I. Executive summary

EU Threats

New! Influenza - Multistate (Europe) - Monitoring 2016-2017 season

Opening date: 13 October 2016   Latest update: 14 October 2016

Influenza transmission in Europe shows a clear seasonal pattern, with peak activity during winter months. ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the Flu News Europe website.

› Update of the week

This is the first weekly influenza report for the 2016-2017 season.

West Nile virus - Multistate (Europe) - Monitoring season 2016

Opening date: 30 May 2016   Latest update: 14 October 2016

During the June-to-November transmission season, ECDC monitors the situation in EU Member States and neighbouring countries in order to inform the blood safety authorities of areas affected by West Nile fever and changes in the epidemiology of the disease.

› Update of the week

This week, 20 cases have been reported, four in EU Member States and 16 cases in the neighbouring countries. Since the beginning of the 2016 transmission season and as of 14 October 2016, 191 cases of West Nile fever in humans have been reported in the EU Member States and 246 cases in the neighbouring countries.
Non EU Threats

**Zika - Multistate (world) - Monitoring global outbreaks**

Since 1 February 2016, Zika virus infection and the related clusters of microcephaly cases and other neurological disorders constitute a public health emergencies of international concern (PHEIC). Since 2015, and as of 14 October 2016, there have been 69 countries and territories reporting mosquito-borne transmission of the virus. According to WHO and as of 14 October 2016, 22 countries or territories have reported microcephaly and other central nervous system (CNS) malformations in newborns potentially associated with Zika virus infection.

**Update of the week**

In the USA, 14 new locally-acquired cases have been reported in Florida since the last CDTR, bringing the cumulative number of locally-acquired cases to 155.

In Mexico, the Ministry of Health has reported the first five cases of Guillain-Barré syndrome linked to Zika virus infection. The cases are reported from the South of Mexico: Tabasco, Chiapas, Guerrero and Quintana Roo States. Three of the cases are males and the mean age is 18 years.

In ECDC map, the status of Argentina and Fiji has changed to ‘past transmission’ as no new cases have been reported in the last three months.

ECDC is preparing the ninth update of the rapid risk assessment to be published on 19 October.

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

Since April 2012 and as of 13 October 2016, 1 830 cases of MERS, including 700 deaths, have been reported by health authorities worldwide. The source of the virus remains unknown, but the pattern of transmission and virological studies point towards dromedary camels in the Middle East as being a reservoir from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission is amplified among household contacts and in healthcare settings.

**Update of the week**

Since the last update of MERS-CoV on 14 September 2016, there have been seven cases reported from Saudi Arabia. Five of the cases are male, one female and for one the gender is unknown. Three cases report to have had camel contact.

The case reported by Austria on 8 September 2016 died on 24 September 2016.

**Rift Valley fever – Niger**

A Rift Valley Fever (RVF) outbreak is currently occurring in the districts of Tchintabaraden, Tassara and Abalak in the Tahoua region. The first case was reported on 30 August and authorities declared the outbreak on 20 September.

**Update of the week**

From 2 August to 10 October 2016, 90 human cases including 28 deaths (CFR: 31%) were reported in the districts of Tchintabaraden, Tassara and Abalak in the Tahoua region. The region is mainly populated by nomadic stockbreeders.

**Poliomyelitis - Multistate (world) - Monitoring global outbreaks**

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission of the virus has completely stopped and the world becomes polio-free. Polio was declared a Public Health Emergency of International Concern (PHEIC) by the World Health Organization (WHO) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 11 August 2016, at the tenth meeting of the Emergency Committee, the temporary recommendations in relation to the PHEIC were extended for another three months. The World Health Organization recently declared wild poliovirus type 2 (WPV2) eradicated worldwide.

**Update of the week**

Two new cases of wild poliovirus type 1 (WPV1) were reported to WHO in the past week, one case from Pakistan and one from Nigeria. One new WPV1 positive environmental sample was reported in the past week in Pakistan.

No new circulating vaccine-derived poliovirus (cVDPV) have been reported in the past week.

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II. Detailed reports

**New! Influenza - Multistate (Europe) - Monitoring 2016-2017 season**

**Opening date:** 13 October 2016  
**Latest update:** 14 October 2016

**Epidemiological summary**
In week 40/2016 (3 – 9 October 2016), epidemiological data were reported by 41 countries, all of which reported low influenza activity. One sentinel specimen was tested positive for influenza B virus. No severe acute respiratory infections (SARI) cases due to influenza, and no hospitalised influenza-confirmed cases were reported.

**ECDC assessment**
In week 40/2016 (3 – 9 October 2016), epidemiological data were reported by 41 countries, all of which reported low influenza activity. One sentinel specimen was tested positive for influenza B virus.

**Actions**
ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the [Flu News Europe website](http://flunewseurope.eu). Risk assessments for the season are available from the European Centre for Disease Prevention and Control ([ECDC](http://www.ecdc.europa.eu)) and the WHO Regional Office for Europe websites.

**West Nile virus - Multistate (Europe) - Monitoring season 2016**

**Opening date:** 30 May 2016  
**Latest update:** 14 October 2016

**Epidemiological summary**
During the past week, Romania reported four new cases, one in the newly-affected area of Calarasi and three in the already-affected areas of Bacau (2) and Giurgiu (1). In the neighbouring countries, Serbia has reported four new cases, three in the already-affected Grad Beograd and one in the newly-affected district of central Banat. Russia reported four new confirmed cases in already-affected oblasts Saratov (3) and Voronezh (1). Israel reported eight new cases, all in previously-affected areas of Central district (1), Haifa (1), Southern district (4) and Tel Aviv (2).

**Source:** [ECDC WNF page](http://www.ecdc.europa.eu) | [PHI Serbia](http://www.phi.gov.rs) | [MoH Russia](http://www.moh.gov.ru)

**ECDC assessment**
Although there has been a notable peak in WNV transmission in the EU in the past few weeks, the overall number of cases are still within the historical range of values.

**Actions**
Since the beginning of June 2016, ECDC produces weekly WNF maps during the transmission season to inform blood safety authorities of WNF-affected areas.
Distribution of West Nile fever cases by affected areas, European region and Mediterranean basin, 2016

Zika - Multistate (world) - Monitoring global outbreaks
Opening date: 16 November 2015
Latest update: 14 October 2016

Epidemiological summary

1. Update on number of cases

The USA
Fourteen locally-acquired cases have been recorded in Florida over the past week. To date, 155 locally-acquired and 736 imported cases of Zika have been reported in Florida. The distribution of the locally-acquired cases is as follows: 145 in Miami-Dade, seven in Palm beach, one in Pinellas and one in Broward. The other case is a Broward County resident and investigation is ongoing to determine where exposure occurred.

EU/EEA imported cases:
Since July 2015 (week 26), 19 countries (Austria, Belgium, the Czech Republic, Denmark, Finland, France, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom) have
reported 1,918 travel-associated Zika virus infections through The European Surveillance System (TESSy). Over the same time period, seven EU countries reported 92 Zika cases among pregnant women.

EU’s Outermost Regions and Territories
As of 6 October 2016:
**Martinique**: 36,445 suspected cases have been reported, an increase of 90 since the previous week. The weekly number of cases has been decreasing.

**French Guiana**: 9,790 suspected cases have been detected, an increase of 20 cases since the previous week. The weekly number of cases decreased. According to the regional situation report, the epidemic is over.

**Guadeloupe**: 30,590 suspected cases have been detected, an increase of 90 suspected cases since the previous week. The weekly number of cases has been decreasing.

**St Barthélemy**: 770 suspected cases have been detected, an increase of 30 suspected cases since the previous week. The weekly number of cases is stable.

**St Martin**: 2,595 suspected cases have been detected, an increase of 60 suspected cases since the previous week. The weekly number of cases is stable.

Since February 2016, 12 countries have reported evidence of person-to-person transmission of Zika virus, probably via a sexual route.

2. **Update on microcephaly and/or central nervous system (CNS) malformations potentially associated with Zika virus infection**
As of 13 October 2016, microcephaly and other central nervous system (CNS) malformations associated with Zika virus infection or suggestive of congenital infection have been reported by 22 countries or territories. Brazil reports the highest number of cases. Nineteen countries and territories worldwide have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

**Web sources**: ECDC Zika Factsheet | PAHO | Colombian MoH | Brazilian MoH | Brazilian microcephaly case definition | SAGE MOH Brazil | Florida Health department

**ECDC assessment**
The spread of the Zika virus in the Americas and Asia is likely to continue as the vectors (*Aedes aegypti* and *Aedes albopictus* mosquitoes) are widely distributed there. The likelihood of travel-related cases in the EU is increasing. A detailed risk assessment was published on 30 August 2016. As neither treatment nor vaccines are available, prevention is based on personal protection measures. Pregnant women should consider postponing non-essential travel to Zika-affected areas.

**Actions**
ECDC publishes an epidemiological update every Friday together with maps containing information on countries or territories which have reported confirmed autochthonous cases of Zika virus infection. A Zika virus infection atlas is also available on the ECDC website.

ECDC publishes information concerning vector distribution on the ECDC website, showing the distribution of the vector species at 'regional' administrative level (NUTS3).
Distribution of locally acquired Zika cases in Florida State (US), by reporting date, from 16 July 2016 to 13 October 2016

ECDC: (Adapted from Florida health department and media)
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past three months, as of 14 October 2016

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

Opening date: 24 September 2012
Latest update: 14 October 2016

Epidemiological summary

As of 12 October 2016, 1,830 cases of MERS, including 700 deaths, have been reported by health authorities worldwide.

On 8 September 2016, Austria reported a case of MERS-CoV in a Saudi citizen, who died on 24 September 2016.

Since 2012, 16 cases of MERS-CoV have been reported in Europe. In 2012, the UK and Germany reported one imported case each from Qatar. In 2013, cases were reported from the UK (one imported and two autochthonous cases), Germany (one imported case), France (one imported and one autochthonous case) and Italy (one imported case). All of the imported cases had recent travel history to Saudi Arabia, United Arab Emirates or Jordan. In 2014, Greece, the Netherlands, Austria and Turkey all reported imported cases with recent travel history to Saudi Arabia. In 2015, Germany reported one imported case with travel history to United Arab Emirates.
**Web sources**: ECDC’s latest rapid risk assessment | ECDC novel coronavirus webpage | WHO | WHO MERS updates | WHO travel health update | WHO Euro MERS updates | CDC MERS | Saudi Arabia MoH | ECDC factsheet for professionals

**ECDC assessment**

The importation of a case from Saudi Arabia to Austria is not unexpected but demonstrates the continued risk of importation to Europe after exposure in the Middle East. However, the risk of sustained human-to-human transmission in Europe remains very low. Taking into account the latest development in Austria, ECDC’s conclusion continues to be that the MERS-CoV outbreak poses a low risk to the EU, as stated in the Rapid Risk Assessment published regarding the last case in Austria on 16 October 2014.

**Actions**

ECDC published the 21st update of its MERS CoV rapid risk assessment on 21 October 2015.

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**Distribution of confirmed cases of MERS-CoV by country of reporting and of exposure, March 2012 – 13 October 2016 (n=1 830)**

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**Rift Valley fever – Niger**
Epidemiological summary

From 2 August to 10 October 2016, 90 human cases including 28 deaths (CFR: 31.1%) were reported in the districts of Tchintabaraden, Tassara and Abalak in the Tahoua region. The region is mainly populated by nomadic stockbreeders. Most of the cases are male (62.5%) farmers or animal breeders. Cases and deaths attributed to RVF are also being reported in animals. Around two million cattle and small ruminants were in the affected region due to the nomadic stockbreeders and neighbouring countries celebration of Cure Salée, an annual festival marking the end of the rainy season in mid-September. Following the end of the rainy season, the nomadic stockbreeders and their animals will move to other southern sub-Saharan countries along the Niger River and irrigation systems where pastures will be available. As of 16 September 2016, 6 of the 13 human specimens tested at Institute Pasteur (IP), Dakar were positive for Rift Valley Fever (RVF). Among the 6 animal specimens tested, 3 were positive for RVF. Sequencing and further laboratory testing is ongoing. Genetic sequence data is required to confirm or refute the endogenous origin of the outbreak. Moreover, laboratory support for Niger is being considered.

Sources: WHO | MoH Mali | ACAPS

ECDC assessment

The outbreak is currently limited to two rural regions, not considered to be touristic areas. The risk of infection can be considered minimal for travellers staying in urban areas or in areas not affected by the RVF outbreak. Despite extensive travel between endemic countries and continental Europe, the number of imported cases remains very low, but importation of cases from Niger cannot be excluded. The risk for occurrence of secondary cases in the EU through a direct human-to-human transmission is negligible. Potential RVF virus vectors are present in the EU and therefore, the risk of secondary human transmission through an infected mosquito bite cannot be excluded but remains low. The risk of substances of human origin (SoHO) donations by RVF virus infected travellers from Niger appears to extremely low. Transmission by contact with blood or infected material in the healthcare setting may occur, but should be prevented by the application of standard precautions.

In conclusion, the risk of spread of the virus within the EU, should the virus be imported, appears to be very low.

Actions

ECDC has published a Rapid Risk Assessment on 7 October 2016.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Epidemiological summary

As of 11 October 2016, 27 cases of WPV1 have been reported to WHO in 2016, compared with 51 for the same period in 2015. The cases were detected in Pakistan (15), Afghanistan (8) and Nigeria (4). As of 11 October 2016, three cases of cVDPV have been reported in 2016, as compared to 32 for the same period in 2015. The three cases were all detected in Laos.

Web sources: Polio eradication: weekly update | ECDC Poliomyelitis factsheet | Temporary Recommendations to Reduce International Spread of Poliovirus | WHO Statement on the Seventh Meeting of the International Health Regulations Emergency Committee on Polio

ECDC assessment

The detection of new cases in Nigeria is not unusual or unexpected. It is not an indication that the current outbreak response is not effective, as it is too early to see an impact on the epidemiology of the virus circulation. It is an indicator that surveillance continues to be strengthened.

Continued detection of positive environmental samples throughout 2016 in Pakistan confirms that virus transmission remains geographically widespread across the country, despite strong improvements being achieved.

The last locally-acquired wild polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent wild polio outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460
cases.

**References:** ECDC latest RRA | Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA | Wild-type poliovirus 1 transmission in Israel - what is the risk to the EU/EEA? | RRA Outbreak of circulating vaccine-derived poliovirus type 1 (cVDPV1) in Ukraine.

**Actions**

ECDC monitors reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being reintroduced to the EU. Following the declaration of polio as a PHEIC, ECDC updated its risk assessment. ECDC has also prepared a background document with travel recommendations for the EU.
The Communicable Disease Threat Report may include unconfirmed information which may later prove to be unsubstantiated.