COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 52, 25-31 December 2016

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

Non EU Threats

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 30 December 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) by the World Health Organization (WHO) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 11 November 2016, at the eleventh meeting of the Emergency Committee, the temporary recommendations in relation to the PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 (WPV2) eradicated worldwide.

➔Update of the week

No new cases of circulating vaccine-derived poliovirus type one (cVDPV1) were reported in the past week.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 30 December 2016

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 29 December 2016, 808 cases have been reported to WHO, including at least 320 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

Between 16 December and 29 December 2016, China reported one human case of influenza A(H7N9).

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Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 30 December 2016

From 1 February to 18 November 2016, Zika virus infection and the related clusters of microcephaly cases and other neurological disorders constituted a public health emergency of international concern (PHEIC). Since 2015, and as of 28 December 2016, 71 countries and territories had reported evidence of mosquito-borne transmission of the virus. According to World Health Organization, as of 28 December 2016, 29 countries or territories had reported microcephaly and other central nervous system malformations in new-borns which were potentially associated with Zika virus infection.

➔Update of the week

USA

In Florida, as of 28 December 2016, two new locally-acquired cases had been reported since the last CDTR.
In Texas, as of 28 December 2016, no new locally-acquired cases had been reported since the last CDTR.

ECDC maps

In ECDC maps of countries and territories with autochthonous vector-borne transmission of Zika virus infection: no changes during the past week.

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II. Detailed reports

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 30 December 2016

Epidemiological summary

As of 28 December 2016, 35 cases of WPV1 had been reported to WHO in 2016, compared with 74 for the same period in 2015. The cases were detected in Pakistan (19), Afghanistan (12) and Nigeria (4). Three cases of cVDPV have been reported in 2016, compared with 24 for the same period in 2015. The three cases were all detected in Laos.

Web sources: Polio eradication: weekly update | ECDC Poliomyelitis factsheet | Temporary Recommendations to Reduce International Spread of Poliovirus | WHO Statement on the Seventh Meeting of the International Health Regulations Emergency Committee on Polio

ECDC assessment

The last locally-acquired wild polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent wild polio outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases.

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

Actions

ECDC monitors reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being reintroduced 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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 30 December 2016

Epidemiological summary

On 20 December 2016, WHO acknowledged one new confirmed A(H7N9) case in Hong Kong. The case is a 75-year-old man who travelled to Dongguan, Guangdong province from 28 November to 9 December 2016. He developed symptoms on 8 December 2016 and the case was laboratory-confirmed on 19 December 2016. He had visited a wet market in Dongguan and bought a dressed chicken prior to onset of symptoms.

Web sources: Chinese CDC | WHO | WHO FAQ page | ECDC

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 neighbouring areas and in areas that are already affected.

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.

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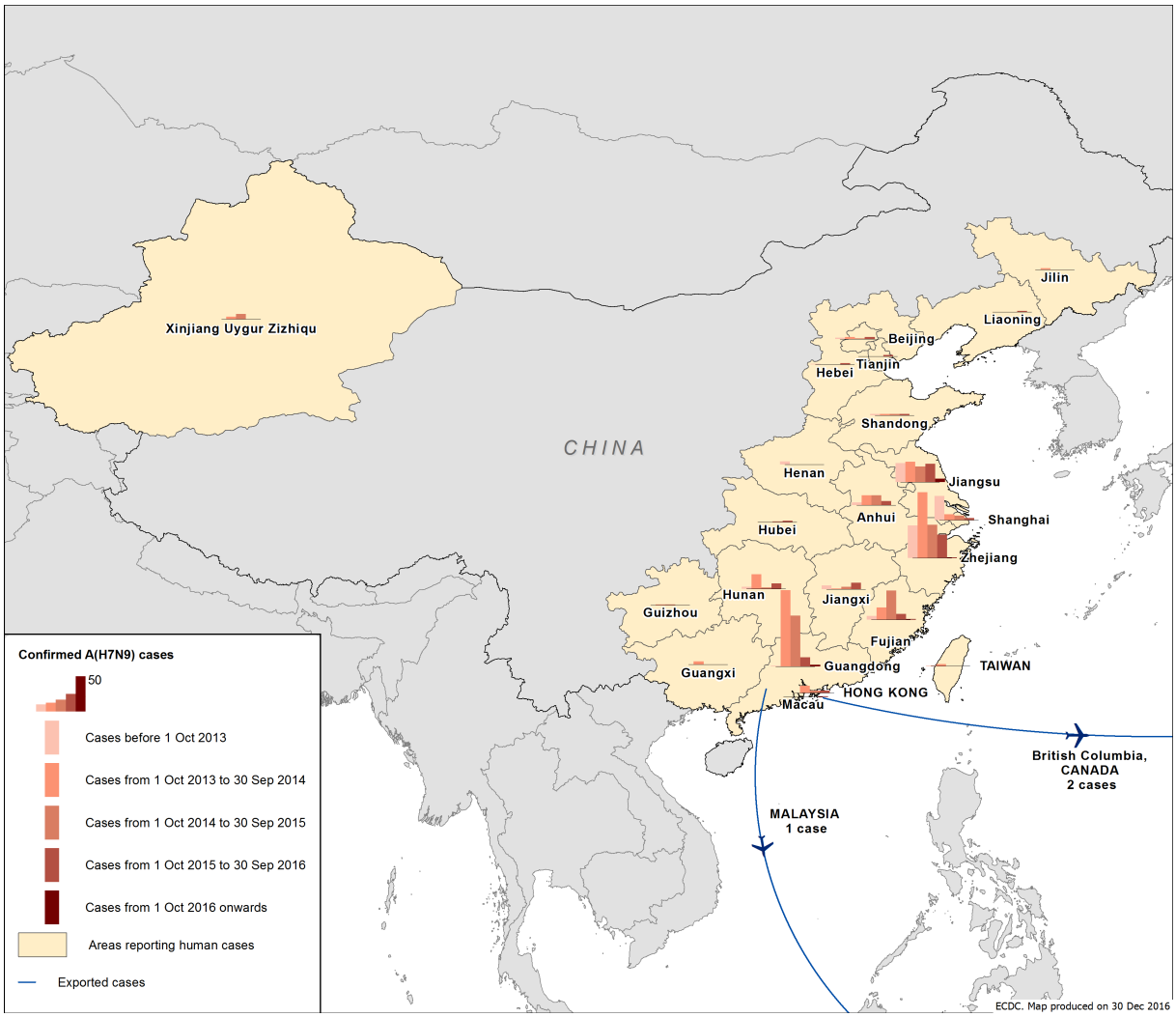
Actions

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 52/2016)

ECDC



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Epidemiological summary

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Worldwide
Since 2015 and as of 15 December 2016, 71 countries and territories have reported evidence of mosquito-borne transmission of the virus. Since February 2016 and as of 28 December 2016, 13 countries or territories have reported evidence of person-to-person transmission of the virus, probably via sexual transmission.

USA
Since the last CDTR and as of 28 December 2016, two new locally-acquired cases have been reported in Florida. As of 28 December 2016, 256 locally-acquired and 1 011 travel-related cases have been reported in Florida.

Since the last CDTR and as of 28 December 2016, no new locally-acquired cases have been reported in Texas. As of 28 December 2016, six locally-acquired and 290 travel-related cases have been reported in Texas.

EU/EEA imported cases
Since June 2015 (week 26) and as of 29 December 2016, 21 countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom) have reported 2 075 travel-associated Zika virus infections through The European Surveillance System (TESSy). This is an increase of 30 cases since last week. Over the same time period, nine EU/EEA Member States have reported 100 Zika cases among pregnant women.

3. Update on microcephaly and/or central nervous system malformations potentially associated with Zika virus infection
As of 28 December 2016, 29 countries or territories had reported microcephaly and other central nervous system malformations in new-borns which were potentially associated with Zika virus infection. Brazil is reporting the highest number of cases. As of 28 December 2016, 21 countries or territories had reported Guillain-Barré syndrome potentially associated with Zika virus infection.

Web sources: ECDC Zika Factsheet | PAHO | Colombian MoH | Brazilian MoH | Brazilian microcephaly case definition | SAGE MOH Brazil | Florida Health department

ECDC assessment

The spread of the Zika virus in the Americas and Asia is likely to continue as the vectors (*Aedes aegypti* and *Aedes albopictus* mosquitoes) are widely distributed there. The likelihood of travel-related cases in the EU is increasing. A detailed risk assessment was published on 28 October 2016. As neither treatment nor vaccines are available, prevention is based on personal protection measures. Pregnant women should consider postponing non-essential travel to Zika-affected areas.

Actions

ECDC publishes an epidemiological update every Friday together with maps containing information on countries or territories which have reported confirmed autochthonous cases of Zika virus infection. A Zika virus infection atlas is also available on the ECDC website.

ECDC publishes information concerning vector distribution on the ECDC website, showing the distribution of the vector species at 'regional' administrative levels (NUTS3).

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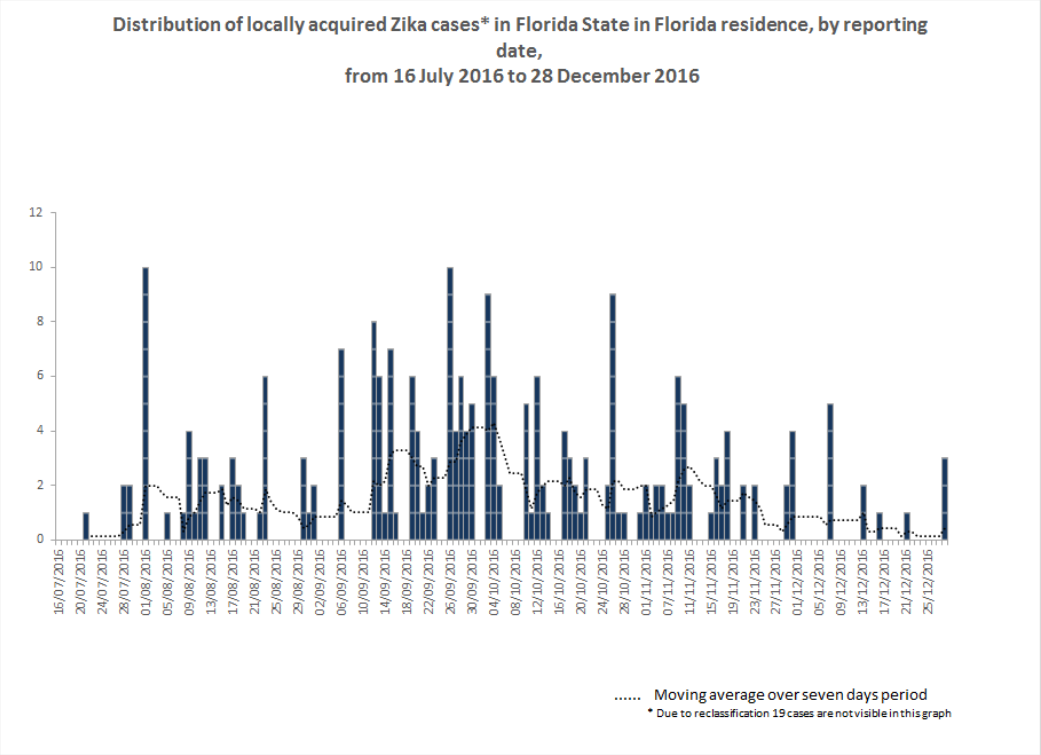
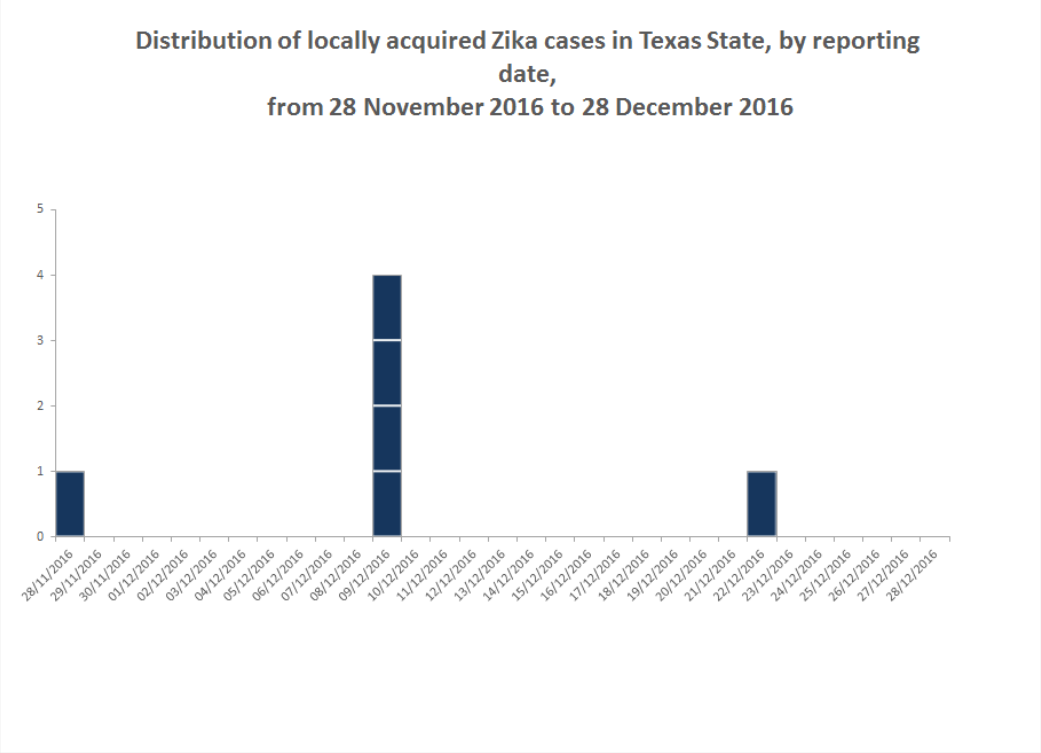
Distribution of locally-acquired Zika cases in Florida State (US), by reporting date, from 16 July 2016 to 28 December 2016

ECDC (Adapted from Florida health department and media)



Distribution of locally-acquired Zika cases in Texas State (US), by reporting date, from 28 November 2016 to 28 December 2016

ECDC (Adapted from Texas health department)



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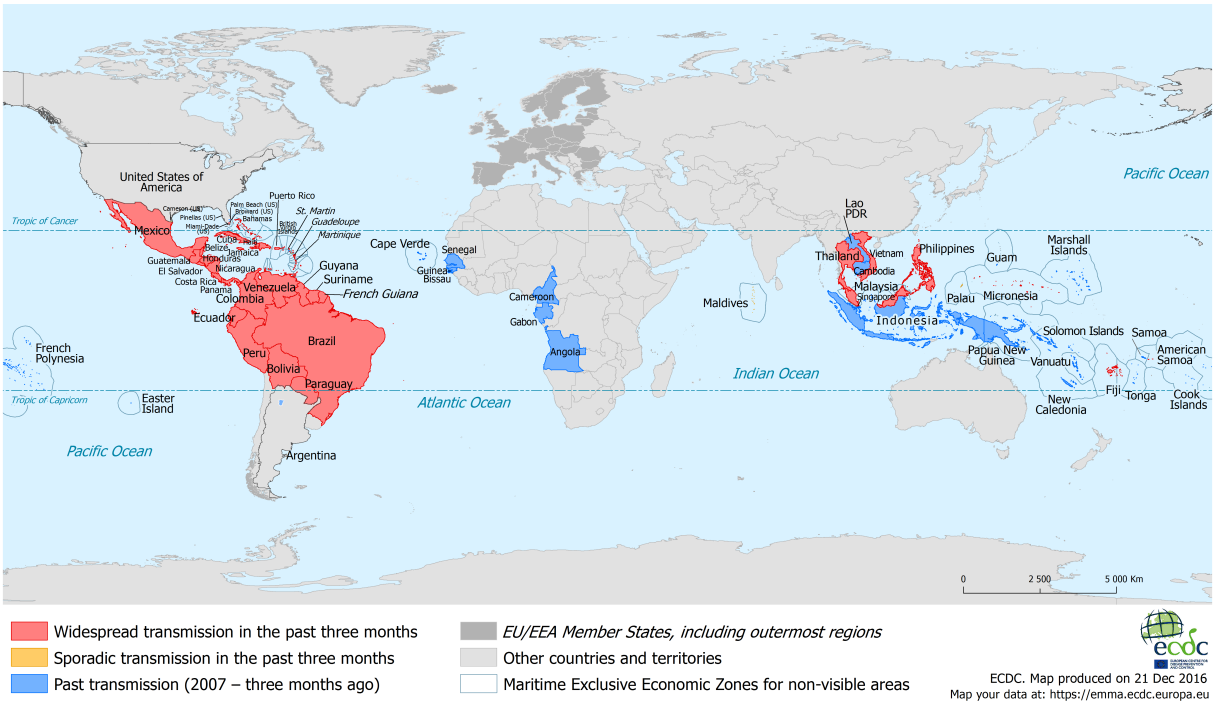
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past three months, as of 22 December 2016

ECDC



Widespread transmission in the past three months
Sporadic transmission in the past three months
Past transmission (2007 – three months ago)
EU/EEA Member States, including outermost regions
Other countries and territories
Maritime Exclusive Economic Zones for non-visible areas

ECDC. Map produced on 21 Dec 2016
Map your data at: https://emma.ecdc.europa.eu

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

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