

This weekly bulletin provides updates on threats monitored by ECDC.

## News

### FIFA 2018 World Cup event-based surveillance – end of monitoring

The FIFA 2018 World Cup took place between 14 June and 15 July 2018. The ECDC epidemic intelligence team screens thousands of media articles and reports daily in order to detect any signals related to the ongoing event. Open sources were checked for both Russia and participating countries. No events directly related to the football competition were detected. However, several events with potential for spreading infectious diseases were detected in the proximity of FIFA 2018 host cities and regions. For example, several measles outbreaks were reported in parts of Russia before and during the World Cup. There were also [reports](#) of large numbers of mosquitoes disturbing fans and players in several cities, including Moscow and Volgograd, that were of interest.

Russian [authorities](#) actively screened individuals arriving through 241 points of entry to Russia. From May to mid-July 2018, 6.5 million people were screened with infrared thermometers, of whom 137 had fever or other symptoms. No major outbreaks that needed immediate action were detected during the World Cup by Russian authorities nor through active epidemic intelligence activities at ECDC and WHO.

Travellers who require hospitalisation in the EU after a hospital stay in Russia should report their previous hospitalisation so as not to delay the possible ascertainment of recent healthcare-associated infections. Outbreaks and spread of vaccine-preventable diseases are of particular concern during mass gatherings, but there are no indications that the risk is higher than usual. Proper vaccination in advance is an effective way of preventing the contracting and further spread of vaccine-preventable infections. There is a possibility that travellers may import communicable diseases. Surveillance for communicable diseases in EU countries to which travellers and World Cup attendees return should be sensitive enough to detect threats at a stage when interventions are likely to prevent or reduce the impact of outbreaks. ECDC's risk assessment for FIFA 2018 is available [here](#).

## I. Executive summary

## EU Threats

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

Opening date: 24 May 2018

Latest update: 20 July 2018

Elevated sea surface temperatures 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 Geoport](#)).

→Update of the week

As of 20 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.

### Dengue – France, Réunion – 2018

Opening date: 13 March 2018

Latest update: 20 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 2 and 8 July 2018, Réunion has reported 119 cases of dengue fever.

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

Opening date: 30 May 2018

Latest update: 20 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 13 and 19 July 2018, six cases of human West Nile fever were reported in the EU by Greece (3), Romania (2) and Hungary (1). In neighbouring EU countries, 18 cases were reported by Serbia.

All human cases were reported from regions that have been affected during previous transmission seasons.

This week, two outbreaks among equids were reported: one in Greece and another in Italy.

## Non EU Threats

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

Opening date: 20 April 2006

Latest update: 20 July 2018

Several countries in Africa, Asia and the Americas are reporting [cholera](#) outbreaks. Major outbreaks are currently reported in Yemen, Nigeria, the Democratic Republic of the Congo (DRC), Haiti, Somalia and Kenya.

→Update of the week

Since the last CDTR update on 1 June 2018, the countries reporting the most cases are Yemen (13 463 cases, 16 deaths), Nigeria (12 124 cases, 93 deaths), DRC (4 080 cases, 115 deaths) and Somalia (2 302 cases, 19 deaths). Additionally, a new outbreak of cholera has been reported in Niger in a district bordering to Nigeria. The ongoing outbreak in Zambia was declared over on 15 June 2018.

## Chikungunya and dengue – Multistate (World) – Monitoring global outbreaks

Opening date: 27 January 2017

Latest update: 20 July 2018

Chikungunya and dengue are vector-borne diseases that affect 50 to 100 million people each year. Over the past decade, chikungunya and dengue have been detected in an increasing number of countries. In 2017, France and Italy reported autochthonous chikungunya cases. In 2018, no autochthonous dengue or chikungunya cases were detected in EU/EEA Member States.

→ Update of the week

**Chikungunya:** The virus is largely spread in the Americas region, with several countries reporting cases in 2018. Additionally, new cases have also been detected in India and Thailand since the previous update on 20 June 2018. The outbreak in Kenya is still ongoing in Africa. No outbreaks have been identified in Europe, Australia and the Pacific region since the previous report.

**Dengue:** Following seasonal patterns, the majority of the cases are presently recorded in the southern hemisphere, with large numbers detected in Brazil, Paraguay and Malaysia. New outbreaks have also been detected in Ethiopia and Yemen.

## II. Detailed reports

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

Opening date: 24 May 2018

Latest update: 20 July 2018

#### Epidemiological summary

As of 20 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.

Sea surface temperatures (SST) in the Baltic Sea are available [here](#). A *Vibrio* suitability tool is available on the [E3 Geoportals](#). 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 and maximum value 28.

#### ECDC assessment

Elevated sea surface temperatures 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 temperature 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 sea surface temperatures 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.

### Dengue – France, Réunion – 2018

Opening date: 13 March 2018

Latest update: 20 July 2018

#### Epidemiological summary

In 2018, as of 8 July 2018, public health authorities reported 6 149 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](#), [Santé publique France](#)

#### ECDC assessment

The current outbreak is a significant event because the number of cases has already exceeded the number of annual cases reported since 2010. With the arrival of the southern hemisphere winter in July and based on the observed pattern of previous outbreaks in the island, this outbreak is expected to weaken in intensity as climatic conditions become less favourable for mosquito activity. However, no marked decline has been observed yet.

The probability of onward transmission of dengue fever in Europe is associated with the importation of virus 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

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currently considered sufficient to permit autochthonous transmission of dengue virus and potentially generate local outbreaks.

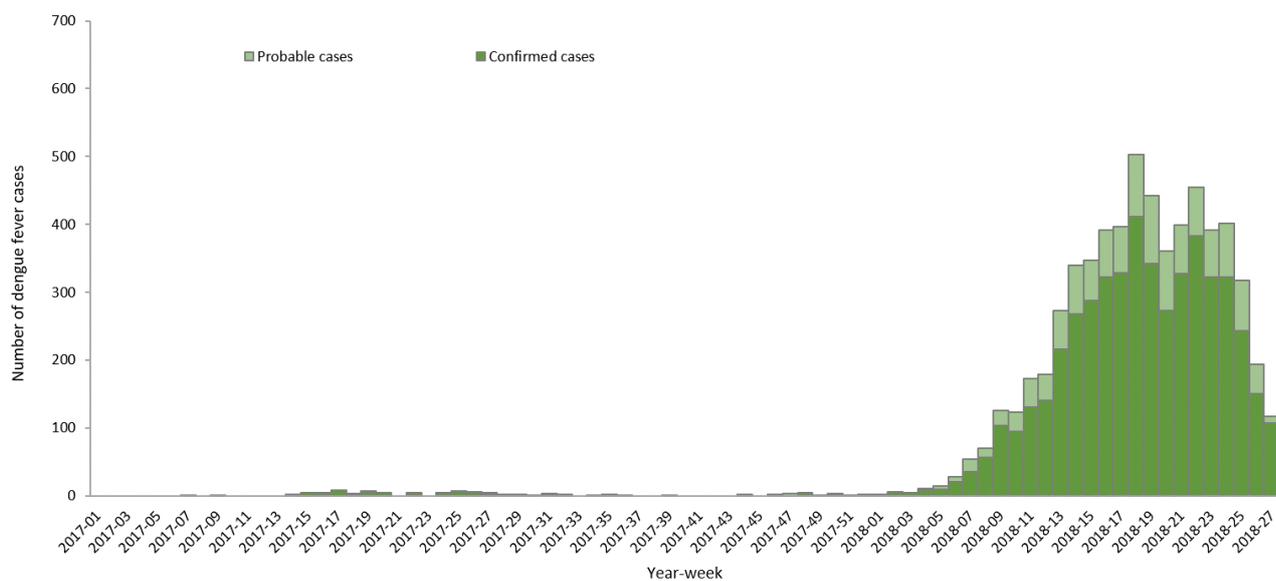
For a more thorough assessment, refer to the [update](#) of the rapid risk assessment 'Dengue outbreak in Réunion, France', published on 6 July 2018.

## Actions

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

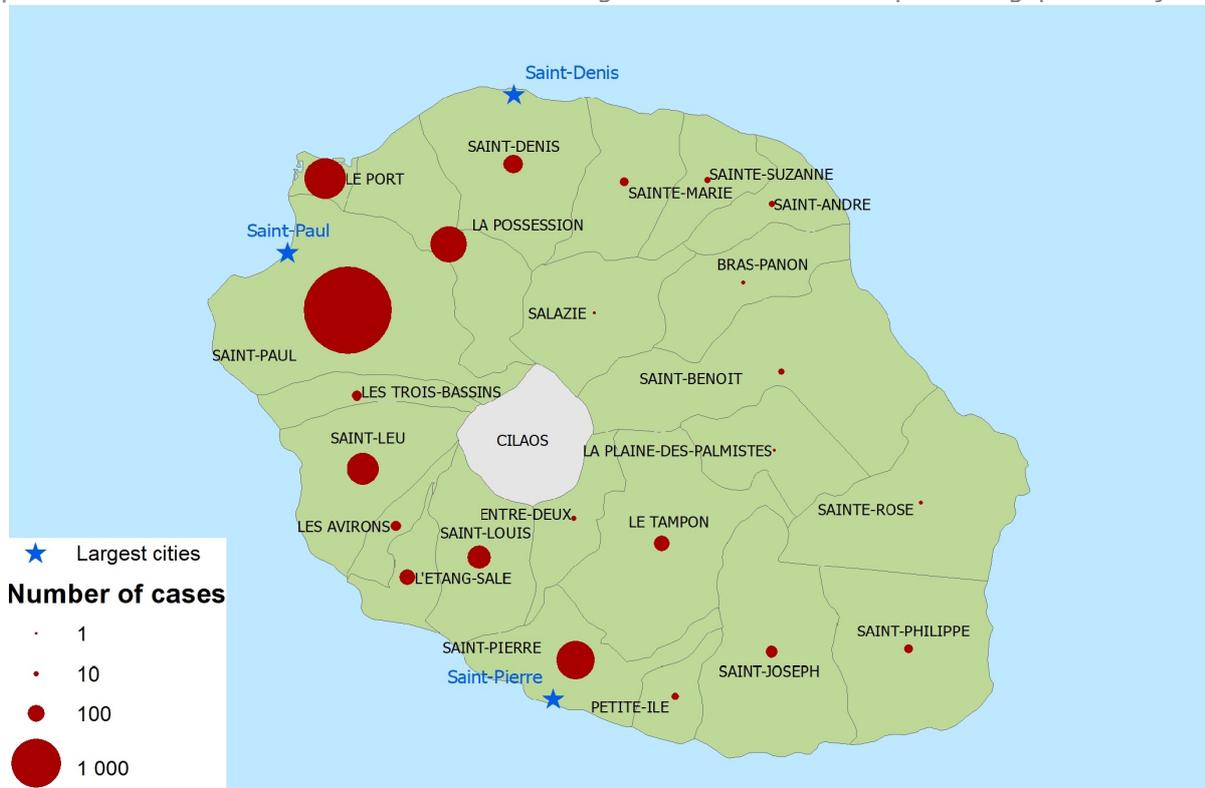
## Distribution of dengue cases by week of onset, week 1-2017 to week 27-2018, Réunion

Adapted from the MoH bulletin "Surveillance de la dengue à la Réunion. Point épidémiologique au 17 juillet 2018"



## Geographical distribution of dengue cases, Réunion, data as of 8 July 2018

Adapted from the MoH bulletin "Surveillance de la dengue à la Réunion. Point épidémiologique au 17 juillet 2018"



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

Opening date: 30 May 2018

Latest update: 20 July 2018

### Epidemiological summary

Between 13 and 19 July 2018, six cases of human West Nile fever were reported in the EU by Greece (3), Romania (2) and Hungary (1). In neighbouring EU countries, 18 cases were reported by Serbia. All human cases were reported from regions that have been affected during previous transmission seasons.

This week, two outbreaks among equids were reported: one in Greece and another in Italy.

Since the beginning of the 2018 transmission season, as of 19 July 2018, 19 human cases have been reported in EU/EEA Member States by Greece (12), Italy (4), Romania (2) and Hungary (1). Twenty-nine human cases have been reported in neighbouring EU countries, all by Serbia.

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

**ECDC link:** [ECDC West Nile](#) | [ECDC: equine West Nile fever](#) | [ECDC atlas](#)

**Sources:** [TESSy](#) and [ADNS](#)

## ECDC assessment

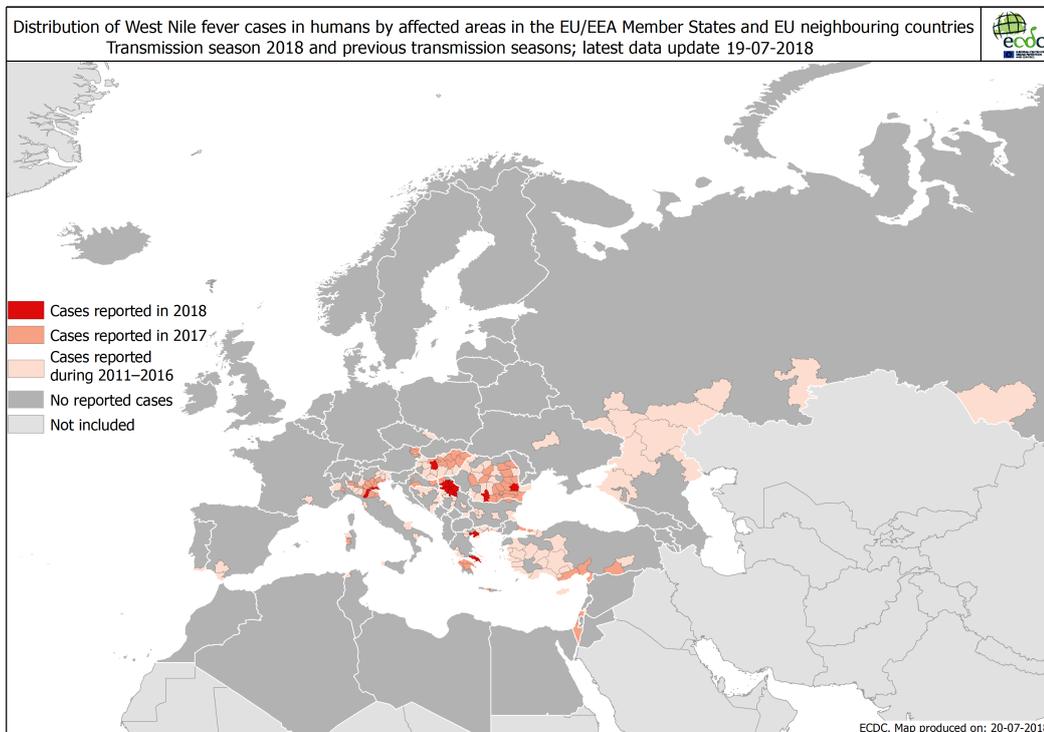
The first human West Nile fever cases of the current transmission season were reported in an EU Member State in week 26 (25 June to 1 July), which is consistent with observations of seasonal transmission from previous years. All human cases reported during the current transmission season were reported 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 (NAT) are negative.

## Actions

During the transmission season, ECDC publishes [West Nile fever maps](#) together with a summary on Friday.

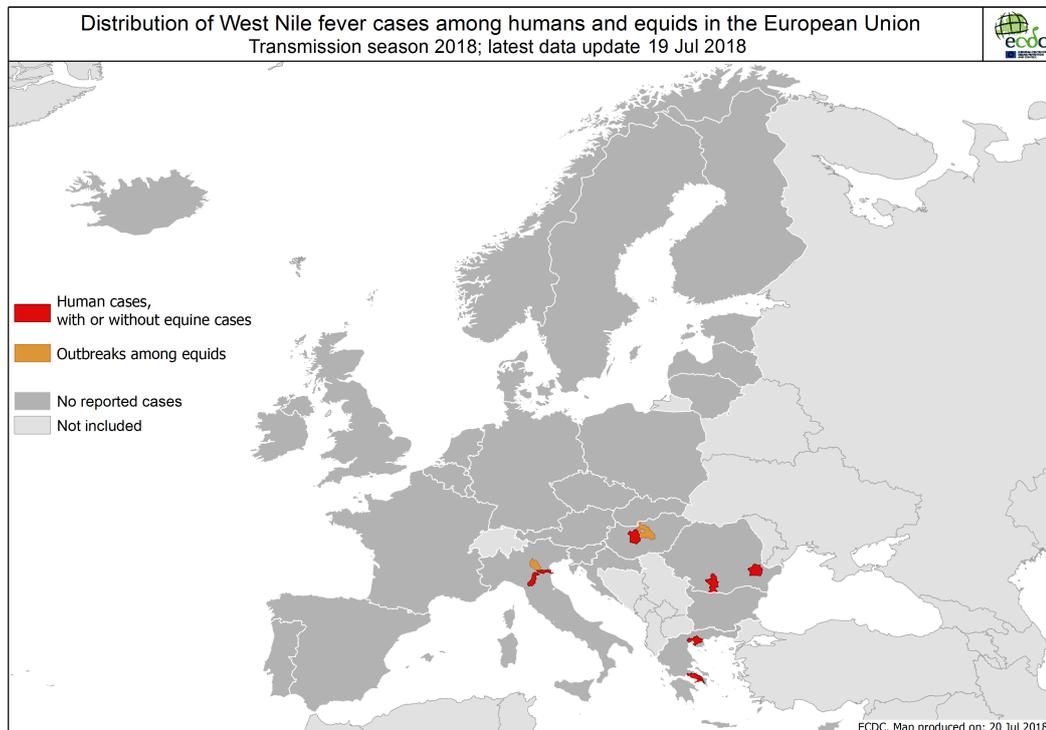
## Distribution of human West Nile fever cases by affected areas as of 19 July

ECDC



## Distribution of West Nile fever cases among humans and outbreaks among equids in the EU as of 19 July

TESSy and ADNS



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

Opening date: 20 April 2006

Latest update: 20 July 2018

### Epidemiological summary

#### Americas

**Dominican Republic:** In 2018, as of 30 June 2018, the Dominican Republic has reported 18 cholera cases and no fatalities. This represents an increase of one case since the previous update on 1 June 2018. During the same period in 2017, the Dominican Republic reported 93 cholera cases.

**Haiti:** In 2018, as of 7 July 2018, Haiti has reported 2 728 cases and including 28 deaths (CFR: 1%). This represents an increase of 873 cases and seven deaths since the previous update on 1 June 2018. In 2017, Haiti reported 13 681 cholera cases and 159 deaths (CFR: 1.2%). Since the beginning of the outbreak in 2010 and as of 7 July 2018, Haiti has reported 818 728 suspected cholera cases and 9 776 deaths (CFR: 1.2%).

#### Africa

**Angola:** As of 9 July 2018, Angola has reported 954 cases and 19 deaths (CFR: 2%) since December 2017. This represents an increase of 59 cases and four deaths since the previous update on 1 June 2018. Cases were reported from Uíge and Cabinda Provinces. However, since 22 May 2018, cases have also been reported from Luanda Province.

**Cameroon:** As of 8 July 2018, Cameroon has reported 38 cholera cases and four deaths (CFR: 10.5%) since the beginning of the outbreak in May 2018. The affected area neighbours Nigeria and Chad.

**DRC:** Since January 2017 and as of 1 July 2018, DR Congo has reported 74 909 suspected cholera cases and 1 666 deaths (CFR: 2.2%). This represents an increase of 4 080 cases and 115 deaths since the previous report on 1 June 2018.

**Ethiopia:** Since January 2017 and as of 1 July 2018, Ethiopia has reported 49 856 acute watery diarrhoea (AWD) cases and including 898 deaths (CFR: 1.8%). This represents an increase of 885 cases and 18 deaths since the previous update on 1 June 2018.

**Kenya:** As of 4 July 2018 and since the beginning of the outbreak in January 2017, Kenya has reported 9 640 cases. This

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represents an increase of 1 630 cholera cases since the previous update on 1 June 2018. In 2018, 78 deaths related to this outbreak were reported, six more since the previous CDTR on 1 June 2018.

**Malawi:** Since 8 June 2018, Malawi has experienced a new cholera outbreak. So far, nine cases and two deaths (CFR: 22.2%) were reported in the Central Region. This area was not targeted in previous oral cholera vaccine campaigns.

**Mozambique:** In 2018, as of 2 July 2018, Mozambique has reported 2 397 cases and five deaths (CFR: 0.2%) in the ongoing cholera outbreak in the country. This represents an increase of 68 cases since the previous update on 1 June 2018. According to WHO, the outbreak is confined to Nampula and Cabo Delgado Provinces.

**Niger:** On 13 July 2018, WHO was notified of a cholera outbreak in Niger in the Maradi region bordering Nigeria. Since the beginning of the outbreak in early July 2018, 23 cases and one death (CFR: 4.3%) have been reported.

**Nigeria:** In 2018, as of 25 June 2018, Nigeria has reported 13 998 suspected cholera cases and 140 deaths (CFR: 1%). This represents an increase of 12 124 cases and 93 deaths since the previous update on 1 June 2018. The outbreak has spread in different areas, affecting 16 states, including the Federal Capital Territory. According to WHO, Bauchi State is currently the most affected, reporting close to 200 cases day.

**Somalia:** In 2018, as of 12 July 2018, the Somali Ministry of Health has reported 5 582 suspected cholera cases and 40 deaths (CFR: 0.7%) since December 2017. This represents an increase of 2 302 cases and 19 deaths since the previous update on 1 June 2018. The districts affected in this outbreak are Banadir, Kismayo and Lower Juba.

**Tanzania:** In 2018, as of 8 July, Tanzania reported 2 993 cholera cases and 59 deaths (CFR: 2%). This is an increase of 888 cases and 15 deaths since the previous update on 1 June 2018. The last case reported in Zanzibar was on 11 July 2017.

**Uganda:** As of 20 June 2018, a new cholera outbreak has been reported in Uganda, affecting mainly Kampala district. So far, 92 cases and one death (CFR:1.1%) have been reported.

**Zambia:** On 15 June 2018, WHO declared the end of the ongoing cholera outbreak in Zambia. Since the beginning of the outbreak in October 2017, 5 444 cases and 98 deaths (CFR: 1.8%) have been reported.

## Asia

**India:** According to media sources, as of 18 July 2018, 18 cases were confirmed in the city of Vadodara in Gujarat state.

**Malaysia:** Several media sources quoting Hong Kong health authorities have reported a confirmed cholera case that has a travel history with Malaysia. The case was admitted in a Hong Kong hospital on 8 July 2018 presenting compatible symptomatology. Stool samples tested positive for *Vibrio cholera* O1 serotype Ogawa.

**Yemen:** Since the beginning of the outbreak in October 2016 and as of 1 July 2018, Yemen has reported 1 115 378 suspected cholera cases and 2 310 deaths (CFR: 0.2%). This represents an increase of 13 463 cases and 16 deaths since the last update on 1 June 2018. Among the most affected governorates are Amanat Al Asima, Al Hudaydah, Hajjah, Amran and Dhamar.

## ECDC assessment

There has been an unusual increase in the number of cholera cases in Nigeria, the Horn of Africa and Gulf of Aden over the past few months. Despite the number of cholera outbreaks reported worldwide, very few cases are reported each year among returning EU/EEA travellers.

According to WHO, vaccination should be considered for travellers at higher risk, such as emergency/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 their hands with soap, eating thoroughly cooked food and avoiding consumption of raw seafood products.

## Actions

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

## Chikungunya and dengue – Multistate (World) – Monitoring global outbreaks

Opening date: 27 January 2017

Latest update: 20 July 2018

### Epidemiological summary

#### Europe

No autochthonous dengue or chikungunya cases were detected in continental EU/EEA countries.

#### Americas and the Caribbean

##### Chikungunya:

**Bolivia:** In 2018, as of 19 June 2018, Bolivia has reported 74 confirmed chikungunya cases. This represents an increase of nine cases since the previous update on 20 June 2018. For the same period in 2017, Bolivia reported 22 cases.

**Brazil:** In 2018, as of 23 June 2018, Brazil has reported 19 371 confirmed cases. This represents an increase of 14 708 confirmed cases since the previous round table update on 20 June 2018. The recent evolution of the number of reported probable cases shows a decreasing trend for 2018 compared to the previous years.

**Costa Rica:** In 2018, as of 22 June 2018, Costa Rica has reported 63 suspected chikungunya cases. This represents an increase of 14 cases since the previous round table update on 20 June 2018.

**El Salvador:** In 2018, as of 7 July 2018, El Salvador has reported 171 suspected cases. This represents an increase of 44 cases since the previous round table update on 20 June 2018. For the same period in 2017, El Salvador reported 347 suspected cases.

**Mexico:** In 2018, as of 30 June 2018, Mexico has reported 11 confirmed chikungunya cases, three more since the previous round table update on 20 June 2018. For the same period in 2017, Mexico reported 17 confirmed cases.

**Paraguay:** In 2018, as of 23 June 2018, Paraguay has reported 1148 probable chikungunya cases. Among these cases, Paraguay considers 61 cases as confirmed cases in Central, Amambay, Guaira and Paraguari Departments. This represents an increase of 203 probable cases and the confirmation of five additional cases since the previous round table update on 20 June 2018.

##### Dengue:

In 2018, as of 7 July 2018, the Pan American Health Organization (PAHO) has reported 278 000 suspected and confirmed dengue cases in the entire Americas region. This is an increase of 78 000 since the last update on 22 June 2018. Brazil accounts for more than half of the cases (171 580), followed by Paraguay (24 650), Nicaragua (19 210), Colombia (16 510) and Mexico (15 130). The number of cases for each country of the Americas region can be found on the [WHO health information platform](#).

#### Asia

##### Chikungunya:

**India:** In 2018, as of 24 June 2018, India has reported 12 789 suspected chikungunya cases. An additional 1 632 chikungunya cases were confirmed. For the same time period in 2017, India reported 67 769 suspected cases and 12 548 confirmed cases. The evolution of the number of reported cases shows a decreasing trend for 2018 compared to 2017.

**Thailand:** In 2018, as of 8 July 2018, Thailand has reported 48 cases from two southern provinces. This represents an increase of 14 cases since the previous round table update on 20 June 2018.

##### Dengue:

**Cambodia:** As of 23 June 2018, Cambodia has reported 2 159 suspected dengue cases. The number of reported cases continues to increase compared with previous weeks, following a seasonal trend. The peak of the season is usually observed in August.

**Thailand:** According to the Ministry of Health, Thailand has reported 18 107 cases as of 8 July 2018. This represents an increase of 7 439 cases since the previous CDTR update.

**Laos:** In 2018, as of 23 June 2018, Laos has reported 1 461 dengue cases. The number of reported cases is increasing, following seasonal trends from previous years.

**Singapore:** According to national authorities, Singapore has reported 1 437 cases in 2018 as of 7 July 2018. This represents an increase of 200 cases since the previous CDTR. The numbers are in line with the ones reported in 2017 for the same time period.

Malaysia, Sri Lanka and Vietnam report a lower number of dengue cases compared with 2017.

**Malaysia:** Malaysia has reported 36 215 cases of dengue as of 15 July 2018, compared with 53 750 for the same time period in 2017.

**Sri Lanka:** According to the Ministry of Health, as of 17 July 2018, Sri Lanka has reporting 28 942 cases of dengue, compared with 100 000 cases for the same time period in 2017.

**Vietnam:** According to WHO, Vietnam has reported 22 842 cases as of 9 June 2018, a 43% decrease compared with the same period in 2017.

## Africa

### Chikungunya:

**Kenya:** In 2018, as of 24 June 2018, Kenya has reported 1 465 chikungunya cases. Among these cases, 50 are laboratory-confirmed. The outbreak is ongoing in Mombasa, where it has affected six sub-counties.

### Dengue:

**Tanzania:** Tanzania has reported 226 cases since January 2018 as of 22 June 2018. The affected area is Dar es Salaam and the circulating serotype is DENV-3.

**Réunion:** : In 2018, as of 10 July 2018, Réunion has reported 5 970 autochthonous cases of dengue, corresponding to an increase of 1 366 cases since ECDC's last monthly update. 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*.

### Horn of Africa and Gulf of Aden

**Ethiopia:** Ethiopia is experiencing an outbreak of dengue fever since June 2018 in the flood-affected Gode Zone of the Somali Region. Fifty-two cases have been confirmed by laboratory testing.

**Yemen:** Media accounts quoting health authorities report 139 cases of dengue in Yemen in Myafaa District, Shabwah Governorate, since the beginning of the year as of 10 July 2018.

## Australia and the Pacific

**Chikungunya:** No outbreaks have been reported since the previous CDTR update on 21 June 2018.

### Dengue:

**Australia:** In 2018, as of 4 July 2018, according to WHO, Australia has reported 375 cases of dengue. The number of cases is lower than during the same period in previous years (2013-2017).

**New Caledonia:** According to WHO, New Caledonia has reported 1 633 confirmed dengue cases in 2018 as of 4 June 2018. DENV-2 is the predominant circulating serotype (83%).

According to the [Pacific Public Health Surveillance Network](#) and [local health authorities](#), there are DENV-1 outbreaks or active circulation in Wallis and Futuna (180 cases), Tahiti, Bora Bora, Raiatea, Moorea, Rangiroa and Tahaa. DENV-2 is circulating in American Samoa, Samoa, Kiribati, Fiji and Tonga. Additionally, two autochthonous DENV-2 cases have been recorded in Raiatea, [French Polynesia](#). No cases have been detected in the territory since 2000.

## ECDC assessment

Chikungunya and dengue are endemic in large regions of the intertropical zone. Introduction in areas with competent vectors through viraemic travellers is possible. Environmental conditions in southern EU countries are currently favourable for *Aedes albopictus* vector activity. ECDC published a [rapid risk assessment](#) on chikungunya in France on 23 August 2017 and a [rapid risk assessment](#) on chikungunya in Italy on 9 October 2017.

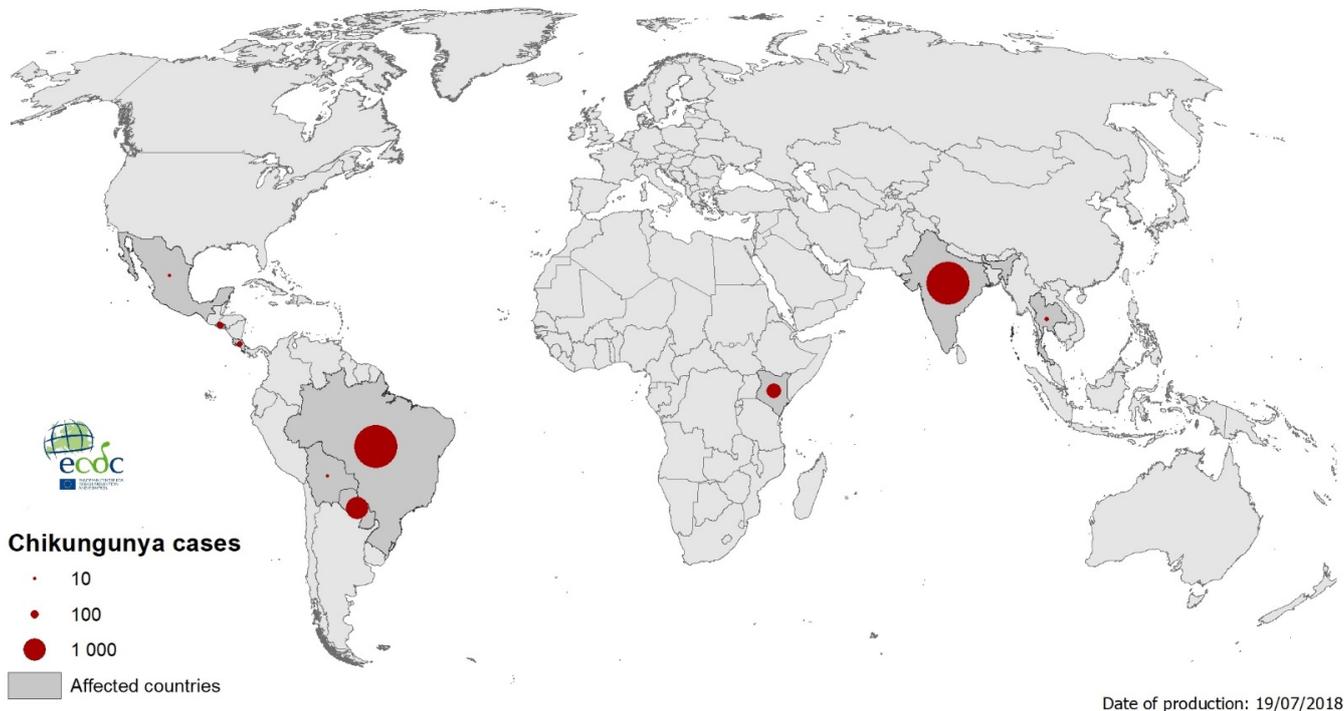
An update of the [rapid risk assessment](#) 'Dengue outbreak in Réunion, France' was published on 6 July 2018.

## Actions

ECDC monitors these threats through epidemic intelligence and reports on a monthly basis.

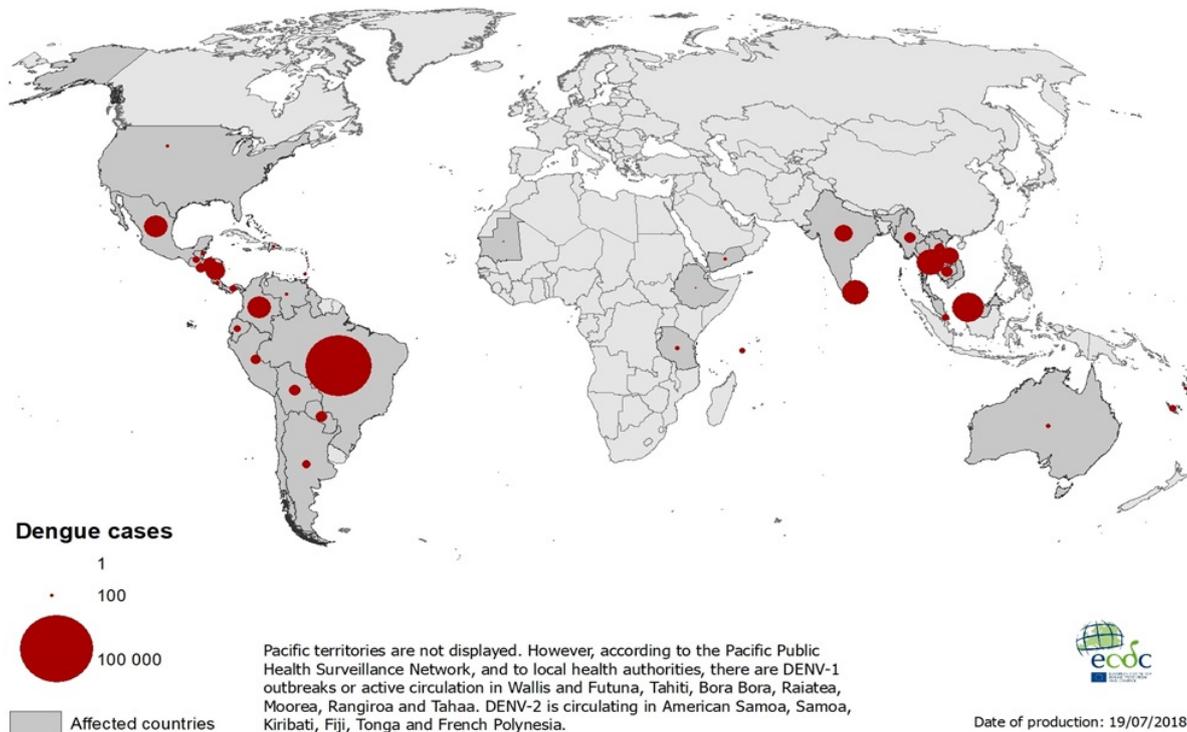
Geographical distribution of chikungunya cases, from May to July 2018, worldwide

ECDC



Geographical distribution of dengue cases, from May to July 2018, worldwide

ECDC



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