EU Threats

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

**Influenza ± Multistate (Europe) ± Monitoring season 2018 – 2019**

**Opening date:** 8 October 2018  
**Latest update:** 22 March 2019

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

**Update of the week**

Between 11–17 March 2019, influenza activity was widespread in one-third of the countries of the European Region. Specimens collected from individuals presenting with influenza-like illness or acute respiratory infection to sentinel primary health care sites yielded an influenza virus positivity rate of 34%, a decrease compared with the previous week (43%).

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**News**

**Tuberculosis in the EU/EEA: new data released**

Ahead of World Tuberculosis Day on 24 March 2019, ECDC and the WHO Regional Office for Europe launched their latest joint report on tuberculosis (TB) surveillance and monitoring in Europe. Despite an overall decline in numbers of people suffering from TB, the disease remains a major public health issue in the EU/EEA countries and the WHO European Region.

In 2017, 55 337 TB cases were reported in the EU/EEA. The overall notification rate has decreased over the last five years in most countries and is 10.7 per 100 000 population. Only 3.8% (1 041) of the 27 339 TB cases with the relevant drug susceptibility test results were shown to be multidrug-resistant. However, less than half (45%) of the patients with multidrug-resistant tuberculosis (MDR-TB) notified for 2015 were treated successfully.

The proportion of successful treatment is lower for patients with extensively drug-resistant TB (XDR-TB), the more resistant form of the disease: only 28% of the patients notified as having XDR-TB in 2014 were reported as successfully treated. In 2017, XDR-TB was reported in 187 (24.3%) of 770 MDR-TB cases tested.

ECDC will continue to support EU Member States on reaching the goal of ending TB by 2030 as part of the wider Sustainable Development Agenda. The data released this week show that the situation is improving too slowly to achieve the target.

**More information**

[World Tuberculosis Day 2019](#)  
[Tuberculosis surveillance and monitoring in Europe, 2019 report](#)
Since November 2018, cases in human and animals have been reported across Mayotte, France. These are the first human cases reported in Mayotte in several years.

**Rift Valley fever (RVF) – France (Mayotte) – 2019**

Opening date: 31 January 2019  
Latest update: 22 March 2019

According to a Santé publique France report as of 15 March 2019, 101 human cases have been reported in Mayotte. This is an increase of 13 human cases since the previous CDTR update on 16 March 2019.

Furthermore, samples taken by veterinarians from sick animals or abortions during the same time period have identified eight additional epizootic foci of Rift Valley fever in Mayotte.

Among 61 investigated human cases, 44 reported contact with animals and 28 cases reported consumption of raw or curdled milk. Eleven cases had no reported risk factors.

The commune of residence was available for 82 of the 101 confirmed cases. The vast majority of the cases were detected in the Centre-West (56%) and North (26%) of Mayotte.

**Dengue – France, Réunion – 2019**

Opening date: 13 March 2018  
Latest update: 22 March 2019

According to regional authorities and as of 10 March 2019, Réunion has detected 2307 cases of dengue since the beginning of 2019.

**Non EU Threats**

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

Opening date: 1 August 2018  
Latest update: 22 March 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. On 17 October 2018, the International Health Regulations Emergency Committee concluded that the epidemic does not at this stage constitute a public health emergency of international concern.

**Middle East respiratory syndrome coronavirus (MERS-CoV) – Multistate**

Opening date: 24 September 2012  
Latest update: 22 March 2019

Since the disease was first identified in Saudi Arabia in April 2012, more than 2 400 Middle East respiratory syndrome coronavirus (MERS-CoV) cases have been detected in 27 countries. In Europe, eight countries have reported confirmed cases, all with direct or indirect connections to the Middle East. The majority of MERS-CoV cases continue to be reported from the Middle East. The source of the virus remains unknown, but the pattern of transmission and virological studies point toward dromedary camels in the Middle East as a reservoir from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission is amplified among household contacts and in healthcare settings.

As of 21 March 2019, Saudi Arabia has reported an increase of 4 cases and 2 deaths since the previous CDTR published on 15 March 2019. So far, 10 of 13 regions in Saudi Arabia have reported 103 cases in 2019 and of these, three regions reported cases in the last 7 days.
Chikungunya virus disease and dengue are vector-borne diseases that affect 50–100 million people each year. In the past decade, an increasing number of countries have detected cases of dengue and chikungunya virus disease. Chikungunya virus disease has been circulating in Asia and Africa and reached the Americas, the Caribbean and the Pacific since 2013–2014. Dengue is present in Africa, the Americas, Asia, the Caribbean and the Pacific. In 2018, France and Spain reported autochthonous dengue cases. No cases of either disease have been reported in continental Europe so far in 2019.

Update of the week
Chikungunya virus disease: Several countries in the Americas report ongoing transmission in 2019. Cases have also been reported in Asia and Africa during this period. Since the previous CDTR update on 22 February 2019, Brazil, the Democratic Republic of the Congo, Republic of the Congo and Thailand have reported the majority of the new cases. No outbreaks have been identified in Europe and the Australia and Pacific region since the previous report.

Dengue: Brazil and Réunion have observed a very sharp increase during the past month. In Asia, Cambodia, Malaysia, the Philippines, Singapore, Thailand and Vietnam are reporting a larger number of cases compared with 2018.
II. Detailed reports

**Influenza – Multistate (Europe) – Monitoring season 2018 – 2019**

Opening date: 8 October 2018  
Latest update: 22 March 2019

**Epidemiological summary**

**Week 11, 2019 (11–17 March):**
Influenza activity was widespread in one-third of the countries of the European Region. Specimens collected from individuals presenting with influenza-like illness or acute respiratory infection to sentinel primary health care sites yielded an influenza virus positivity rate of 34%, a decrease compared with the previous week (43%).

Influenza type A virus detections dominated with slightly more A(H1N1)pdm09 than A(H3N2) viruses. Very few influenza B viruses were detected.

Of the specimens from patients with severe acute respiratory infection (SARI) collected in week 11 of 2019 that were tested for influenza viruses, 31% were positive and almost all were type A.

Pooled data from 24 Member States and areas reporting to the EuroMOMO project indicated that the excess mortality observed in previous weeks continued to decline. Excess mortality was seen in persons aged 65 years and above and to a lesser extent in the age group 15–64 years.

**2018–2019 season overview:**
Influenza activity in the European region based on sentinel sampling exceeded a positivity rate of 10% in week 49 of 2018, exceeded 50% between weeks 3–7 of 2019 and peaked in week 5 of 2019.

Both influenza A virus subtypes are circulating widely, with co-circulation in certain countries, while others report dominance of either A(H1N1)pdm09 or A(H3N2) viruses.

Among hospitalized influenza virus-infected patients admitted to ICU wards, 41% of influenza A viruses were subtyped. Of these, 71% were A(H1N1)pdm09 viruses. Among influenza virus-infected patients admitted to other wards, 37% of influenza A viruses were subtyped and 61% were A(H1N1)pdm09 viruses.

Over 90% of influenza type A viruses detected from SARI surveillance since week 40 of 2018 were subtyped and 80% were A(H1N1)pdm09 viruses.

In general, current influenza vaccines tend to work better against influenza A(H1N1)pdm09 and influenza B viruses than influenza A(H3N2) viruses and preliminary vaccine effectiveness estimates continue to support the use of vaccines. Early data suggest vaccines are effective and estimates vary depending on the population studied and proportions of circulating influenza A virus subtypes. Refer to data from six European studies, Canada, Finland, Hong Kong, Sweden and the United States.

On 21 February 2019, WHO published recommendations for three components of influenza vaccines to be used in the 2019–2020 northern hemisphere season. The recommendation was unchanged for type B lineages and updated for A(H1N1)pdm09 and an updated A(H3N2) recommendation was published on 21 March 2019.

A recent summary of regional activity from October 2018–February 2019 was published in Eurosurveillance on 28 February 2019.

Circulating viruses remain susceptible to neuraminidase inhibitors supporting use of antiviral treatment according to national guidelines.

**Source:** Flor News Europe | EuroMOMO

**ECDC assessment**
Influenza activity is decreasing across the countries. Influenza A(H3N2) and A(H1N1)pdm09 continue to co-circulate in Europe, but on a lower level. Influenza vaccine coverage among the elderly, chronic disease risk groups and healthcare workers was suboptimal in most EU Member States, according to the VENICE report. Vaccine effectiveness was moderate and all-cause excess mortality has been observed in those aged 65 years and above and to a lesser extent in the age group 15–64 years. Peak in excess mortality seen over the recent weeks is declining.
Actions

**Rift Valley fever (RVF) – France (Mayotte) – 2019**

**Opening date:** 31 January 2019  
**Latest update:** 22 March 2019

**Epidemiological summary**

According to the French authorities, from 22 November 2018–15 March 2019, 101 human cases and no deaths have been reported in Mayotte. The majority of the cases were male, with a male-to-female ratio of 3:1 and age range of 4–75 years. All cases were locally acquired.

Further investigations identified 60 epizootic foci of Rift Valley fever, comprising one to six animals, including bovines (49) and small ruminants (11).

Most of the cases are concentrated in the Centre-West and North areas of Mayotte.

According to the French Agricultural Research Centre for International Development, seroprevalence among ruminants decreased from 2008–2017, but increased significantly in 2017 and 2018 (3.6%, IC95%: 2.3%–5.6%) and 2018–2019 (10.1%, IC95%: 6.5%–15.3%).

**Sources:** [Agence de Santé Océan Indien](https://www.agsain.fr) | [Santé publique France](https://www.santepubliquefrance.fr) | [Emerging Infectious Diseases](https://www.cdc.gov) | [Emerging Infectious Diseases](https://www.cdc.gov) | [Université de la Réunion](https://www.univ-reunion.fr) | [OIE](https://www.oie.int) | [WAHIS](https://www.oie.int)

**ECDC assessment**

Travellers to and residents of Mayotte are at very low risk of infection if they apply appropriate preventive measures. However, those who are in contact with potentially infected animals have an increased risk of infection and should therefore handle potentially infected animals in a secure manner by practising safe animal husbandry and slaughtering. In affected areas, consumption of raw milk and eating animal products that have not been thoroughly cooked should be avoided. In addition, as a precautionary measure, [personal protective measures against mosquito bites](https://www.cdc.gov) should be applied. Transmission of the virus through blood contact or infected materials in healthcare settings can be prevented by applying the measures defined in WHO’s [‘Standard precautions in health care’ aide-memoire](https://www.cdc.gov).

The occurrence of travel-related cases returning to the continental EU/EEA is not new as Rift Valley fever is endemic in many African countries. Importation of human cases from Mayotte cannot be excluded, particularly to connected EU Outermost Regions in the Indian Ocean (Réunion) and the continental EU/EEA.

Overall, the current outbreak in Mayotte poses a very low risk for EU/EEA countries in terms of introduction through the animal trade as imports into the continental part of the EU of live animals and their meat and milk from Mayotte are very rare due to the distance.

**Actions**

Distribution of RVF confirmed human cases, Mayotte, 22 November 2018 to 14 March 2019

Adapted from Santé publique France epidemiological report num. 15
Geographic distribution of human cases (stars) and epizootic foci in bovines (triangles) and small ruminants (diamonds) of RVF in Mayotte, from 22 November 2018 to 14 March 2019.

Adapted from Santé publique France epidemiological report num. 15

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**Dengue – France, Réunion – 2019**

*Opening date: 13 March 2018  
Latest update: 22 March 2019*

**Epidemiological summary**

According to regional authorities and as of 10 March 2019, Réunion has detected 2,307 cases of dengue since the beginning of 2019 compared with 350 cases for the same time period in 2018. In the past weeks, local authorities have recorded over 500 cases per week.

The cases are widespread on the island, affecting mostly the south, but also the north and the west. Authorities predict that the epidemic may affect the whole island this year. The circulating serotype is still DENV2. Since the beginning of 2019, 80 cases have been hospitalised and six cases have been fatal.

**Source:** [Agence de Santé Océan Indien](https://www.agsoi.org/)
ECDC assessment

A sharp increase of dengue cases has been observed in Réunion since the beginning of 2019 and will likely continue in the coming weeks. The risk for onward transmission of dengue fever 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 Sea, and *Aedes aegypti* on the island of Madeira). Environmental conditions in Europe are currently unfavourable for the growth of mosquito populations, so the likelihood of sustained autochthonous dengue virus transmission in continental Europe associated with introduction by a returning traveller is very low.

Actions

ECDC monitors this outbreak through epidemic intelligence. ECDC published a rapid risk assessment, ‘Dengue outbreak in Réunion, France – First update’, on 5 July 2018.

Geographical distribution of dengue cases, Réunion, data as of 10 March 2019

Source: Santé publique France, Cire Océan Indien

Opening date: 1 August 2018
Latest update: 22 March 2019

Epidemiological summary

Since the beginning of the outbreak and as of 20 March 2019, there have been 991 cases (926 confirmed, 65 probable), including 614 deaths (549 confirmed, 65 probable), according to the Ministry of Health of the Democratic Republic of the Congo.

As of 20 March 2019, 77 healthcare workers have been infected, of which 26 died.

Twenty-one health zones in two provinces have been reporting confirmed or probable cases: Beni, Bie n, Butembo, Lubero, Mabalako, Manguredjipa, Masereka, Mutwanga, Musienene, Oicha, Kalunguta, Katwa, Kayna, Kyondo and Vuhovi health zones in North Kivu Province and Bunia, Nyankunde, Komanda, Mandima, Rwampara and Tchomia Health Zones in Ituri Province.

Source: Democratic Republic of the Congo Ministry of Health | WHO Disease outbreak news | WHO Africa weekly bulletin
ECDC assessment

**ECDC assessment:** 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 overall risk of introduction and further spread of Ebola virus disease within the EU/EEA is very low. However, the risk can only be eliminated by stopping transmission at the local level.

**WHO assessment:** As of 7 February 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


Geographical distribution of confirmed and probable cases of Ebola virus disease, North Kivu and Ituri Provinces, Democratic Republic of the Congo, as of 21 March 2019
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 21 March 2019

**Middle East respiratory syndrome coronavirus (MERS-CoV) – Multistate**

Opening date: 24 September 2012  
Latest update: 22 March 2019

**Epidemiological summary**

In 2019 and as of 21 March 2019, 116 MERS-CoV cases have been reported in Saudi Arabia (103) and Oman (13), including 24 deaths in Saudi Arabia (20) and Oman (4). In Saudi Arabia, 39 cases were primary (20 of whom reported contact with camels), 31 were healthcare-acquired, 18 were household contacts, 14 were unspecified secondary cases and one case is under investigation. The majority (73%) of cases in Saudi Arabia were reported in Wadi Aldwasir (56) and Riyadh (19).

Since April 2012 and as of 21 March 2019, 2,413 cases of MERS-CoV, including 873 deaths, have been reported by health authorities worldwide.


**ECDC assessment**

Human cases of MERS-CoV continue to be reported in the Arabian Peninsula, particularly in Saudi Arabia. The risk of sustained human-to-human transmission in Europe remains very low. The current MERS-CoV situation poses a low risk to the EU, as stated in a [rapid risk assessment](https://www.ecdc.europa.eu/en/publications-data/middle-east-respiratory-syndrome-coronavirus-mers-cov) published on 29 August 2018, which also provides details on the last case reported in Europe.


**Actions**

ECDC monitors this threat through epidemic intelligence and will report on a monthly basis.
Distribution of confirmed cases of MERS-CoV by place of infection and month of onset, from March 2012 and as of 21 March 2019

Distribution of confirmed cases of MERS-CoV in Wadi Aldwasir, Saudi Arabia, in 2019 by mode of transmission and week of onset/reporting, as of 21 March 2019.

Chikungunya and dengue – Multistate (World) – Monitoring global outbreaks
Epidemiological summary

Europe

Chikungunya virus disease/dengue
No autochthonous cases were detected in continental EU/EEA countries.

The Americas and the Caribbean

Chikungunya virus disease

Bahamas: According to media reports citing health authorities, one autochthonous confirmed case has been reported in Bahamas in 2019. Last autochthonous cases reported in the islands were in 2014, when 17 confirmed and 60 suspected cases were reported, according to the same sources.

Brazil: Brazil has reported 4 149 probable cases in 2019 as of 2 February 2019. During the same period in 2018, 8 505 probable cases and three confirmed deaths were reported in Brazil. So far, no fatal cases have been reported this year, according to the Brazilian Ministry of Health.

Colombia: Colombia has reported 113 cases, including one laboratory-confirmed, in 2019 as of 2 March 2019. This represents an increase of 41 cases since the previous CDTR update. According to the Colombian Ministry of Health, there has been a 12% decrease on cases reported this year compared with the same period in 2018.

El Salvador: El Salvador has reported 70 suspected cases in 2019 as of 9 March 2019. This represents an increase of 38 cases since the previous CDTR update. For the same period in 2018, El Salvador reported 52 suspected cases.

Mexico: The Mexican Ministry of Health has reported one confirmed case in 2019 as of 2 March 2019. For the same period in 2018, Mexico reported two confirmed cases. Additionally, according to media reports citing health authorities, cases have been reported in Yucatan (3), Sinaloa (13) and Chiapas (7) regions in 2019.

Nicaragua: Nicaragua has reported 29 cases in 2019 as of 24 February 2019, none of which were confirmed. For the same period in 2018, Nicaragua reported 56 cases, including 10 confirmed.

Paraguay: Paraguay has reported 10 probable cases in 2019 as of 23 February 2019. This represents an increase of 6 cases since the previous CDTR update. For the same period in 2018, Paraguay reported 13 cases.

Dengue

The Pan American Health Organization has reported 236 000 suspected and confirmed dengue cases in the whole Americas region in 2019 as of 9 March 2019. The four dengue virus serotypes (DENV1, DENV2, DENV3 and DENV4) are circulating, increasing the risk of severe cases. Brazil has already recorded 185 000 cases since the beginning of the year, seeing a threefold increase compared with the same period in 2018. Brazilian health officials have warned the general population about the steep increase in dengue fever after the country recorded 110 000 cases over the past month.

The figures for each country of the Americas region can be found on the WHO health information platform.

Asia

Chikungunya virus disease

India: No update was available since the previous CDTR update on 22 February 2019.

Thailand: Thailand has reporting 2 551 cases with no associated deaths in 19 provinces in 2019 as of 10 March 2019. The most affected provinces are located in the southern part of the country. This represents an increase of 899 cases since the previous CDTR update on 22 February 2019.

Dengue

In Asia, almost all reporting countries recorded an increasing trend compared with last year:

As of 2 March 2019, Cambodia has reported 1 870 cases of dengue. According to WHO, the number of suspected dengue cases is above the threshold level.

As of 2 March 2019, Laos has reported 978 cases. Dengue activity is higher compared with the same period in the previous five years.

As of 20 March 2019, Malaysia has reported 33 186 cases in 2019 compared with 12 500 for the same period in 2018.
According to health authorities, as of 10 March 2019, **Pakistan** has reported 289 cases compared with 143 for the same period in 2018.

As of 23 February 2019, **the Philippines** has reported 36,664 cases compared with 15,600 for the same period in 2018.

As of 16 March 2019, **Singapore** has reported 2,026 cases of dengue compared with 503 cases for the same period in 2018.

As of 11 March 2019, **Thailand** has reported 6,246 cases, a more than twofold increase compared with the same period in 2018. The most affected regions are Samut Sakhon bordering Bangkok, Nakhon Pathom and Ratchaburi Provinces.

As of 24 February 2019, **Vietnam** has reported 38,122 cases of dengue, a threefold increase compared with the same period in 2018.

The following country reported a decreasing trend compared with the same period in 2018:

According to the Ministry of Health, as of 18 March 2019, **Sri Lanka** has reported 10,858 cases in 2019 compared with 12,700 for the same period in 2018. Colombo, Jaffna and Gampaha Districts are the most affected areas.

There are no official updates available for India or China.

**Africa**

**Chikungunya virus disease**

**Democratic Republic of the Congo**: According to WHO, as of 24 February 2019, 330 cases, including 48 confirmed, have been reported in the Democratic Republic of the Congo. The first probable case was notified on 30 September 2018. This represents an increase of 230 cases since the last CDTR update. Most of the cases are reported in Mitendi, next to the capital city of Kinshasa.

**Republic of the Congo**: According to WHO, the Republic of the Congo has reported 2,228 chikungunya cases in 2019 as of 9 March 2019, including 15 confirmed cases in the Hinda-Loango, Mvouti and Kakamoeka Districts close to Pointe-Noire municipality. This represents an increase of 537 cases since the previous CDTR report. The index case had onset of symptoms on 3 January 2019. According to the same sources, this is the first outbreak reported in Republic of the Congo since 2011.

**Sudan**: No update is available since the previous CDTR published on 22 February 2019.

**Dengue**

According to WHO, the outbreak in **Kenya** remains active. As of 3 March 2019, the country has detected 584 cases, an increase of 300 cases since the last update. The outbreak has mainly affected Mombasa County in southern Kenya.

**Tanzania** continues to record cases. Since August 2018 and as of 10 March 2019, 162 suspected cases have been reported from Dar es Salaam and Tanga Regions.

The epidemic in Réunion continues, with 2,307 cases reported since the beginning of 2019. See the dedicated threat in this week CDTR.

In **Mauritius**, media have reported 46 cases as of 20 March 2019.

**Australia and the Pacific**

**Chikungunya virus disease**: No outbreaks have been detected since the last monthly update.

**Dengue**: According to WHO, **Australia** has reported 203 cases in 2019 as of 13 March 2019. Fewer cases have been reported to date in 2019 compared with the same time period since 2013.

As of 12 March 2019, **New Caledonia** has reported 1,535 cases, representing an increase since the beginning of 2019. The circulating serotype is DENV2.

**French Polynesia** has reported 124 cases in 2019 as of 10 March 2019. Most of the cases are DENV1 infection. Tahiti is on alert level after a DENV2 case was imported from New Caledonia.

**ECDC assessment**

Chikungunya virus disease and dengue are endemic in large regions of the intertropical convergence zone. The risk of further transmission in the EU/EEA is considered to be low as the weather conditions are presently unfavourable for mosquito activity.
ECDC produced a rapid risk assessment on 'Local transmission of dengue fever in France and Spain - 2018' published on 22 October 2018 and a rapid risk assessment on the dengue outbreak in Réunion on 5 July 2018.

**Actions**

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

**Geographical distribution of chikungunya cases reported worldwide, January to March 2019**

![Map of chikungunya cases worldwide](image)
Geographical distribution of dengue cases reported worldwide, January to March 2019

Date of production: 20/03/2019
The Communicable Disease Threat Report may include unconfirmed information which may later prove to be unsubstantiated.