EU Threats

On 15 May 2019, ECDC was informed by the Greek National Public Health Organization about one case of *P. vivax* malaria diagnosed in the previous week.

**New!** *P. vivax* malaria autochthonous case – Greece – 2019

Opening date: 21 May 2019  Latest update: 24 May 2019

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**Dengue – France, Réunion – 2019**

Opening date: 13 March 2018  Latest update: 24 May 2019

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

⇒ Update of the week

During the past week, Réunion reported approximately 1,000 confirmed cases of dengue.

I. Executive summary

**EU Threats**

Rat Hepatitis E in Hong Kong (China) – 2018-2019

In May 2019, Hong Kong reported three cases of rat hepatitis E virus (rat HEV), including one death, in Kowloon City and Southern Districts and Tuen Mun. Kowloon City borders Wong Tai Sin, where previous cases of hepatitis E virus were reported in Hong Kong in 2018.

The cases reported no direct contact with rodents or their excreta nor noticed rodents in their residence. All cases were male, over 65 years of age and had underlying conditions.

In 2018, three cases of rat HEV with exposure to rodents or their excreta were reported in Hong Kong (2) and Canada (1).

So far, no acute human case due to rat HEV infection has been reported in Europe, but a previous study reported the identification of anti-rat HEV antibodies in blood donors and forestry workers in Germany tested serologically. Serological evidence was also found in patients in Vietnam. In Europe, a high prevalence of rat HEV in rat populations has been demonstrated. The route of infection for the reported cases in 2018 and 2019 needs to be identified to implement prevention and control measures. Human cases with acute infections in Europe cannot be excluded, in particular in immunosuppressed patients, who also represent the most vulnerable risk group for chronic infection, severe disease progression and fatal outcomes related to hepatitis E virus in EU/EEA.

However, commercial test systems against the common human HEV genotypes 1–4 will most probably not detect rat HEV infections.
Influenza transmission in Europe shows a seasonal pattern, with peak activity during the winter months.

**Week 20, 2019 (13–19 May 2019):**
For week 20 of 2019, all countries reporting influenza-like illness or acute respiratory infection thresholds reported activity at or below baseline levels, indicating a return to interseason levels.

Few countries reported influenza virus detections in non-sentinel specimens. Of 81 sentinel specimens tested, none were influenza virus-positive.

During week 20 of 2019, 54 specimens from patients hospitalised with severe acute respiratory infection (SARI) were tested for influenza viruses. Among these specimens, only one tested positive.

Pooled data from 23 Member States and areas reporting to the [EuroMOMO](https://ecdc.europa.eu/en/euroomo) project indicated that all-cause mortality was at expected levels.

**Legionnaires’ disease - Belgium - 2019**
In May 2019, Belgium reported an outbreak of legionellosis in Evergem, Flanders, Belgium.

**Non EU Threats**

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

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](https://ecdc.europa.eu/en/healthregulations) 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 22 May 2019, the [Ministry of Health of the Democratic Republic of the Congo](https://ecdc.europa.eu/en/drc) has reported 117 additional confirmed cases, including 87 deaths.

Among the new reported cases in the past week, three are healthcare workers.
II. Detailed reports

New! P. vivax malaria autochthonous case – Greece – 2019

Opening date: 21 May 2019       Latest update: 24 May 2019

Epidemiological summary

On 15 May, ECDC was informed by the Greek National Public Health Organization about one case of P. vivax malaria diagnosed in the previous week. The patient had onset of symptoms on 26 April 2019. The case had not travelled abroad and no history of blood transfusion. According to the case investigation (focus and reactive case detection), the likely place of infection is considered a village in the regional unit of Trikala, Thessaly Region. No additional cases of malaria have been identified, although the focus population will be followed for four weeks. Vector investigation in the area did not retrieve Anopheles mosquitoes or larvae.

Considering the patient’s onset of symptoms (end of April 2019), the results of the entomological investigation (absence of vector) and the climate conditions in the spring of 2019 in this area, it is more likely that the patient was infected during the previous transmission season in 2018 by a P. vivax strain with a long incubation period (temperate strain).

Communication activities target both local health professionals and the public to raise awareness. Regional and local authorities were advised about recommended response measures, including the need to intensify vector surveillance and control in the area.

According to Greek public health authorities, 0–42 autochthonous cases of P. vivax malaria have been reported every year from 2009–2018. In 2017 and 2018, six and nine P. vivax cases were reported respectively. An additional introduced P. vivax case was reported from the same village in 2015.

Source: Greek National Public Health Organization

ECDC assessment

The report of introduced malaria cases has been observed in the last years in certain southern European countries with malarial potential. The occurrence of P. vivax cases in the spring is consistent with infection during the previous season and has been reported in more cases in Greece since 2009. The event is therefore not unexpected. In addition, according to the Greek National Public Health Organization, the likely place of exposure is a rural and not tourist area, with seasonal farmworkers originating from the Indian subcontinent. The likelihood of identifying further cases in the same region is assessed as low as measures were timely implemented. The risk of transmission for the local population and travellers to areas where introduced malaria cases have occurred until now is currently assessed as very low and Greek health authorities advise that chemoprophylaxis for malaria is not recommended for visitors to these areas. Personal protective measures against mosquitoes are encouraged during the mosquito circulation season.

Dengue – France, Réunion – 2019

Opening date: 13 March 2018       Latest update: 24 May 2019

Epidemiological summary

According to regional authorities as of 21 May 2019, Réunion has detected approximately 12 187 confirmed and 31 500 suspected cases since the beginning of 2019, of which 357 have been hospitalised and four have died. Réunion reported 3 067 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, 19 autochthonous cases were serotyped DENV-1 in the south of the island.

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 multiplication of the virus in the vector. For that reason, the likelihood of sustained autochthonous dengue virus transmission in continental Europe associated with introduction by a returning traveller 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: 24 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 and peaked in week 5 of 2019.

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

Among hospitalised influenza virus-infected patients admitted to ICU wards, 99% were infected with type A viruses, with 66% of those subtyped A(H1N1)pdm09. Among influenza virus-infected patients admitted to other wards, 99% were infected with type A viruses, with 54% of those subtyped A(H1N1)pdm09.

Of the patient specimens from SARI surveillance that tested positive for influenza viruses, 99% were type A viruses, with 79% of those subtyped 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 influenza A(H3N2) viruses.

WHO has published recommendations for the composition of influenza vaccines to be used in the 2019–2020 northern hemisphere season stating 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 | EuroMOMO | WHO Regional Office for Europe

**ECDC assessment**

Influenza activity has returned to interseason levels. 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 mortality data show mortality levels within expected ranges in participating countries.

**Actions**

This is the last weekly report of the 2018–2019 influenza season. During the summer, influenza reports will be published on 27 June and 15 August 2019, as well as 3 October 2019. The weekly reporting of influenza surveillance data will resume on 11 October 2019, for the 2019-20 season. Reports are available on the Flu News Europe website.

Recommendations on the composition of the 2018–2019 and 2019–2020 influenza virus vaccines are available from WHO.
Legionnaires' disease - Belgium - 2019
Opening date: 14 May 2019  Latest update: 24 May 2019

Epidemiological summary
In May 2019, Belgium reported an outbreak of Legionnaires’ disease in the Evergem area, Flanders, Belgium. As of 23 May 2019, there have been 26 confirmed cases, including two deaths.

Most cases are clustered geographically in the Evergem area north of Ghent, either by place of residence or workplace. Belgian health authorities are investigating cooling towers in the Ghent Canal Zone as the possible source of infection.

Water samples have been taken from the cooling towers of 17 companies, with two found to be highly contaminated. Typing results are expected in the first week of June.

Sources: Evergem Municipality | Flemish Agency for Care and Health

ECDC assessment
Given the incubation period of Legionnaires' disease, more cases in surrounding areas may be reported in the coming days.

Actions
ECDC will continue monitoring the ongoing situation through epidemic intelligence activities and report again if relevant epidemiological updates are available.

Opening date: 1 August 2018  Latest update: 24 May 2019

Epidemiological summary
Since the beginning of the outbreak a year ago and as of 22 May 2019, there have been 1 877 Ebola virus disease cases (1 789 confirmed, 88 probable), including 1 248 deaths (1 160 confirmed, 88 probable), according to the Ministry of Health of the Democratic Republic of the Congo.

As of 22 May 2019, 105 healthcare workers have been infected, 35 of whom have died.

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

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.

Geographical distribution of confirmed and probable cases of Ebola virus disease, North Kivu and Ituri Provinces, Democratic Republic of the Congo, as of 22 May 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 22 May 2019

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