

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

West Nile virus - Multistate (Europe) - Monitoring season 2013

Opening date: 3 June 2013

Latest update: 8 August 2013

West Nile fever (WNF) is a mosquito-borne disease which causes severe neurological symptoms in a small proportion of infected people. During the transmission season between June and November, ECDC monitors the situation in EU Member States and in neighbouring countries in order to inform blood safety authorities regarding WNF-affected areas and identify significant changes in the epidemiology of the disease. In the 2012 transmission season, 237 probable and confirmed cases have been reported in the EU, and 670 cases in neighbouring countries.

→ Update of the week

During the past week, ten human West Nile fever cases were detected in EU.

Greece reported three confirmed and three probable cases from Attiki, one probable case from Thessaloniki, and two probable cases from areas affected for the first time this year: Imathia and Xanthi.

Italy reported its first confirmed case in Rovigo province, Veneto region. This province was not affected in 2012.

In neighbouring countries, Serbia reported 29 cases in Grad Beograd (Belgrade) and surrounding regions of Sremski, Juzno-banatski, Juzno-backi, Kolubarski and Podunavski, which are newly affected areas this year. In Russia, the Volgograd oblast recorded nine additional cases and the Saratovskaya oblast reported its first four cases of the year. In Israel, six additional cases were reported since the last update, predominantly in the Haifa District.

Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013

Latest update: 8 August 2013

Between 1 October 2012 and 8 August 2013, Denmark, Finland, Norway and Sweden reported hepatitis A (HAV) cases due to sub-genotype 1B with two related sequences. None of the cases had travel history outside the EU within the period of their potential exposure. Overall, 106 cases have been reported associated with this outbreak, of which 64 are confirmed. Epidemiological investigations in Denmark and Sweden point towards frozen strawberries as the vehicle of infection.

→ Update of the week

There have been two new probable cases reported in July: one from Denmark and one from Finland.

Non EU Threats

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

Opening date: 24 September 2012

Latest update: 8 August 2013

Between April 2012 and 2 August 2013, 94 laboratory-confirmed cases, including 46 deaths, of an acute respiratory disease have been notified to WHO. The new virus, named Middle East respiratory syndrome coronavirus (MERS-CoV), is genetically distinct from the coronavirus that caused the SARS outbreak. Cases have originated in Saudi Arabia, Qatar, Jordan and the United Arab Emirates (UAE). In addition, cases have occurred in Germany, the United Kingdom, Tunisia, France and Italy in patients who were either transferred for care of the disease or returned from the Middle East. The MERS-CoV reservoir has not been established, nor is it clear how transmission occurs.

→Update of the week

Since 2 August 2013 no new cases or deaths have been reported.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 8 August 2013

Dengue fever is one of the most prevalent vector-borne diseases in the world, affecting an estimated 50-100 million people each year, mainly in the tropical regions of the world. The identification of sporadic autochthonous cases in non-endemic areas in recent years has already highlighted the risk of locally-acquired cases occurring in EU countries where the competent vectors are present. The recent dengue outbreak in the Autonomous Region of Madeira, Portugal in October 2012 further underlines the importance of surveillance and vector control in other European countries.

→Update of the week

So far in 2013, no autochthonous dengue cases have been reported in European countries apart from sporadic cases in Madeira in January.

Pertussis -Multistate (EU) - Monitoring European outbreaks

Opening date: 11 July 2013

Latest update: 8 August 2013

Pertussis (whooping cough) is a highly contagious acute respiratory infection caused by the bacterium *Bordetella pertussis*. Pertussis is an endemic disease, with sporadic outbreaks, and epidemic peaks occurring every two to five years. It is often not diagnosed and occurs with increasing frequency in older children and adults, who may pass the infection to vulnerable younger children who may be severely affected by the disease. Pertussis cases occur all year round.

→Update of the week

No indications of major ongoing outbreaks during July 2013 were detected through media or available surveillance sources.

II. Detailed reports

West Nile virus - Multistate (Europe) - Monitoring season 2013

Opening date: 3 June 2013

Latest update: 8 August 2013

Epidemiological summary

As of 9 August 2013, 18 human cases of West Nile fever have been reported in the EU and 75 cases in neighbouring countries.

EU Member States

Greece

Seventeen cases of WNF have been reported in Greece. The regions affected are Attiki (12), Thessaloniki (3), Imathia (1) and Xanthi (1). Attiki has reported six probable and six confirmed cases, Thessaloniki has recorded two probable and one confirmed case whilst Imathia and Xanthi have both reported one probable case each, according to the EU case definition.

Italy

Italy reported its first confirmed case of WNF in Rovigo province, Veneto region. This province was not affected in 2012.

Neighbouring countries

Russia

Twenty-seven cases of WNF have been reported in Russia: seven cases in Astrakhanskaya oblast, 16 cases in Volgograd oblast and four cases in Saratovskaya oblast.

Serbia

As of 7 August, 29 cases have been reported in Grad Beograd (Belgrade) and surrounding regions Sremski, Juzno-banatski, Juzno-backi, Kolubarski and Podunavski, which are newly affected areas this year.

The former Yugoslav Republic of Macedonia

On 24 July, the former Yugoslav Republic of Macedonia reported its first case of the year in Kocani (Eastern Macedonia).

Israel

Israel has recorded 18 cases of WNF (5 confirmed and 15 probable) to date, the majority of cases have been reported in the Central and Haifa districts.

The World Organisation for Animal Health (OIE) reported two equine cases of WNF in Greece, one horse found positive through active sero-surveillance in Xanthi on 17 July and another clinical case in Attiki, on 23 July.

On 31 July, the circulation of WNV positive mosquitoes in the provincial areas of Bologna and Modena in Italy lead the General Directorate of Health and Social Policies of the Emilia-Romagna Region to activate testing and blood deferral protocols.

Websources: [ECDC West Nile fever risk maps](#) | [ECDC West Nile fever risk assessment tool](#) | [Keelpno Greece](#) | [Astrakhanskaya oblast](#) | [Volgograd oblast](#) | [Saratovskaya oblast](#) | [Israel MoH](#) | [Serbia MoH](#) | [FYROM PHI](#) | [OIE 1](#) | [OIE 2](#) |

ECDC assessment

West Nile fever in humans is a notifiable disease in the EU. The implementation of control measures are considered important for ensuring blood safety by the national health authorities when human cases of West Nile fever occur. According to the [EU blood directive](#), efforts should be made to defer blood donations from affected areas with ongoing virus transmission.

Actions

ECDC produces weekly [West Nile fever risk maps](#) during the transmission season to inform blood safety authorities regarding affected areas.

ECDC published a West Nile fever [risk assessment tool](#) on 3 July 2013.

Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013

Latest update: 8 August 2013

Epidemiological summary

From 1 October 2012 until 8 August 2013, Denmark, Finland, Norway and Sweden reported 106 HAV cases due to subgenotype IB with two related sequences. None of the cases had travel history outside the EU within the period of their potential exposure.

The source of the outbreak has not been confirmed by positive microbiological samples from berries, but epidemiological and purchase history investigations in Denmark, Norway and Sweden point towards frozen strawberries imported from North Africa as the vehicle of infection.

On 22 May 2013, the [Swedish Institute for Infectious Disease Control](#) (SMI) published a press release indicating that frozen strawberries of non-domestic origin are likely to be the source of the Swedish outbreak. Other types of berries are no longer suspected in this outbreak.

On 30 May 2013, the [Danish Food Safety Authority](#) confirmed that specific products with frozen strawberries packaged in Belgium and sold in Denmark, have been voluntarily recalled. Both epidemiological and product investigations point towards these specific products of frozen strawberries as the vehicle of infection for the ongoing hepatitis outbreak in the Nordic countries.

Web sources: [ECDC HAV factsheet](#) | [Eurosurveillance 25 April 2013](#)

ECDC assessment

The identification of closely related HAV sequences in four different countries confirms that this is a multinational food-borne outbreak. The source of the multi-country outbreak has not been confirmed, but epidemiological investigations in Denmark and Sweden point towards frozen strawberries as the vehicle of infection.

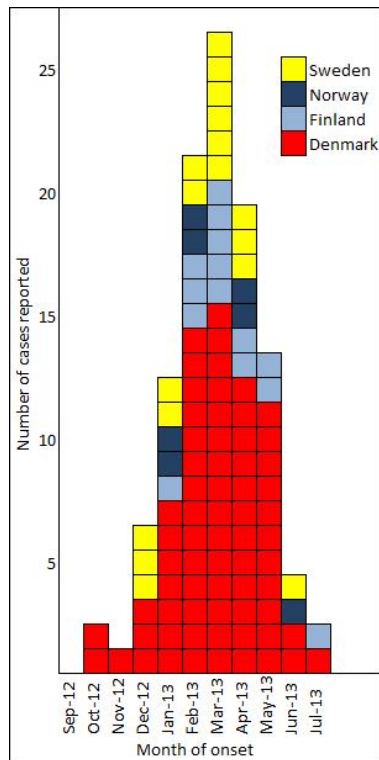
The distribution of reported cases over time shows a marked decline in the number of cases after the implementation of the control measures. The last two cases reported in July may be due to the consumption of the implicated vehicle of infection which, although withdrawn from the market, could still be stored in some households.

Actions

ECDC and EFSA published a joint [rapid outbreak assessment](#) on 16 April. The latest [ECDC epidemiological update](#) was published on 6 August 2013.

Distribution of cases by month of onset and reporting country, hepatitis A outbreak in four Nordic countries, Oct 2012 - Jul 2013 (n=106)

ECDC Epidemiological update



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

Opening date: 24 September 2012

Latest update: 8 August 2013

Epidemiological summary

As of 2 August 2013, 94 laboratory-confirmed cases of MERS-CoV, including 46 deaths, have been reported worldwide. All cases have either occurred in the Middle East or have had direct links to a primary case that was infected in the Middle East. Saudi Arabia has reported 74 cases, including 39 deaths, UAE five cases and Jordan two cases, both of which died. Thirteen cases have been reported from outside the Middle East in: UK (4), Italy (3), France (2), Germany (2) and Tunisia (2). In France, Italy, Tunisia and the United Kingdom, there has been local transmission among patients who have not been to the Middle East but had been in close contact with laboratory-confirmed or probable cases. Person-to-person transmission has occurred both among close contacts and in healthcare facilities, but, with the exception of a nosocomial outbreak in Al-Ahsa, Saudi Arabia, secondary transmission has been limited. Eight asymptomatic cases were reported by Saudi Arabia and two by UAE. Six of these cases were healthcare workers.

On 9 July, WHO established the [Emergency Committee](#) to advise WHO's Director-General on the status of the current situation concerning MERS-CoV. On 17 July, the [second meeting of the Emergency Committee](#) under the International Health Regulations (2005) was held by teleconference. It concluded unanimously that with the information now available, and using a risk assessment approach, the conditions for a Public Health Emergency of International Concern have not been met at present.

The Ministry of Health of Saudi Arabia updated its [Health Regulations](#) for travellers to Saudi Arabia for the Umrah and Hajj pilgrimage regarding MERS-CoV and now recommends that the elderly, those with chronic diseases and pilgrims with immune deficiency, malignancy and terminal illnesses, pregnant women and children coming for Hajj and Umrah this year should postpone their journey.

WHO published a [travel advice](#) on MERS-CoV for pilgrimages on 25 July 2013.

The [WHO guidelines for investigation of cases of human infection with MERS-CoV](#) were published in July 2013. On 30 July 2013 the [MERS-CoV Initial Interview Questionnaire of Cases - Guide for the interviewer](#) was published to support the investigators.

A [letter in NEJM](#) described the findings of routine screening of 3000 close contacts to MERS-CoV cases. The Saudi health

authorities identified seven healthcare workers whose nasopharyngeal swabs were positive with RT-PCR for MERS. Two of the cases were asymptomatic and five had mild upper respiratory tract symptoms. This finding suggests the possibility of asymptomatic carriage and mild infections occurring with MERS, although previous screening activities in other countries have failed to detect such cases.

Web sources: [ECDC RRA Update 22 July](#) | [ECDC novel coronavirus webpage](#) | [WHO](#) | [WHO MERS updates](#) | [InVS 25 June](#)

ECDC assessment

The continued detection of MERS-CoV cases in the Middle East indicates that there is an ongoing source of infection present in the region. There is therefore a continued risk of cases occurring in Europe associated with travel to the area. Surveillance for cases is essential, particularly with expected increased travel to Saudi Arabia for Ramadan in July and the Hajj in October.

The risk of secondary transmission in the EU remains low and could be reduced further through screening for exposure among patients presenting with respiratory symptoms and their contacts, and strict implementation of infection prevention and control measures for patients under investigation.

Actions

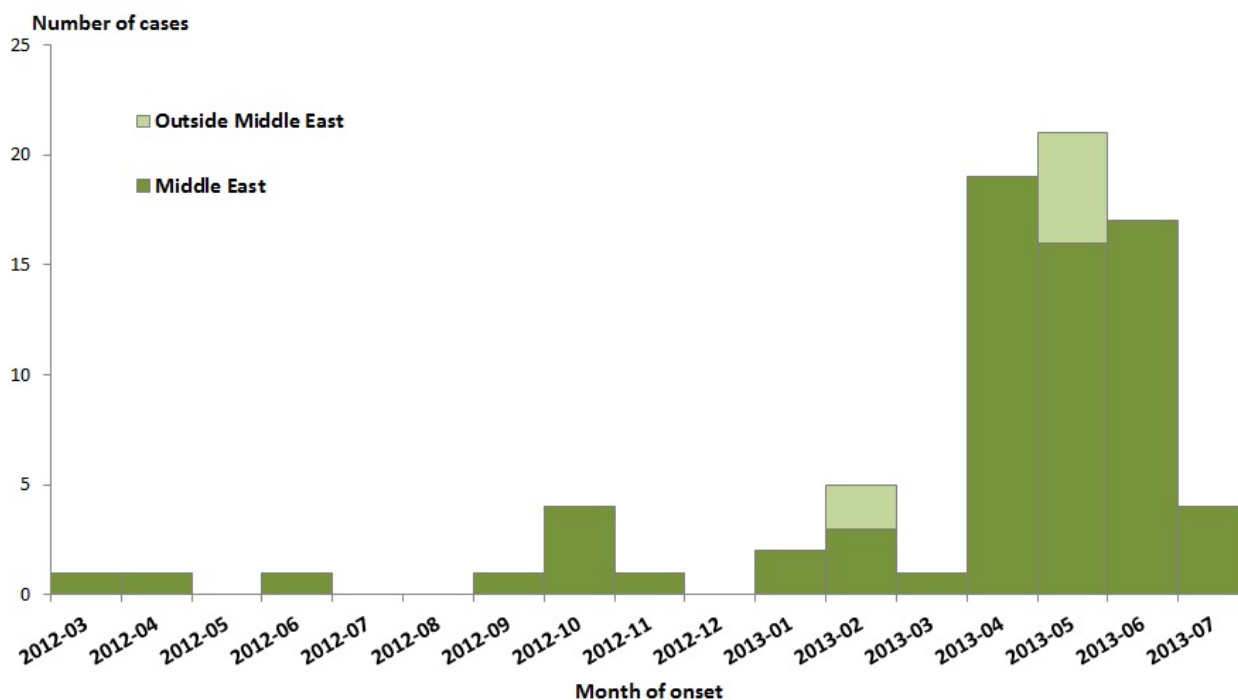
The latest ECDC [rapid risk assessment](#) was published on 22 July 2013.

The results of an ECDC coordinated survey on laboratory capacity for testing the MERS-CoV in Europe were published in [EuroSurveillance](#).

ECDC is closely monitoring the situation in collaboration with WHO and the EU Member States.

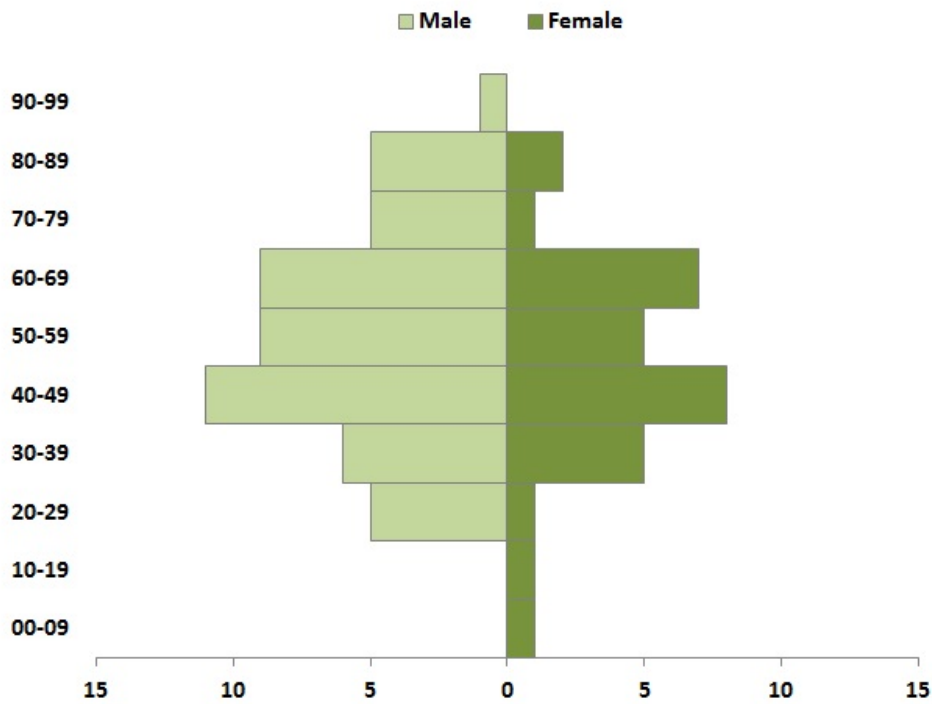
Distribution of confirmed cases of MERS-CoV by month of onset and place of probable infection, March 2012 - August 2013 (n=78*)

ECDC *16 cases for which month of onset is missing have been excluded



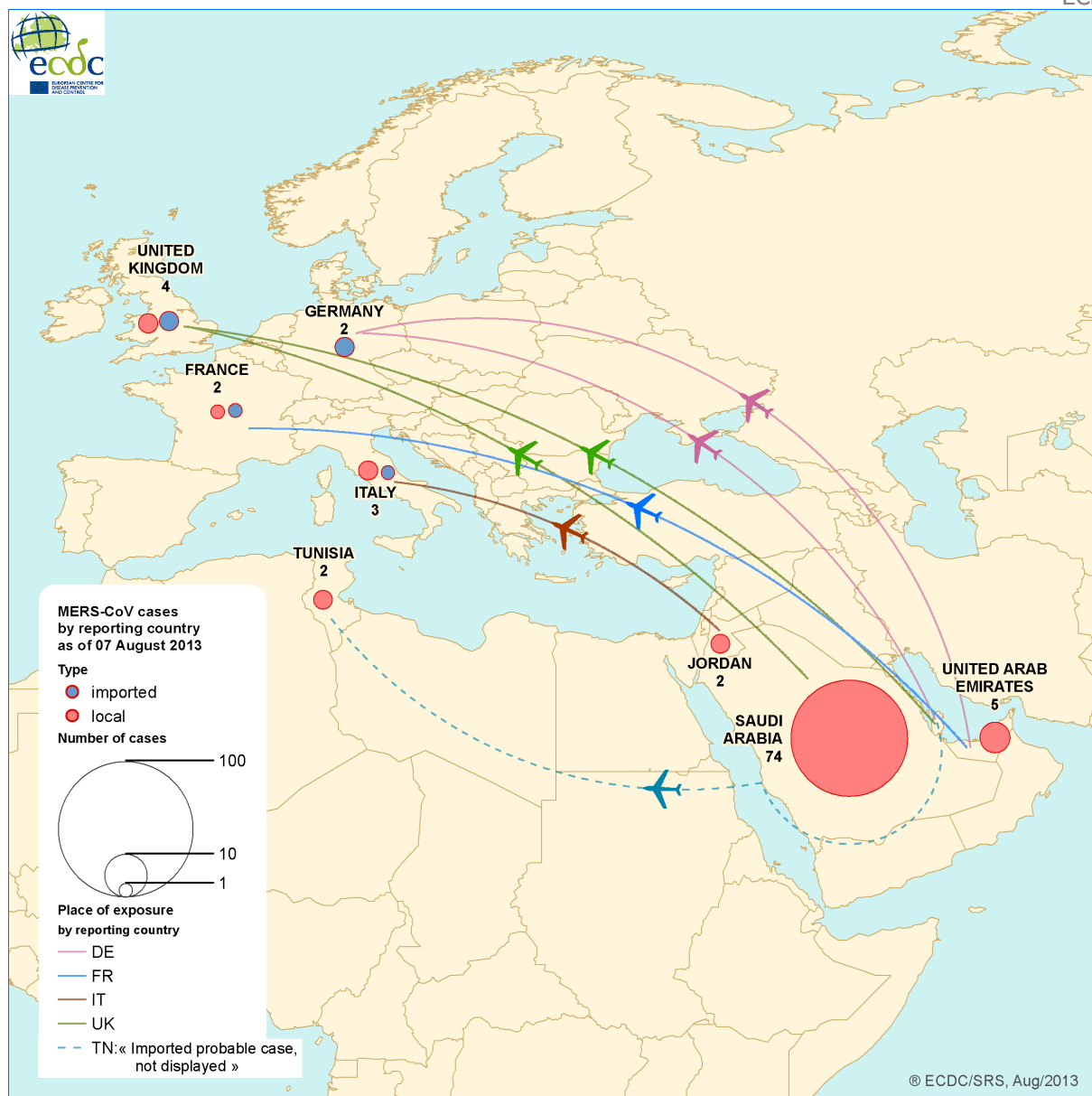
Distribution of confirmed cases of MERS-CoV by month of onset and place of probable infection, March 2012 - August 2013 (n=82*)

ECDC *12 cases for which age or sex data is missing have been excluded



Distribution of confirmed cases of MERS-CoV by place of reporting

ECDC SRS



Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 8 August 2013

Epidemiological summary

Asia: Laos, Malaysia and Singapore have reported more cases in 2013 than 2012 for the same time period. The recent trend is that numbers of cases are increasing in Malaysia, Philippines and Vietnam. Dengue activity continues to be high in Laos, although there have been indications of it stabilising. The numbers are decreasing in Australia, Cambodia and Singapore.

Thailand is experiencing a recent upsurge in dengue cases and the Ministry of Health has recorded nearly 82 000 cases and 78 deaths so far this year. The highest number of cases have been reported in the northern province of Chiang Mai. In China, Guangdong province has recorded 85 autochthonous cases of dengue fever to date.

Caribbean: The dengue epidemic continues to spread in Guadeloupe whilst the Dominican Republic has recorded almost 6 000 suspected cases and 43 deaths since the beginning of the year.

Pacific: The recent trend has declined to low levels in New Caledonia and the Solomon Islands. French Polynesia has been

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experiencing increased dengue levels. To date, 218 cases of dengue fever have been reported and Tahiti, Moorea, Bora Bora, Rangiroa and Fakarava are the most affected areas. The predominant serotypes circulating are DENV-1 and DENV-3.

Central and South America: High dengue activity is reported across Central America. As of 27 July, more than 40 000 cases and 29 deaths have been recorded. In Honduras, the government has declared a public health emergency after recording more than 15 000 suspected cases and 16 deaths. Costa Rica has recorded the highest rate of new dengue infections so far this year with nearly 17 000 cases. In other parts of Central America, Nicaragua, El Salvador and Panama have all reported an upward trend of new dengue infections during the past two weeks.

In South America, Brazil continues to be affected by numerous outbreaks, most notably in Mato Grosso State where DENV-1 is the predominant serotype circulating.

Africa: The dengue epidemic in Angola has spread to two new provinces; Kwanza-Sul and Uige. Since the outbreak started on 12 March, 1 008 dengue cases have been reported, of which 735 are laboratory confirmed. In July, no new autochthonous dengue cases were recorded in Réunion.

Web sources:

[HealthMap](#) | [MedISys](#) | [ProMED Asia update](#) | [ProMED Americas update](#) | [WPRO](#)

ECDC assessment

ECDC monitors individual outbreaks, seasonal transmission patterns and inter-annual epidemic cycles of dengue through epidemic intelligence activities in order to identify significant changes in disease epidemiology. Of particular concern is the potential for the establishment of dengue transmission in Europe. Before the 2012 outbreak in the Autonomous Region of Madeira, local transmission of dengue was reported for the first time in France and Croatia in 2010. Imported cases are being detected in European countries, highlighting the risk of locally acquired cases occurring in countries where the competent vectors are present.

Actions

ECDC has published a technical [report](#) on the climatic suitability for dengue transmission in continental Europe and [guidance for invasive mosquitoes' surveillance](#).

From week 28 onwards, ECDC has been monitoring dengue on a biweekly basis.

Pertussis -Multistate (EU) - Monitoring European outbreaks

Opening date: 11 July 2013

Latest update: 8 August 2013

Epidemiological summary

Ireland has reported 133 cases so far in 2013; for the same time period last year there were 263 cases.

According to Health Protection Scotland, a high incidence of pertussis has continued during the first 24 weeks of 2013: 772 notifications in the first 24 weeks of 2013 compared with 655 during the same period in 2012. In the first 24 weeks of 2013 there have been 842 laboratory-confirmed cases of *Bordetella pertussis* compared with 536 during the same period in 2012. The large increase in both notifications and laboratory reports of *B. pertussis* in 2012 started in the spring, with lower numbers in the first 12 weeks of 2012, explaining why the total number for the first 24 weeks of 2013 is higher than the same period last year.

In England there were 1 633 laboratory-confirmed cases of pertussis reported to the Health Protection Agency in the first quarter of 2013, from January to March. This was a 53% decrease on the number of cases reported in the previous quarter (3481 in October to December 2012). The number of cases reported in the first quarter of 2013 was more than double than the same quarter in the previous year (702 cases between January and March 2012). There were 84 laboratory-confirmed cases reported in Wales which was more than four times higher than the 19 cases reported in the first quarter of 2012 and almost half of the 158 cases reported in the fourth quarter of 2012.

In Finland 26 cases have been notified in 2013. In comparison there were 392 notified cases reported for the same time period in 2012.

In Austria 28 cases have been notified in 2013, the overall number of cases reported in 2012 was 571.

In Sweden 95 cases have been notified in 2013, the overall number of cases for 2012 was 289.

[ECDC Annual Epidemiological Report 2012](#) | [Ireland](#) | [HPS Scot](#) | [PHE](#) | [THL](#) | [BMG](#) | [SMI](#) |

ECDC assessment

No indications of major ongoing outbreaks during July 2013 were detected through media or available surveillance sources.

Actions

ECDC closely monitors pertussis transmission in Europe on a monthly basis by analysing the cases reported to the European Surveillance System and through its epidemic intelligence activities. This is the first report in the CDTR.

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