



This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Dengue – France, La Réunion – 2018

Opening date: 13 March 2018

Latest update: 16 March 2018

Since the beginning of 2018, La Réunion has seen a sharp increase in dengue cases.

New! Borna Disease Virus 1 – Germany - 2018

Opening date: 13 March 2018

Latest update: 16 March 2018

On 7 March 2018, Germany reported four human cases of acute encephalitis linked to infection with classic Borna disease virus (Borna Disease Virus 1, BoDV-1; species Mammalian 1 Bornavirus). This virus is clearly distinct from VSBV-1, Variegated Squirrel Borna Virus 1; species Mammalian 2 Bornavirus).

New! Measles - Portugal - 2018

Opening date: 16 March 2018

Latest update: 16 March 2018

On 14 March 2018, Portugal reported two measles cases in unvaccinated adults with disease onset in March 2018. One of the cases has an epidemiological link with the outbreak in France. On 15 March, the local health authorities reported an outbreak involving the San Antonio hospital in Porto, where most of the confirmed cases are among healthcare workers.

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

Opening date: 11 October 2017

Latest update: 16 March 2018

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

→ Update of the week

During week 2018-10 (5-11 March 2018), influenza viruses continue to circulate widely in the Region, despite the peak rate for the Region having occurred in week 05/2018, apart from in some eastern European countries that have only recently reported significant rises in influenza virus detections.

Hepatitis A - Denmark - 2017 - 2018

Opening date: 7 February 2018

Latest update: 16 March 2018

Denmark is investigating a foodborne outbreak of hepatitis A. Disease onsets were between 22 December 2017 and 8 February 2018. A vehicle of infection was identified through interviews, case-case investigation and a case-control study. Danish authorities have implemented measures to prevent new infections.

→Update of the week

[Denmark](#) has reported four additional cases.

Non EU Threats

New! Lassa fever - West Africa - 2018

Opening date: 13 March 2018

Latest update: 16 March 2018

[Lassa fever](#) is an acute viral haemorrhagic illness caused by the arenavirus, Lassa virus, which is endemic in West Africa. Guinea, Sierra Leone, Liberia and Nigeria report the majority of Lassa fever cases. Rare cases have been reported among returning travellers with a history of exposure in rural areas or hospitals in countries where Lassa fever is known to be endemic.

New! Malaria ex-South Africa - the United Kingdom - 2018

Opening date: 15 March 2018

Latest update: 16 March 2018

On 9 March 2018, the UK reported through EWRS two cases of falciparum malaria in UK travellers returning from an area considered to be malaria-free by South African authorities.

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 16 March 2018

[Yellow fever](#) is a mosquito-borne viral infection occurring in some tropical areas of Africa and South America. Brazil experienced a major outbreak of yellow fever in 2016–2017. An upsurge of confirmed cases has been reported since December 2017.

→Update of the week

Since the previous CDTR on 9 March 2018 and as of 13 March, [Brazil](#) has reported 75 cases and 40 deaths. The cases occurred in São Paulo (27), Minas Gerais (31) and Rio de Janeiro (17) states. One case reported in March in Espírito Santo has been discarded.

During the same time period, [Brazil](#) has reported confirmed epizootics in non-human primates in São Paulo State (20), Rio de Janeiro State (11) and Minas Gerais (8).

On 15 March 2018, [the United Kingdom](#) reported a case of yellow fever in a returning traveller from Brazil.

On 15 March 2018, [Eurosurveillance](#) published the rapid communication "Increased risk of yellow fever infections among unvaccinated European travellers due to ongoing outbreak in Brazil, July 2017 to March 2018".

II. Detailed reports

New! Dengue – France, La Réunion – 2018

Opening date: 13 March 2018

Latest update: 16 March 2018

Epidemiological summary

In 2018 and as of 7 March, authorities have reported 193 cases on the island. Among the cases, 82 were reported between 26 February and 4 March 2018. Out of the 193 cases, two-thirds are from Saint Paul city.

Since the beginning of 2017 and as of 7 March 2018, authorities have reported 287 locally acquired cases. Among the cases with a documented serotype, 75 are DENV-2, four are DENV-1 and one is DENV-4.

On 27 February 2018, authorities decided to raise the level of the emergency plan [ORSEC](#) to B2. This plan includes:

- Intensification of vector control
- Reinforcement of communication to the public and healthcare workers
- Preparation to mobilise additional resources.

According to IRD (Institute of Research and Development), contrary to the previous years, several areas in the western part of the island are continuing to register dengue transmission at this time of the year.

Sources: [IRD](#) | [ARS](#) | [Sante Publique France](#)

ECDC assessment

The persistence of the dengue transmission during the austral winter is of concern as it could lead to a wider spread and more sustained transmission when the weather conditions will be more favourable for the vector.

Actions

ECDC reports monthly dengue outbreaks detected through epidemic intelligence in the CDTR.

New! Borna Disease Virus 1 – Germany - 2018

Opening date: 13 March 2018

Latest update: 16 March 2018

Epidemiological summary

On 7 March 2018, Germany reported four human cases of acute encephalitis linked to infection with classic Borna disease virus (Borna Disease Virus 1, BoDV-1; species Mammalian 1 Bornavirus). This virus is clearly distinct from VSBV-1, Variegated Squirrel Borna Virus 1; species Mammalian 2 Bornavirus).

The disease occurred in three recipients of donor organs from the same postmortem organ donor. Two of the transplanted patients died later. This is the first time that BoDV-1 has been confirmed in humans.

An additional case of encephalitis due to BoDV-1 was found in Germany but was unrelated to the cases above.

BoDV-1 is known as an animal pathogen present on various continents, causing neurological disease, mainly in horses and sheep (i.e. chronic progressive meningoencephalitis). The highest incidence is in central Europe. Shrew are believed to be the reservoir of the virus. In Germany, this is specifically the bicoloured white-toothed shrew (*Crocidura leucodon*).

Source: [RKI](#) | [ECDC](#)

ECDC assessment

This is the first time that BoDV-1 has been clearly associated with human diseases, causing the death of three people in Germany. The routes of transmission of the virus to humans and among humans remain unknown and further investigation will be needed. The fact that the virus could be transmitted through donation of solid organs raises concerns about the possibility of transmission through other types of SoHO. This should be further assessed.

Actions

ECDC is preparing a rapid risk assessment to be shared with the European Commission and Member States on 23 March 2018.

New! Measles - Portugal - 2018

Opening date: 16 March 2018

Latest update: 16 March 2018

Epidemiological summary

Portugal: On 14 March 2018, Portugal reported two measles cases in unvaccinated adults with disease onset in March 2018. One of the cases has an epidemiological link with the outbreak in France.

As of 15 March 2018, the [authorities](#) had reported 21 confirmed and 30 suspected measles cases in the northern region of Portugal. Among the 21 confirmed cases, 19 are healthcare workers. According to the media the outbreak is ongoing in San Antonio hospital in Porto.

France: From 6 November 2017 to 12 March 2018, France reported 913 cases, including one death. Half of the cases have been notified in the Nouvelle Aquitaine region, in the south western part of France, but all regions have declared some cases in recent weeks.

ECDC links: [ECDC Monthly measles and rubella monitoring reports](#)

Sources: [SANTE PUBLIQUE FRANCE](#) | [Portugal DGS](#) | [Media](#)

ECDC assessment

According to the Portuguese investigation, the outbreaks in Porto city, Portugal and in the Nouvelle Aquitaine region of France are epidemiologically linked through an imported case from France to Portugal.

This outbreak underlines the need to improve vaccination and sensitisation among the general population and healthcare workers.

Actions

ECDC is preparing a rapid risk assessment.

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

Opening date: 11 October 2017

Latest update: 16 March 2018

Epidemiological summary

Week 2018-10 (5 March - 11 March 2018), Influenza viruses continue to circulate widely in the Region, despite the peak rate for the Region having occurred in week 05/2018, apart from in some eastern European countries that have only recently reported significant rises in influenza virus detections.

[Countries experiencing a cold spell](#) may suffer more severe seasons.

Similar to the previous week, about half of the individuals sampled from primary healthcare settings tested positive for influenza virus.

Both influenza virus types A and B were co-circulating with a higher proportion of type B viruses and with B/Yamagata continuing to be the dominant lineage.

The majority of severe cases reported this season have been due to influenza type B and occur in persons aged over 15 years. Of the adults admitted to ICU, half were infected by influenza type A viruses.

Mortality from all causes based on data pooled from 17 EU countries and regions that reported to [euroMOMO](#) has increased significantly over the past months, notably in the elderly. While mortality remains elevated in some countries, it is declining in others.

Source: [Flu News Europe](#)

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, especially following 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 website](#). Recommendations on the composition of the 2017-2018 influenza virus vaccine are available on [WHO website](#).

Hepatitis A - Denmark - 2017 - 2018

Opening date: 7 February 2018

Latest update: 16 March 2018

Epidemiological summary

On 1 February 2018, Denmark reported through EWRS and EPIS FWD an ongoing investigation of an outbreak of domestically acquired hepatitis A infections. As of 14 March 2018, 27 cases with disease onset between 22 December 2017 and 8 February 2018 have been associated with this outbreak across the country. Among the cases, 15 were women and 12 men, between 15 and 85 years of age. The majority of the cases were hospitalised. Viral sequences from outbreak patients were typed as HAV IIIA, and they fall into five closely related groups. Based on results of interviews, case-case investigations and a case-control study, a possible vehicle of infection has been identified ([Danish news item](#)).

A public warning has been issued in [Norway](#) after a case of hepatitis A, possibly related to the same outbreak, was reported by the Norwegian health authorities.

TESSy background data:

In the period 2012-2016, between 12 500 and 14 100 confirmed cases of hepatitis A were reported annually by 30 EU/EEA countries. Romania accounted for 35% of the cases, and Bulgaria reported an additional 15%. Cases were reported in all age groups, with a higher proportion in children 5-14-years of age (36%), followed by 25-44-year-olds (21%). Male cases were more frequent than female cases, particularly in the age groups 15-24 and 25-44 years (58%). The majority of infections (89%) were reported as domestically acquired. Among travel-associated cases, Egypt, Morocco and Turkey were the most common travel destinations.

Sources: [Statens Serum Institut](#) | [RASFF](#) | [ECDC factsheet](#) | [Norwegian Public Health Institute](#) | [media](#) | [Ministry of Environment and Food Denmark](#) | [distributor](#) | [SSI](#)

ECDC assessment

Denmark reported an outbreak of hepatitis A. Interviews, case-case investigations and a case-control study pointed at a common vehicle of infection. Actions taken by the competent authorities have significantly reduced the risk of human infections ([Danish Epi-News](#)). The latest outbreak case was reported with onset of symptoms on 8 February 2018. However, due to the long incubation period (15-50 days) and the long shelf-life of the potential vehicle of infection, new cases may still be detected.

Actions

ECDC is monitoring this event through EPIS FWD.

New! Lassa fever - West Africa - 2018

Opening date: 13 March 2018

Latest update: 16 March 2018

Epidemiological summary

Since 2018 and as of 11 March, [Nigeria](#) has reported 398 Lassa fever cases. Of these cases, 365 are confirmed, nine are probable and laboratory results are pending for the remaining cases. Among the 398 cases, 90 have died (CFR=24%). Nineteen states reported at least one confirmed case. Among the confirmed cases, 84% have been reported from Edo (43%), Ondo (25%) and Ebonyi (16%) states. Sixteen cases, including four deaths have been reported in healthcare workers.

Since 8 January 2018 and as of 5 March, [Benin](#) has reported 24 cases of Lassa fever, including five confirmed cases. Of the confirmed cases, three had a travel history to Nigeria. During the same period, nine deaths have been reported.

On 1 March 2018, [Ghana](#) reported one fatal case of Lassa fever in a 26-year-old man.

On 7 February 2018, [Guinea](#) reported one confirmed case of Lassa fever. The case is a woman who was hospitalised and died in Liberia on 11 January 2018.

Since 2018 and as of 5 March, [Liberia](#) has reported 27 cases of Lassa fever, including 12 deaths. Of these cases, seven have been confirmed.

On 23 January 2018, the US embassy in [Togo](#) has issued an alert due to confirmed Lassa fever cases in the country.

Background information: Lassa fever is not a reportable disease at EU level. However, between 2006 and 2018, ECDC registered six imported Lassa fever cases in EU countries:

- 2006: one case from Sierra Leone reported in Germany
- 2009: two cases from Nigeria reported in the UK
- 2010: one case from Sierra Leone reported in Germany
- 2011: one case from West Africa reported in Sweden
- 2016: one case from Togo reported in Germany

ECDC links: [RRA on Lassa fever in Nigeria, Benin, Togo, Germany and USA](#).

ECDC assessment

Lassa fever is endemic in West Africa and outbreaks occur annually during the dry season. In the EU only a few cases with a recent travel history to endemic areas have been reported in recent years. Travellers to West Africa should be informed of the risk of exposure to Lassa fever virus, particularly in areas currently experiencing outbreaks. The risk is higher in rural areas, where living conditions are basic. Travellers should avoid consumption of foods and drink contaminated by rodent droppings, exposure to rodents or to patients presenting with haemorrhagic fever. Travellers to these regions who will be providing care should be aware of the risk of exposure and should apply appropriate personal protective measures.

Actions

ECDC is monitoring this event through epidemic intelligence activities.

New! Malaria ex-South Africa - the United Kingdom - 2018

Opening date: 15 March 2018

Latest update: 16 March 2018

Epidemiological summary

On 9 March 2018, the UK reported through EWRS two cases of falciparum malaria in UK travellers returning from South Africa. The cases were confirmed by the PHE Malaria Reference Laboratory. According to the South African authorities the area the cases visited are considered to be free of malaria.

The cases are two children from the same family who stayed at Nsele Private Game Reserve near Vaalwater in the Waterberg region in Limpopo province. They spent one day at the Ants Hill/Nest Reserve, also near Vaalwater in Limpopo province. The family flew in and out of Johannesburg and did not travel anywhere else.

ECDC assessment

According to WHO, South Africa is a country with areas affected by malaria. Malaria risk predominantly due to *P. falciparum* exists throughout the year in the low-altitude areas of Mpumalanga province, Limpopo province and the north-eastern area of KwaZulu-Natal province. Risk is highest from October to May inclusive. Additionally, in October 2017 the South African National Institute for Communicable Diseases reported an increased number of malaria cases in some areas of Limpopo province, including some cases in farms along the Lephalala River and in Waterberg.

Travellers planning to visit South Africa should consult their travel health clinic prior to departure. European citizens living in South Africa should take preventive measures against mosquito bites in the malaria transmission areas, and seek medical attention for rapidly worsening 'flu-like' illnesses (fever, chills, headache, muscle and joint pains). For more information on malaria, see [ECDC factsheet](#).

Sources: [WHO](#), [South African national institute for communicable diseases](#)

Actions

ECDC will be monitoring this threat through epidemic intelligence and will report again only if there are relevant epidemiological updates.

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 16 March 2018

Epidemiological summary

Between July 2017 and week 2018-10, the Ministry of Health in Brazil reported 920 confirmed human cases of yellow fever, including 300 deaths. The cases occurred in São Paulo (376), Minas Gerais (415), Rio de Janeiro (123), Espírito Santo (5) and Distrito Federal (1).

During the same time period, the Ministry of Health reported 617 confirmed epizootics in non-human primates. Of those, 502 were reported in São Paulo State, 81 in Minas Gerais, 30 in Rio de Janeiro State, two in Tocantins and one each in Mato Grosso and Espírito Santo.

On 15 March 2018, [the United Kingdom](#) reported a case of yellow fever in a returning traveller from Brazil.

On 28 February 2018, the GeoSentinel network notified two yellow fever cases in unvaccinated travellers returning from Brazil. The first case is a Romanian tourist who visited Ilha Grande and was admitted to hospital in Bucharest with liver and renal failure, rash, myalgia, and fever. The case has been serologically confirmed. The second case is a 44-year-old male from Switzerland with a confirmed yellow fever diagnosis. The case was probably infected in Ilha Grande, and his condition is critical.

On 14 February 2018, the GeoSentinel network notified one case of yellow fever in a French traveller returning from Brazil. The case is an unvaccinated 42-year-old woman. The patient was hospitalised in a local clinic in Brazil, and laboratory results were positive for yellow fever. The case was probably infected when visiting the Inhotim Botanical Garden in Brumadinho, Minas Gerais.

On 15 January 2018, the Netherlands posted an EWRS report of a confirmed yellow fever case in an unvaccinated 46-year-old male returning from Brazil. The man visited Brazil between 19 December 2017 and 8 January 2018. He stayed in the villages of Mairiporã and Atibaia, about 50 kilometres north of São Paulo; he also visited other areas considered at risk of yellow fever transmission.

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

Sources: [MoH](#) | [ProMED](#) | [WHO](#)

ECDC assessment

The detection of yellow fever confirmed cases around 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 travel and receive the yellow fever vaccine at least 10 days prior to travelling. They should also follow measures to avoid mosquito bites and be aware of yellow fever signs and symptoms.

In Europe, *Aedes aegypti*, the primary vector of yellow fever in urban settings, has been established in Madeira, Portugal, since

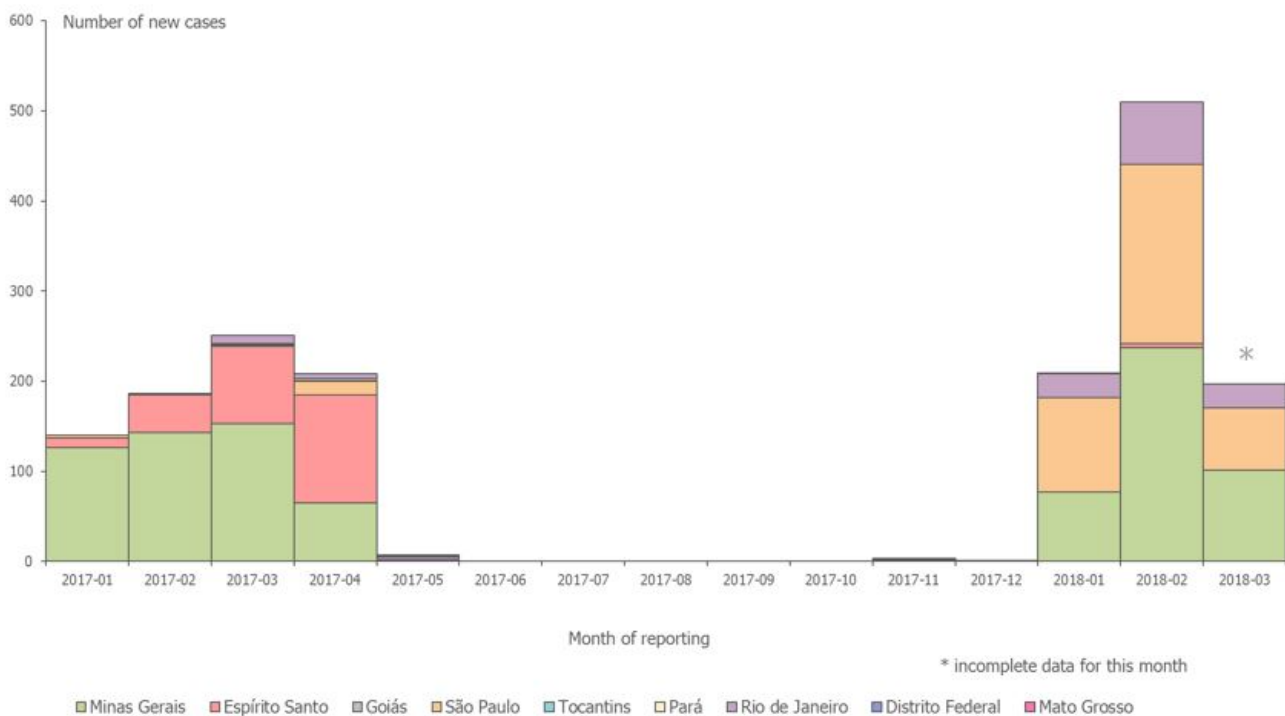
2005. Presence of *Aedes aegypti* was first reported in 2017 in Fuerteventura, Canary Islands and Spain. The probability of local yellow fever transmission in the EU/EEA following introduction by a viraemic traveller is currently considered very low as weather conditions during the winter season in continental EU/EEA are not favourable to vector activity.

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 an update of the RRA on its [website](#).

Distribution of confirmed human cases of yellow fever by month, Brazil, January 2017 - 13 March 2018

ECDC



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