



COMMUNICABLE DISEASE THREATS REPORT

CDTR Week 27, 2-8 July 2017

All users

This weekly bulletin provides updates on threats monitored by ECDC.

Monitoring environmental suitability of Vibrio growth in the Baltic Sea - summer 2017

Vibrio species are ubiquitous in aquatic ecosystems. An elevated sea temperature in marine environments with low salt content are favourable environmental conditions for growth of *Vibrio* species. Of those species, some can cause vibriosis, particularly *V. parahaemolyticus*, *V. vulnificus* and non-toxigenic *V. cholerae* (complete overview in US CDC webpage about vibriosis). These conditions can develop during the summer months outside inter-tropical climates in estuaries and enclosed waterbodies with moderate salinity. In contrast, open ocean environments do not offer appropriate conditions for these *Vibrio* species due to the nutrient-depleted environment, high salinity and lower water temperature.

In the Baltic Sea region, vibriosis in humans caused by these species has occurred in the past during hot summer months when sea surface temperature has been elevated. The most common clinical manifestations are gastroenteritis with nausea, vomiting, and diarrhoea, external otitis, and wound infections when a skin cut, scrape or abrasion is exposed to contaminated seawater. The complications associated with a wound infection by *Vibrio species* can be severe in the absence of early recognition and treatment, such as gangrene, septicaemia and death. Severe complications are more likely to be observed if a person has immune-suppressing conditions (e.g. therapy, liver disease, cancer, diabetes, non-controlled HIV infection). The exposure conditions are consumption of raw or undercooked oysters or other shellfish, its juices, and contact with natural bodies of brackish or saltwater waters, especially marine or estuarine waters.

ECDC is starting the period for monitoring environmental suitability of *Vibrio species* growth in the Baltic Sea for the summer season 2017. The observations are based on bi-weekly monitoring by the Epidemic intelligence team (ECDC E3 geoportal, see map viewer). The Vibrio viewer is a near real-time model that uses daily updated remote sensing data to examine worldwide environmental suitable conditions such as sea surface temperature and salinity for *Vibrio* spp.

I. Executive summary

EU Threats

West Nile virus – Multistate (Europe) – Monitoring season 2017

Opening date: 30 May 2017 Latest update: 7 July 2017

During the West Nile virus transmission season from June to November, ECDC monitors the occurrence of cases of West Nile fever in the EU Member States and the neighbouring countries in order to inform the blood safety authorities about areas with ongoing transmission. In 2016, 214 human cases of West Nile fever were reported in the EU Member States and 267 cases in the neighbouring countries.

→Update of the week

As of 6 July 2017, no human cases of West Nile fever have been reported in the EU so far. In the neighbouring countries, one new probable case was reported in Israel.

Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 7 July 2017

Romania has been experiencing a large outbreak of measles since February 2016. Cases continue to be reported despite ongoing response measures implemented at national level through reinforced vaccination activities. Between 1 January 2016 and 30 June 2017, Romania reported 7 491 measles cases, including 31 deaths. In 2016, several other EU/EEA countries reported measles outbreaks and an increase in the number of cases continues to be observed in 2017. Some previous and ongoing measles outbreaks in other EU/EEA countries have been epidemiologically linked to the current outbreak in Romania. Overall, more than 14 000 cases have been reported in the EU/EEA since January 2016, including 35 deaths.

→Update of the week

In addition to Romania, the following EU/EEA countries have reported measles cases in 2017: Austria, Belgium, Bulgaria, the Czech Republic, Denmark, France, Germany, Hungary, Iceland, Italy, Portugal, Slovakia, Spain, Sweden and the United Kingdom.

Non EU Threats

Ebola virus disease – Democratic Republic of the Congo – 2017

Opening date: 15 May 2017

On 9 May 2017, the Democratic Republic of the Congo (DRC) notified the World Health Organization (WHO) of an outbreak of <u>Ebola virus disease</u> (EVD) in Likati Health Zone, Bas Uele Province, close to the border with the Central African Republic. Investigations and laboratory results confirmed an Ebola outbreak of subtype Zaire on 11 May 2017. The outbreak was declared over by WHO on 2 July 2017.

→Update of the week Between 30 June and 7 July 2017, WHO did not report any new cases. WHO declared the outbreak over on 2 July 2017.

Poliomyelitis – Multistate (World) – Monitoring global outbreaks

Opening date: 8 September 2005

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 2 May 2017, the IHR <u>Emergency</u> <u>Committee</u> agreed that the international spread of poliovirus remains a PHEIC and recommended that the temporary recommendations should be extended for a further three months.

→Update of the week

Since the last CDTR report, 7 new cases of vaccine-derived poliovirus type 2 (cVDPV2) were reported in Syria, in the Mayadeen district of Dier-Ez-Zor governorate (6) and Raqqa (1). As of 5 July 2017, 24 confirmed cases of cVDPV2 had been reported from Syria.

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, cases continue to be reported from China. 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

During the past week, China reported six additional human cases of avian influenza A (H7N9) from Yunnan (4), Guizhou (1) and Shanxi (1).

Travel-associated Legionnaires' disease – Dubai, UAE – 2016/2017

Opening date: 10 November 2016

ELDSNet, the ECDC surveillance scheme on travel-associated <u>Legionnaires' disease</u> (TALD) has observed an increase in the number of cases of Legionnaires' disease associated with travel to Dubai, United Arab Emirates (UAE) since October 2016.

→Update of the week

Since the last CDTR, the Germany has reported an additional case of TALD with travel history to Dubai.

On 4 July Germany reported a TALD case with onset of disease after a stay in the UAE. The case, a 51 year-old male, arrived in Dubai 11 May and left for Ras al Khamah on 14 May. He left UAE on 16 May and fell ill on 18 May. He is diagnosed by PCR. The two hotels used in UAE are the same hotels that were used by a previous case who had onset of disease on 30 April 2017.

II. Detailed reports

West Nile virus – Multistate (Europe) – Monitoring season 2017

Opening date: 30 May 2017 Latest update: 7 July 2017

Epidemiological summary

Since the beginning of the 2017 transmission season and as of 6 July 2017, no cases of West Nile fever in humans have been reported in the EU Member States. One new probable case has been reported by the neighbouring countries. The probable case was detected in Israel in Haifa district. **Source**: <u>ECDC WNF page</u>

ECDC assessment

No human cases in EU Member States have been notified at this stage of the transmission season.

Actions

Since 2011, ECDC has been producing weekly West Nile fever maps during the transmission season to inform blood safety authorities of West Nile fever-affected areas.

Reported cases of West Nile fever, transmission season 2017 and previous transmission season, as of 6 July 2017



Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 7 July 2017

Epidemiological summary

EU/EEA countries with updates since last week:

Austria: Since the beginning of 2017 and as of 30 June, Austria has reported 79 cases, an increase of one case since the CDTR on 30 June 2017. This exceeds the cumulative number of cases reported in 2016. https://www.bmgf.gv.at/home/Masern

Bulgaria: Since the beginning of 2017 and as of 6 July, Bulgaria reported 161 cases. In the same period in 2016, Bulgaria reported one case. http://mmr.gateway.bg/

Germany: Since the beginning of 2017 and as of 28 June, Germany has reported 766 cases. This is an increase of 15 cases since the CDTR on 30 June 2017. In the same period in 2016, Germany reported 130 cases.

http://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2017/Ausgaben/26_17.pdf?__blob=publicationFile

Italy: Since the beginning of 2017 and as of 4 July, Italy has reported 3 346 cases in 18 of the 21 regions, including 2 deaths. This is an increase of 272 cases since the CDTR on 30 June 2017. Among these, 252 cases are healthcare workers. The median age is 27 years, 88% of the cases were not vaccinated and 7% received only one dose of vaccine. http://www.epicentro.iss.it/problemi/morbillo/bollettino/Measles_WeeklyReport_N15eng.pdf

Portugal: Since the beginning of 2017 and as of 5 July, Portugal has reported 31 confirmed cases. Of these 20 (65%) were over 18 years of age, 19 (61%) were unvaccinated, 13 (42%) are health professionals, and 14 (45%) were hospitalised. Twenty-two cases have been confirmed in the regions of Lisbon and Vale do Tejo, seven cases in the Algarve, one in the North and one in Alentejo. One death has been reported. On 5 July 2017 Portugal declared the end of the measles epidemic. https://www.dgs.pt/a-direccao-geral-da-saude/comunicados-e-despachos-do-director-geral/declaracao-publica-sobre-o-fim-da-atividade-epidemica-do-sarampo-em-portugal.aspx

Romania: Between 1 January 2016 and 30 June 2017, Romania has reported 7 491 cases, including 31 deaths. This is an increase of 209 cases since the previous CDTR on 30 June 2017. Cases are either laboratory-confirmed or have an epidemiological link to a laboratory-confirmed case. Infants and young children are the most affected group. Forty-one of the 42 districts have reported cases, Timis, in the western part of the country closest to the border with Serbia, is the most affected district with 1 171 cases. Vaccination activities are ongoing in order to cover communities with suboptimal vaccination coverage. http://www.cnscbt.ro/index.php/informari-saptamanale/rujeola-1/720-situatia-rujeolei-in-romania-la-data-de-30-06-2017/file

Spain: Since the beginning of 2017 and as of 4 July, Spain reported 137 measles cases, an increase of eight cases since the previous CDTR on 30 June 2017.

http://www.isciii.es/ISCIII/es/contenidos/fd-servicios-cientifico-tecnicos/fd-vigilancias-alertas/fd-boletines/fd-boletin-epidemiologico-semanal-red/pdf_2017/IS-170704-WEB.pdf

EU/EEA countries with no updates since last week:

Belgium: As of 08 May 2017, Belgium has reported 293 measles cases, of which 115 were hospitalized. Thirty-one percent were not vaccinated and 58% did not know their vaccination status. Twelve percent of cases were among health professionals. https://www.wiv-isp.be/matra/PDFs/flash201706.pdf

Czech Republic: As of 30 June 2017, the Moravian-Silesian region reported 130 measles cases, 123 of which were laboratory-confirmed. Nineteen cases are among healthcare workers. http://www.khsova.cz/docs/01_aktuality/files/spalnicky_20170630.pdf

Denmark: On 15 March 2017, Denmark reported an imported case in an unvaccinated adult who was infected during a holiday in Asia.

France: Since 1 January 2017 and as of 15 June, France has reported 295 cases, almost six times the number of reported cases in 2016 over the same period (47 cases). The cases are mainly linked to an outbreak in Lorraine (60 cases between February and April 2017) and several outbreaks in New Aquitaine and Occitania. The incidence is highest in children under one year (5.2/100 000 with 43 cases), which represents 14.6% of cases declared. Two cases of encephalitis and 22 cases of severe pneumonia have been recorded since the beginning of the year. Of the cases with known vaccination status (258 cases out of 295), 190 (74%) were not vaccinated, 40 (16%) had received a single dose, 25 (10%) had received two doses and for three cases (1%) the number was unknown.

http://invs.santepubliquefrance.fr/fr/Dossiers-thematiques/Maladies-infectieuses/Maladies-a-prevention-vaccinale/Rougeole/Points-d-actualites/Epidemiologie-de-la-rougeole-en-France.-Donnees-de-surveillance-au-15-juin-2017

Hungary: Between 21 February and 22 March 2017, Hungary reported 54 cases. Health authorities have lifted the quarantine from the hospital in Mako, south-east Hungary, as no new cases have been detected in two weeks.

<u>Iceland</u>: On 31 March 2017, Iceland reported two cases in 10-month-old unvaccinated twin siblings. The first case was diagnosed 10 days before the second case. This is the first time in a quarter of a century that measles infection has occurred in Iceland.

<u>Slovakia</u>: On 24 April 2017, Slovakia reported an imported case in a 25-year-old, unvaccinated Italian who studies in Kosice, Slovakia. In Slovakia, the last endemic cases were reported in 1998 and the last imported cases in 2011 and 2012.

<u>Sweden</u>: Since mid-April and as of 31 May, Sweden has reported four cases in the south-western part of the country. Earlier in 2017, Sweden reported 15 cases in the Stockholm area, including three imported cases.

<u>United Kingdom</u>: On 6 June, <u>Public Health Wales</u> reported four cases in a high school in Newport, Wales. During the first three months of 2017, England reported 17 confirmed cases, compared with 37 between October and December 2016. Northern Ireland

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has reported one case and Scotland has reported no cases so far this year.

ECDC assessment

Measles outbreaks continue to occur in EU/EEA countries. There is a risk of spread and sustained transmission in areas with susceptible populations. The national vaccination coverage remains less than 95% for the second dose of MMR in the majority of EU/EEA countries. The progress towards elimination of measles in the WHO European Region is assessed by the European Regional Verification Commission for Measles and Rubella Elimination (RVC). Member States of the WHO European Region are making steady progress towards the elimination of measles. At the fifth meeting of the RVC for Measles and Rubella in October 2016, of 53 countries in the WHO European Region, 24 (15 of which are in the EU/EEA) were declared to have reached the elimination goal for measles, and 13 countries (nine in the EU/EEA) were deemed to have interrupted endemic transmission for between 12 and 36 months, meaning they are on their way to achieving the elimination goal. However, six EU/EEA countries were judged to still have endemic transmission: Belgium, France, Germany, Italy, Poland and Romania. More information on strain sequences would allow further insight into the epidemiological investigation. All EU/EEA countries report measles cases on a monthly basis to ECDC and these data are published every month. Since 10 March 2017, ECDC has been reporting on measles outbreaks in Europe on a weekly basis through epidemic intelligence activities.

ECDC link: Measles page

Actions

ECDC published a <u>rapid risk assessment</u> on 6 March. ECDC monitors measles transmission and outbreaks in the EU/EEA on a weekly basis through enhanced surveillance and epidemic intelligence activities.

New measles cases per week of reporting, week 2008-1 to 2017-26, Romania



Ebola virus disease – Democratic Republic of the Congo – 2017

Opening date: 15 May 2017

Epidemiological summary

Between 30 June and 7 July 2017, WHO did not report any new cases. WHO declared the outbreak over on 2 July 2017. As of 2

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July, WHO has reported five confirmed and three probable cases, including four deaths (CFR: 50%), from Nambwa (four confirmed and two probable), Ngayi (one probable) and Mabongo (one confirmed). As of 2 July, all contacts have completed the 21-day monitoring period, there are currently no contacts under follow-up.

Source: WHO

ECDC assessment

This is the eighth outbreak of EVD in DRC since the discovery of the virus in 1976. DRC national authorities have experience in responding to such outbreaks. However, this is the first time the Likati Health Zone has been affected and the local authorities have limited experience in managing such an outbreak. Investigations in DRC are ongoing to assess the extent of the outbreak. WHO and the Global Outbreak Alert and Response Network (GOARN) partners are supporting the national health authorities in the response.

The outbreak is occurring in an extremely remote area. For EU/EEA citizens living in or travelling through DRC, the risk of exposure is negligible. For people entering the affected area, such as healthcare workers responding to the outbreak, the risk of infection remains very low, assuming they follow the recommended precautions.

The risk of introduction into the EU/EEA would most probably be related to an infected traveller coming from the affected area. Although unlikely given the remote location of the outbreak, this cannot be excluded. The overall risk of introduction and further spread of Ebola virus within the EU/EEA is therefore currently considered to be extremely low.

Actions

ECDC published a <u>rapid risk assessment</u> related to this event on 19 May 2017. ECDC is closing the threat on 7 July.

Poliomyelitis – Multistate (World) – Monitoring global outbreaks

Opening date: 8 September 2005

Epidemiological summary

As of 5 July 2017, six wild poliovirus cases were reported in 2017. In 2016, 37 cases were reported during the same period. In 2017, Afghanistan has reported four cases and Pakistan two cases. Twenty-eight circulating vaccine-derived poliovirus type 2 (cVDPV2) cases have been reported in 2017, four from the Democratic Republic of Congo (DRC) and 24 from the Syrian Arab Republic. Of the 24 cases in Syria, 22 cases are from Mayadeen (Al Mayadin) district, Deir Ez-Zor (Dayr Az Zawr) governorate, and 2 cases from Raqqa (Ar Raqqah) and Tall Abyad districts, Raqqa (Ar Raqqah) governorate. The most recent case had onset of paralysis on 28 May.

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

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: <u>ECDC latest RRA</u> | <u>Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA</u> | <u>Wild-type</u> 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 <u>risk assessment</u>. ECDC has also prepared a background document with travel recommendations for the EU.

An emergency vaccination program for Deir-Ez-Zor and in the southern part of Shadadi district in Hasaka governorate is set to begin on 8 July. An outbreak response in Raqqa is also being considered. However, these efforts are feared to be hampered by the ongoing fighting in these areas.

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013

Epidemiological summary

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then and up to 1 July 2017, 1 554 cases have been reported, including 565 deaths. The outbreak shows a seasonal pattern. The first wave in spring 2013 (weeks 2013-7 to 2013-40) included 135 cases, the second wave (weeks 2013-41 to 2014-40) 320 cases, the third wave (weeks 2014-41 to 2015-40) 223 cases, and the fourth wave (weeks 2015-41 to 2016-40) 120 cases. A fifth wave started in October 2016 (week 2016-41), with 756 cases as of 5 July 2017.

The 1 554 cases were reported from Zhejiang (310), Guangdong (258), Jiangsu (250), Fujian (107), Anhui (99), Hunan (93), Shanghai (57), Jiangxi (52), Sichuan (38), Beijing (35), Guangxi (31), Hubei (31), Hebei (29), Henan (28), Shandong (28), Hong Kong (21), Guizhou (20), Xinjiang (10), Chongqing (9), Gansu (5), Shaanxi (7), Taiwan (5), Tianjin (5), Liaoning (4), Jilin (3), Tibet (3), Inner Mongolia (2), Macau (2), Shanxi (3), Yunnan (6) and three imported cases were reported in Canada (2) and Malaysia (1).

Sources: Chinese CDC | Hong Kong CHP | WHO | WHO FAQ page | ECDC

ECDC assessment

This is the fifth winter season in the northern hemisphere with human cases caused by influenza A(H7N9) infections. During this wave, the number of human cases has been higher than in previous waves. This is most likely due to greater environmental contamination in live bird markets and increased circulation of the virus among poultry. In contrast to the situations observed during the summer months in previous years, A(H7N9) viruses are continuously circulating in the poultry population, with transmission to humans causing a substantial number of cases.

During the current wave a new influenza A(H7N9) virus with mutations in the haemagglutinin gene indicating high pathogenicity in poultry. This new variant was detected in 25 human cases in three provinces of China and in environmental and poultry samples. It is unclear at the moment if the newly emerged, highly-pathogenic avian influenza virus A(H7N9) will replace the low-pathogenic virus or if both will co-circulate in the bird population. Although the genetic changes in influenza A(H7N9) may have implications for poultry in terms of pathogenicity, there is no evidence to date of increased transmissibility to humans or sustainable human-to-human transmission.

HPAI A(H7N9) viruses from human cases have been found to have mutations associated with reduced susceptibility to neuraminidase inhibitors. The proportion of viruses with reduced susceptibility to neuraminidase inhibitors has remained constant during the five recent epidemic waves.

The continued transmission of influenza A(H7N9) to humans in China poses the risk that sporadic travel-related cases returning from China may be detected in Europe. The following options for prevention and control of the infection should be considered: - persons travelling to China should avoid direct exposure to poultry and refrain from visiting live poultry markets or backyard farms;

travellers who have visited affected areas should be made aware that if they develop respiratory symptoms and fever upon their return, they should consult a physician and mention their recent travel history to enable early diagnosis and treatment.
travellers who have visited affected areas should avoid entering farms for the entire duration of the 10-day incubation period (and during the symptomatic period in the event that they develop symptoms) in order to prevent a possible virus introduction to poultry in the EU.

The possibility of humans infected with influenza A(H7N9) returning to the EU/EEA cannot be excluded. However, the risk of the disease spreading within Europe via humans is still considered low, as there is no evidence of sustained human-to-human transmission.

Actions

ECDC published the seventh update of its <u>rapid risk assessment</u> on 3 July 2017, addressing the genetic evolution of influenza A (H7N9) virus in China and the implications for public health.

Distribution of confirmed cases of A(H7N9) by first available month, February 2013 to 5 July 2017





Distribution of confirmed cases of A(H7N9) by five seasons, February 2013 to 5 July 2017

Travel-associated Legionnaires' disease – Dubai, UAE – 2016/2017

Opening date: 10 November 2016

Epidemiological summary

As of 5 July 2017, 13 EFTA Member States have reported 68 TALD cases with onset of symptoms since 1 October 2016 and with travel history to Dubai within two to ten days prior to illness. Cases were reported by the UK (32), Sweden (8), the Netherlands (6), Germany (7), Denmark (4), France (4), Austria (1), Belgium (1), the Czech Republic (1), Hungary (1), Ireland (1), Spain (1) and Switzerland (1). Sixty-two cases are associated with commercial accommodation sites and six with private accommodation sites. Fifteen cases spent time in another location in the UAE or in a country other than their home country during their incubation period. Two cases were reported as fatal.

All cases are laboratory confirmed. Five cases had their infection further characterised as *Legionella pneumophila* serogroup 1, sequence type 616 and one as *Legionella pneumophila* serogroup 1 sequence type 2382. Sequence type 616 is uncommon in Europe and has been associated with other cases of Legionnaires' disease returning from Dubai in previous years, while sequence type 2382 is the first such identification worldwide and appears to be closely-related to type 616 (personal communication,

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ELDSNet network). Two cases have been characterised as Legionella pneumophila serogroup 2-14, sequence type 1327.

ECDC assessment

Cases continue to be reported with onset of symptoms in recent weeks, indicating that there is a persistent source of *Legionella* exposure common to travellers with travel history to Dubai. However, it cannot be ruled out that some travellers may have acquired their infection elsewhere if their stay in Dubai was shorter than the range of the incubation period. The increase in cases observed between October 2016 and June 2017 is above the number of cases observed in the same period in previous years.

Actions

ECDC is monitoring this event through ELDSNet. ECDC is in contact with EU Member States, the ELDSNet network, the World Health Organization and UAE to share information. ECDC published a <u>rapid risk assessment</u> on its website on 23 December 2016. The conclusions of the rapid risk assessment remain valid. ECDC also posted an <u>epidemiological update</u> on 22 June 2017.

Distribution of travel-associated Legionnaires' disease cases with history of stay in Dubai, United Arab Emirates, by week of onset and accommodation site clustering, weeks 37/2016–24/2017, as reported to ELDSNet by 5 July 2017 (n=68 cases)



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