COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 16, 15-21 April 2018

All users

This weekly bulletin provides updates on threats monitored by ECDC.

NEWS

European Immunization Week, 23-27 April 2018

European Immunization Week (EIW) is marked across the European Region next week (23-27 April). It aims to raise awareness of the importance of immunisation for people's health and well-being. ECDC activities will focus on the progress and challenges in the concerted effort to eliminate measles and rubella.

During European Immunization Week, ECDC will publish the Annual Measles and Rubella Surveillance report for 2017, with data and analyses on the serious and escalating measles situation in many EU countries. This year's theme is how vaccines work to protect you and those around you from serious disease, and focuses on the importance of immunisation as a shared responsibility.

I. Executive summary

EU Threats

Influenza – Multistate (Europe) – Monitoring season 2017 – 2018

Opening date: 11 October 2017 Latest update: 20 April 2018

Influenza transmission in Europe shows a seasonal pattern, with peak activity during the winter months.

➔Update of the week

During week 15 in 2018 (9-15 April 2018), influenza viruses continued to circulate in the region, with 26% of the individuals sampled from primary healthcare settings testing positive. All countries reported low or medium intensity of activity for respiratory infections.

Both influenza virus types A and B were co-circulating, with the majority being type A viruses.

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Dengue – France, Réunion – 2018

Opening date: 13 March 2018 Latest update: 20 April 2018

Since the beginning of 2018, the island of Réunion, a French department in the Indian Ocean, has seen a significant increase in dengue cases.

➔Update of the week

Since the beginning of 2018 and as of 15 April, there have been 1 388 autochthonous cases of dengue in Réunion. Of these cases, 396 were reported between 9 and 15 April 2018.

Non EU Threats

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Yellow fever is a mosquito-borne viral infection which occurs in some tropical areas of Africa and South America. Brazil has been experiencing a major outbreak of yellow fever since 2016. An upsurge of confirmed cases has been reported since December 2017.

➔Update of the week

Since the previous CDTR on 13 April 2018 and as of 17 April, Brazil has reported 30 additional confirmed cases and 11 deaths. The cases occurred in Minas Gerais (14), Rio de Janeiro (10) and São Paolo (6) states.

During the same time period, Brazil has reported seven confirmed epizootics in non-human primates in São Paulo state.

On 12 April 2018, Germany reported an additional yellow fever case in a returning traveller from Brazil.

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II. Detailed reports

Influenza – Multistate (Europe) – Monitoring season 2017 – 2018

Opening date: 11 October 2017 Latest update: 20 April 2018

Epidemiological summary

The season overview for the 2017-2018 period shows that influenza has been circulating widely in the region since week 52-2017, based on positivity rates among sentinel specimens. This is longer than in previous recent seasons and may contribute to the severity of this season.
For the region overall, the majority of influenza viruses detected were type B, which is a high level of circulation of influenza B viruses compared with recent seasons. B/Yamagata lineage viruses have greatly outnumbered those of the B/Victoria lineage. Different patterns of dominant type and A subtypes were observed between the countries of the region. Influenza A viruses are now dominant in several eastern European countries.
Of the type A virus detections from sentinel sources, the majority of which were subtyped, A(H1N1)pdm09 viruses outnumbered A (H3N2) viruses. In non-sentinel sources, more A(H3N2) viruses than A(H1N1)pdm09 viruses were reported. While low in number, 55% of the A(H3N2) viruses characterised belong to clade 3C.2a, and 41% of B/Victoria lineage viruses belong to a subclade of clade 1A viruses that are antigenically distinct from the current trivalent vaccine component.
The majority of severe cases reported this season are due to influenza type B and have mostly occurred in persons above the age of 15 years. Mortality from all causes based on pooled data from 19 EU countries and regions that reported to EuroMOMO remained elevated in some countries.
Interim results from five European studies indicate a vaccine effectiveness of 25% to 52% against any influenza type.

Source: Flu News Europe, EuroMOMO

ECDC assessment

Influenza activity continues to be reported in Europe, putting pressure on healthcare systems and creating significant media attention. Excess winter mortality is being reported from several countries and is associated with A(H3N2) circulation. Vaccination programmes targeting the elderly, people with chronic diseases, and healthcare workers should be continued and intensified in countries that have not yet seen a seasonal peak. Antiviral treatment with neuraminidase inhibitors should be advised for people at high risk of complications from influenza, such as people with underlying chronic respiratory or cardiovascular diseases, and for people with severe or rapidly progressive symptoms. Antiviral prophylaxis should be considered during the early phases of outbreaks in closed settings such as nursing homes. Interpersonal distancing measures are also likely to provide protection for infants, the elderly and the frail.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the Flu News Europe website. ECDC's risk assessment for the 2017-2018 season is available on ECDC's website. Recommendations on the composition of the 2017-2018 influenza virus vaccine are available on WHO's website.

Dengue – France, Réunion – 2018

Opening date: 13 March 2018 Latest update: 20 April 2018

Epidemiological summary

Authorities reported 1 388 cases on the island from the beginning of 2018 until 15 April 2018. Of all reported cases, 396 were reported between 9 and 15 April 2018. The main affected areas are on the western part of the island. The most prevalent serotype is DENV-2.

The main vector of infection implicated in the outbreak is *Aedes albopictus.*

On 27 March 2018, authorities decided to raise the level of the emergency plan ORSEC to 3. This plan includes:
- active case finding;
- intensification of vector control;
- reinforcement of communication to the public and healthcare workers;
- mobilisation of additional resources such as the firefighters.

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Sources: ARS

ECDC assessment

The current outbreak is a significant event because the number of cases already exceeds the yearly number of cases reported since 2010. This epidemic could continue and intensify in the coming weeks. Based on previous *Aedes* mosquito-borne outbreaks in the island, further transmission is expected up to the beginning of the austral winter (lasting from July to September) when the temperature will be lower. Control activities are currently in place and include active reinforced vector control, enhanced surveillance, blood safety measures and social mobilisation.

The risk for onward transmission of dengue fever in Europe is linked to importation of virus by viraemic travellers into receptive areas with established and active competent vectors (i.e *Aedes albopictus* in mainland Europe, primarily around the Mediterranean, and *Aedes aegypti* on Madeira island). Environmental conditions in Europe are expected to become more favourable for the growth of mosquito populations in the coming weeks, reaching a high vector abundance in summer and early autumn. Prior to this high activity season, there is a low likelihood of sustained dengue virus autochthonous transmission in continental Europe associated with virus introduction by returning travellers from Réunion or other areas in the world with active DENV transmission.

Actions

ECDC is closely monitoring the situation and produced a rapid risk assessment entitled 'Dengue outbreak in Réunion, France', which was published on 16 April 2018. ECDC reports monthly dengue outbreaks detected through epidemic intelligence in the CDTR.

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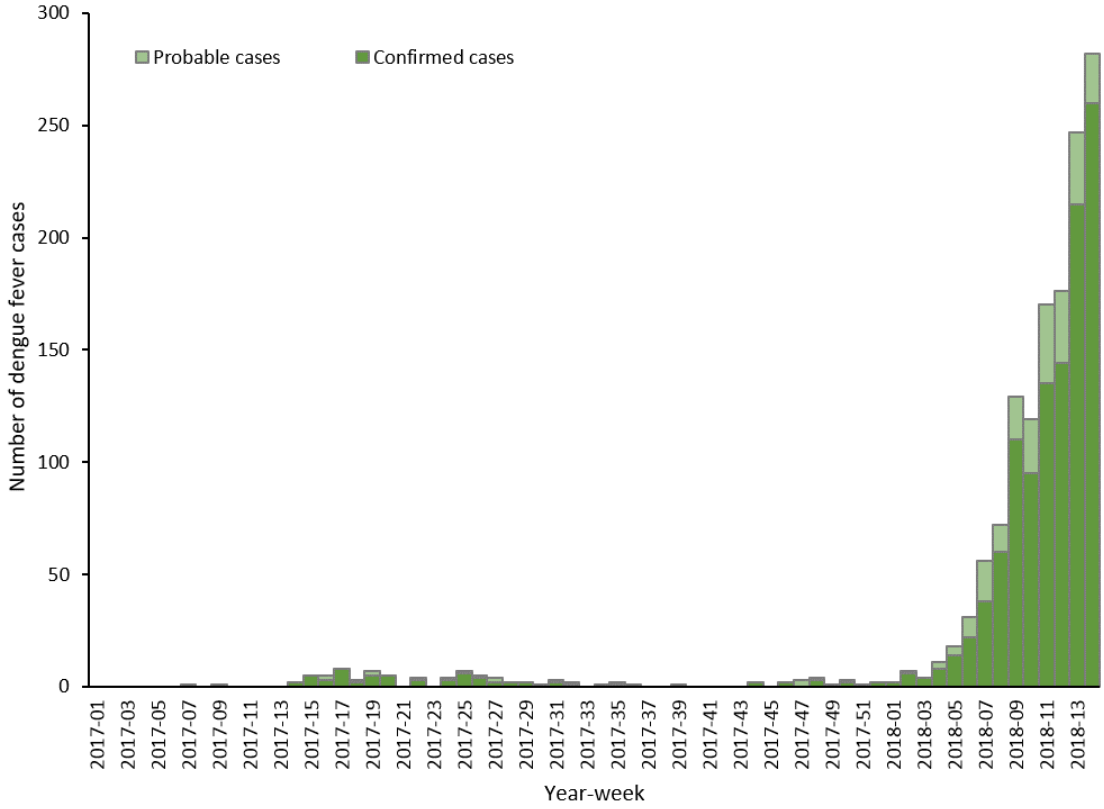
Number of dengue autochthonous cases by week of onset between week 1-2017 and week 14-2018 in Réunion.

Adapted from "Surveillance de la dengue à la Réunion. Point épidémiologique au 16 avril 2018"



Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Epidemiological summary

Between July 2017 and week 15-2018, the Ministry of Health in Brazil reported 1 157 confirmed human cases of yellow fever, including 342 deaths. The cases occurred in Minas Gerais (494), São Paolo (459), Rio de Janeiro (197), Espirito Santo (6) and Distrito Federal (1).

During the same time period, the Ministry of Health reported 711 confirmed epizootics in non-human primates. Of those, 571 were reported in São Paulo state, 99 in Minas Gerais, 36 in Rio de Janeiro State, three in Tocantins, and one each in Mato Grosso and Espirito Santo.

Cases among returning travellers

Since the beginning of 2018, unvaccinated travellers from France (1), the Netherlands (1), Romania (1), Switzerland (1) and

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Germany (three confirmed cases, one of whom was reported by the United Kingdom) have contracted yellow fever in Brazil.

Vaccination recommendations

WHO determined that, in addition to the areas listed in previous updates, the entire state of São Paulo should be considered at risk for yellow fever transmission. Consequently, vaccination against yellow fever is recommended for international travellers visiting the state of São Paulo.

The Ministry of Health, Brazil announced a progressive extension of the standard vaccination recommendations for the whole of Brazil. It will be expanded gradually until 2019.

Sources: MoH | WHO | RKI

ECDC assessment

The detection of confirmed yellow fever cases in the vicinity of major cities such as São Paulo and Rio de Janeiro is of concern. Authorities are conducting vaccination campaigns. In this context, European citizens travelling to areas at risk should seek medical advice prior to travel and receive the yellow fever vaccine at least 10 days before travelling. They should also follow measures to avoid mosquito bites and be aware of yellow fever signs and symptoms.

The probability of local yellow fever transmission in continental Europe following introduction of the virus by a viraemic traveller is currently considered very low as i) *Aedes aegypti* is not present, ii) vector competency of *Aedes albopictus*, which is present in the southern part of Europe, is limited, and, iii) the current weather conditions are not favourable to vector activity. With the arrival of spring in Europe, the risk of local transmission may increase but remain very low.

Actions

ECDC published updates of its rapid risk assessment 'Outbreak of yellow fever in Brazil' on 13 April 2017 and 18 January 2018. On 16 March 2018, ECDC published the third update of the RRA on its website.

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Distribution of confirmed human cases of yellow fever by month, Brazil, January 2017 - 17 April 2018

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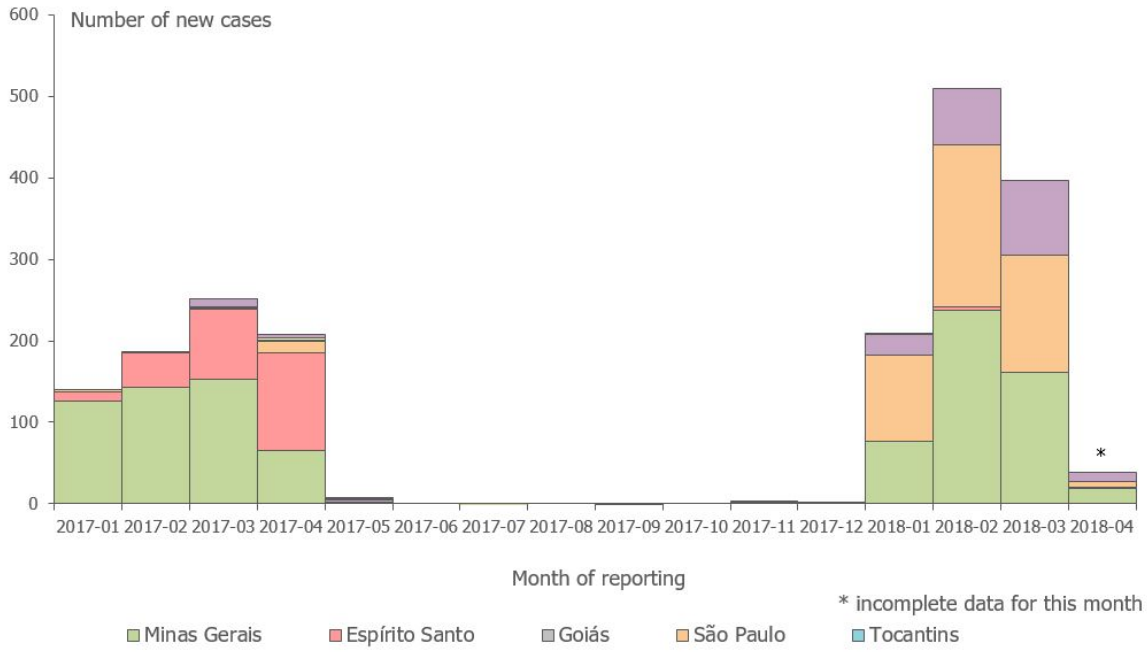

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