COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 30, 22-28 July 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: 27 July 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 27 July 2018, the environmental suitability for *Vibrio* growth in the Baltic Sea for the next five days is considered to be medium to high in certain coastal areas of Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, Sweden and Russia.

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

Opening date: 30 May 2018 Latest update: 27 July 2018

During the West Nile virus transmission season (June to November), ECDC monitors the occurrence of West Nile fever cases in EU/EEA Member States and neighbouring countries on a weekly basis in order to inform blood safety authorities of areas where there is ongoing virus transmission. During the 2017 transmission season, 288 human cases were reported in the EU and neighbouring countries. No cases were reported from EEA countries. EU Member States reported 127 equine cases.

➔Update of the week

Between 20 and 26 July 2018, 37 cases of human West Nile fever were reported in the EU by Italy (20), Greece (10), Hungary (4) and Romania (3). In EU neighbouring countries, 12 cases were reported by Serbia, including three deaths.

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.

Dengue – France, Réunion – 2018

Opening date: 13 March 2018 Latest update: 27 July 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 9 and 15 July 2018, Réunion reported 87 cases of dengue fever.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

Salmonella Agona – the UK – 2018

Opening date: 30 May 2018 Latest update: 27 July 2018

A multi-country outbreak of *Salmonella enterica* subspecies *enterica* serovar Agona (*S.* Agona) is under investigation in the EU, with cases retrospectively identified back to 2014. Overall, 147 outbreak cases have been reported by five EU countries. The outbreak was detected in the United Kingdom through whole genome sequencing (WGS). Epidemiological and microbiological investigations are ongoing.

➔Update of the week

Since the last report on 1 June 2018, there have been 14 additional cases, all reported from the United Kingdom.

Non EU Threats

Ebola virus disease - Democratic Republic of the Congo - 2018

Opening date: 8 May 2018 Latest update: 27 July 2018

On 8 May 2018, the Ministry of Health of the Democratic Republic of the Congo (DRC) declared an outbreak of Ebola virus disease (EVD) in Bikoro Health Zone, Équateur Province. This is the ninth outbreak of Ebola virus disease in the country over the past four decades, with the most recent one occurring in May 2017.

➔Update of the week

Since the last CDTR was published on 20 July 2018, authorities have reported one additional probable case. As of 24 July 2018, the Ministry of Health of the DRC has reported 54 cases, including 33 deaths. Of these, 38 cases were confirmed and 16 are probable. The last confirmed case had onset of symptoms on 2 June 2018.

On 24 July 2018, the Ministry of Health in the DRC declared the end of the EVD outbreak in Équateur Province.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

II. Detailed reports

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

Opening date: 24 May 2018 Latest update: 27 July 2018

Epidemiological summary

As of 27 July 2018, the environmental suitability for *Vibrio* growth in the Baltic Sea for the next five days is considered to be medium to 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.

Actions

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

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

Opening date: 30 May 2018 Latest update: 27 July 2018

Epidemiological summary

Between 20 and 26 July 2018, 37 cases of human West Nile fever were reported in the EU by Italy (20), Greece (10), Hungary (4) and Romania (3). In EU neighbouring countries, 12 cases were reported by Serbia, including three deaths.

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 26 July 2018, 56 human cases have been reported in EU/EEA Member States by Greece (22), Italy (24), Romania (5) and Hungary (5). Forty-one human cases have been reported in EU neighbouring countries, all by Serbia, including three deaths.

During the current transmission season, outbreaks among equids have been reported by Hungary (2), 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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

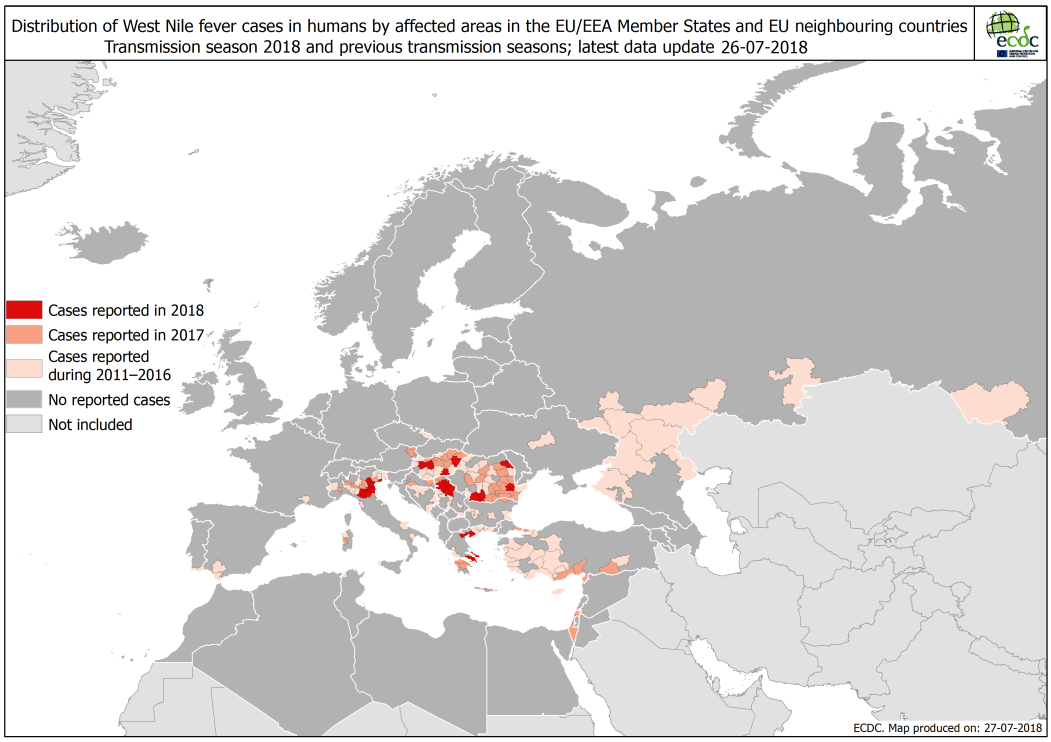
transmission season were reported in previously affected countries. In accordance with Commission Directive 2014/110/EU, prospective blood donors should defer for 28 days after leaving a risk area for locally acquired West Nile virus unless the results of an individual nucleic acid test are negative.

Actions

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

Distribution of human West Nile fever cases by affected areas as of 26 July

ECDC

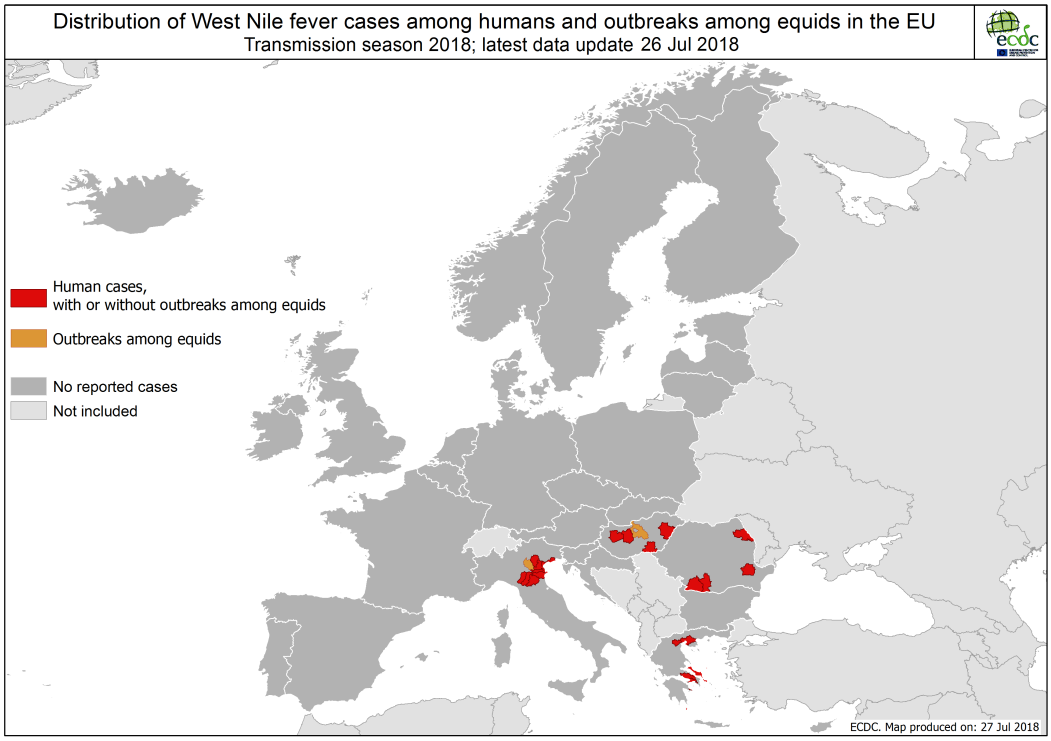


European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

Distribution of West Nile fever cases among humans and outbreaks among equids in the EU as of 26 July

TESSy and ADNS



Dengue – France, Réunion – 2018

Opening date: 13 March 2018 Latest update: 27 July 2018

Epidemiological summary

In 2018, as of 15 July 2018, public health authorities reported 6 256 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 ORSEC 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.

For a more thorough assessment, refer to the update 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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

Salmonella Agona – the UK – 2018

Opening date: 30 May 2018 Latest update: 27 July 2018

Epidemiological summary

Overall, 147 outbreak cases have been reported by five EU countries: 122 cases since 1 January 2017 and 25 historical cases between 2014 and 2016. The United Kingdom reports the most outbreak cases (129), with Finland (15), Denmark, Germany and Ireland (one case each) reporting the remaining cases. The Irish case was probably infected while visiting the United Kingdom.

The outbreak was first detected in the United Kingdom using WGS. All *S.* Agona isolates from the five countries are genetically close, with a maximum difference of 2 alleles from any other single isolate using the ECDC core genome multilocus sequence typing (cgMLST) pipeline. Cases peaked in April in 2017 and 2018. The close genomic relationship and distinct seasonal spring peaks suggest that cases are part of an intermittent common source outbreak.

Seventeen *S.* Agona food isolates from 2018 detected in the United Kingdom were found to be closely genetically related to the human strains. The food isolates were from cucumbers sampled during processing before and after washing (11 isolates) and ready-to-eat food products containing cucumbers (six isolates). The contaminated food isolates were sampled in the United Kingdom at four plants owned by Company A and a Company C plant.

ECDC assessment

Based on information available, microbiological evidence suggests ready-to-eat products containing cucumbers as a possible vehicle of infection, but it has not been possible so far to identify the specific point in the production chain where the contamination took place. Until the source of infection and specific point of contamination have been identified and controlled, new outbreak cases may occur, with a higher likelihood of a re-emergence of the outbreak strains in early 2019, as has happened in previous years.

For a more thorough assessment, refer to the joint rapid outbreak assessment produced by ECDC and the European Food Safety Authority (EFSA) published on 26 July 2018.

Actions

ECDC has established an EU outbreak case definition and collected case-based information from the affected countries on a line list through the EPIS-FWD platform. All WGS data was collected at ECDC for centralised analysis. The joint rapid outbreak assessment by ECDC and EFSA provides response options for national health authorities.

Ebola virus disease - Democratic Republic of the Congo - 2018

Opening date: 8 May 2018 Latest update: 27 July 2018

Epidemiological summary

Since the last CDTR published on 20 July 2018, authorities have reported one additional probable case. As of 24 July 2018, the Ministry of Health of the DRC has reported 54 cases, including 33 deaths. Of these, 38 cases were confirmed and 16 are probable. The last confirmed case had onset of symptoms on 2 June 2018.

Response activities
Under the coordination of the DRC Ministry of Health, an EVD outbreak response was implemented, with support from UN agencies and international partners. The European Union Civil Protection Mechanism was activated, following a request for assistance received from WHO. The main strategic activities for the prevention and control of this EVD outbreak included coordination of the response, enhanced epidemiological surveillance for early case detection and contact tracing, increased laboratory capacity, appropriate case management, reinforcement of infection prevention and control, ensuring safe and dignified burials, social mobilisation and community engagement.

Source: DRC MOH | WHO press release

ECDC assessment

The probability of exposure of EU/EEA citizens living in or travelling through areas of the DRC not known to have outbreak cases is very low in general as transmission of the Ebola virus occurs in the context of direct contact with sick or dead persons or animals infected with EVD.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

For a more thorough assessment, refer to ECDC's rapid risk assessment published on 25 May 2018.

Actions

ECDC will close this threat.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 169 73 Solna, Sweden
Visiting address: Gustav III:s Boulevard 40, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides