EU Threats

Since the beginning of 2018, an 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.

Dengue
France, Réunion
Opening date: 13 March 2018
Latest update: 10 May 2019

During the past week, Réunion reported more than 1,300 confirmed cases of dengue.

I. Executive summary
EU Threats

Dengue – France, Réunion – 2019

Since the beginning of 2018, an 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.

News
Rabies outbreaks in Southeast Asia

Human deaths from rabies have been reported from Southeast Asian countries in 2019. In Thailand, authorities reported the first fatal case of 2019 in April, a person bitten by a dog at the end of 2018. Around 10 human rabies cases are reported every year in Thailand. In 2019 and as of 23 April 2019, Thailand has reported 281 outbreaks of rabies in animals.

Another death was reported by Norway in a case who returned from a Southeast Asian country. The case was bitten by a dog during the trip, gradually developed symptoms and died two months later at the beginning of May 2019. This is the first human case of rabies reported in Norway since 1815.

Endemic dog-transmitted human rabies countries, including Thailand and other Southeast Asian countries, are listed by WHO.

In the EU/EEA, up to four human cases of rabies have been reported annually in the past decade, mainly imported cases in recent years.

The risk for EU travellers is very low if basic preventive measures are followed such as avoiding contact with wild and domestic mammals, including pets. At-risk groups for animal bites, such as travellers or professionals planning activities in remote areas, should be provided with an individual risk assessment for pre-exposure prophylaxis. Treatment consists of local wound care, vaccination and passive immunisation with immunoglobulin if indicated. To be effective, treatment has to be administered as soon as possible after exposure.

If a person has been bitten or scratched by dog, cat, bat or other mammal, he or she is advised to seek medical help immediately and wash the wound extensively for at least 15 minutes with soap and water, detergent, povidone-iodine or other substances that kill the rabies virus.
Influenza transmission in Europe shows a seasonal pattern, with peak activity during the winter months.

**Update of the week**

**Week 18, 2019 (29 April–5 May 2019):**

For week 2019-18, all countries reporting influenza-like illness or acute respiratory infection thresholds reported activity at baseline levels, indicating that the influenza season may be coming to an end in Europe.

Few countries reported influenza detections and the number of detections was low. Among 105 sentinel specimens tested, there were only four detections.

For week 18 of 2019, specimens (n=78) from patients with severe acute respiratory infection (SARI) that were tested for influenza viruses gave 6.4% positivity and 80% of all viruses detected were type A.

Pooled data from 23 Member States and areas reporting to the EuroMOMO project indicated that all-cause mortality remained at levels expected for this time of year.

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

Opening date: 9 February 2011  
Latest update: 10 May 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 the Communicable Disease Threats Report (CDTR) published on 12 April 2019, updates have been provided for 20 EU/EFTA countries: Austria, Bulgaria, the Czech Republic, Denmark, Estonia, Finland, France, Hungary, Ireland, Italy, Lithuania, Luxembourg, Poland, Romania, Slovakia, Spain, Sweden, the Netherlands, Norway and Switzerland.

Eleven EU/EFTA countries have reported ongoing or new outbreaks: Austria, Bulgaria, the Czech Republic, France, Italy, Lithuania, Luxembourg, Poland, Romania, Slovakia and Spain.

Most of the cases were reported from Romania (1,027), France (852), Poland (554), Lithuania (569) and Italy (557).

In 2019, five deaths were reported in the EU in Romania (4) and France (1).

Relevant updates outside EU/EFTA countries are available from WHO regions (Europe, Africa, the Americas and the Western Pacific), as well as North Macedonia, Serbia, Tunisia, 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

Opening date: 1 August 2018 Latest update: 10 May 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 12 April 2019, the International Health Regulations Emergency Committee concluded that the epidemic does not at this stage constitute a public health emergency of international concern.

Update of the week
Since the previous CDTR and as of 8 May, the Ministry of Health of the Democratic Republic of the Congo has reported 160 additional cases, including 80 deaths. All cases reported during this period are confirmed. Among the new reported cases in the past week, three are healthcare workers.

On 8 May 2019 and following security incidents on the previous days, the Ministry of Health reported several attacks in Butembo by armed men. As a consequence and as of 9 May 2019, response activities in Butembo and nearby zones are still impaired for the fifth consecutive day. Some of the health areas in Butembo remain inaccessible to response teams due to these security incidents. In addition, on 7 May 2019, a secure and dignified burial officer was murdered in Vuhovi. The Ministry of Health also reported an attack at a triage centre in Katwa that led to the facility’s destruction.

On 7 May 2019, the Strategic Advisory Group of Experts on Immunization published a new set of interim recommendations on vaccination against Ebola virus disease:

• implementation of innovative operational strategies
• a revised vaccination strategy to adjust the target population for ring vaccination to include a second and third barrier of immunised individuals around each incident case. For lower risk populations, the candidate MVA-BN vaccine developed by Johnson & Johnson is recommended.
• alternative dosing for the rVSV-ZEBOV-GP vaccine according to the level of risk
• a proposal to further adjust the protocol to incorporate alternative individual informed consent forms; and
• implementation of a mass communication campaign targeting community knowledge, attitudes and behaviours regarding Ebola.

Influenza A(H5N1) and other strains of avian flu – Non EU/EEA countries
Opening date: 15 June 2005 Latest update: 10 May 2019

Highly pathogenic avian influenza viruses A(H5) of Asian origin are highly infectious for several bird species, including poultry. Human infections with influenza A(H5) viruses have been caused by the influenza A(H5N1) virus in several non-EU/EEA countries and influenza A(H5N6) virus in China. Other avian influenza subtypes, including H7N7 and H9N2, have infected people sporadically. Many of these infections have been mild or even subclinical in humans, but some have been severe and resulted in deaths. ECDC is following the development of these viruses and monitoring infections in humans.

Update of the week
On 2 May 2019, WHO reported one fatal case of avian influenza A(H5N1) in a 21-year-old male from Nepal. This is the first human case of A(H5N1) reported from Nepal and the first case of A(H5N1) reported globally since 2017.
II. Detailed reports

Dengue – France, Réunion – 2019
Opening date: 13 March 2018  Latest update: 10 May 2019

Epidemiological summary
According to regional authorities as of 7 May 2019, Réunion has detected more than 9,200 confirmed and 24,000 suspected cases since the beginning of 2019, of which 286 have been hospitalised and four have died. Réunion reported 2,453 confirmed cases for the same period in 2018. Cases are widespread on the island.

According to Santé publique France, the main circulating serotype is DENV-2. However, 14 autochthonous cases were serotyped DENV-1 in the area of Petite-Ile.

ECDC assessment
A sharp increase of cases has been observed in Réunion since the beginning of 2019 and will likely continue in the coming weeks. The co-circulation of DENV-1 together with DENV-2 may increase the intensity of the outbreak since the population is not immune to the DENV-1 serotype. This may also increase the number of haemorrhagic fever cases.

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 Sea, and Aedes aegypti on the island of Madeira).

Environmental conditions for the growth of mosquito populations are currently improving in Europe, but they are still unfavourable for virus multiplication in the vector. The likelihood of sustained autochthonous dengue virus transmission in continental Europe associated with introduction by a returning traveller therefore remains low.

Actions
ECDC monitors this outbreak through epidemic intelligence on a weekly basis and published a rapid risk assessment, 'Dengue outbreak in Réunion, France – First update', on 5 July 2018.

Influenza – Multistate (Europe) – Monitoring season 2018 – 2019
Opening date: 8 October 2018  Latest update: 10 May 2019

Epidemiological summary
2018–2019 season overview:
Influenza activity in the European Region based on sentinel sampling reached a positivity rate of 10% in week 49 of 2018, exceeded 50% between weeks 3–7 of 2019, peaked in week 5 of 2019 and dropped below 10% in week 17 of 2019, where it remains.

Both influenza A virus subtypes have circulated, with co-circulation in certain countries, while others reported dominance of either A(H1N1)pdm09 or A(H3N2) viruses.

Among hospitalised influenza virus-infected patients admitted to ICU wards, 99% were infected with type A viruses and of those, 67% were subtyped as A(H1N1)pdm09. Among influenza virus-infected patients admitted to other wards, 99% were infected with type A viruses, with 55% of those subtyped being A(H1N1)pdm09.

Of the patient specimens from SARI surveillance that tested positive for an influenza virus, 99% were type A viruses, with 79% of those subtyped being A(H1N1)pdm09.

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

Current influenza vaccines tend to work better against influenza A(H1N1)pdm09 and influenza B viruses than against influenza A (H3N2) viruses.
WHO has published recommendations for the composition of influenza vaccines to be used in the 2019-2020 northern hemisphere season. The recommendation was that both type B lineage viruses remain unchanged, while the A(H1N1)pdm09 and A(H3N2) viruses were updated.

The vast majority of circulating viruses in the European Region were susceptible to neuraminidase inhibitors supporting use of antiviral treatment according to national guidelines.

**Source:** [Flu News Europe](https://www.flu-news.com) | [EuroMOMO](https://www.euro-momo.eu)

**ECDC assessment**

Influenza activity has decreased across countries. 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 returned to normal levels for the time of the season.

**Actions**

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the [Flu News Europe](https://www.flu-news.com) website.


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

**Opening date:** 9 February 2011  
**Latest update:** 10 May 2019

**Epidemiological summary**

Since the previous measles monthly update in Communicable Disease Threats Report (CDTR) published on 12 April 2019, updates have been provided for 20 EU/EFTA countries: Austria, Bulgaria, the Czech Republic, Denmark, Estonia, Finland, France, Hungary, Ireland, Italy, Lithuania, Luxembourg, Poland, Romania, Slovakia, Spain, Sweden, the Netherlands, Norway and Switzerland.

Eleven EU/EFTA countries reported ongoing or new outbreaks: Austria, Bulgaria, the Czech Republic, France, Italy, Lithuania, Luxembourg, Poland, Romania, Slovakia and Spain.

Most of the cases were reported from Romania (1 027), France (852), Poland (554), Lithuania (569) and Italy (557).

In 2019, 5 deaths were reported in the EU in Romania (4) and France (1).

Relevant updates outside EU/EFTA countries are available from WHO regions (Europe, Africa, the Americas and the Western Pacific), as well as North Macedonia, Serbia, Tunisia, Ukraine and the US.

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/EFTA are available in the attached CDTR PowerPoint slides.

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

- **Austria** has reported 89 cases in 2019 as of 2 May 2019, an increase of 30 cases since the end of March 2019. Cases have been reported from Carinthia, Lower Austria, Salzburg, Styria, Tyrol, Upper Austria, Vorarlberg and Vienna. A recent outbreak with 21 cases has also been reported in Kärnten.

- **Bulgaria** has reported 497 cases in 2019 as of 27 April 2019, an increase of 200 cases since the CDTR published on 12 April 2019.

- **The Czech Republic** has reported 446 cases in 2019, according to a [media report](https) citing healthcare authorities on 12 April 2019. The majority of cases (143) were from Prague, where an outbreak has persisted since 2018. This is an increase of 148 cases since 17 March 2019. According to a [media report](https) on 30 April 2019, two measles cases in healthcare workers were reported from the Cardiac Surgery Center of University Hospital Ostrava. The hospital has imposed a ban for visitors and patient admission.

- **Denmark** has reported 12 cases in 2019 as of 3 May 2019, an increase of one case since the CDTR published on 12 April 2019.
**Estonia** has reported 11 cases in 2019 as of March 2019, an increase of two cases in a month.

**Finland** has reported eight cases in 2019 as of 3 May 2019, an increase of two cases since 3 April 2019.

**France** reported has 852 cases, including one death, in 2019 as of 2 May 2019, an increase of 291 cases since the national report on 3 April 2019.

**Hungary** has reported 18 cases in 2019 as of 21 April 2019, an increase of six cases since the national report on 24 March 2019.

**Ireland** has reported 52 cases in 2019 as of 27 April 2019, an increase of eight cases since the CDTR published on 12 April 2019.

**Italy** has reported 557 cases in 2019 as of 31 March 2019, an increase of 226 cases since the national report on 28 February 2019. Cases were reported in 18 regions, with 29 (5.2%) among healthcare workers and eight among school staff.

**Lithuania** has reported 569 cases as of 3 May 2019, mostly in Kaunas and Vilnius Counties. An outbreak since November 2018 continues in the country.

**Luxembourg** has reported 18 cases in 2019 as of 18 April 2019, according to a media report citing health authorities as of 18 April 2019. This is an increase of 13 cases since 19 March 2019.

**Norway** has reported 10 cases in 2019 as of 6 May 2019, an increase of one case since national data was announced on 4 April 2019.

**Poland** reported 678 cases from 1 January–15 April 2019, an increase of 124 cases since the national report on 31 March 2019. In 2018, 339 were cases reported.

**Romania** reported 1 027 cases, including 4 deaths, in 2019 as of 3 May 2019, an increase of 291 cases since the CDTR published on 12 April 2019. Since the beginning of an outbreak in October 2016 and as of 3 May 2019, Romania has reported 16 627 confirmed cases, including 63 deaths.

**Slovakia** has reported 194 measles cases in 2019 as of 3 May 2019, an increase of 61 cases since the national report on 19 March 2019. Cases were recently reported in Košice and Prešov Regions and Humenné and Vranov nad Topľou Districts, while an outbreak in Trebišov was declared over by the authorities.

**Spain** has reported 69 cases in 2019 as of 28 April 2019, an increase of 44 cases since the national report on 24 March 2019. Of the reported cases, 21 were reported from Catalonia, which is experiencing an outbreak with 30 cases reported, according to a media report.

**Sweden** reported five cases in 2019 (one in February and four in March), according to data available on 3 May 2019. This is an increase of three cases since 5 April 2019. According to a media report on 30 April 2019, one person was diagnosed in Skåne University Hospital. Contact tracing is ongoing.

**Switzerland** has reported 155 cases in 2019 as of 30 April 2019, an increase of 51 cases since the national report on 2 April 2019.

**Relevant epidemiological summary for countries outside the EU/EFTA:**

According to the [WHO](https://www.who.int), 83 540 cases were reported in 2018 and 34 300 cases in January–February 2019 in the WHO European Region. Measles elimination has been verified in 37 of the 53 countries in the WHO European Region, which documents interrupted transmission for at least 36 months. Five countries provided evidence for the interruption of measles transmission for a period of at least 24 months but less than 36 months and one for interruption for transmission for 12 months. Ten countries remain endemic for measles: Belgium, Bosnia and Herzegovina, France, Georgia, Germany, Italy, Romania, Russia, Serbia and Ukraine. The Regional Verification Committee will meet in June 2019 to review reports from national verification committees for measles and rubella elimination documenting each country’s status by the end of 2018.

According to the [WHO Regional Office for Africa](https://www.afro.who.int), outbreaks of measles were reported in Cameroon, the Central African Republic, Chad, the Democratic Republic of the Congo, Ethiopia, Guinea, Kenya, Liberia, Madagascar, Mali, Mauritius, Nigeria, South Sudan, Uganda and Zambia as of 5 May 2019.

According to the [Pan American Health Organization (PAHO)/WHO Regional Office for the Americas](https://www.paho.org), in 2019 and as of week 14,
608 confirmed cases were reported from 10 countries. This is an increase of 287 cases since PAHO's report on week 11. The majority of cases were reported by the US (387), Colombia (79), Brazil (48) and Venezuela (40).

According to WHO as of 7 May 2019, an unusually high number of cases reported from countries and areas of the WHO Western Pacific Region (WPR) in 2019 have been reported from several countries/areas where measles has been eliminated due to importation-related outbreaks and endemic countries such as the Philippines that have ongoing measles outbreaks. In the WHO WPR, nine countries and areas (Australia, Brunei, Cambodia, Hong Kong, Japan, Macao, New Zealand, Singapore and South Korea) are currently verified by the Regional Verification Commission for Measles Elimination as having interrupted endemic measles virus transmission for more than 36 months. More information is available on the WHO WPR website.

North Macedonia has reported 1 081 cases of measles, including three deaths, in 2019 as of 19 April 2019, an increase of 246 since the CDTR published on 12 April 2019. According to epidemiological criteria, a measles epidemic has been declared in the entire territory of North Macedonia.

Serbia reported 5 790 cases, including 15 deaths, from October 2017–3 May 2019, including cases reported from Kosovo*. This is an increase of four cases since the national report on 29 March 2019. Of the reported cases, 2 939 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.

Tunisia has reported 3 141 suspected cases in 2019 as of 30 April 2019, of which 909 (28.9%) were laboratory-confirmed and 1 236 (39.4%) were epidemiologically linked, including 30 deaths (case fatality ratio=1%). Cases have been reported in all 24 governorates (range 1–1 274). The majority of cases were reported from Kasserine (1 274) and Sfax (212) Governorates. In April 2019, four additional governorates were particularly affected: Kairouan (155), Tunis (116), Sousse (93) and Nabeul (69). To date, the number of reported measles cases is above the average annual number (12) registered in the past 10 years in the country, with the highest number (48) reported in 2012.

Ukraine has reported 45 147 measles cases, including 17 deaths, in 2019 as of 2 May 2019, an increase of 7 819 cases and three deaths since the national report on 4 April 2019. Of the reported cases, 21 121 were adults and 24 026 were children.

The US has reported 764 confirmed measles cases from 23 states in 2019 as of 3 May 2019, an increase of 299 cases since the national report on 4 April 2019. This is the highest number of cases reported in the US since 1994 and since measles was declared eliminated in 2000.

ECDC assessment

Given the current extent of measles circulation in the EU/EFTA, the trend in recent years and the fact that vaccination coverage for the first and second dose is suboptimal, there is a high risk of continued measles transmission with mutual exportation and importation between EU/EFTA Member States and third countries. Vaccination coverage of at least 95% of the general population at national and subnational levels with two doses of measles-containing vaccine is recommended and necessary to ensure that measles circulation is interrupted and that the introduction of measles cases does not result in secondary cases. Particular care is recommended if travelling with infants under one year or those for whom vaccination is contraindicated and are at increased risk of infection and possible complications. For a more complete assessment, consult ECDC's rapid risk assessment, Risk of measles transmission in the EU/EEA, published on 21 March 2018.

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. ECDC is preparing a risk assessment for measles in Europe.


Opening date: 1 August 2018 Latest update: 10 May 2019

Epidemiological summary

Since the beginning of the outbreak a year ago and as of 8 May 2019, there have been 1 604 Ebola virus disease cases (1 538 confirmed, 66 probable), including 1 074 deaths (1 008 confirmed, 66 probable), according to the Ministry of Health of the Democratic Republic of the Congo.
As of 8 May 2019, 94 healthcare workers have been infected, 34 of whom have died.

Twenty-one health zones in two provinces have reported confirmed or probable Ebola virus disease cases: 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.

Source: Ministry of Health of the Democratic Republic of the Congo | WHO | WHO Regional Office for Africa

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 9 May 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 3 April 2019 and the fourth update of a rapid risk assessment on 16 April 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 8 May 2019
Influenza A(H5N1) and other strains of avian flu – Non EU/EEA countries

Update: On 2 May 2019, WHO reported one fatal case of avian influenza A(H5N1) in a 21-year-old male from Nepal. The case was admitted to hospital with symptoms compatible with influenza (fever and cough). Despite treatment with oseltamivir, the patient died from complications on 29 March 2019. Samples were sent to a laboratory in Japan, where A(H5N1) was confirmed on 30 April 2019. There is no information about contact with poultry.

This is the first human case of A(H5N1) reported from Nepal and the first case of A(H5N1) reported globally since 2017.

Summary for influenza A(H5N1): From January 2003–2 May 2019, there have been 861 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection, including 455 deaths, from 17 countries. Prior to the case in Nepal, the latest case was reported in April 2017 by Egypt.
ECDC assessment
Nepal has reported outbreaks of highly pathogenic avian influenza A(H5N1) virus in poultry over the last few months and transmission to humans has previously been observed when A(H5N1) virus is circulating.

Current epidemiological and virological evidence suggests that A(H5N1) viruses have not acquired the ability of sustained transmission among humans, so the likelihood of sustained human-to-human transmission is low. Travellers should avoid direct or close contact with sick or dead poultry or wild birds and their droppings. Good hand hygiene practices should be adhered to. No sustained human-to-human transmission of A(H5N1) has been reported so far.

Actions
ECDC monitors avian influenza strains through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC reassesses the potential of the A(H5N1) risk to humans on a regular basis.

Distribution of confirmed human cases of A(H5N1) by year and country of reporting, 2003–2019, as of 2 May 2019

Source: Adapted from WHO
The Communicable Disease Threat Report may include unconfirmed information which may later prove to be unsubstantiated.