

This weekly bulletin provides updates on threats monitored by ECDC.

## I. Executive summary

### EU Threats

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#### **Influenza – Multistate (Europe) – Monitoring season 2017 – 2018**

Opening date: 11 October 2017

Latest update: 25 May 2018

Influenza transmission in Europe shows a seasonal pattern, with peak activity during the winter months.

→Update of the week

During week 20/2018 (14–20 May 2018), influenza activity has returned to inter-season levels in most of the countries in the region; virus circulation is very low.

#### **Dengue – France, Réunion – 2018**

Opening date: 13 March 2018

Latest update: 25 May 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

Since the beginning of 2018 and as of 22 May 2018, there have been 3 416 autochthonous cases of dengue in Réunion. Of these cases, 387 were reported between 7 and 13 May 2018.

## Non EU Threats

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### Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 25 May 2018

[Yellow fever](#) is a mosquito-borne viral infection which occurs in some tropical areas of Africa and South America. Brazil has been experiencing a major outbreak of yellow fever since 2016. An upsurge of confirmed cases has been reported since December 2017.

→Update of the week

Between 8 and 16 May 2018, [Brazil](#) reported five additional confirmed cases and six deaths. The cases occurred in Rio de Janeiro and Minas Gerais states.

During the same time period, [Brazil](#) reported 12 confirmed epizootics in non-human primates in São Paulo state, Minas Gerais and Tocantins.

On 3 May 2018, [WHO](#) determined that, in addition to the areas listed in previous updates, the entire states of Paraná, Santa Catarina and Rio Grande do Sul should be considered at risk for yellow fever transmission. Consequently, vaccination against yellow fever is recommended for international travellers visiting these states.

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

Opening date: 27 January 2017

Latest update: 25 May 2018

Chikungunya and dengue are vector-borne diseases that affect 50 to 100 million people each year. In the past decade, an increasing number of countries has detected cases of dengue and chikungunya. Chikungunya virus infection has been circulating in Asia, Africa, the Caribbean, the Americas and the Pacific since 2013/2014. Dengue fever is present in Asia, the Pacific, the Caribbean, the Americas and Africa. During 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 widely spread in the Americas, with several countries reporting cases in 2018. Since the last CDTR update on 27 April 2018, new cases have also been detected in India, Kenya and Thailand. No outbreaks have been identified in Europe or in the Australia and Pacific region since then.

**Dengue:** Following the seasonal pattern, the majority of the cases are presently recorded in the southern hemisphere, with large numbers detected in Brazil, Paraguay, Nicaragua, Malaysia, Philippines and Sri Lanka. Outbreaks are also reported from the Easter Island, Réunion and several Pacific islands.

### Ebola virus disease - Democratic Republic of the Congo - 2018

Opening date: 8 May 2018

Latest update: 25 May 2018

On 8 May 2018, the Ministry of Health of the Democratic Republic of the Congo declared an outbreak of Ebola virus disease (EVD) in Bikoro Health Zone, Equateur Province. This is the ninth outbreak of Ebola virus disease over the last four decades in the country, with the most recent one occurring in May 2017. The outbreak is currently affecting three health districts of the Equateur Province which is bordering the Congo River and the Republic of Congo.

→Update of the week

As of 24 May 2018, the [Ministry of Health](#) of the DRC has reported 52 cases, including 22 deaths. Of these cases, 31 cases are confirmed, 13 are probable cases, and eight are suspected cases. So far, all cases have been reported from three health zones: Bikoro (23), Iboko (24) and Wangata (5) in Equateur Province.

## II. Detailed reports

### Influenza – Multistate (Europe) – Monitoring season 2017 – 2018

Opening date: 11 October 2017

Latest update: 25 May 2018

#### Epidemiological summary

**During week 20/2018** (14–20 May 2018), influenza activity has returned to inter-season levels in most of the countries in the region.

Three per cent of all people who were sampled in primary healthcare settings tested positive for influenza viruses (compared with 10% in the previous week).

2017–2018 season overview:

Overall, influenza viruses circulated at high levels in the region between weeks 52/2017 and 12/2018 (based on increased proportions – 40% and above – of sentinel specimens testing positive for influenza viruses). This is longer than in recent seasons and may have contributed to the severity of this season.

The majority of influenza viruses detected were type B, representing a high level of circulation of influenza B viruses compared with recent seasons. B/Yamagata lineage viruses have greatly outnumbered those of the B/Victoria lineage.

Different patterns of dominant influenza virus types and A subtypes were observed between the countries of the Region.

While low in numbers, characterised A(H3N2) viruses fell mainly in clade 3C.2a (57%) and subclade 3C.2a1 (42%), while 45% of B/Victoria lineage viruses fell in a subclade of clade 1A viruses that are antigenically distinct from the current trivalent vaccine component.

The majority of severe cases were due to influenza type B virus infection and have mostly occurred in persons older than 15 years of age.

Mortality from all causes now appears to have returned to normal expected levels in all 24 participating countries and regions that report to EuroMOMO.

Interim results from [5 European studies](#) indicate a vaccine effectiveness of 25% to 52% against any type of influenza.

Source: [Flu News Europe](#), [EuroMOMO](#)

#### ECDC assessment

Influenza viruses have been circulating widely in the Region between weeks 52/2017 and 17/2018, with sentinel specimens testing positive for influenza viruses at a proportion of 10% or above. This is longer than in recent seasons and may have contributed to the severity of this season. As of week 20/2018, influenza activity has returned to inter-season levels in most of the countries in the region; virus circulation is very low.

#### Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the [Flu News Europe website](#). ECDC's risk assessment for the 2017-2018 season is available on [ECDC's website](#). Recommendations on the composition of the 2017-2018 influenza virus vaccine are available on [WHO's website](#).

This is the last weekly report of the influenza season 2017-18. During the summer, influenza reports will be provided on a monthly basis and published on 29 June, 3 August, 7 September and 5 October. The weekly reporting of influenza surveillance data will resume on 12 October 2018 for the 2018-19 season.

### Dengue – France, Réunion – 2018

Opening date: 13 March 2018

Latest update: 25 May 2018

## Epidemiological summary

In 2018 and as of 22 May, authorities reported 3 416 cases on the island. Of these, 387 were reported between 7 and 13 May 2018. The main affected areas are on the western part of the island. The most prevalent serotype is DENV-2.

The main vector of infection implicated in the outbreak is *Aedes albopictus*.

On 27 March 2018, authorities decided to raise the level of the emergency plan [ORSEC](#) to 3. Control activities are currently in place and include active reinforced vector control, enhanced surveillance, blood safety measures and social mobilisation.

**Sources:** [ARS](#), [Sante publique France](#)

## ECDC assessment

The current outbreak is a significant event as the number of cases already exceeds the yearly number of cases reported since 2010. Based on previous *Aedes* mosquito-borne outbreaks on the island, further transmission is expected up to the beginning of the austral winter (lasting from July to September) when temperatures will be lower.

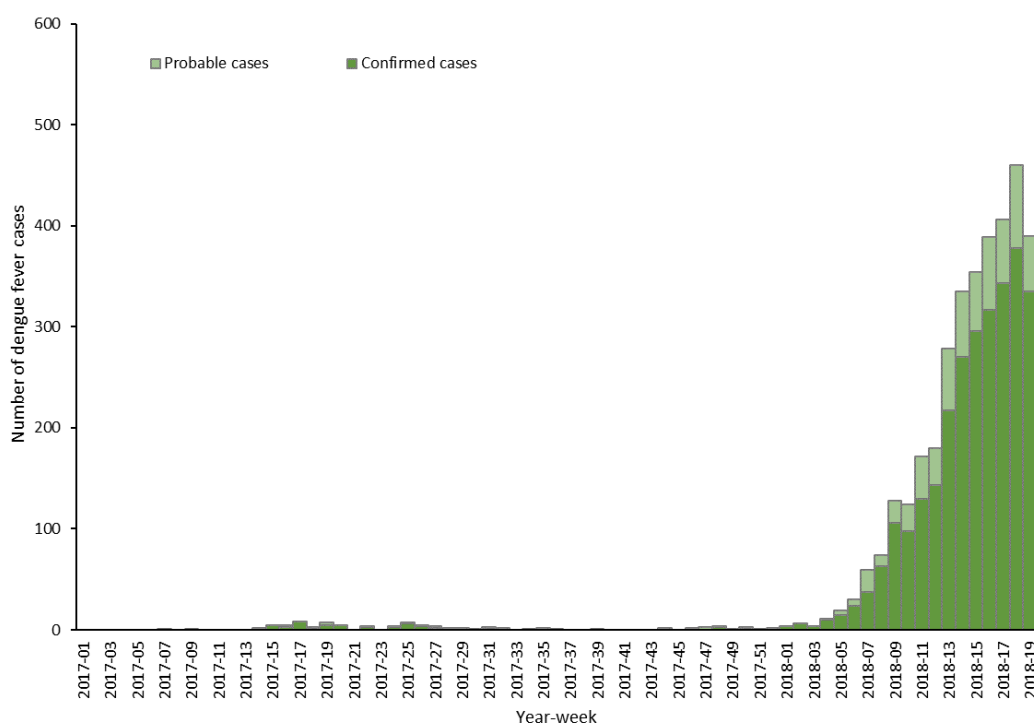
The risk for onward transmission of dengue fever in Europe is linked to importation of virus by viraemic travellers into receptive areas with established and active competent vectors (i.e. *Aedes albopictus* in mainland Europe, primarily around the Mediterranean, and *Aedes aegypti* on Madeira). Environmental conditions in Europe are now favourable to the growth of mosquito populations, which could lead to a high vector abundance in early summer. Apart from seasonal high vector abundance, there is a low likelihood of sustained autochthonous dengue virus transmission in continental Europe associated with virus introduction by returning travellers from Réunion or other areas with active DENV transmission.

## Actions

ECDC is closely monitoring the situation and produced a rapid risk assessment entitled '[Dengue outbreak in Réunion, France](#)', which was published on 16 April 2018. ECDC reports monthly dengue outbreaks detected through epidemic intelligence in the CDTR.

## Distribution of dengue cases by week of onset, week 1-2017 to week 19-2018, Réunion

Adapted from "Surveillance de la dengue à la Réunion. Point épidémiologique au 22 mai 2018"



## Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 25 May 2018

### Epidemiological summary

Between July 2017 and week 19-2018, the Ministry of Health in Brazil reported 1 266 confirmed human cases of yellow fever, including 415 deaths. The cases occurred in São Paulo (516), Minas Gerais (520), Rio de Janeiro (223), Espírito Santo (6) and Distrito Federal (1).

During the same time period, the Ministry of Health reported 752 confirmed epizootics in non-human primates. Of those, 603 were reported in São Paulo state, 103 in Minas Gerais, 39 in Rio de Janeiro state, four in Tocantins, two in Espírito Santo and one in Mato Grosso.

### Cases among returning travellers

Since the beginning of 2018, unvaccinated travellers from the Czech Republic (1), France (1), the Netherlands (1), Romania (1), Switzerland (1) and Germany (three confirmed cases, one of whom was reported by the United Kingdom) have contracted yellow fever in Brazil.

### Vaccination recommendations

[WHO](#) determined that, in addition to the areas listed in previous updates, the entire states of Paraná, Santa Catarina and Rio Grande do Sul should be considered at risk for yellow fever transmission. Consequently, vaccination against yellow fever is recommended for international travellers visiting these states.

The [Ministry of Health, Brazil](#) announced a progressive extension of the standard vaccination recommendations for yellow fever to the whole of Brazil, to be expanded gradually until 2019.

**Sources:** [MoH](#) | [WHO](#)

### ECDC assessment

The outbreak is currently showing a decreasing trend and as the vector activity season in the southern part of Brazil is coming to an end, the risk for European travellers to these areas is expected to decrease. Brazilian authorities are conducting vaccination campaigns. European citizens travelling to any yellow fever risk area should seek medical advice before their trip and should receive the yellow fever vaccine at least 10 days before travelling (unless vaccination is contraindicated). They should also follow measures to avoid mosquito bites and be aware of yellow fever symptoms and signs.

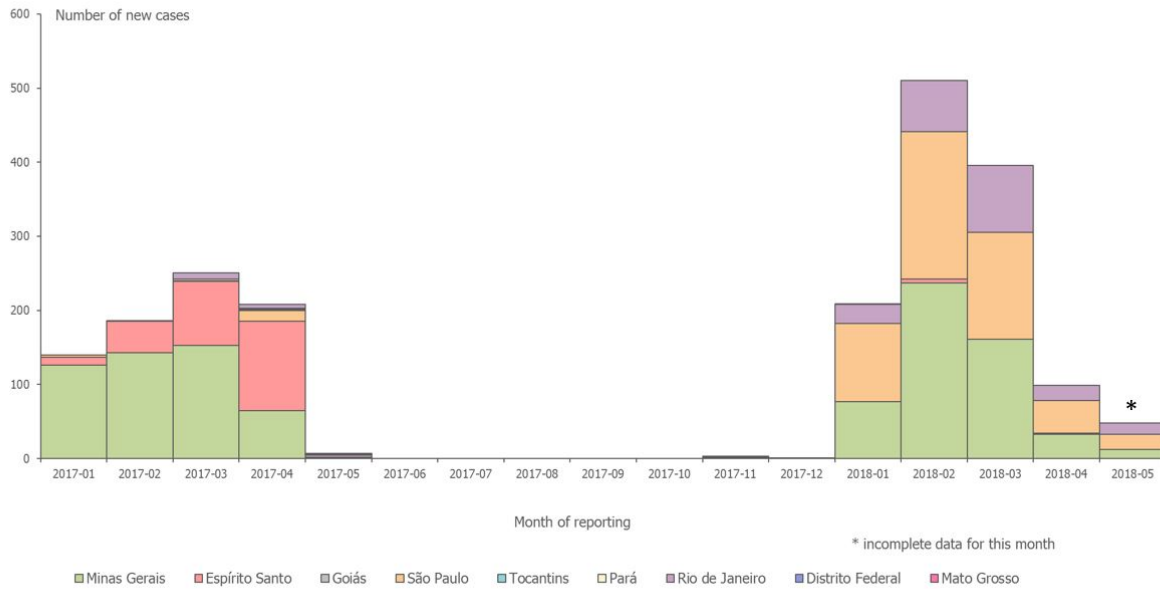
The probability of local yellow fever transmission in continental Europe following introduction of the virus by a viraemic traveller is currently considered low as *Aedes aegypti* is not present, and vector competency of *Aedes albopictus*, which is present in the southern part of Europe, is limited.

### Actions

ECDC published updates of its rapid risk assessment 'Outbreak of yellow fever in Brazil' on [13 April 2017](#) and [18 January 2018](#). On 16 March 2018, ECDC published the third update of the RRA on its [website](#).

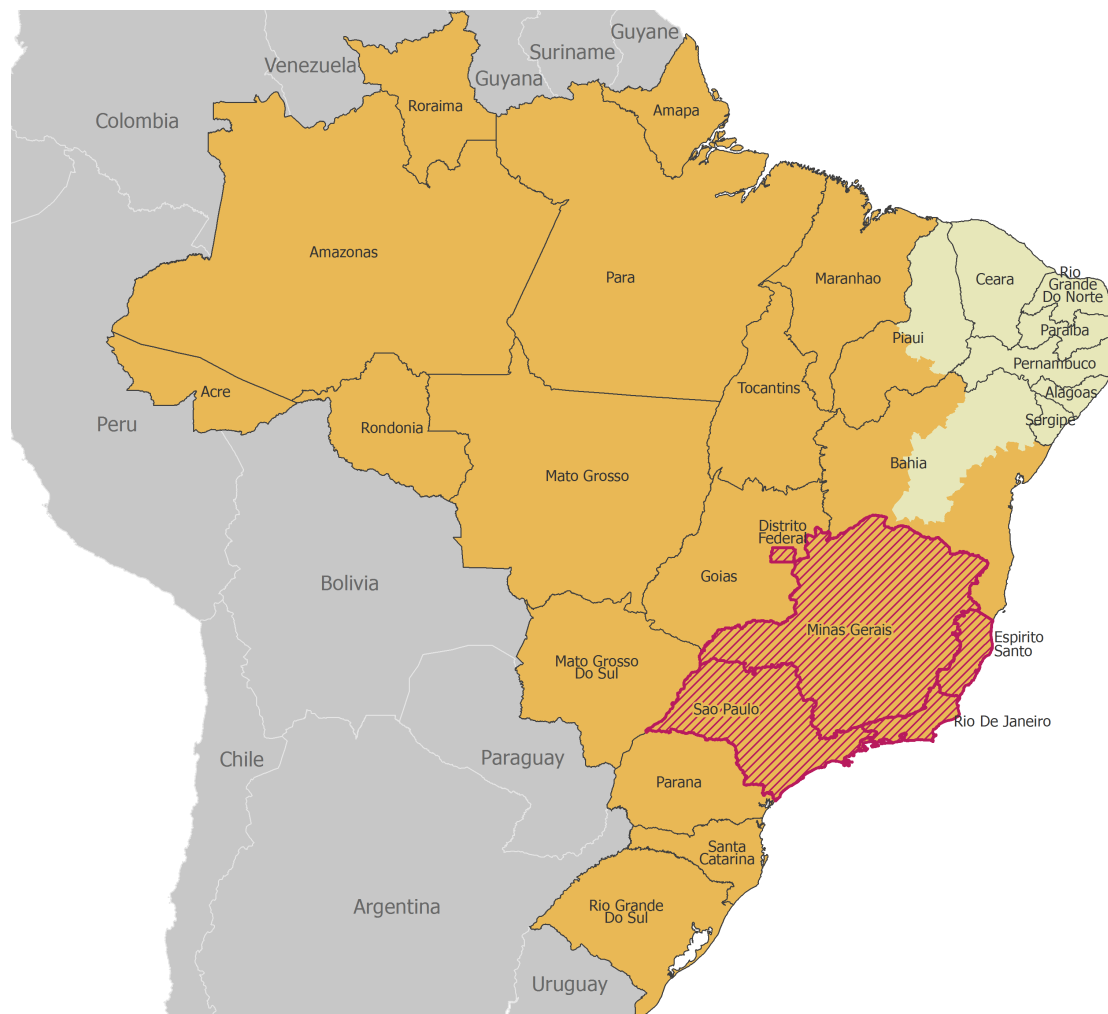
Distribution of confirmed human cases of yellow fever by month, Brazil, January 2017 - 16 May 2018

ECDC







## Yellow fever distribution and areas of risk in Brazil, as of 16 May 2018

ECDC



Confirmed cases of locally-acquired yellow fever, as of 16 May 2018

-  States with confirmed locally-acquired cases since July 2017
-  Area at risk for yellow fever transmission
-  Area considered at no risk for yellow fever transmission
-  Federal state



ECDC. Map produced on: 23 May 2018  
 ECDC map maker: <https://emma.ecdc.europa.eu>

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

Opening date: 27 January 2017

Latest update: 25 May 2018

## Epidemiological summary

**Europe**

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

**Americas and the Caribbean****Chikungunya**

**Bolivia:** As of 8 May 2018, Bolivia has reported 57 confirmed chikungunya cases for 2018. This represents an increase of 35 cases since the last CDTR update on 27 April 2018. During the same period in 2017, Bolivia reported 22 cases.

**Brazil:** As of 14 April 2018, Brazil has reported 15 684 confirmed cases for 2018. This represents an increase of 5 654 confirmed cases since the last CDTR update on 27 April 2018. The epicurve shows a decreasing trend for 2018 compared with previous years.

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**Costa Rica:** As of 4 May 2018, Costa Rica has reported 37 suspected chikungunya cases for 2018. This represents an increase of 14 cases since the last CDTR update on 27 April 2018.

**El Salvador:** As of 12 May, El Salvador has reported 102 suspected cases for 2018. This represents an increase of 24 cases since the previous CDTR update on 27 April 2018. During the same period in 2017, El Salvador reported 229 suspected cases.

**Mexico:** As of 12 May 2018, Mexico has reported six confirmed chikungunya cases for 2018, including one additional case since the previous CDTR update on 27 April 2018. During the same period in 2017, Mexico reported 15 confirmed cases.

**Paraguay:** As of 28 April 2018, Paraguay has reported 224 suspected chikungunya cases, including 45 confirmed cases in the regions of Central, Amambay and Guaira. This represents an increase of 75 suspected cases since the previous CDTR update on 27 April 2018.

### Dengue:

In 2018 and as of 12 May 2018, PAHO has reported more than 164 000 suspected and confirmed dengue cases in the whole region. This is an increase of 64 000 cases since the last update on 27 April. Brazil accounts for more than half of the cases (90 800), followed by Paraguay (22 500), Nicaragua (12 800), Colombia (9 400) and Mexico (7 400). The number of cases in Brazil this year is higher than in 2017 for the same period (70 000). Numbers of cases for each country of the Americas region can be found on the [WHO health information platform](#).

The Ministry of Health in [Chile](#) has confirmed 13 cases of dengue in the Easter Island and has activated a public health alert related to this outbreak. *Aedes aegypti* is not present in continental Chile but can be found on Easter Island.

### Asia

#### Chikungunya:

According to national authorities and as of 29 April 2018, [India](#) has reported 9 175 suspected chikungunya cases for 2018. The majority of the cases are reported in Karnataka (4 879) and Gujarat (1 357) states.

[Thailand](#) has reported 23 cases from two provinces in the south of the country as of 10 May 2018. This represents an increase of six cases since the previous CDTR update on 27 April 2018.

#### Dengue:

As of 1 May 2018, [Cambodia](#) has reported 514 suspected dengue cases. In weeks 16 and 17, the number of reported dengue cases has increased compared with the previous week and is above the alert threshold level.

As of 29 April, [India](#) has reported 5 613 cases since the beginning of the year; seven associated deaths were reported.

Malaysia, Philippines, Sri Lanka, Singapore and Vietnam report a decreasing trend compared with 2017.

[Malaysia](#) has reported 22 775 cases as of 21 May 2018, which is lower than the cases reported for the same time period in 2017 (35 000 cases).

The [Philippines](#) have reported 20 108 dengue cases as of 10 March 2018, which is 26% lower compared with the same period in 2017 (27 000 cases).

According to the ministry of health and as of 22 May 2018, [Sri Lanka](#) has reported 19 321 cases of dengue in 2018, compared with 61 600 cases for the same time period in 2017.

According to national authorities, [Singapore](#) has reported 994 cases in 2018, as of 19 May 2018. The numbers are in line with the ones reported in 2017 for the same time period (1000 cases).

According to the ministry of health, [Thailand](#) has reported 6140 cases, as of 14 May 2018. The numbers are higher than the ones reported in 2017 for the same time period (5 200 cases).

According to WHO, [Vietnam](#) has reported 16 949 cases as of 29 April 2018, including four deaths. For the same period last year, the number of cases was two times higher.

### Africa

#### Chikungunya

[Kenya](#): As of 7 May 2018 and since December 2017, Kenya has reported 1 508 cases, including 38 confirmed chikungunya cases.



Among these cases, 1 302 cases, including 32 confirmed cases, were reported in Mombasa county, and 199 cases, including four confirmed cases were reported in Lamu county. This represents an overall increase of 412 suspected chikungunya cases since the previous CDTR update on 27 April 2018.

### Dengue

In [Réunion](#), the outbreak continues to spread. Since the beginning of 2018, as of 22 May 2018, Réunion has reported 3 416 autochthonous cases of dengue, which corresponds to an increase of 1 600 cases since the last monthly update. The main affected areas are on the western part of the island. The most prevalent serotype is DENV-2. The main vector of infection implicated in the outbreak is *Aedes albopictus*.

### Australia and the Pacific

**Chikungunya:** No outbreaks have been reported since the last CDTR update on 27 April 2018.

### Dengue:

According to [WHO](#) and as of 9 May 2018, Australia has reported 248 cases of dengue virus infection for 2018. The number of cases is lower than during the same period in previous years (2013-2017).

According to local authorities, [New Caledonia](#) has reported 946 confirmed dengue cases in 2018 as of 4 May 2018. The majority of the cases are of serotype 2, but DENV-1 is co-circulating.

[Wallis and Futuna](#) is reporting 127 cases, as of 21 May 2018, and [Vanuatu](#) has reported 476 suspected cases, as of 13 May 2018.

According to the [Pacific Public Health Surveillance Network](#), there are ongoing dengue outbreaks in Samoa, American Samoa, Fiji and Tonga.

French Polynesia has reported 34 confirmed cases since the beginning of 2018 and as of 6 May. Dengue virus serotype 1 is predominant.

## ECDC assessment

Chikungunya and dengue are endemic in large regions of the intertropical zone. Introduction in areas with competent vectors via viraemic travellers is possible. Environmental conditions in Europe are now favourable for the growth of mosquito populations, which could lead to a high vector abundance in early summer. Outside of seasonal high vector abundance, there is a low likelihood of sustained autochthonous dengue virus transmission in continental Europe associated with virus introduction by returning travellers from affected areas.

## Actions

ECDC monitors these threats through epidemic intelligence and reports on a monthly basis. ECDC published a rapid risk assessment on [chikungunya in France](#) on 23 August 2017, a rapid risk assessment on [chikungunya in Italy](#) on 9 October 2017, and a rapid risk assessment on the [Dengue outbreak in Réunion, France](#) on 16 April 2018.

## Ebola virus disease - Democratic Republic of the Congo - 2018

Opening date: 8 May 2018

Latest update: 25 May 2018

### Epidemiological summary

As of 24 May 2018, the [Ministry of Health](#) of the DRC has reported 52 cases, including 22 deaths. Of these cases, 31 cases are confirmed, 13 are probable cases, and eight are suspected cases. So far, all cases have been reported from three health zones: Bikoro (23), Iboko (24) and Wangata (5) in Equateur Province.

#### Response activities

Under the coordination of the DRC ministry of health, the EVD outbreak response is being implemented, with support from UN agencies and international partners. The European Union Civil Protection Mechanism has been activated, following a request for assistance received from WHO.

The main strategic activities for the prevention and control of this EVD outbreak include: coordination of the response, enhanced epidemiological surveillance for early case detection and contact tracing, increased laboratory capacity, appropriate case management, reinforcement of infection prevention and control (IPC), ensuring safe and dignified burials, social mobilisation and

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community engagement. WHO also supports Ebola vaccination of high-risk populations in the DRC. Health workers operating in affected areas are being vaccinated, and community outreach programmes were initiated to prepare for ring vaccinations.

A mobile laboratory was deployed to the Bikoro reference hospital on 12 May 2018 (operational on 16 May 2018) and a second mobile laboratory was deployed in Mbandaka port city. Médecins Sans Frontières set up two Ebola Treatment Centres (ETCs) in Mbandaka and Bikoro, with 20 beds each. In addition, more than 7500 doses of the rVSV-ZEBOV Ebola vaccine have been deployed to support the ring vaccination strategy that are part of the EVD outbreak responses activities.

According to the Emergency Committee under the International Health Regulation (2005) (IHR) held on 18 May 2018, this event does not meet the criteria of a public health event of international concern.

## ECDC assessment

The identification of EVD cases in the urban area of Mbandaka city and around Tumba Lake (both areas are connected to the Congo River) increases the risk of regional spread to other provinces of DRC and neighbouring countries (namely the Republic of the Congo and the Central African Republic). According to WHO's third external situation report dated 18 May 2018 and based on the latest WHO risk assessment, the public health risk associated with this event is estimated to be **very high at the national level, high at regional level, and low at the international level.**

Visitors and residents in EVD-affected areas face a **low risk** of becoming infected in the community if the following precautions are strictly followed:

- avoiding contact with symptomatic patients and their bodily fluids;
- avoiding contact with corpses and/or bodily fluids from deceased patients;
- avoiding contact with wild animals (including primates, forest antelopes, rodents and bats), both alive and dead, and avoiding consumption of 'bush meat';
- washing hands regularly with soap or antiseptics.

In addition, the following generic precautions are advisable:

- wash and peel fruit and vegetables before consumption;
- practice 'safe sex'.

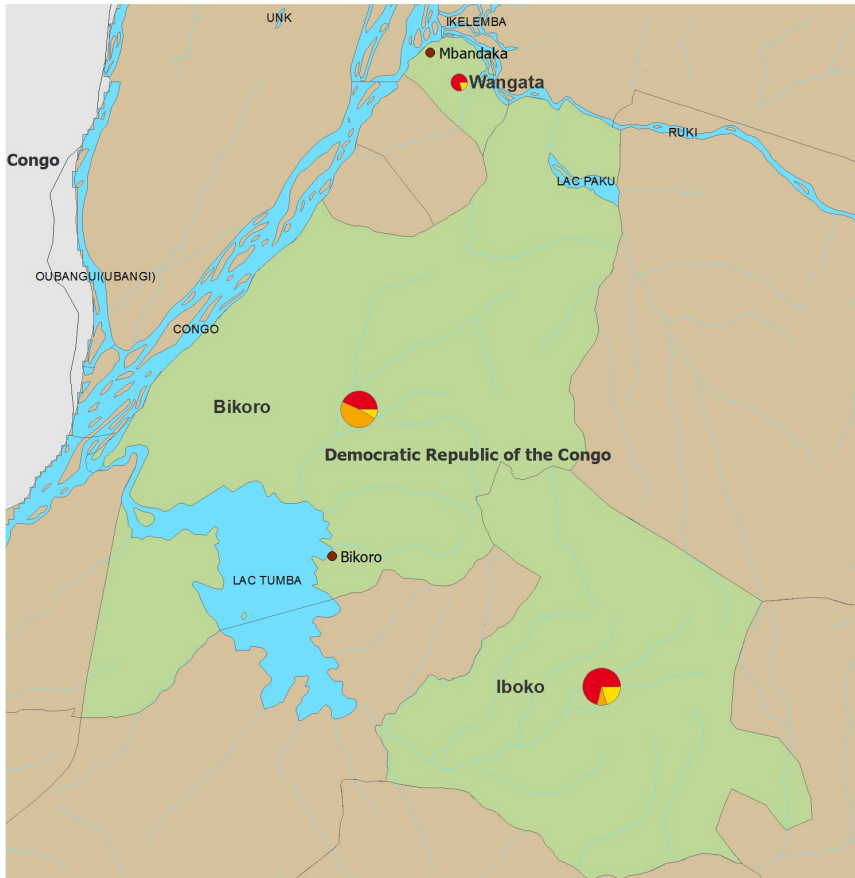
For the European Union/European Economic Area (EU/EEA) citizens living in, or travelling through, areas of DRC not known to have EVD cases, the **risk of exposure is very low**, provided they adhere to the recommended precautions. **The overall risk of introduction and further spread of Ebola virus within the EU/EEA is currently considered to be very low.**

## Actions

ECDC published an updated version of its [rapid risk assessment](#) on 25 May 2018.

Geographical distribution of confirmed, probable and suspected cases of Ebola virus disease, Equateur Province, The Republic Democratic of Congo, as of 25 May 2018

ECDC



Data as of 24/05/2018



**Affected health zones**

Number of cases

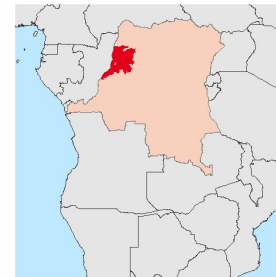


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 Confirmed cases

 Probable cases

 Suspected cases



ECDC. map produced on 25 May 2018

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