



## COMMUNICABLE DISEASE THREATS REPORT

CDTR

Week 24, 9-15 June 2019

All users

This weekly bulletin provides updates on threats monitored by ECDC.

## I. Executive summary

### EU Threats

#### **New! Chlamydia trachomatis testing – Multistate (EU/EEA) – 2019**

Opening date: 10 June 2019

Latest update: 14 June 2019

In April 2019, Finland reported that clinical laboratories that use the Aptima Combo 2 for *Chlamydia trachomatis* (CT)/*Neisseria gonorrhoeae* Assay (AC2) of Hologic for CT testing observed patient samples with discordant results: negative with AC2, but positive by APTIMA CT Assay (ACT) or alternate assays. Following this finding of possible false-negative CT results by an assay that is widely used in the EU/EEA, ECDC has started discussions with the STI Network in order to evaluate the situation in other countries. Sequencing of strains from Finland identified a mutation in 23S rRNA (targeted by AC2) that has been confirmed by the manufacturer as the root cause of the false-negative results. The manufacturer published an Urgent Field Service Notice in June 2019 describing the issue and outlining the steps that laboratories using AC2 need to take.

##### →Update of the week

Since February 2019, over 190 CT cases testing negative or equivocal by AC2 but positive by Aptima CT (ACT) tests run with Panther instruments were detected in Finland. The AC2 test targets chlamydial 23S rRNA, while the CT test targets 16S rRNA. Sequencing of 10 strains revealed a nucleotide substitution in the 23S rRNA mutation that was confirmed in June 2019 by Hologic as the likely root cause of the false-negative results. A sample dated June 2018 was identified as the 'oldest' false-negative specimens. It is estimated that during the second half of 2018, 0.4% of all tested samples and 6% of samples reported as positive for CT by AC2 were AC2 negative or equivocal/ACT positive cases.

#### **Dengue – France, Réunion – 2019**

Opening date: 13 March 2018

Latest update: 14 June 2019

Since the beginning of 2018, a dengue outbreak of unusual magnitude has affected the French overseas department of Réunion. In 2018, Réunion reported a total of 6 770 cases. Circulation has not been interrupted during the austral winter and the number of cases has started increasing again since the beginning of 2019.

##### →Update of the week

In the past two weeks, Réunion reported 1 124 confirmed cases of dengue: 731 cases in week 21 of 2019 and 393 cases in week 22 of 2019. These figures confirm the declining trend of reported confirmed cases in the island. However, according to French authorities, the serotype DENV-1 has become more prevalent in the reported autochthonous cases.

Additionally, regional health authorities have reported nine dengue cases in Mayotte in 2019 as of 11 June 2019. Among these cases, six had travel history to Réunion or East African countries. The other three cases are suspected to be autochthonous cases since they had no recent travel history.

## Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 14 June 2019

Measles cases in the EU/EEA primarily occur in unvaccinated populations in both adults and children. Outbreaks are ongoing in countries that had previously eliminated or interrupted endemic transmission.

### →Update of the week

Since the previous measles monthly update in Communicable Disease Threats Report (CDTR) published on 11 May 2019, updates have been provided for 24 EU/EEA countries: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden and the United Kingdom.

Several EU/EEA countries have reported ongoing or new outbreaks in 2019, including Bulgaria, the Czech Republic, France, Italy, Lithuania, Poland, Romania, Slovakia and Spain. Most of the cases were reported from Romania (1 533), France (1 453), Poland (1 044), Bulgaria (866), Italy (864) and Lithuania (709).

In 2019, seven deaths were reported in the EU from Romania (5), Italy (1), and France (1).

Relevant updates outside EU/EEA countries are available from the WHO Regional Office for Africa and the Pan American Health Organization, as well as Belarus, North Macedonia, Serbia, Switzerland, Ukraine and the US.

The monthly measles report published in the CDTR provides the most recent data on measles cases and outbreaks based on data reported on national authority websites or through media reports. It is supplementary to ECDC's [monthly measles and rubella monitoring report](#) based on data routinely submitted by 30 EU/EEA countries to The European Surveillance System (TESSy). Data presented in both monthly reports may differ.

## Non EU Threats

### New! **Salmonella Enteritidis associated with travel on cruise ships – 2019**

Opening date: 13 June 2019

Latest update: 14 June 2019

The United Kingdom has reported a cluster of *Salmonella* Enteritidis cases identified in travellers to cruise ships to different destinations in the Eastern Mediterranean and Middle East.

### →Update of the week

The United Kingdom has reported a cluster of 24 cases of *S. Enteritidis* linked to travel on cruise ships. All cases have sampling dates from 6–21 May 2019.

### **Ebola virus disease - tenth outbreak - Democratic Republic of the Congo and Uganda - 2018-2019**

Opening date: 1 August 2018

Latest update: 14 June 2019

On 1 August 2018, the Ministry of Health of the Democratic Republic of the Congo declared the 10th outbreak of Ebola virus disease in the country. The outbreak affects North Kivu and Ituri Provinces in the northeast of the country close to the border with Uganda. In June 2019, few cases from the Democratic Republic of the Congo were detected in Uganda. However, Uganda has not reported autochthonous transmission as of 14 June 2019. On 14 June 2019, the [International Health Regulations Emergency Committee](#) convened to assess if this epidemic constitutes a public health emergency of international concern.

### →Update of the week

Since the previous CDTR and as of 12 June 2019, the [Ministry of Health of the Democratic Republic of the Congo](#) has reported 77 additional confirmed cases. During the same period, 44 deaths were reported.

Among the new reported cases in the past week, six are healthcare workers.

According to the Ugandan Ministry of Health, there have been three imported confirmed Ebola virus cases and two deaths in Kasese District in Uganda as of 12 June 2019. These cases belong to a family of six that had travel history to the Democratic Republic of the Congo, where they were identified as contacts. The surviving family members have been repatriated to the Democratic Republic of the Congo. So far, there has been no autochthonous or on-going transmission in Uganda. Twenty-seven close contacts have been "line-listed" for follow-up so far.

## West Nile virus - Multistate (Europe) - Monitoring season 2019

Opening date: 3 June 2019

Latest update: 14 June 2019

During the West Nile virus infection transmission season, expected to be from June–November 2019, ECDC monitors the occurrence of West Nile virus infections in EU/EEA Member States and EU neighbouring countries and publishes weekly epidemiological updates to inform blood safety authorities of areas at NUTS 3 (Nomenclature of Territorial Units for Statistics 3) or GAUL 2 (Global Administrative Unit Layers 2) level where there is ongoing virus transmission.

During the 2018 transmission season, 2 083 human cases were reported by EU Member States and EU neighbouring countries. EU Member States reported 285 outbreaks among equids.

→Update of the week

No human case or equine outbreak has been reported so far in 2019.

## Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 14 June 2019

Several countries in Africa, the Americas and Asia have reported [cholera](#) outbreaks. Major ongoing outbreaks are reported in the Democratic Republic of the Congo, Haiti and Yemen.

→Update of the week

Since the last update on 3 May 2019, new cholera cases have been reported worldwide.

The countries reporting the majority of new cases since the previous update are Yemen (112 223 cases, 118 deaths) and the Democratic Republic of the Congo (1 947 cases and 35 deaths).

Additionally, Ethiopia and Zambia have reported new cholera outbreaks during this period.

## II. Detailed reports

### New! Chlamydia trachomatis testing – Multistate (EU/EEA) – 2019

Opening date: 10 June 2019

Latest update: 14 June 2019

#### Epidemiological summary

In April 2019, Finland reported that clinical laboratories that used AC2 for CT testing observed patient samples with discordant results: negative by AC2, but positive by ACT assay. The issue has been associated with specimens that have relative light unit (RLU) counts of 20–85. In the current event in Finland, it is estimated that 6–10% of all chlamydia diagnoses may have been missed because of falsely negative AC2 results. Considering the risk of complications from chlamydia infection and to reduce further transmission, laboratories in affected regions in Finland have recalled patients who tested negative with AC2 and had RLU values above 20 RLU.

The National Supervisory Authority for Welfare and Health of Finland (Valvira) have informed relevant authorities in another EU Member States. On 7 June 2019, Hologic issued an Urgent Field Safety Notice to laboratories using AC2 providing instructions for test result interpretation and re-testing procedures.

**Sources:** [Eurosurveillance](#) | [Hologic Urgent Field Safety Notice](#)

#### Actions

ECDC has been in contact with the STI Network by teleconference and through the EPIS STI platform to collect more information on the reported issue and keep the Member States informed on the progress of the investigation. A threat assessment brief is under production.

### Dengue – France, Réunion – 2019

Opening date: 13 March 2018

Latest update: 14 June 2019

#### Epidemiological summary

In the past two weeks, Réunion has reported 1 124 confirmed cases of dengue: 731 cases in week 21 of 2019 and 393 cases in week 22 of 2019. These figures confirm the declining trend of reported confirmed cases in the island. However, according to French authorities, the serotype DENV-1 has become more prevalent in the reported autochthonous cases.

According to [regional authorities](#) as of 2 June 2019, Réunion has detected more than 15 000 confirmed and 42 000 suspected cases since the beginning of 2019, of which five have died.

According to Santé publique France, the main circulating serotype is DENV-2. However, 19 autochthonous cases were serotyped DENV-1 in the south of the island.

Additionally, regional health authorities have reported nine dengue cases in [Mayotte](#) in 2019 as of 11 June 2019. Among these cases, six had travel history to Réunion or East African countries. The other three cases are suspected to be autochthonous cases since they had no recent travel history.

#### ECDC assessment

A decrease has been observed in Réunion over the past three weeks. However, dengue circulation remains active in most of the cities on the island.

However, French authorities are reporting an increase of serotype DENV-1 among autochthonous confirmed cases. According to authorities, if this trend is confirmed, this situation could lead to longer duration of dengue circulation as the population does not have documented herd immunity.

The risk for onward transmission of dengue in Europe is linked to importation of the virus by viraemic travellers into receptive areas with established and active competent vectors (i.e. *Aedes albopictus* in mainland Europe, mainly around the Mediterranean, and *Aedes aegypti* on the island of Madeira).

Environmental conditions in Europe are expected to become more favourable for the growth of mosquito populations and virus replication of the vector in the coming weeks, reaching high vector abundance in the summer and early autumn. Prior to the high

activity season, there is a low likelihood of sustained autochthonous transmission of the dengue virus in continental Europe associated with introduction by returning travellers from Réunion or other areas with active dengue virus transmission.

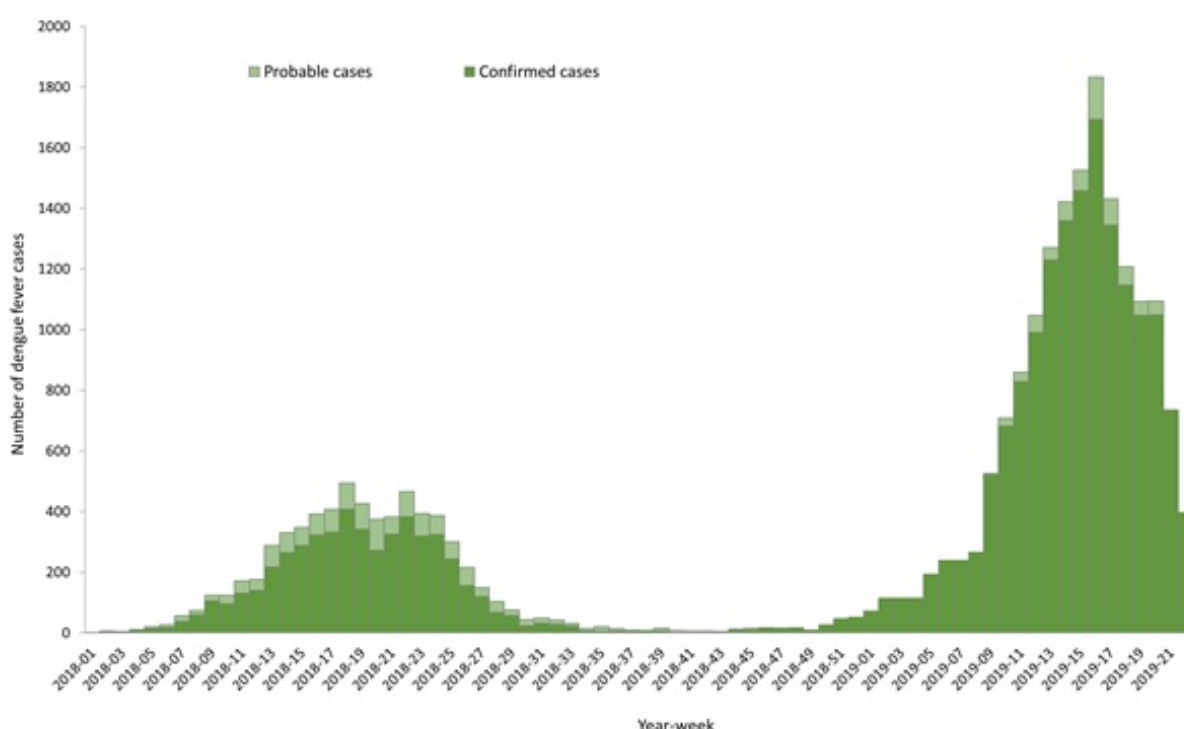
For a more detailed analysis about the dengue epidemiological situation in the ocean Indian region, consult ECDC's [monthly dengue reports](#).

## Actions

ECDC monitors this outbreak through epidemic intelligence activities and will report again if relevant epidemiological update is available. ECDC will publish an update of the [rapid risk assessment on outbreak of dengue in Réunion, France](#) on 14 June 2019.

## Number of dengue autochthonous cases by week of onset between week 1-2018 and week 21-2019 in Réunion.

ECDC



## Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 14 June 2019

## Epidemiological summary

Since the previous measles monthly update in Communicable Disease Threats Report (CDTR) published on 11 May 2019, updates have been provided for 24 EU/EEA countries: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden and the United Kingdom.

Several EU/EEA countries reported ongoing or new outbreaks, including Bulgaria, the Czech Republic, France, Italy, Lithuania, Poland, Romania, Slovakia and Spain. Most of the cases in 2019 were reported from Romania (1 533), France (1 453), Poland (1 044), Bulgaria (866), Italy (864) and Lithuania (709).

In 2019, seven deaths were reported in the EU from Romania (5), Italy (1), and France (1).

Relevant updates outside EU/EEA countries are available from the WHO Regional Office for Africa and the Pan American Health Organization, as well as Belarus, North Macedonia, Serbia, Switzerland, Ukraine and the US.

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The monthly measles report published in the CDTR provides the most recent data on measles cases and outbreaks based on the data reported on national authority websites or through media reports. It is supplementary to ECDC's [monthly measles and rubella monitoring report](#) based on data routinely submitted by 30 EU/EEA countries to The European Surveillance System (TESSy). Data presented in both monthly reports may differ.

Certain graphs and epicurves about measles in the EU/EEA are available in the attached CDTR PowerPoint slides.

***Epidemiological summary for EU/EEA countries with updates since last month:***

[Austria](#) has reported 125 cases in 2019 as of 5 June 2019, an increase of 36 cases since the start of May 2019. Cases have been reported from Carinthia, Lower Austria, Upper Austria, Salzburg, Styria, Tyrol, Vorarlberg and Vienna. The recent outbreak with 21 cases has been reported in Carinthia.

[Belgium](#): According to WHO, Belgium reported 169 confirmed cases in January–March 2019. This is an increase of 86 cases since the national report on 22 February 2019. In addition, [media](#) have reported 69 cases of measles in Brussels as of 17 April 2019, an increase of 45 cases.

[Bulgaria](#) has reported 866 cases of measles in 2019 as of week 23 of 2019. This is an increase of 369 cases since the CDTR published on 11 May 2019.

Cyprus reported two cases in January–April 2019, according to TESSy.

[Czech Republic](#): According to media reports citing healthcare authorities on 3 June 2019, 545 cases have been reported in the Czech Republic since the beginning of 2019. This is an increase of 99 cases since the CDTR published on 11 May 2019.

[Denmark](#) has reported 14 cases in 2019 as of 10 June 2019, an increase of one case since the CDTR published on 11 May 2019.

[Estonia](#): According to media reports on 5 June 2019, 17 cases have been reported in Estonia as of end of May 2019. Of the 17 cases, eight cases were imported. Healthcare authorities reported 11 cases from January–April 2019.

[France](#) has reported 1 453 cases of measles, including one death, in 2019 as of 2 June 2019, an increase of 601 case since the national report on 2 May 2019. In the same period of 2018, there were 2 399 cases reported. The most recent outbreaks were reported from Normandy (2 confirmed cases), Mayotte (25) and Réunion (60).

[Germany](#) has reported 400 confirmed cases in 2019 as of 19 May 2019, an increase of 197 cases since the national report on 10 March. Of these, 107 cases were reported from North Rhine-Westphalia region. In the same period in 2018, 268 cases were reported nationally.

[Hungary](#) has reported 21 measles cases in 2019 as of 12 May 2019, an increase of three cases since the national report on 21 April 2019. In the same period in 2018, Hungary reported 16 cases of measles. According to the national report, one healthcare worker was infected with measles.

[Ireland](#) has reported 58 cases of measles in 2019 as of 5 June 2019. This is an increase of six cases since the previous national report.

[Italy](#) has reported 864 cases of measles, including one death, in 2019 as of 30 April 2019, an increase of 307 cases since the previous national report as of 31 March 2019. Cases were reported in 19 regions. Of the reported cases, 52 were in healthcare workers (6%).

[Latvia](#) has reported one confirmed cases of measles in 2019 as of 3 June 2019. In 2018, there were 70 suspected measles cases, of which 25 were confirmed.

[Lithuania](#) has reported 709 cases of measles in 2019 as of 5 June 2019, an increase of 140 cases since the national report on 3 May 2019. Cases were reported across the country, with the majority in Kaunas and Vilnius.

[The Netherlands](#) has reported 20 cases in 2019 as of 17 April 2019.

[Norway](#) has reported 15 cases in 2019 as of 11 June 2019, an increase of five cases since the national data report on 6 May 2019.

[Poland](#) has reported 1 044 cases of measles from 1 January–31 May 2019, an increase of 366 cases since the national report on 15 April 2019. In the same period in 2018, 73 cases were reported and 339 in all of 2018.

Portugal reported six cases to TESSy from January–April 2019.

[Romania](#) has reported 1 533 cases of measles, including five deaths, in 2019 as of 7 June 2019, an increase of 506 cases and one death since the CDTR published on 10 May 2019. Since the beginning of the outbreak in October 2016 and as of 3 May 2019, Romania has reported 17 133 confirmed measles cases, including 64 deaths.

[Slovakia](#): No update has been available since 194 measles cases were reported on 3 May 2019. According to TESSy, 255 cases were reported in 2019 as of 30 April 2019.

[Spain](#) has reported 189 cases in 2019 as of 2 June 2019, an increase of 120 cases since the last CDTR on 11 May 2019. Of the reported cases, 73 were reported from Catalonia.

[Sweden](#) has reported 15 cases in 2019, according to data available on 11 June 2019. This is an increase of 10 cases since 3 May 2019.

[United Kingdom](#): In England, 231 new measles infections were confirmed in the period January–March 2019 compared to 90 in the last quarter of 2018. Most of the cases this quarter were associated with outbreaks in London, North West England and the East of England. Under-vaccinated ultra-orthodox Jewish communities and Traveller communities have been particularly affected. In addition, according to [media reports](#) citing health authorities on 18 May 2019, an increase in the number of children diagnosed with measles has been reported in Hertfordshire and Bedfordshire in recent months.

### ***Relevant epidemiological summary for countries outside the EU/EEA:***

Global measles overview is available from the [WHO website](#). Additional information with the latest data available is provided for several countries.

[Belarus](#) has reported 106 confirmed cases of measles in 2019 as of 30 May 2019. This is an increase of 66 cases since 3 April 2019. Cases were reported from all regions of the country. Thirty-three per cent of the cases were imported and other cases were contacts of the imported cases.

[North Macedonia](#) has reported 1 734 cases of measles in 2019, including 3 deaths, as of 30 May 2019. Of the reported cases, 958 were from Skopje. There is a total increase of 653 cases since the CDTR published on 11 May 2019. Due to epidemiological criteria, a measles epidemic has been declared on the entire territory of Northern Macedonia.

[Serbia](#) has reported 5 797 cases, including 15 deaths, from October 2017–7 June 2019, including cases reported from Kosovo\*. This is an increase of seven cases since the national report on 3 May 2019. Of the reported cases, 2 946 were confirmed.

*\*This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the International Court of Justice Opinion on the Kosovo Declaration of Independence.*

[Switzerland](#) has reported 196 cases in 2019 as of 4 June 2019. This is an increase of 41 cases since the national report on 30 April 2019.

[Ukraine](#) has reported 53 112 cases of measles in 2019, including 18 deaths, as of 6 June 2019. This is an increase of 7 965 cases and one death since the national report on 2 May 2019. Of the reported cases, 25 005 were adults and 28 107 were children. Measles has been reported nationwide.

The [US](#) has reported 1 022 confirmed measles cases from 28 states in 2019 as of 6 June 2019. This is an increase of 258 cases since the national report on 3 May 2019. This is the highest number of cases reported in the US since 1994 and since measles was declared eliminated in 2000.

According to the [WHO Regional Office for Africa](#), outbreaks of measles have been reported in Angola, Cameroon, the Central African Republic, Chad, Comoros, the Democratic Republic of the Congo, Ethiopia, Guinea, Kenya, Liberia, Madagascar, Mali, Mauritius, Niger, Nigeria, South Sudan and Uganda as of 9 June 2019.

According to the [Pan America Health Organization \(PAHO\)/WHO Regional Office for the Americas](#), in 2019 and as of week 20 ending on 18 May 2019, 1 323 confirmed cases were reported from 16 countries. This is an increase of 715 cases since the PAHO report from week 14. Most cases were reported by Brazil (375), Mexico (297) and Paraguay (273).

According to the [WHO Western Pacific Region](#) as of 20 May 2019, measles cases have been reported by Australia (108), Cambodia (40), China (933), Japan (456), Laos (69), Malaysia (332), Mongolia (2), New Zealand (96), the Philippines (21 834),

South Korea (148), Singapore (46) and Vietnam (762).

### ECDC assessment

Based on ECDC's epidemiological assessment, there is a high risk of continued widespread circulation of measles in EU/EEA in the near future. Given the potential of importations, measles is a serious cross-border threat to health in the EU/EEA even though most Member States are deemed to have interrupted endemic transmission. Re-establishment of transmission in these Member States is possible when vaccination coverage is suboptimal and immunity gaps remain. There is a particularly high burden of measles among infants and adults, the groups at the highest risk of complications. Vaccination coverage of at least 95% in all age groups at national and subnational levels with two doses of measles-containing vaccine is necessary to interrupt circulation. People of all ages should check their vaccination status, including before travelling. Particular care is recommended if travelling with infants under one year of age or those for whom vaccination is contraindicated who will be at increased risk of infection and possible complications. For a more complete assessment, consult ECDC's risk assessment '[Who is at risk of measles in the EU/EEA?](#)' published on 28 May 2019.

### Actions

ECDC monitors the measles situation through epidemic intelligence and reports monthly and also gathers measles surveillance data through The European Surveillance System (TESSy) for 30 EU/EEA countries.

## New! **Salmonella Enteritidis associated with travel on cruise ships – 2019**

Opening date: 13 June 2019

Latest update: 14 June 2019

### Epidemiological summary

The United Kingdom has reported a cluster of 24 cases of *Salmonella* Enteritidis linked to travel on cruise ships visiting destinations in the Eastern Mediterranean and Middle East. The cases have sampling dates from 6–21 May 2019. These cases all fall into a distinct 5-single nucleotide polymorphism (SNP) cluster with a total of 29 cases (24 reported in 2019 and associated with the incident and five cases with sample dates ranging from 2014–2018). Of the 24 cases reported in 2019, 12 are female (52%) and the median age is 64 years (range 40–84 years). The most commonly reported cruise ship destinations are Croatia, Corfu, Greece, Israel, Italy, Jordan, Montenegro and Oman and the investigation to date indicates that there is more than one cruise holiday associated with this outbreak. Cases for which information is currently available declare eating all meals on the cruise ship, with many also spending the entire incubation period on the ship.

Historical isolates in the 5-SNP cluster from 2014 and 2015 were phage-typed as PT1. Accession numbers for representative sequences are SRR9261536 and SRR9224567.

Denmark, Israel and Luxembourg report no closely related cases.

**Source:** EPIS Food and Waterborne Diseases and Zoonoses

### ECDC assessment

The United Kingdom has reported a cluster of *S. Enteritidis* cases identified in travellers to cruise ships to different destinations in the Eastern Mediterranean and the Middle East. The cluster was detected through WGS analysis. Infection is likely to have occurred during the cruise as certain cases consumed all their meals and spent the entire incubation period aboard. Information about whether the different cruise ships were run by the same company is not yet available. However, it is likely that the same contaminated product would have been distributed to different ships. Considering that the latest reported onset of symptom was on 21 May 2019 and taking into account certain reporting delays, it is likely that additional cases associated with this event will be reported in the UK and in other EU/EEA countries able to timely perform sequencing of *S. Enteritidis* isolates from patients with a history of travel abroad.

### Actions

ECDC is monitoring this event through EPIS FWD.

## Ebola virus disease - tenth outbreak - Democratic Republic of the Congo and Uganda - 2018-2019

Opening date: 1 August 2018

Latest update: 14 June 2019

### Epidemiological summary

In the Democratic Republic of the Congo, since the beginning of the outbreak a year ago and as of 12 June 2019, there have been 2 108 Ebola virus disease cases (2 014 confirmed, 94 probable), including 1 411 deaths (1 317 confirmed, 94 probable), according to the Ministry of Health of the Democratic Republic of the Congo. This includes the three cases and two deaths that were previously reported having travelled to Uganda.

As of 12 June 2019, 116 healthcare workers have been infected, including 38 deaths.

Twenty-two health zones in two provinces have reported confirmed or probable Ebola virus disease cases: Alimbongo, Beni, Biena, Butembo, Kalunguta, Katwa, Kayna, Kyondo, Lubero, Mabalako, Manguredjipa, Masereka, Mutwanga, Musienene, Oicha and Vuhovi Health Zones in North Kivu Province and Bunia, Nyankunde, Komanda, Mandima, Rwampara and Tchomia Health Zones in Ituri Province.

**Sources:** [Ministry of Health of the Democratic Republic of the Congo](#) | [WHO](#) | [WHO Regional Office for Africa](#)

### ECDC assessment

**ECDC assessment:** The recent report of imported cases from the Democratic Republic of the Congo to Uganda is not unexpected. So far, the identification of these cases does not change the overall risk for the EU/EEA, which remains very low. Response measures remain challenging in affected areas because of the prolonged humanitarian crisis, unstable security situation and resistance among the population. The fact that the outbreak is ongoing in areas with cross-border population flow with Rwanda, South Sudan and Uganda remains of particular concern.

A substantial proportion of cases continue to be among individuals not previously identified as contacts, highlighting the need to maintain enhanced surveillance in order to identify chains of transmission. The risk can only be eliminated by stopping transmission at the local level.

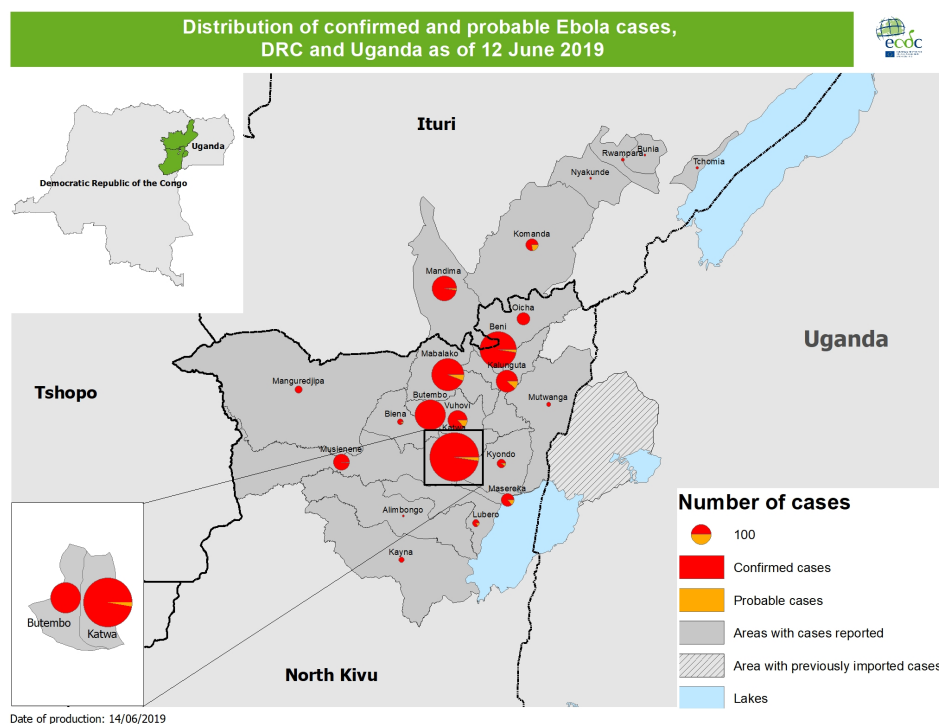
**WHO assessment:** As of 13 June 2019, the [WHO assessment](#) is that the risk of spread is low at the global level, but remains very high at national and regional levels.

### Actions

ECDC published an [epidemiological update](#) on 13 June 2019 and the fourth update of a [rapid risk assessment](#) on 16 April 2019.

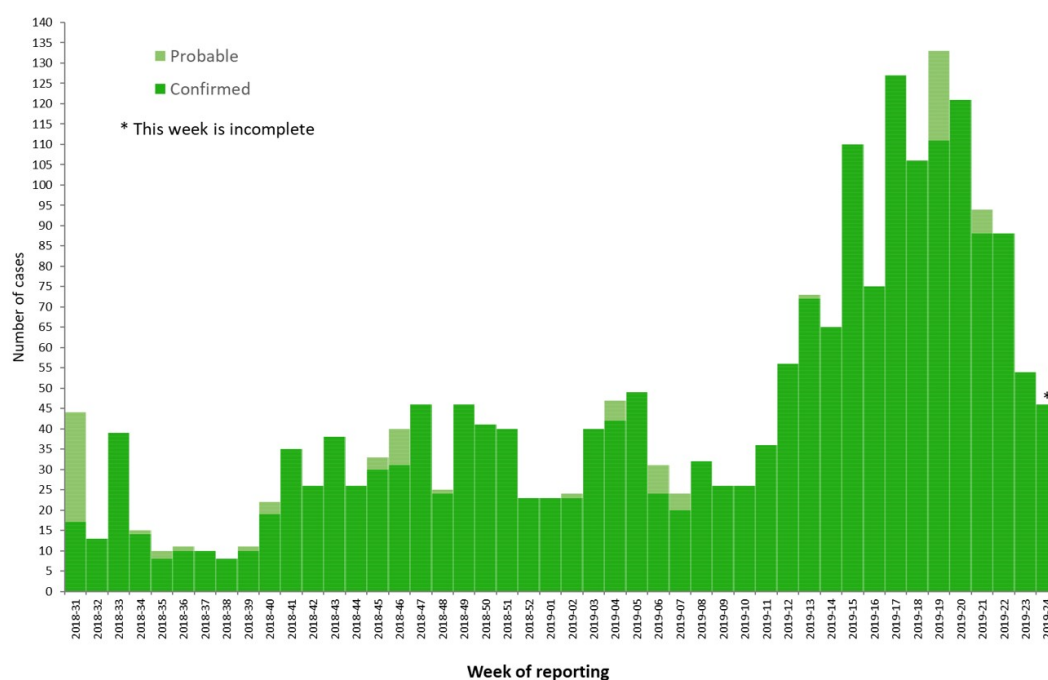
## Geographical distribution of confirmed and probable cases of Ebola virus disease, North Kivu and Ituri Provinces, Democratic Republic of the Congo, as of 12 June 2019

Source: ECDC



## Distribution of confirmed and probable cases of Ebola Virus Disease and health zones reporting cases, North Kivu and Ituri, Democratic Republic of the Congo, as of 12 June 2019

Source: ECDC



## West Nile virus - Multistate (Europe) - Monitoring season 2019

Opening date: 3 June 2019

Latest update: 14 June 2019

### Epidemiological summary

No human case or equine outbreak has been reported so far in 2019.

Since the beginning of the 2019 transmission season and as of 13 June 2019, no human case or equine West Nile virus infection outbreak has been reported in EU Member States and EU neighbouring countries.

**ECDC link:** [West Nile virus infection atlas](#)

**Sources:** [TESSy](#) | [Animal Disease Notification System](#)

### ECDC assessment

No human cases have been notified at this early stage of the transmission season.

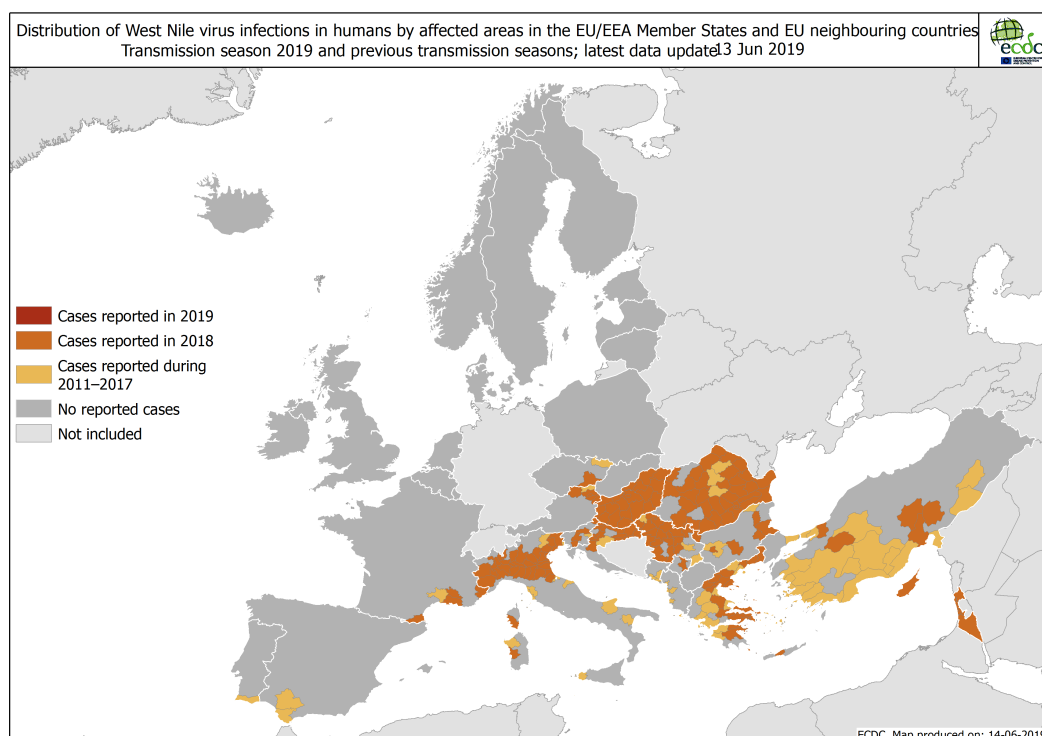
In accordance with [European Commission Directive 2014/110/EU](#), prospective donors should be deferred for 28 days after leaving a risk area for locally acquired West Nile virus unless the results of an individual nucleic acid test are negative.

### Actions

During the transmission season, ECDC publishes [West Nile virus infection maps](#) together with an epidemiological summary every Friday.

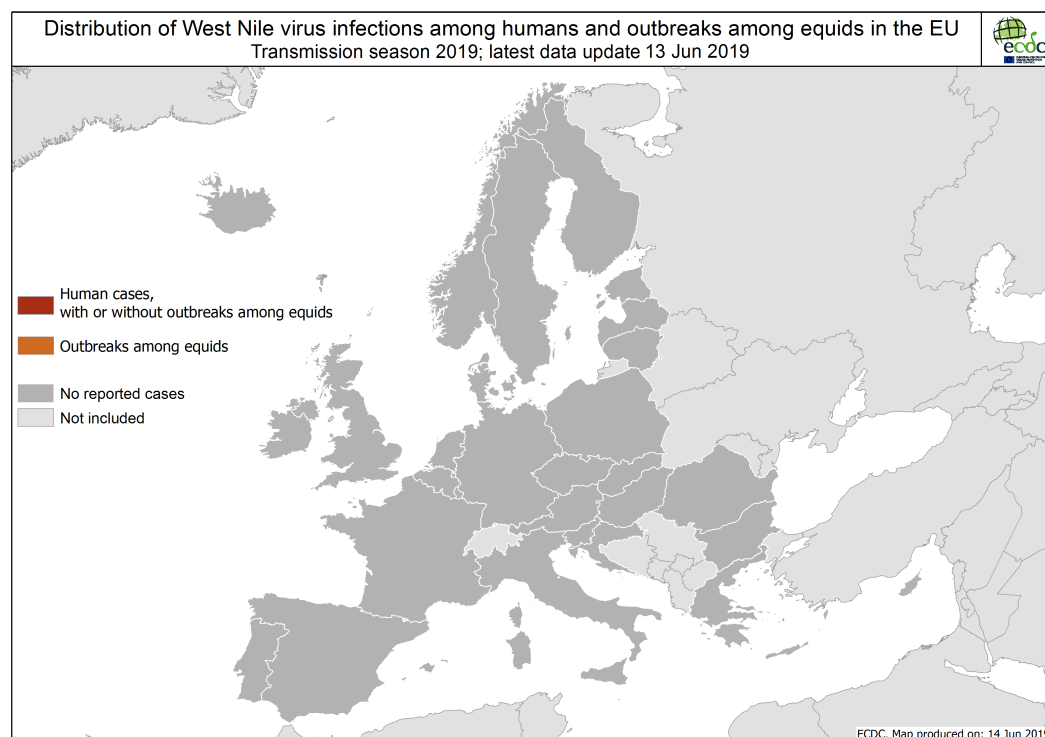
## Distribution of human West Nile virus infections by affected areas as of 13 June 2019.

ECDC



## Distribution of West Nile virus infections among humans and outbreaks among equids in the EU as of 13 June 2019.

ECDC and ADNS



## Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 14 June 2019

### Epidemiological summary

#### Americas

**Dominican Republic:** In 2019 and as of 11 May 2019, the Dominican Republic has reported six cholera cases and no deaths. This represents one new case since the previous CDTR update. During the same period in 2018, the Dominican Republic reported 17 cholera cases.

**Haiti:** In 2019 and as of 16 March 2019, Haiti has reported 218 cases, including 3 deaths (CFR: 1.4%). This represents an increase of 24 cases and no deaths since the previous CDTR update. In 2018, Haiti reported 3 777 cholera cases, including 41 deaths (CFR: 1.1%). Since the beginning of the outbreak in 2010 and as of 16 March 2019, Haiti has reported 819 995 suspected cholera cases, including 9 792 deaths (CFR: 1.2%).

#### Africa

**Cameroon:** As of 15 May 2019, Cameroon has reported 1 060 cholera cases, including 64 deaths (CFR: 6%), since the beginning of the outbreak in May 2018. This represents an increase of eight cases and one death since the previous CDTR update.

**Democratic Republic of the Congo:** In 2019 and as of 12 May 2019, the Democratic Republic of the Congo has reported 10 469 suspected cholera cases, including 241 deaths (CFR: 2.3%). This represents an increase of 1 947 cases and 35 deaths since the previous CDTR update. In 2018, 31 387 cases, including 1 042 deaths, were notified across the country.

**Ethiopia:** According to WHO, on 14 May 2019, a cholera outbreak was reported in Amhara Region. As of 6 June 2019, 424 cases, including 15 deaths (CFR: 3.5%), were reported. Among the cases, 13 were laboratory-confirmed. Five regions are reporting cases: Addis Ababa, Amhara, Oromia, Somali and Tigray.

**Kenya:** In 2019 and as of 19 May 2019, 2 137 cases, including 14 deaths (CFR: 0.7%), have been reported. An outbreak remains active in Garissa, Kajiado, Mandera, Mombasa, Nairobi and Wajir Counties. This represents an increase of 674 cases and six deaths since the previous CDTR update.

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**Mozambique:** In 2019 and as of 22 April 2019, WHO has reported 6 739 cholera cases, including eight deaths (CFR: 0.1%). This represents an increase of 143 cases since the previous CDTR update. Cholera cases have been reported in Beira, Buzi, Dondo and Nhamatanda.

**Somalia:** As of 26 May 2019, WHO has reported 7 235 suspected cholera cases, including 46 deaths (CFR: 0.6%), since December 2017. This represents an increase of 230 cases and no deaths since the previous CDTR update.

**Tanzania:** In 2019, as of 26 May 2019, Tanzania has reported 277 cholera cases, including five deaths (CFR: 1.8%). This represents an increase of 51 cases since the previous CDTR update. The last case reported in Zanzibar was on 11 July 2017.

**Zambia:** On 14 May 2019, the Ministry of Health reported a cholera outbreak in Mpulungu District, next to Lake Tanganyika. The index case had onset of symptoms in early April 2019. As of 31 May 2019, 312 cases, including seven deaths (CFR: 2.2%), have been reported.

### Asia

**India:** According to media sources, several cholera cases have been reported in India in May 2019. In Ahmedabad, 16 cases were reported. Additionally, 50 suspected cases, including one death, were reported in [Bhopal](#) during the same period. In [Wayanad District](#), Kerala, 18 cases, including four confirmed, were reported. Fifty additional suspected cases were reported in [Puri District](#), Odisha, in May 2019 after Cyclone Fani.

**Yemen:** Since the beginning of the outbreak in 2017 and as of 6 June 2019, Yemen has reported 1 768 477 suspected cholera cases and 3 390 deaths (CFR: 0.2%). This represents an increase of 112 223 cases and 118 deaths since the last CDTR update.

## ECDC assessment

Cholera cases continue to be reported in East Africa, the Gulf of Aden and the Horn of Africa over the past few months. Cholera outbreaks have also been notified in West and Southern Africa. Despite the number of cholera outbreaks reported worldwide, few cases are reported each year among returning EU/EEA travellers. In this context, the risk of cholera infection in travellers visiting these countries remains low even though sporadic importation of cases in the EU/EEA remains possible. In 2017, 17 cases were reported in the EU/EEA Member States, while 23 cases were reported in 2016 and 24 in 2015. All cases had travel history to cholera-affected areas.

According to WHO, vaccination should be considered for travellers at higher risk, such as emergency and relief workers who are likely to be directly exposed. Vaccination is generally not recommended for other travellers.

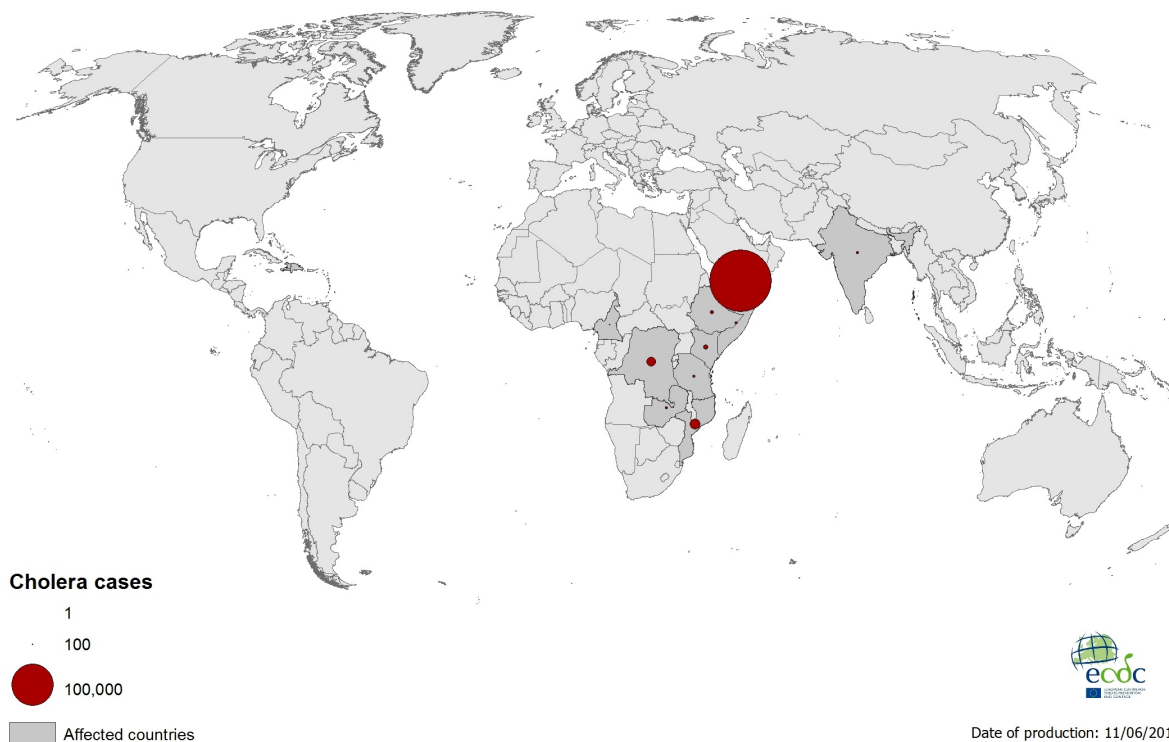
Travellers to cholera-endemic areas should seek advice from travel health clinics to assess their personal risk and apply precautionary sanitary and hygiene measures to prevent infection. These can include drinking bottled water or water treated with chlorine, carefully washing fruit and vegetables with bottled or chlorinated water before consumption, regularly washing hands with soap, eating thoroughly cooked food and avoiding the consumption of raw seafood products.

## Actions

ECDC monitors cholera outbreaks globally through epidemic intelligence activities in order to identify significant changes in epidemiology and inform public health authorities. Reports are published on a monthly basis.

## Geographical distribution of new cholera cases reported worldwide between April to June 2019

ECDC



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