), Ireland (3), Italy (5), Malta (1), Netherlands (24), Portugal (6), Spain (23), Sweden (1), Slovenia (1) and the UK (8).

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Several countries in the Americas, Caribbean and the Pacific continue to report an increase in autochthonous cases of Zika virus infection.

Thirty EU/EEA countries have issued travel advice for people travelling to Zika-affected areas. Of these, 26 have advised pregnant women to consider postponing travel to countries affected by the Zika epidemic.

Several Outermost EU regions continue to report autochthonous transmission.

Aruba: The first four confirmed cases of autochthonous Zika virus infection on the Island of Aruba was reported by the National Institute for Public Health and the Environment (RIVM) on 16 February. The cases include three local residents and a Dutch traveller visiting Aruba. In addition, seven imported cases from Zika-affected areas have been identified.

Bonaire: The first confirmed case of autochthonous Zika virus infection on the Island of Bonaire was reported by the National Institute for Public Health and the Environment (RIVM) on 15 February.

Curaçao: On 15 February 2016, media quoting the Ministry of Health reported 35 cases of Zika virus infection in the country.

No new updates available from Martinique, French Guiana, Guadeloupe and Saint Martin since the latest report with data as of 4 February 2016.

As of 19 February 2016, several countries or territories have reported confirmed autochthonous cases of Zika virus infection in the past nine months: American Samoa, Aruba, Barbados, Bolivia, Brazil, Bonaire, Cape Verde, Colombia, Costa Rica, Curaçao, Dominican Republic, Ecuador, El Salvador, Fiji, French Guiana, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Maldives, Marshall Islands, Martinique, Mexico, New Caledonia, Nicaragua, Panama, Paraguay, Puerto Rico, Saint Martin, Samoa, Solomon Islands, Suriname, Thailand, Tonga, Trinidad and Tobago, Vanuatu, Venezuela and the US Virgin Islands.

Web sources: ECDC Zika Factsheet | WHO DON | PAHO | Colombian MoH | Brazilian MoH | Brazilian microcephaly case definition

ECDC assessment

The case report from Slovenia adds to the body of evidence that transplacental infections with Zika virus can cause severe central nervous system damage and microcephaly. This case together with the case in Hawaii and a few verified cases in Brazil have documented all 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.

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 which have reported confirmed autochthonous cases of Zika virus infection.

ECDC published an update of the rapid risk assessment on 8 February 2016 and has updated the ECDC Zika page with Frequently Asked Questions.

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Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months and past two months, as of 19 February 2016

ECDC

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

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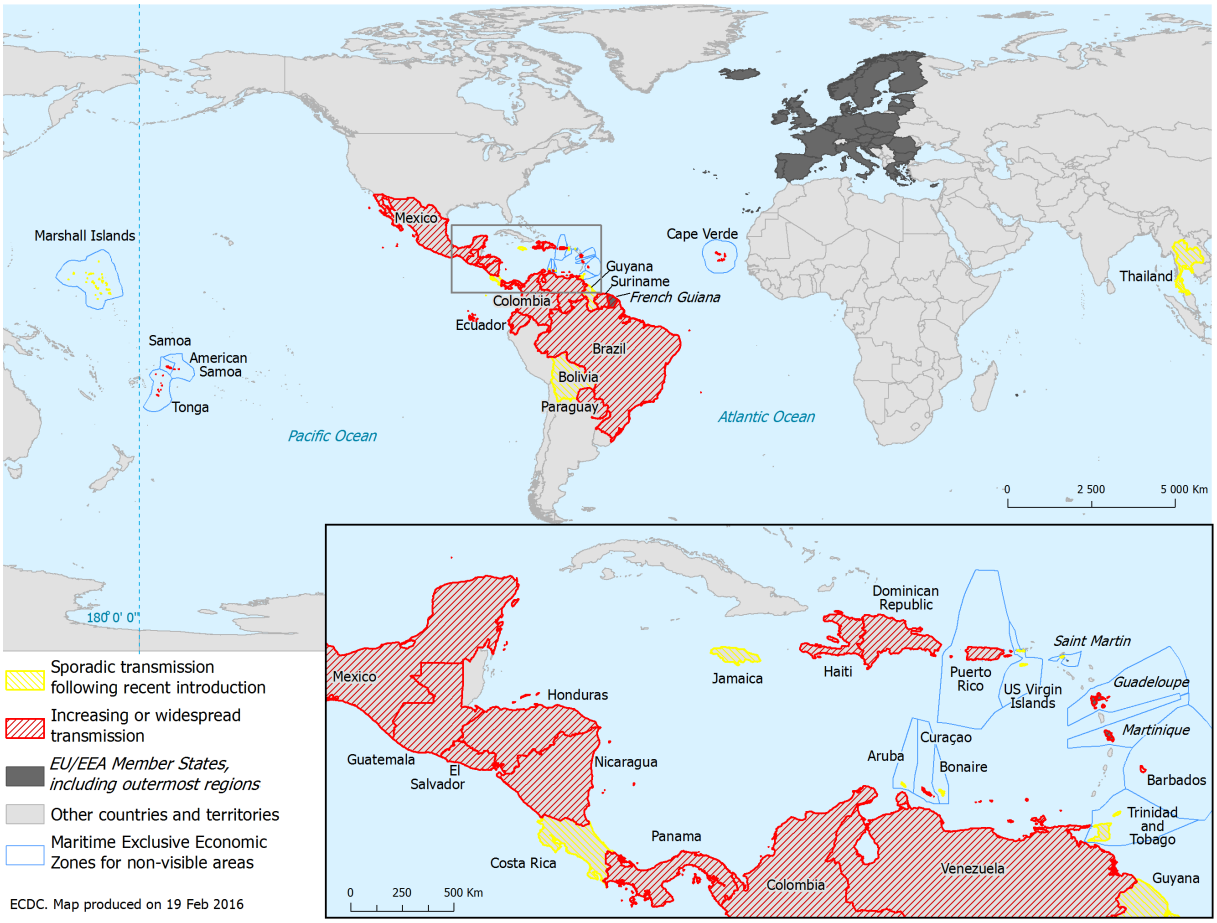
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months, as of 19 February 2016

ECDC



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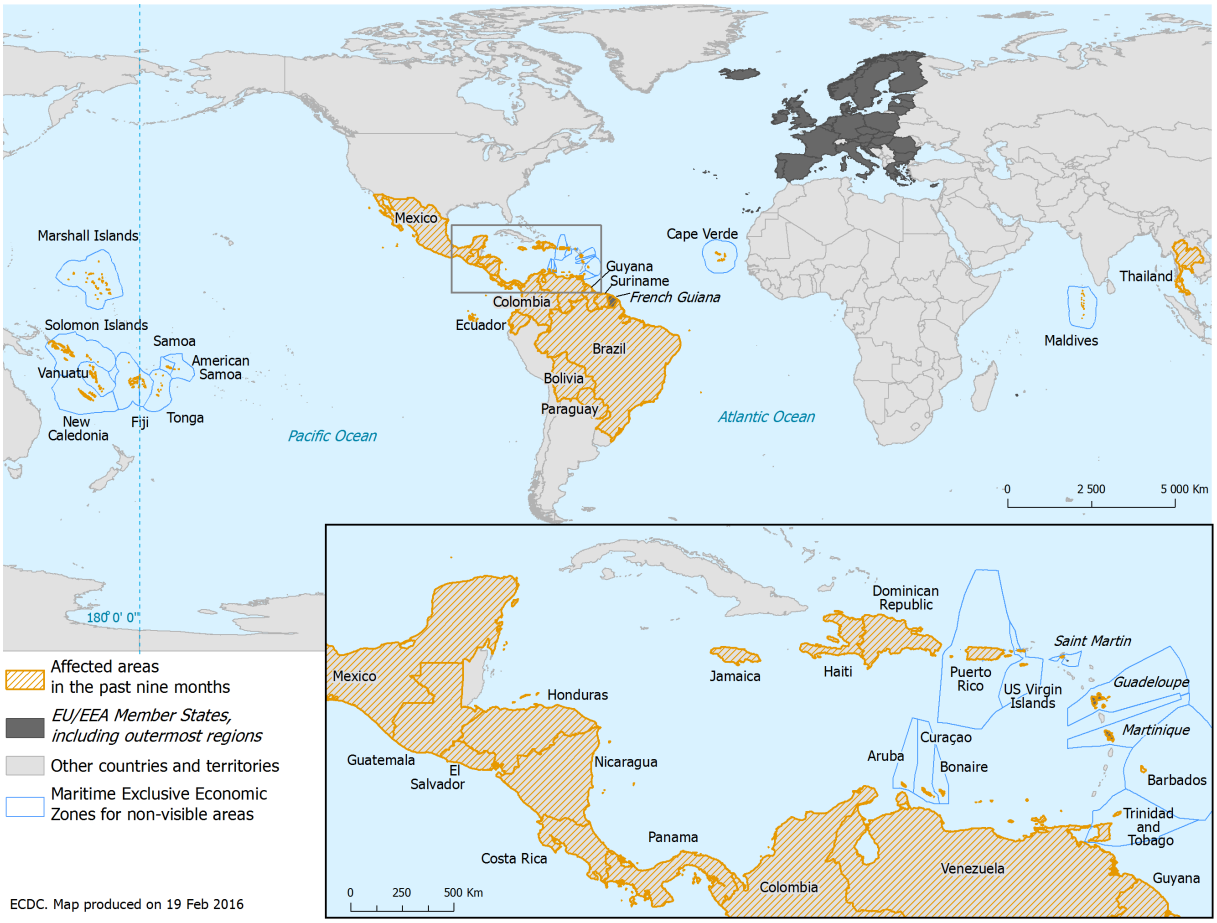
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months, as of 19 February 2016

ECDC



Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 18 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

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respiratory and gastrointestinal conditions will increase in the coming months.

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

WHO, UNHCR and UNICEF jointly recommend that refugees, asylum seekers and migrants should have non-discriminatory, equitable access to healthcare services, including vaccines, irrespective of their legal status. They should be provided with timely immunisation against vaccine-preventable diseases, particularly measles and polio. All countries should have effective disease surveillance and reporting systems, outbreak investigation ability and case management and response capacity.

The risk to European residents of being affected by outbreaks occurring among refugee populations remains extremely low because overcrowding, limited access to clean water and poor hygiene levels are only encountered in certain reception facilities for refugees.

Actions

An ECDC expert opinion on the public health needs of irregular migrants, refugees or asylum seekers across the EU's southern and south-eastern borders was 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.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 18 February 2016

Epidemiological summary

Distribution of cases as of 17 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.

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Sierra Leone
According to WHO on 17 February, no new confirmed cases were reported during the past week. The last reported case, the aunt and caregiver of the index case 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 provided a second consecutive EVD test and was discharged on 4 February 2016. All contacts linked to the two cases had completed follow-up by 11 February 2016. Efforts to locate several untraced contacts in the district of Kambia will continue until at least 24 February and if no further cases are detected, transmission linked to this cluster of cases will be declared to have ended on 17 March.

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 07/2016.
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 case 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

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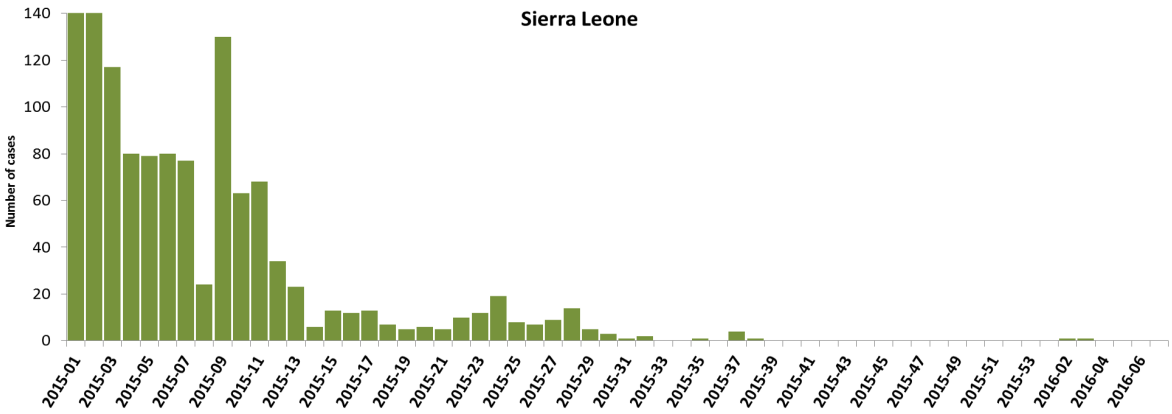
the EU.

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 Sierra Leone (weeks 01/2015 to 07/2016)

Adapted from WHO figures; *data for week 07/2016 are incomplete



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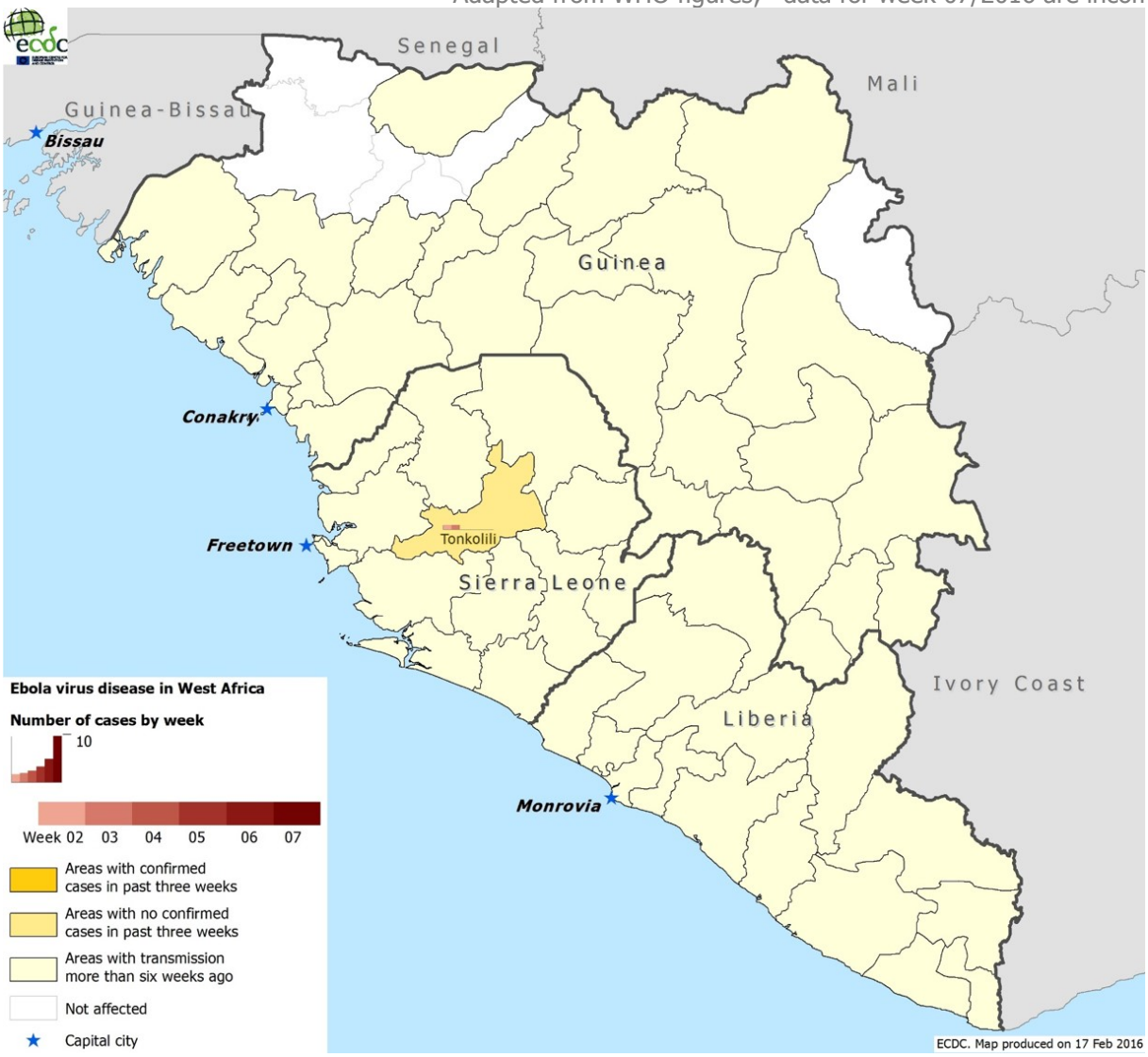
Distribution of confirmed cases of EVD by week of reporting in Sierra Leone (as of week 07/2016)

Adapted from WHO figures; *data for week 07/2016 are incomplete



Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 18 February 2016

Epidemiological summary

Cases reported by China since March 2013 have the following geographical distribution: Zhejiang (208), Guangdong (187), Jiangsu (85), Fujian (66), Shanghai (50), Hunan (27), Anhui (33), Hong Kong (13), Xinjiang Uygur Zizhiqu (10), Jiangxi (12), Beijing (6), Shandong (6), Guangxi (4), 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.

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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.

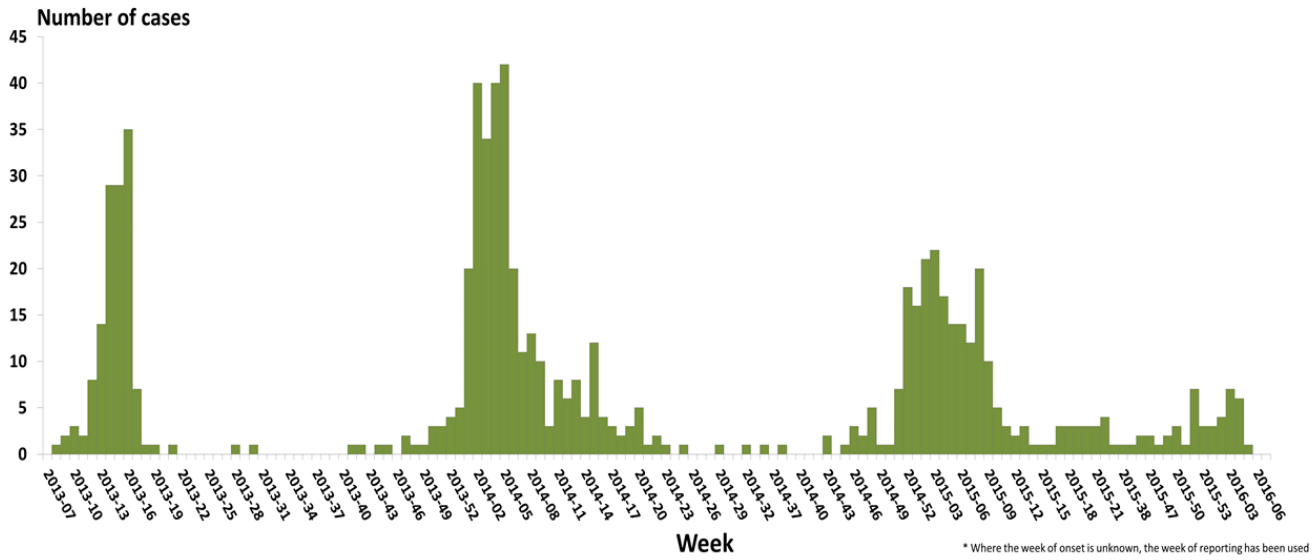
Actions

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.

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 first available date (weeks 07/2013 to 07/2016)



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

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

Opening date: 24 September 2012 Latest update: 18 February 2016

Epidemiological summary

As of 18 February 2016, 1 663 cases of MERS, including at least 640 deaths, have 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.

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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 – 18 February 2016 (n=1 663)

Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1298	552
	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	**1663**	**640**

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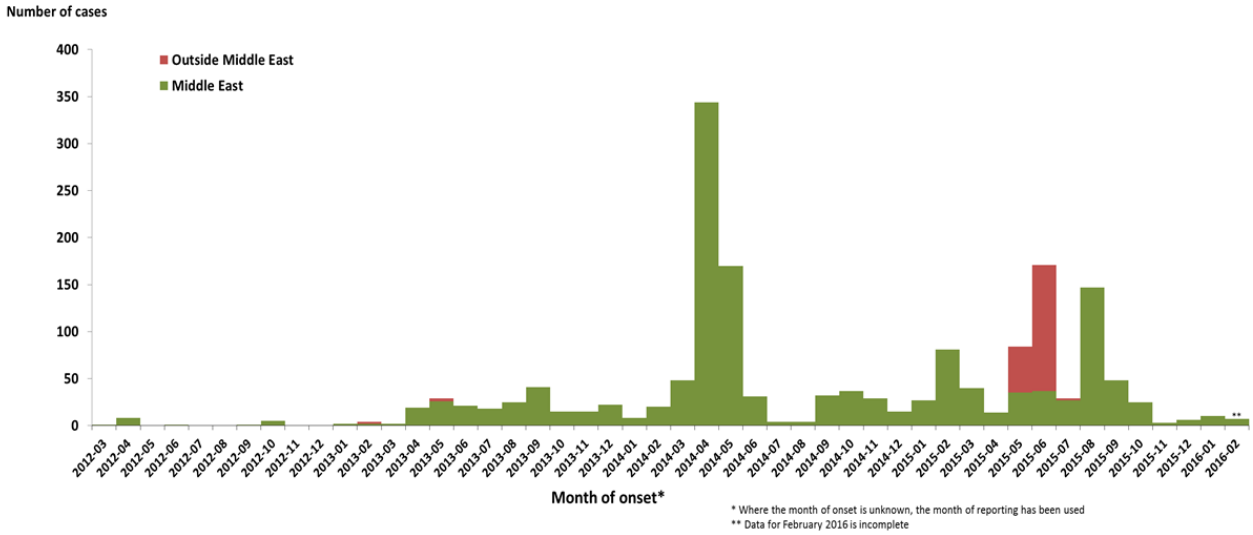
Cases of MERS-CoV by place of reporting, March 2012 – 18 February 2016 (n=1 663)



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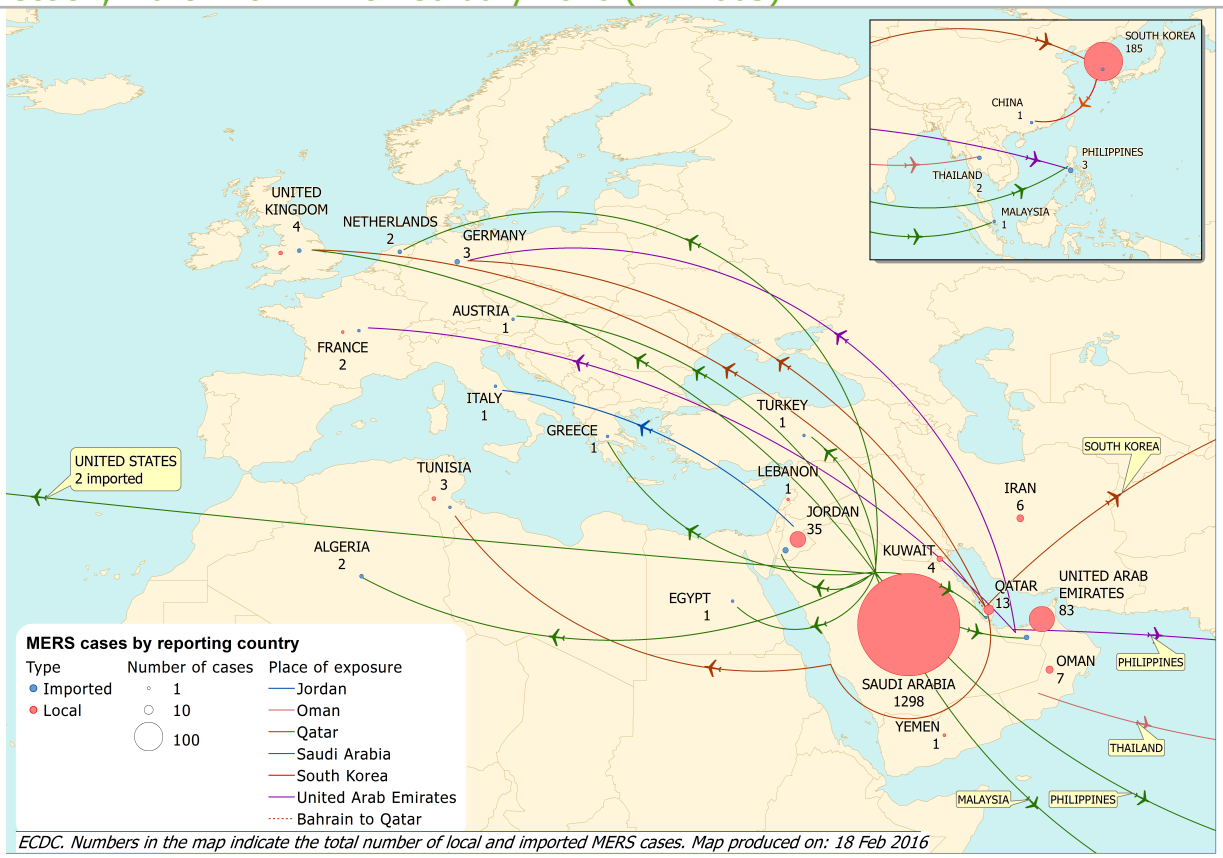
Distribution of confirmed cases of MERS-CoV by first available date, and probable place of infection, March 2012 – 18 February 2016 (n=1 663)



ECDC. Numbers in the map indicate the total number of local and imported MERS cases. Map produced on: 18 Feb 2016

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 18 February 2016

Epidemiological summary

In 2016, one case of wild polio virus type 1 (WPV1) has been reported, compared with seven cases for the same period in 2015.

As of 11 February 2016, two cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO this year. There were 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

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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.

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