



COMMUNICABLE DISEASE THREATS REPORT

CDTR

Week 31, 29 July-4 August 2018

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary EU Threats

Monitoring environmental suitability of Vibrio growth in the Baltic Sea – Summer 2018

Opening date: 24 May 2018 Latest update: 3 August 2018

Elevated sea surface temperatures (SST) in marine environments with low salt content offer optimal environmental growth conditions for certain *Vibrio* species. These conditions can be found during the summer months in estuaries and enclosed water bodies with moderate salinity. ECDC has developed a model to map the environmental suitability for *Vibrio* growth in the Baltic Sea (ECDC E3 Geoportal).

→Update of the week

As of 3 August 2018, environmental suitability for *Vibrio* growth in the Baltic Sea for the next five days is considered to be medium to very high in certain coastal areas of Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, Sweden and Russia.

Norway reported four cases of *Vibrio vulnificus* infection in July 2018. All four are individuals over the age of 65 years who had an injury or were injured while bathing in the Oslo Fjord. All cases were contracted between 17 July and 29 July 2018 and hospitalised with serious infections.

Dengue – France, Réunion – 2018

Opening date: 13 March 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

Between 16 and 22 July 2018, Réunion detected 59 cases of dengue fever.

West Nile virus - Multistate (Europe) - Monitoring season 2018

Opening date: 30 May 2018 Latest update: 3 August 2018

During the West Nile virus transmission season from June to November, ECDC monitors the occurrence of West Nile fever cases in EU/EEA Member States and EU neighbouring countries and publishes an epidemiological update aimed at informing blood safety authorities of areas where there is ongoing virus transmission.

→Update of the week

Between 27 July and 2 August 2018, 56 human cases of West Nile fever were reported in the EU. Italy reported 27 cases (including two deaths), Greece 21 cases, Hungary five cases and Romania two cases. In EU neighbouring countries, 29 cases (including one death) were reported, all by Serbia. All human cases were reported from regions that have been affected during previous transmission seasons.

One outbreak among equids was reported in Hungary in the same week.

Enterovirus detections - Europe - 2018

Opening date: 19 July 2018 Latest update: 3 August 2018

Since the beginning of the year, EU/EEA public health institutes have observed an upsurge in the number of positive enterovirus detections, especially Echovirus 30 (E30) cases. Norway and the Netherlands have published reports from national public health institutes on increased E30 detections.

→Update of the week

Based on reports by nine EU/EEA countries, 259 E30 detections were reported in 2018. The UK reported an increase of E30 detections in February 2018 and Denmark, the Netherlands, Norway and Sweden in June 2018.

Non EU Threats

New! Ebola virus disease - Democratic Republic of the Congo (North Kivu) - 2018

Opening date: 1 August 2018 Latest update: 3 August 2018

On 1 August 2018, the Ministry of Health of the Democratic Republic of the Congo (DRC) reported four confirmed cases of Ebola virus disease (EVD) in Mangina, North Kivu Province in the northeast of the country, close to the border with Uganda. This is the 10th outbreak of Ebola virus disease in the country over the past four decades, with the most recent one occurring between May and June 2018 in Bikoro health zone, Équateur Province.

→Update of the week

On 2 August 2018, the Ministry of Health of the Democratic Republic of the Congo reported all four samples tested positive for *Zaire ebolavirus* species. A group of 12 experts from the DRC and international partner agencies has arrived in the city of Beni, where outbreak coordination headquarters will set up. The investigation group has set up mobile laboratories in the area affected by the outbreak.

Poliomyelitis – Multistate (World) – Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 3 August 2018

Global public health efforts are ongoing to eradicate polio 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 WHO on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus in 2014. On 10 May 2018, WHO agreed that the spread of poliovirus remains a PHEIC and extended the temporary recommendations for an additional three months. In June 2002, the WHO European Region was officially declared polio-free.

→Update of the week

Since the CDTR published on 6 July 2018, Afghanistan has reported two new cases of wild poliovirus type 1 and two other countries have detected circulating vaccine-derived polio viruses type 2 (cVDPV2): Nigeria and Somalia (one case each).

II. Detailed reports

Monitoring environmental suitability of Vibrio growth in the Baltic Sea – Summer 2018

Opening date: 24 May 2018 Latest update: 3 August 2018

Epidemiological summary

As of 3 August 2018, environmental suitability for *Vibrio* growth in the Baltic Sea for the next five days is considered to be medium to very high in certain coastal areas of Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, Sweden and Russia.

SSTs in the Baltic Sea are available here. A *Vibrio* suitability tool is available on the E3 Geoportal. This model has been calibrated to the Baltic region in northern Europe and may not apply to other settings prior to validation. For the Baltic Sea, the following model parameters should be used in the map: number of colour bands=20; scale method=linear; legend range=minimum value 0, maximum value 28.

ECDC assessment

Elevated SSTs in marine environments with low salt content offer ideal environmental growth conditions for certain *Vibrio* species. These conditions can be found during the summer months in estuaries and enclosed water bodies with moderate salinity. Open ocean environments do not offer appropriate growth conditions for these bacteria due to high salt content, low temperatures and limited nutrient content. These *Vibrio* species can cause vibriosis infections, particularly *V. parahaemolyticus*, *V. vulnificus* and non-toxigenic *V. cholera*.

Vibriosis in humans caused by these species in the Baltic region has occurred in the past during hot summer months, particularly when SSTs were elevated (above 20 degrees Celsius). The most common clinical manifestations are gastroenteritis with nausea, vomiting and diarrhoea, wound infections when a cut has been exposed, infected wounds or abrasions due to contaminated seawater, primary septicaemia and otitis externa. Risk factors for illness apart from contact with natural bodies of waters, especially marine or estuarine waters, also include consumption of shellfish, particularly raw oysters.

Countries reporting Vibrio cases

Norway reported four cases of Vibrio vulnificus.

Actions

ECDC is monitoring this threat on a weekly basis during the summer of 2018.

Dengue - France, Réunion - 2018

Opening date: 13 March 2018

Epidemiological summary

Since the beginning of 2018 and as of 22 July, there have been 6 340 autochthonous cases of dengue in Réunion. The main affected areas are on the western part of the island. The circulating serotype is DENV-2. The main vector of infection implicated in the outbreak is *Aedes albopictus*.

On 10 July 2018, authorities decided to raise the level of the <u>ORSEC</u> emergency plan to 4. Control activities are currently in place and include active reinforced vector control, enhanced surveillance, blood safety measures and social mobilisation.

Sources: ARS

ECDC assessment

The probability of onward transmission of dengue fever in Europe is associated with potential virus importation by viraemic travellers into receptive areas, defined as a location with established and active competent vectors. *Aedes albopictus* is established in the southern part of the EU and environmental conditions are currently favourable for vector activity. In addition, vector abundance is currently considered sufficient to permit autochthonous transmission of dengue virus and potentially generate local outbreaks.

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For a more thorough assessment, refer to the <u>update</u> of the rapid risk assessment 'Dengue outbreak in Réunion, France', published on 6 July 2018.

Actions

ECDC is monitoring this outbreak through epidemic intelligence and weekly reports.

West Nile virus - Multistate (Europe) - Monitoring season 2018

Opening date: 30 May 2018 Latest update: 3 August 2018

Epidemiological summary

Between 27 July and 2 August 2018, 56 human cases of West Nile fever were reported in the EU. Italy reported 27 cases (including two deaths), Greece 21 cases, Hungary five cases and Romania two cases. In the EU neighbouring countries, 29 cases (including one death) were reported, all by Serbia. All human cases were reported from regions that have been affected during previous transmission seasons.

One outbreak among equids was reported in Hungary in the same week.

Since the beginning of the 2018 transmission season, as of 2 August 2018, 111 human cases have been reported in EU/EEA Member States. Italy reported 51 cases (including two deaths), Greece 43 cases, Hungary 10 cases and Romania seven cases. Seventy human cases (including four deaths) have been reported in EU neighbouring countries, all by Serbia.

During the current transmission season, outbreaks among equids have been reported by Hungary (3), Greece (1) and Italy (1).

ECDC link: ECDC West Nile fever | ECDC atlas

Sources: TESSy | ADNS

ECDC assessment

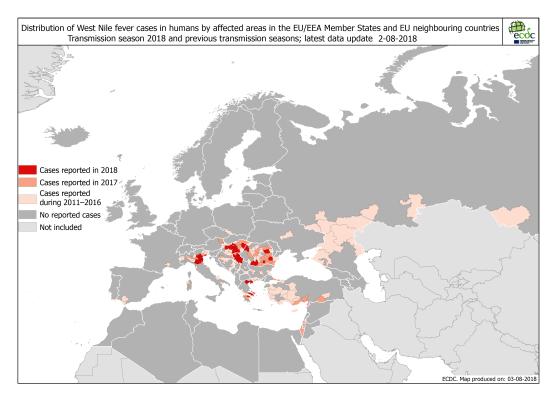
According to currently available information, the 2018 transmission season started earlier than usual and higher case numbers have been reported compared with the same period in the previous years. All human cases reported during the current transmission season were reported in previously affected countries. In accordance with Commission Directive 2014/110/EU, prospective blood donors should defer for 28 days after leaving a risk area for locally acquired West Nile virus unless the results of an individual nucleic acid test are negative.

Actions

During the transmission season, ECDC publishes West Nile fever maps together with a summary on Fridays.

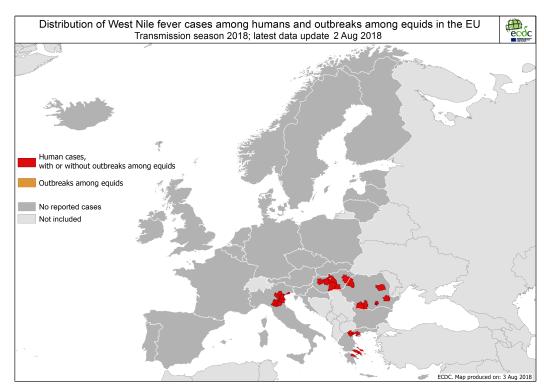
Distribution of human West Nile fever cases by affected areas as of 2 August

ECDC



Distribution of West Nile fever cases among humans and outbreaks among equids in the EU as of 2 August

TESSy and ADNS



Enterovirus detections - Europe - 2018

Opening date: 19 July 2018 Latest update: 3 August 2018

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Epidemiological summary

On 9 July 2018, Norway reported an increase of infections in the central nervous system. The most frequent cause of infection was echovirus 30 (E30). Most of the cases were reported in Eastern Norway, but there were also several cases from the Bergen area and elsewhere in the country. To date, most of the cases are adults between the ages of 20-40 years, but young children have also been affected. E30 typically occurs in epidemics with approximately five-year intervals. The last seasons with high incidence of this virus in Norway were in 2000, 2006, 2007, 2012 and 2017.

Other EU/EEA countries have also notified the upsurge in the number of positive enterovirus detections.

ECDC has compared the available E30 reports from nine Member States in response to a data call through the Epidemic Intelligence Information System – Vaccine Preventable Diseases (EPIS-VPD) platform to earlier collected country-specific E30 detection data from 2015 to 2017. Based on the available preliminary data, 259 E30 detections from Denmark (38), Latvia (1), the Netherlands (85), Norway (37), Sweden (21) and the United Kingdom (England and Scotland, 77) were reported since the beginning of 2018. An increase was observed in reports from the United Kingdom in February and in Denmark, the Netherlands, Norway and Sweden in June 2018, with the Netherlands reporting higher numbers of E30 infections than in previous years. Denmark reported that 23 out of their 38 E30 detections (61%) were from cerebrospinal fluid specimens, which can be used as a proxy for severe infection. In total, 149 out of 167 patients (89%) were reported with central nervous system symptoms from the Netherlands, Norway and the United Kingdom. Of those, 27 were reported with meningitis, 26 encephalitis/meningitis and one patient with sepsis, fever, tachycardia and groaning respiration. For others the specific symptoms were unknown. Until now, the epidemic has mostly affected infants 0-3 months old (22%) and 26-45-year-olds (38%). With the available preliminary data, the male-to-female ratio was 1.27.

In France, an increase of enteroviral meningitis has also been observed in 2018. As of 8 June 2018, 293 cases of enterovirus have been detected according to national authorities, of which 27% are E30.

E30 is a non-polio enterovirus that causes aseptic meningitis outbreaks worldwide and such outbreaks have been detected earlier in Europe as well and occur usually with five to six-year intervals. The non-polio enteroviruses transmit usually through faecal-oral or oral-oral routes. Unfortunately, specific prevention or control measures are not available for E30 and symptomatic treatment should be applied. High hygienic practices such as frequent hand washing, avoidance of shared utensils, bottles or glasses and disinfection of contaminated surfaces (e.g. with diluted bleach solution) are recommended to prevent the spread of E30 from person-to-person.

Source: France | The Netherlands | Norway

ECDC assessment

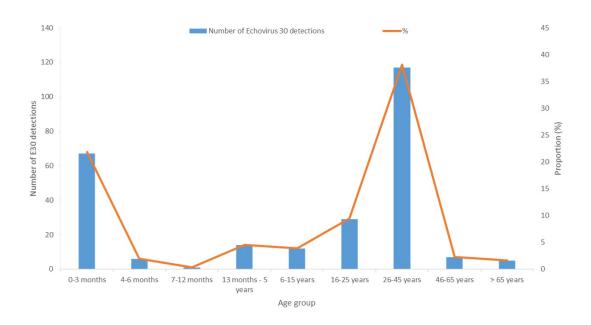
In affected countries, further transmission of E30 cannot be excluded and therefore all EU/EEA Member States should remain vigilant for an E30 epidemic. At the moment, the exact transmission route of current infections is unknown. Where relevant, national public health authorities should consider informing clinicians of increased numbers of aseptic meningitis related to E30 infection and of the importance of collecting cerebrospinal fluid (CSF) specimens even if white blood cell count is normal, as well as adhering to the European Non-Polio Enterovirus Network's (ENPEN) recommendations on detection of non-polio enteroviruses in laboratories.

Actions

ECDC has contacted EU/EEA countries to collect information on enterovirus and E30 detections through EPIS-VPD. The summary of the data available will be published in an epidemiological update on 3 August 2018.

Distribution of Echovirus 30 detections by age group, reported by Denmark, the Netherlands, Norway, Sweden and the United Kingdom, 2018

ECDC



New! Ebola virus disease - Democratic Republic of the Congo (North Kivu) - 2018

Opening date: 1 August 2018 Latest update: 3 August 2018

Epidemiological summary

On 28 July 2018, the provincial health division of North Kivu in the DRC was notified of 25 undiagnosed cases of fever in the Mangina health area in the northeast of the country, close to the border with Uganda. The cases presented symptoms of diarrhoea, bloody diarrhoea, vomiting, nose bleeding, hematemesis and anaemia.

Samples were sent to the National Institute of Biomedical Research in Kinshasa. Four of the samples tested positive for *Zaire ebolavirus* species on 2 August 2018.

As of 1 August 2018 and according to WHO, there have been 26 cases and 20 community deaths reported since 11 May. There are four affected areas: Mangina, Mangodumu, Linzo and Bingo, all in North Kivu Province.

Source: Ministry of Health DRC | WHO

ECDC assessment

Due to the security situation and humanitarian crisis in North Kivu Province, the implementation of outbreak control measures may be challenging. The risk of introduction of the virus via an infected traveller to the EU/EEA is considered negligible at this stage.

According to WHO, the large number of internally displaced people and the influx of Congolese refugees in neighbouring countries (Uganda, Burundi and Tanzania) pose a risk factor for transmission of the virus at national and regional level.

ECDC published a <u>rapid risk assessment</u> on 25 May 2018 regarding the ninth outbreak of Ebola virus disease in Équateur Province, DRC.

Actions

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ECDC will monitor this threat through epidemic intelligence.

Poliomyelitis - Multistate (World) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 3 August 2018

Epidemiological summary

Since the beginning of 2018 and as of 24 July, two countries have recorded cases of wild poliovirus type 1 (WPV1): Afghanistan (10) and Pakistan (3), an increase of five cases compared with the same period in 2017.

Since the beginning 2018 and as of 24 July, four countries have detected circulating vaccine-derived poliovirus type 2 (cVDPV2): Nigeria (2), the Democratic Republic of the Congo (7), Somalia (5) and Papua New Guinea (1), compared with 33 cases in the same period in 2017.

ECDC links: ECDC poliomyelitis web page | Information to travellers to polio-infected countries

Sources: WHO IHR Emergency Committee | Polio eradication: weekly update

ECDC assessment

Europe has remained polio-free since 2002. Inactivated polio vaccines (IPV) are used in all EU/EEA countries. Vaccination coverage levels in the EU/EEA can be considered satisfactory as a whole (>90% for three doses). The risk of reintroduction of the virus in Europe exists as long as there are non-vaccinated or under-vaccinated groups in European countries and poliomyelitis is not eradicated.

ECDC link: ECDC risk assessment

Actions

ECDC provides updates on the polio situation on a monthly basis. 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 in the EU.

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