

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Increase in cases of Salmonella Mikawasima - Multistate (EU)

Opening date: 13 November 2013

Latest update: 13 November 2013

On 11 November 2013, the United Kingdom issued an urgent inquiry in EPIS-FWD to report 46 cases of *Salmonella* Mikawasima having occurred since October 2013. In response, France, Denmark, Germany and Sweden also indicated higher than expected numbers in this period. *Salmonella* Mikawasima is a rare serotype in Europe and the recent increase in more than one EU/EEA Member State suggests a common source.

Influenza - Multistate (Europe) - Monitoring 2013-2014 season

Opening date: 4 October 2013

Latest update: 24 October 2013

Following the 2009 pandemic, influenza transmission in Europe has returned to its seasonal epidemic pattern, with peak activity seen during winter months. ECDC monitors influenza activity in Europe during the winter seasons and publishes the results on its website in the Weekly Influenza Surveillance Overview.

→Update of the week

During week 45, all 27 reporting countries experienced low intensity influenza activity.

Non EU Threats

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 16 October 2013

The influenza A(H5N1) virus, commonly known as bird flu, is fatal in about 60% of human infections; sporadic cases continue to be reported, usually after contact with sick or dead poultry from certain Asian and African countries. No human cases have been reported from Europe.

→Update of the week

In 2013, as of 14 November, 37 new cases of laboratory-confirmed human cases with influenza A(H5N1) virus infection were reported worldwide, of which 26 were in Cambodia.

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

Opening date: 24 September 2012

Latest update: 13 November 2013

Since April 2012, 156 laboratory-confirmed cases, including 65 deaths, of acute respiratory disease caused by Middle East respiratory syndrome coronavirus (MERS-CoV), have been reported by national health authorities. MERS-CoV is genetically distinct from the coronavirus that caused the SARS outbreak. To date, all cases have either occurred in the Middle East, have had direct links to a primary case infected in the Middle East or have returned from the Middle East.

→Update of the week

Between 7 and 14 November 2013 five additional cases were reported by the local health authorities from Saudi Arabia (2), Qatar (1) and Kuwait (2). Confirmatory testing continues for the probable case reported by Spain on 6 November. The WHO MERS-CoV Research Group published a comprehensive review on MERS-CoV in [PLOS](#).

Cholera - Mexico - Monitoring outbreak 2013

Opening date: 14 October 2013

Latest update: 13 November 2013

Since August of this year, an ongoing outbreak of cholera has affected five provinces in Mexico, with 180 reported cases, including one death.

→Update of the week

During the past week, four new cases have been reported: two from the state of Hidalgo and two from the state of Veracruz. ECDC posted an [epidemiological update](#).

Outbreak of poliomyelitis - Syria -2013

Opening date: 22 October 2013

Latest update: 11 November 2013

A cluster of 22 children affected by acute flaccid paralysis (AFP) was detected in early October 2013 in Deir Al Zour province in Syria. Wild poliovirus type 1 (WPV1) has been isolated from thirteen of the affected cases. Wild poliovirus was last reported in Syria in 1999. This cluster increases the risk for the importation of wild poliovirus to the EU/EEA and further re-establishment and transmission in the Member States. WHO's International Travel and Health recommends that all travellers to and from polio-infected areas be fully vaccinated against polio.

→Update of the week

On 11 November, WHO confirmed three additional confirmed cases of wild poliovirus type 1 (WPV1) in Syria bringing the number of confirmed poliomyelitis cases to 13.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 14 November 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 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.

II. Detailed reports

New! Increase in cases of *Salmonella* Mikawasima - Multistate (EU)

Opening date: 13 November 2013

Latest update: 13 November 2013

Epidemiological summary

Since October 2013, the UK has recorded 46 cases of *Salmonella* Mikawasima (Health Protection Scotland 20, Public Health England 27 and Public Health Wales one). France has reported 15 cases compared to 4 to 12 cases annually, seven of which since mid-September. Denmark has started an investigation after identifying five isolates with this rare serotype in the last two weeks. PFGE and whole genome sequencing is currently being performed on these isolates. Germany and Sweden have also reported higher case numbers than expected during this period. To date, no increase in cases with this serotype has been observed in Austria, Finland, Greece, Ireland, Italy or the USA.

According to data from The European Surveillance System (TESSy), the annual number of confirmed cases reported with this serotype has ranged from 51 to 135 in the last five years. A higher frequency of cases was reported among young and middle-aged adults (60% of cases were 25-65 years old). Twenty percent of the 305 cases with known importation status were imported. The probable country of infection reported most frequently was Spain (18 cases).

The comparison in the molecular surveillance database revealed indistinguishable PFGE profiles in 23 cases from four countries, of which 18 are reported from two countries in October-November 2013.

ECDC assessment

This is a rare serotype in Europe. The recent increase in several Member States suggests a common source.

Actions

ECDC has been liaising with EFSA and Member States regarding this event. ECDC's FWD team will monitor the development and continue to summarize the existing evidence to support the Member States currently investigating the outbreak.

Influenza - Multistate (Europe) - Monitoring 2013-2014 season

Opening date: 4 October 2013

Latest update: 24 October 2013

Epidemiological summary

During week 45/2013, all 27 reporting countries experienced low intensity influenza activity. Of 375 sentinel specimens tested across 19 countries, 2% were positive for influenza. One hospitalised laboratory-confirmed influenza case was reported by the UK.

Web sources: [WISO](#) | [ECDC Seasonal influenza](#) | [CDC Seasonal influenza](#)

ECDC assessment

During the first six weeks of the 2013–2014 influenza season, there was no evidence of sustained influenza activity in Europe.

Actions

ECDC will be producing the weekly influenza surveillance overview on a weekly basis.

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 16 October 2013

Epidemiological summary

Thirty-seven human cases with influenza A(H5N1) virus infection have been laboratory-confirmed since the beginning of the year. The latest two cases were [reported](#) on 14 November from Cambodia. The countries affected this year are Cambodia (26), China (2), Vietnam (2), Bangladesh (1), Indonesia (2) and Egypt (4). Among these cases, 23 have been fatal, most of them in Cambodia (14).

Since 2003, as of 14 November, 647 cases of influenza A(H5N1) were reported from 15 countries worldwide, of which 383 were fatal (CFR 59%). Among the countries in the Western Pacific Region with more than 10 reported cases, Cambodia had the highest CFR of 70% (32 out of 47).

Web sources: [ECDC Rapid Risk Assessment](#) | [Avian influenza on ECDC website](#) | [WHO updates](#) | [WPRO updates](#)

ECDC assessment

Hong Kong reported the world's first outbreak of bird flu among humans in 1997, when six people died. Most human infections are the result of direct contact with infected birds, and countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. ECDC follows the worldwide A(H5N1) situation through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of a changing risk for A(H5N1) to humans on a regular basis. There are currently no indications that there is any significant change in the epidemiology associated with any clade or strain of the A(H5N1) virus from a human health perspective. This assessment is based on the absence of sustained human-to-human transmission, and on the observation that there is no apparent change in the size of clusters or reports of chains of infection. However, vigilance for avian influenza in domestic poultry and wild birds in Europe remains important.

During 2013, Cambodia has experienced a significant increase in the number of reported cases compared to previous years. All but five of the cases were children and had contact with poultry prior to falling ill. However, the increase in the number of cases is not linked with a clustering of cases or human-to-human transmission and the previous ECDC [rapid risk assessment](#) for influenza A(H5N1) remains valid.

Actions

WHO is now reporting H5N1 cases on a monthly basis. ECDC will continue monthly reporting in the CDTR to coincide with WHO reporting.

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

Opening date: 24 September 2012

Latest update: 13 November 2013

Epidemiological summary

As of 14 November 2013, 156 laboratory-confirmed cases of MERS-CoV have been reported by local health authorities worldwide (three cases are pending confirmatory testing, two in Kuwait and one in Spain), including 65 deaths.

Saudi Arabia has reported 127 symptomatic and asymptomatic cases including 53 deaths; Jordan two cases, both of whom died; United Arab Emirates five cases, including one fatality; Qatar six cases, including two deaths; Oman one fatal case and Kuwait two cases (pending confirmatory testing).

Thirteen cases have been reported from outside the Middle East: in the UK (4), France (2), Tunisia (3), Germany (2), Italy (1) and Spain (1, pending confirmatory testing).

In France, Tunisia and the United Kingdom, there has been local transmission among patients who have not been to the Middle East but have been in close contact with laboratory-confirmed or probable cases. Person-to-person transmission has occurred both among close contacts and in healthcare facilities. However, with the exception of a possible nosocomial outbreak in Al-Ahsa, Saudi Arabia, secondary transmission has been limited. Sixteen asymptomatic cases have been reported by Saudi Arabia and two by the UAE. Seven of these cases were healthcare workers.

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](#) | [Eurosurveillance article 26 September](#) | [Oman MoH](#) | [Spain MoH](#)

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. The source of infection and the mode of transmission have not been identified.

The MERS-CoV infection reported in Spain in a returning traveller from Saudi Arabia should remind EU citizens of the risk of contracting MERS-CoV through exposure while travelling to the Middle East. Surveillance for cases is essential. 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

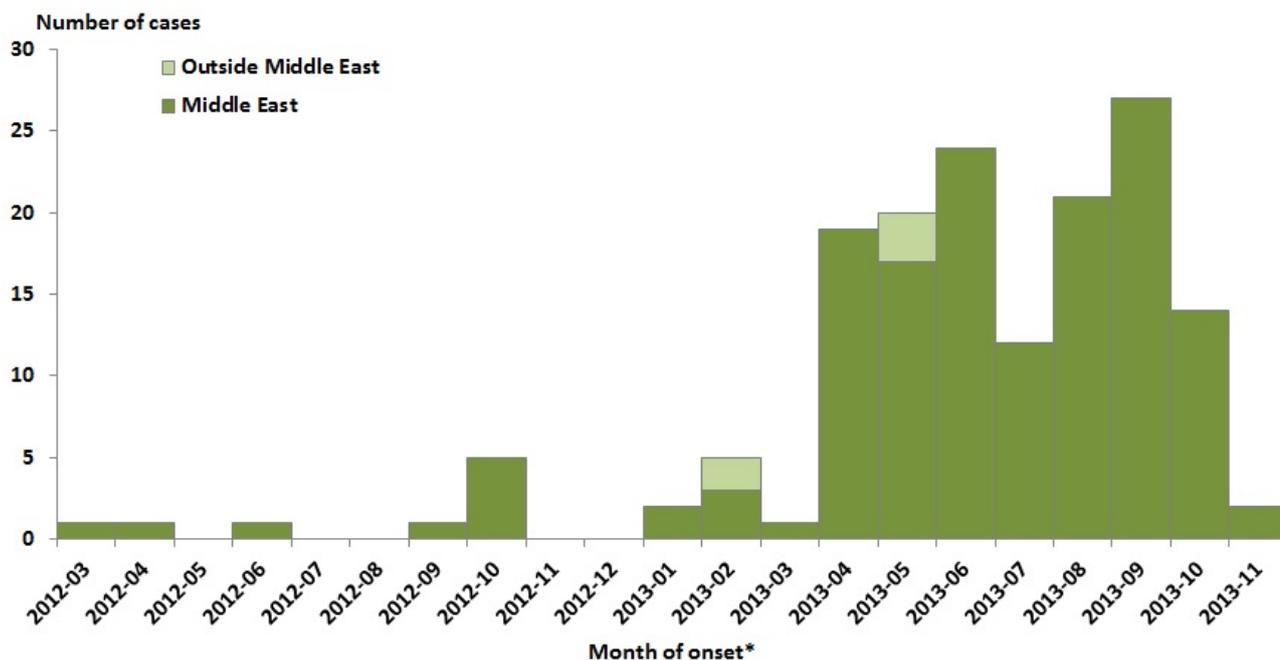
The latest update of a [rapid risk assessment](#) was published on 7 November 2013.

The first 133 cases are described in [EuroSurveillance](#) published on 26 September 2013.

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

Distribution of confirmed cases of MERS-CoV by month* and place of probable infection, March 2012 - 14 November 2013 (N=156)

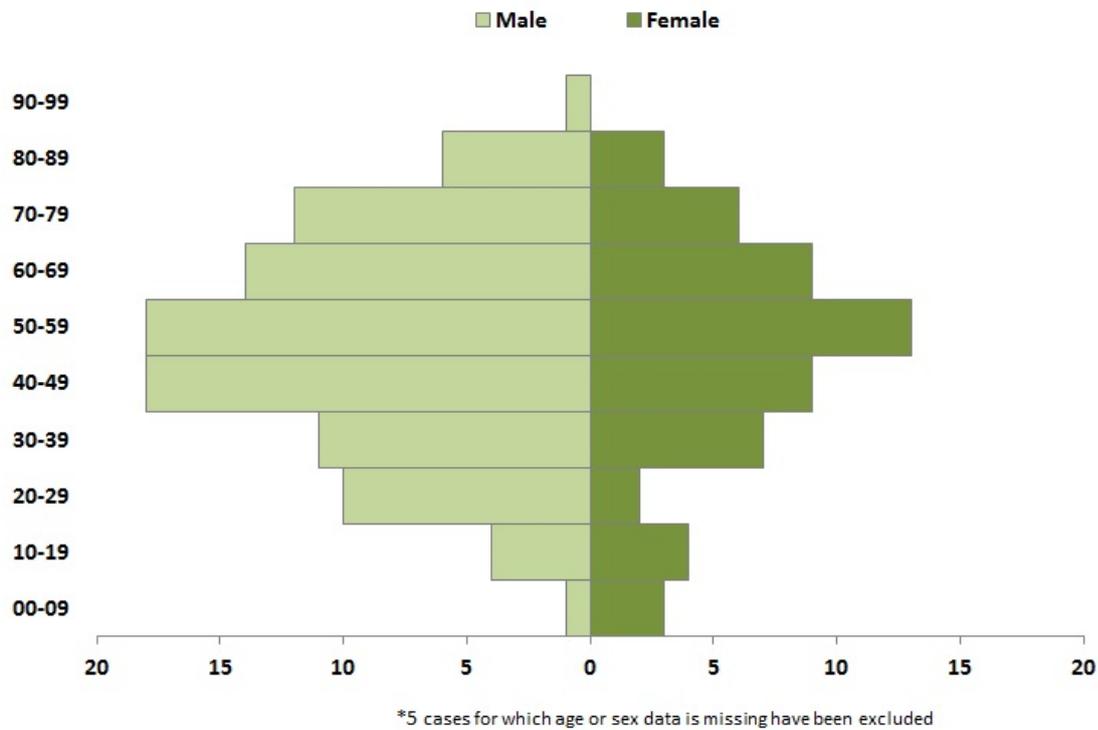
Source: ECDC SRS



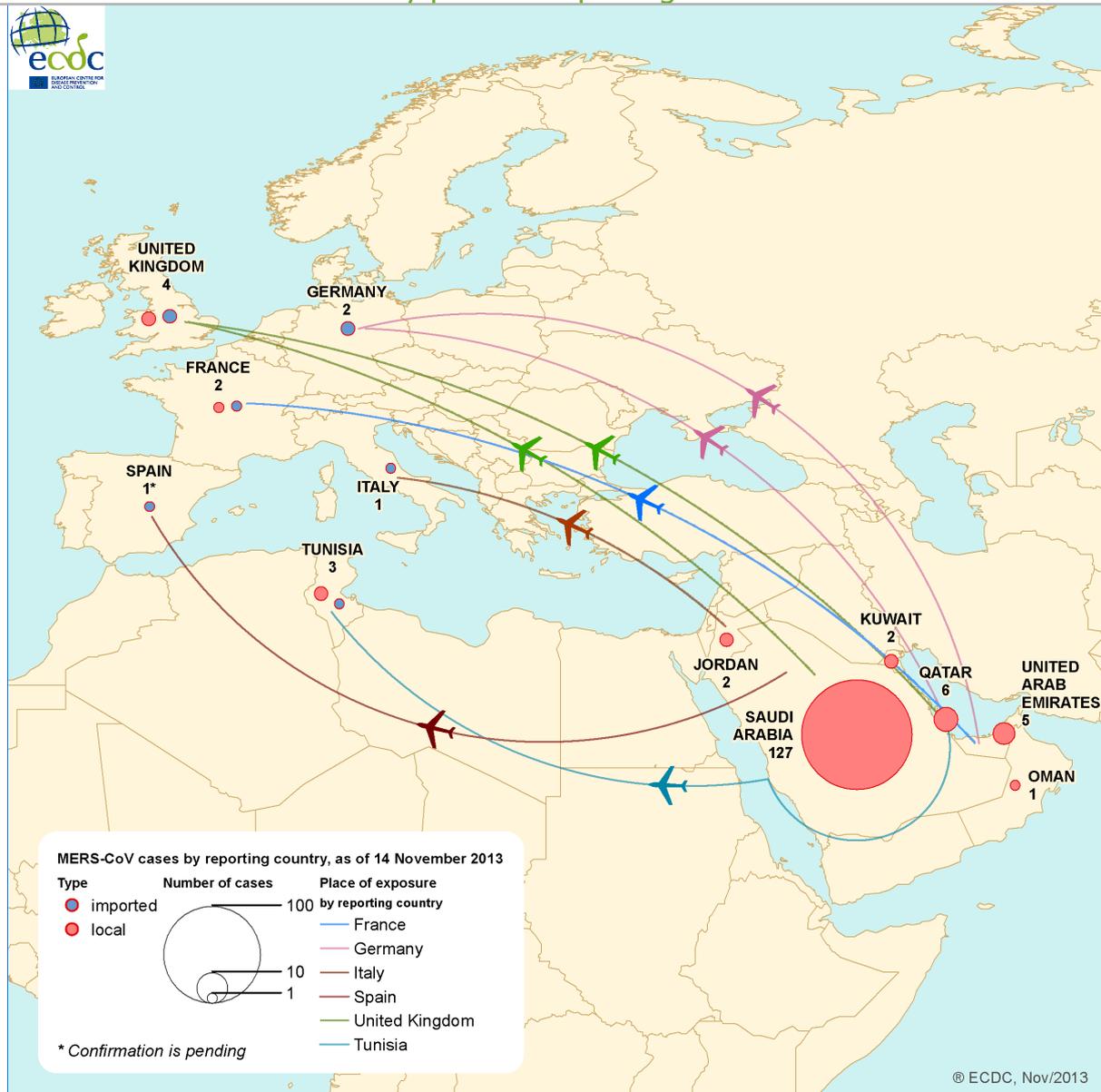
* Where the month of onset is unknown the month of reporting has been used.

Distribution of confirmed cases of MERS-CoV by age and gender, March 2012 - 14 November 2013 (n=151*)

Source: ECDC SRS



Distribution of MERS-CoV cases by place of reporting as of 14 November 2013



Cholera - Mexico - Monitoring outbreak 2013

Opening date: 14 October 2013

Latest update: 13 November 2013

Epidemiological summary

As of 13 November 2013, Mexico has reported 180 confirmed cases, including one death, of infection with *Vibrio cholerae* O:1 Ogawa toxigenic. The affected areas include the Federal District (2 cases), the state of Hidalgo (159 cases), the state of Mexico (9 cases), the state of San Luis Potosi (2 cases) and the state of Veracruz (8 cases). Ninety-two of the total confirmed cases are women and 88 are men, with the age ranging from three months to 88 years.

An antimicrobial susceptibility test for *Vibrio cholerae* O:1 Ogawa toxigenic was conducted by the Institute of Epidemiological Diagnostics and Reference (InDRE) which demonstrated that the bacterium was susceptible to doxycycline and chloramphenicol, with reduced susceptibility to ciprofloxacin and resistance to trimethoprim/sulfamethoxazole.

The current strain is different from the one that circulated in Mexico during 1991-2001. However, the genetic profile of the vibrio obtained from patients in Mexico presents high similarity (95%) with the strain that is currently circulating in three Caribbean countries (Haiti, Dominican Republic and Cuba).

Web sources: [PAHO epidemiological alert on 1 October](#) | [PAHO epidemiological alert 12 October](#) | [PAHO epidemiological alert 26 September 2013](#) | [WHO DON on 28 October](#) | [WHO DON on 13 November](#)

ECDC assessment

This is the first sustained autochthonous transmission of cholera recorded in Mexico since the 1991-2001 endemic period. Travellers to Mexico and to the other affected countries in the region (Cuba, the Dominican Republic and Haiti) should be aware of preventive hygiene measures and seek advice from travel medicine clinics prior to their departure, to assess their personal risk. In addition, physicians in the European Union should consider the diagnosis of cholera in returning travellers from these countries presenting with compatible symptoms. Upon diagnosis, notification to the relevant public health authorities is essential.

Actions

ECDC's most recent [epidemiological update](#) was published on 14 November.

Outbreak of poliomyelitis - Syria - 2013

Opening date: 22 October 2013

Latest update: 11 November 2013

Epidemiological summary

In October 2013, WHO reported a cluster of 22 AFP cases in Deir Al Zour province in Syria, located 250 km from Damascus in the east of the country along the Iraqi border. On 29 October, WHO confirmed that wild poliovirus type 1 (WPV1) had been isolated from ten of the affected cases under investigation.

On 11 November, WHO confirmed that there are now 13 confirmed cases of wild poliovirus type 1 (WPV1) in Syria. Genetic sequencing indicates that the isolated viruses are most closely linked to the virus detected in environmental samples in Egypt in December 2012 (which in turn has been linked to wild poliovirus circulating in Pakistan). Closely related wild poliovirus strains have also been detected in environmental samples in the occupied Palestinian territory since February 2013.

WHO EMRO posted an [update](#) on 13 November regarding the outbreak response across the Middle East following confirmation of the polio outbreak in Syria. Seven countries and territories are holding mass polio vaccination campaigns with further extensive campaigns planned for December targeting 22 million children. WHO and UNICEF are committed to working with all organisations and agencies providing humanitarian assistance to Syrians affected by the conflict. This includes vaccinating all Syrian children no matter where they are, whether in government or contested areas, or indeed outside Syria. WHO anticipates that a larger-scale outbreak response across Syria and neighbouring countries will continue for at least 6-8 months depending on the area and based on the evolving situation. In the meantime a surveillance alert has been issued for the region to actively search for additional potential cases.

Web sources: [WHO DON on 29 October](#) | [ECDC RRA](#) | [WHO DON on 11 November](#) |

ECDC assessment

As a result of the ongoing conflict in Syria, public health services are failing, vaccination coverage has dropped dramatically, sanitary conditions have deteriorated, displaced people are living in crowded conditions and there are large movements of people. These are all conditions that favour the spread of infectious and vaccine-preventable diseases.

Thirteen of the cases of acute flaccid paralysis in Deir Al Zour province in Syria were confirmed to be caused by wild-type poliovirus. There is a probability of widespread transmission of poliovirus in Syria and possibly in the areas bordering Syria. This cluster of cases increases the risk that wild poliovirus might be imported to the EU/EEA and become further re-established with transmission in the Member States. It is expected that the number of asylum seekers, refugees and illegal migrants entering the EU will continue to be high and possibly increase as the conflict evolves.

In the ECDC rapid risk assessment it is recommended that:

- Countries hosting Syrian citizens in designated areas (camps) should assess the level of transmission of wild poliovirus among them. Such assessments can be carried out through enhanced clinical surveillance, environmental surveillance, and

systematic collection of stool samples from symptomatic and asymptomatic persons;

- EU Member States receiving refugees and asylum seekers from Syria should assess their vaccination status on arrival and provide polio vaccination and other vaccinations as needed;
- Regional and international efforts to assess the risk and provide vaccination and other public health services in Syria and to Syrian refugees hosted by neighbouring countries should be supported;
- Member States should consider implementing the recommendations made in the ECDC risk assessment of wild-type poliovirus transmission in Israel;
- Countries should review their national preparedness plans, and ensure that items such as a framework and responsibilities for outbreak response, enhanced activities and reporting timelines, and vaccine of choice for outbreak response are in place.

Actions

ECDC published a [letter](#) to the Lancet on 14 November.

ECDC published an [epidemiological update](#) on 30 October.

ECDC published a [rapid risk assessment](#) on 24 October.

ECDC will continue to follow this event through the global polio outbreak monitoring activities.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 14 November 2013

Epidemiological summary

Asia: As of 13 November, Laos, Malaysia and Singapore have. The recent trend has increased in Malaysia and Vietnam but continued to decrease in Cambodia, Laos and Singapore.

In other parts of Asia, India and Pakistan continue to report high numbers of cases. In Thailand, the Ministry of Health has reported nearly 140 000 cases of dengue fever so far this year whilst in Cambodia the number of notified cases from January to October in 2013 is significantly lower than last year's figures (40 164 cases in 2012 compared to 16 326 cases in 2013).

Caribbean: The dengue epidemic is still ongoing in the French overseas territory, Martinique, but seems to be subsiding, according to [InVS](#). DENV-2 was the predominant serotype circulating in October, similar to the outbreak in 2007. According to the [US CDC](#), the number of suspected dengue cases in Puerto Rico remains above the epidemic threshold with DENV-1 and DENV-4 as the predominant serotypes. In the Dominican Republic, the dengue epidemic has caused more than 13 500 cases and 97 deaths in 2013.

Americas: In North America, in 2013, 23 cases of locally acquired dengue have been reported in 21 Florida residents and two out-of-state residents. In Central America, El Salvador has reported nearly 3 000 fewer dengue cases in 2013 compared to the same time period last year (9 628 cases in 2012 compared to 12 231 cases in 2012), according to the Ministry of Health. Nicaragua has notified 6 729 confirmed dengue cases, including 18 deaths, according to the latest official figures. A nationwide red alert was declared in Nicaragua on 24 October to help control the spread of the disease. In South America, Brazil has reported increased dengue activity in two states during the past week, particularly in Mato Grosso. So far this year, 43 386 dengue cases have been recorded in Mato Grosso compared to 37 499 cases during the same time period in 2012.

Oceania: The [Bureau of Health Surveillance](#) in French Polynesia reports ongoing dengue activity on the islands of Tahiti, Moorea, Bora Bora, Rangiroa, and Fakarava. The dengue epidemic in New Caledonia has declined to low levels. In total, 10 977 cases,

9/11

including five deaths, were recorded in New Caledonia between 1 September 2012 and 31 August 2013, according to [DASS](#).

Australia reported more cases in 2013 than 2012 for the same time period.

Websources: [ECDC Dengue](#) | [Healthmap Dengue](#) | [MedISys](#) | [ProMED Asia update](#) | [ProMED Americas update](#) |

ECDC assessment

South-East Asia, Central America and the Caribbean appear to be experiencing a severe season this year.

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.

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