

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

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

Opening date: 4 October 2013

Latest update: 28 November 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 47/2013, all 28 reporting countries experienced low-intensity activity of influenza-like illness or acute respiratory infection.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 28 November 2013

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease and is an infection which often passes unnoticed. The main reason for immunising against rubella is the high risk of congenital malformations associated with rubella infection during pregnancy. All EU Member States recommend vaccination against rubella with at least two doses of vaccine for both boys and girls. The vaccine is given at the same intervals as the measles vaccine as part of the MMR vaccine.

→Update of the week

No new outbreaks detected during the past month.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 24 October 2013

Measles, a highly transmissible vaccine-preventable disease, is still endemic in many countries of Europe due to a decrease in the uptake of immunisation. ECDC monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe on a monthly basis through enhanced surveillance and epidemic intelligence activities. Elimination of measles requires consistent vaccination coverage above 95% with two doses of measles vaccine in all population groups, strong surveillance and effective outbreak control measures.

→Update of the week

During the past month, new cases were reported from Wales where there was a large outbreak earlier in the year. The outbreak in the Netherlands is still on-going with more than 2 000 cases reported as of 20 November 2013. Germany has experienced an outbreak in one school. Lithuania reports an increased number of cases. Outside of the EU, Ukraine, Australia and Canada are experiencing outbreaks.

Non EU Threats

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

Opening date: 24 September 2012

Latest update: 20 November 2013

Since April 2012, 160 laboratory-confirmed cases, including 69 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 21 and 28 November 2013, no additional cases were reported.

[The Supreme Council of Health in Qatar](#) has announced the first case of MERS-CoV in three camels in a herd, in a barn in Qatar, which is linked to two confirmed human cases who have since then recovered.

Outbreak of poliomyelitis - Syria -2013

Opening date: 22 October 2013

Latest update: 21 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 seventeen 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 26 November 2013, two additional cases were confirmed by WHO, bringing the total to seventeen, one in rural Damascus and one in Aleppo, confirming widespread circulation of the virus in Syria. The last confirmed case had onset of paralysis on 8 October 2013.

In addition, according to two Austrian media sources, four enterovirus positive cases have been detected in a Syrian family (including two children) in Traiskirchen (20 km south of Vienna, Austria) in a refugee centre. Confirmatory tests for poliovirus are ongoing. Stool sampling is done at the point of entry for Syrian refugees in Austria.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 28 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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 28 November 2013

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. The outbreak affected 12 Chinese provinces and Taiwan causing 140 cases of human infection, including 45 deaths. Since the end of May 2013, only sporadic cases have been reported. The virus reservoir and the mode of transmission to humans has not been determined. Zoonotic transmission from poultry to humans is thought to be the most likely scenario. There has been no epidemiological link between most of the cases, and sustained person-to-person transmission has not been observed.

→Update of the week

During the past week, one new case has been reported in Zhejiang province in China.

Cholera - Mexico - Monitoring outbreak 2013

Opening date: 14 October 2013

Latest update: 28 November 2013

Since August of this year, an ongoing outbreak of cholera has affected five provinces in Mexico, with 184 reported cases, including one death.

→ Update of the week

During the past week, four new cases were reported: three from the state of Veracruz and one from the state of Hidalgo.

II. Detailed reports

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

Opening date: 4 October 2013

Latest update: 28 November 2013

Epidemiological summary

During week 47/2012, all 28 reporting countries experienced low-intensity activity of influenza-like illness or acute respiratory infection. Of 519 sentinel specimens tested across 23 countries, only 16 (3.1%) were positive for influenza virus. No hospitalised laboratory-confirmed influenza cases were reported. The number of reported detections of respiratory syncytial viruses (RSV) have risen substantially since week 42, as usually happens at this time of year.

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

ECDC assessment

Although the proportion of positive sentinel specimens has increased slightly since the early weeks of the season, there is currently little evidence of sustained influenza virus transmission in EU/EEA countries. Much of the clinical influenza activity is probably due to other respiratory pathogens including respiratory syncytial virus (RSV).

Actions

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

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 28 November 2013

Epidemiological summary

There have been large outbreaks of rubella in Romania and Poland during 2012 and 2013. The outbreak in Romania resulted in 22 cases of congenital rubella syndrome (CRS), nine of which were fatal. The epidemiology of rubella in these countries reflects the history of their national rubella immunization policies and predominantly affects gender and age groups not previously targeted by rubella immunisation programmes.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC rubella factsheet](#) | [WHO epidemiological brief summary tables](#) | [WHO epidemiological briefs](#) | [Progress report on measles and rubella elimination](#)

ECDC assessment

As rubella is typically a mild and self-limiting disease with few complications, the rationale for eliminating rubella would be weak if it were not for the virus' teratogenic effect. When a woman is infected with the rubella virus within the first 20 weeks of pregnancy, the foetus has a 90% risk of being born with congenital rubella syndrome (CRS), which entails a range of serious incurable illnesses. The increase in the number of rubella cases reported in Romania and Poland and the number of babies born with CRS are cause for concern.

Actions

ECDC closely monitors rubella transmission in Europe by analysing the cases reported to the European Surveillance System and through its epidemic intelligence activities on a monthly basis. Twenty-four EU and two EEA countries contribute to the enhanced rubella surveillance. The purpose of the enhanced rubella monitoring is to provide regular and timely updates on the rubella situation in Europe in support of effective disease control, increased public awareness and the achievement of the 2015 rubella and congenital rubella elimination target.

An ECDC report is available online: [Survey on rubella, rubella in pregnancy and congenital rubella surveillance systems in EU/EEA countries](#)

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 24 October 2013

Epidemiological summary

EU Member States

The Netherlands

The measles outbreak that started in May 2013, is still ongoing with 2 367 cases reported as of 20 November. A 17-year-old girl died due to complications of measles. During the past week 63 new cases were reported including eight hospitalisations. The newly reported cases are spread across multiple regions. Most cases are unvaccinated (95%) and in the age group 4-12 years (58%). There are 15 health workers among the cases. Of these, ten are unvaccinated, two are vaccinated with two doses and three have received one dose.

The UK, Wales

There are new cases of measles reported in the Neath and Swansea area, where more than 1 200 measles cases were reported between November 2012 and July 2013. The number of cases in the new outbreak, which has affected four schools, has now reached 39. Although more than 75 000 people were immunised during the outbreak early this year, it is estimated that 30 000 children in the 10 to 18 age group remain unvaccinated which could lead to further outbreaks.

Germany

There is an outbreak in one school in Ertstadt with 29 cases.

Germany has reported 1 714 cases of measles this year as of 25 November mainly in Berlin, Baravaria and Nordrhein-Westfalen

Lithuania

In Vilnius, 35 cases of measles are reported.

Rest of the world

Ukraine

Several outbreaks of measles are reported in Rivne oblast.

Canada ex Europe (the Netherlands)

A travel-related case of measles was reported in an unimmunised male teenager from southern Alberta returning from Amsterdam. On 18 October 2013, an outbreak of measles was declared in this area of Alberta (the South Zone). A significant proportion of the population in the South Zone does not support immunisation and some communities have rates of immunisation against measles as low as fifty percent. Alberta has initiated mass immunisation clinics targeting healthcare workers, under-immunised persons over one year of age as well as infants 6-12 months of age in the immediate area where cases have been identified, and has been expanding this approach to the rest of the province.

As 20 November, 41 cases have been confirmed and there is a press release saying the outbreak is declining.

Australia ex Bali

10 cases of measles in the past month linked to Bali holiday-makers.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC/Euronews documentary](#) | [WHO Epidemiological Briefs](#) | [MedISys Measles page](#) | [EUVAC-net ECDC](#) | [ECDC measles factsheet](#)

ECDC assessment

The transmission season for measles still persists in Europe. The largest outbreaks have been in Wales and the Netherlands. In the EU neighbourhood, outbreaks with several thousand cases affecting Georgia and Turkey give cause for concern.

The target year for measles elimination in Europe is 2015. The current outbreaks suggest that endemic measles transmission continues in many EU Member States and the prospect of achieving the 2015 objective is diminishing.

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

Opening date: 24 September 2012

Latest update: 20 November 2013

Epidemiological summary

As of 28 November 2013, 160 laboratory-confirmed cases of MERS-CoV have been reported by local health authorities worldwide, including 69 deaths.

Saudi Arabia has reported 130 symptomatic and asymptomatic cases including 55 deaths; Jordan two fatal cases; United Arab Emirates six cases, including two deaths; Qatar seven cases, including three deaths; Oman one fatal case and Kuwait two cases.

Twelve cases have been reported from outside the Middle East: in the UK (4), France (2), Tunisia (3), Germany (2) and Italy (1). 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 United Arab Emirates (UAE). Seven of these cases were healthcare workers.

The previously reported patients in Spain have not yet been confirmed by laboratory testing and are now considered a probable case.

On 29 November, a [government news agency](#) in the UAE reported two new cases of MERS-CoV infection in Abu Dhabi. These cases are not included in the total case count as they have not yet been acknowledged by WHO.

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. There is therefore a continued risk of cases occurring in Europe associated with travel to the area. 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

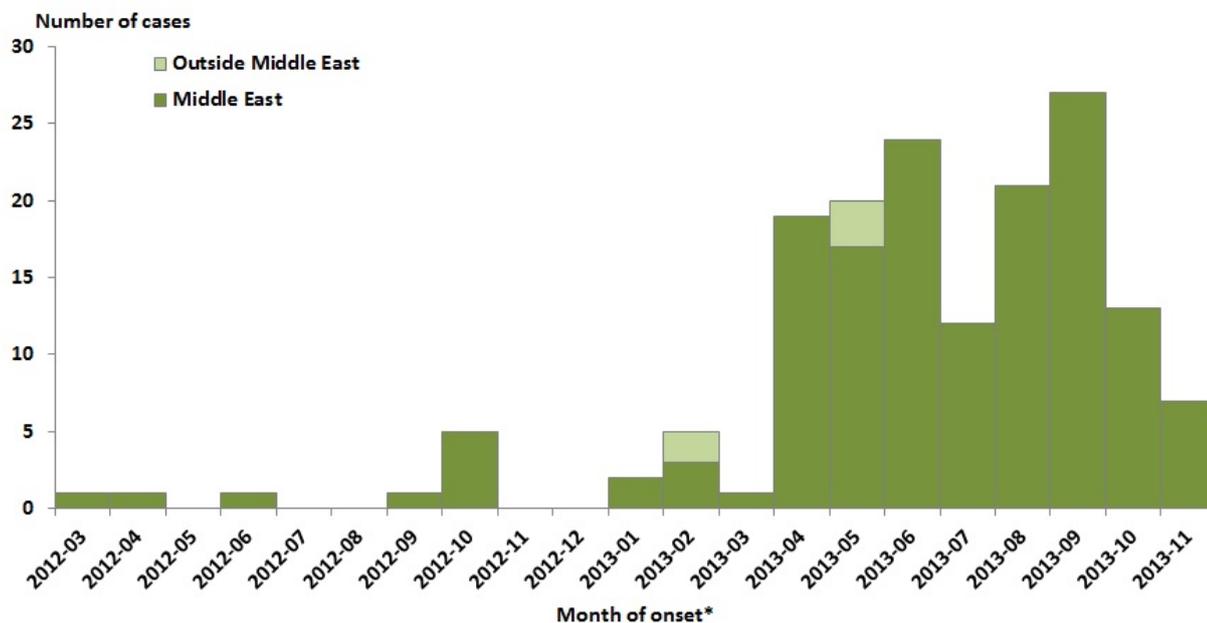
The latest update of a [rapid risk assessment](#) was published on 7 November 2013.

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

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

Distribution of confirmed cases of MERS-CoV by month* and place of probable infection, March 2012 - 28 November 2013 (N=160**)

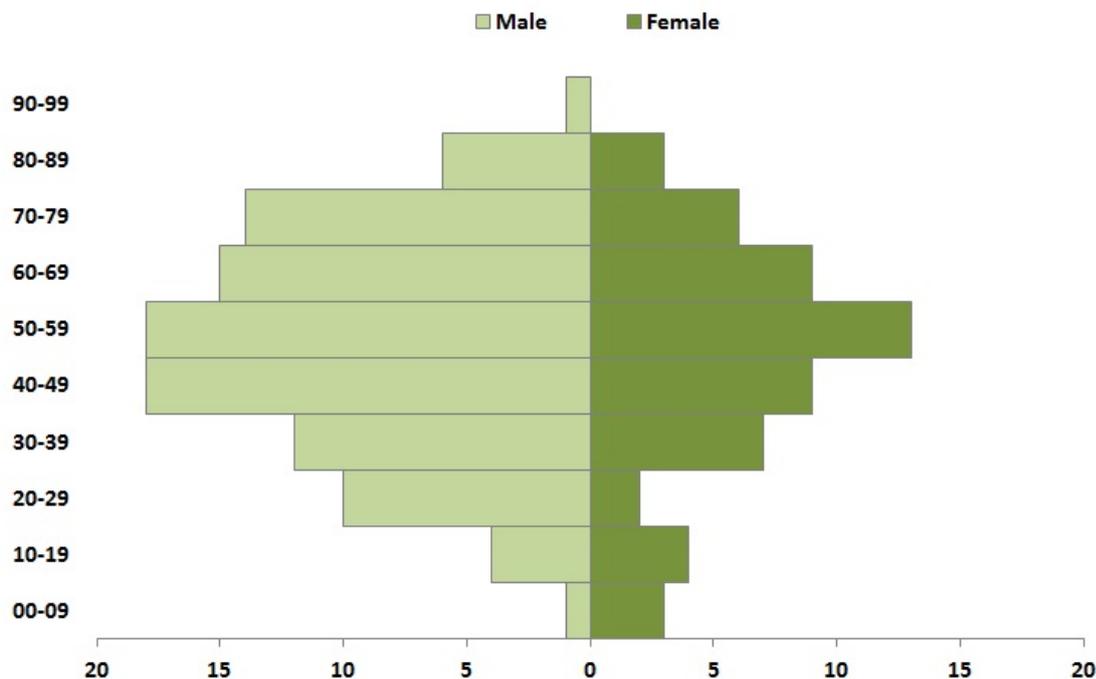
Source: ECDC SRS



* Where the month of onset is unknown the month of reporting has been used.
 ** Data for November 2013 incomplete

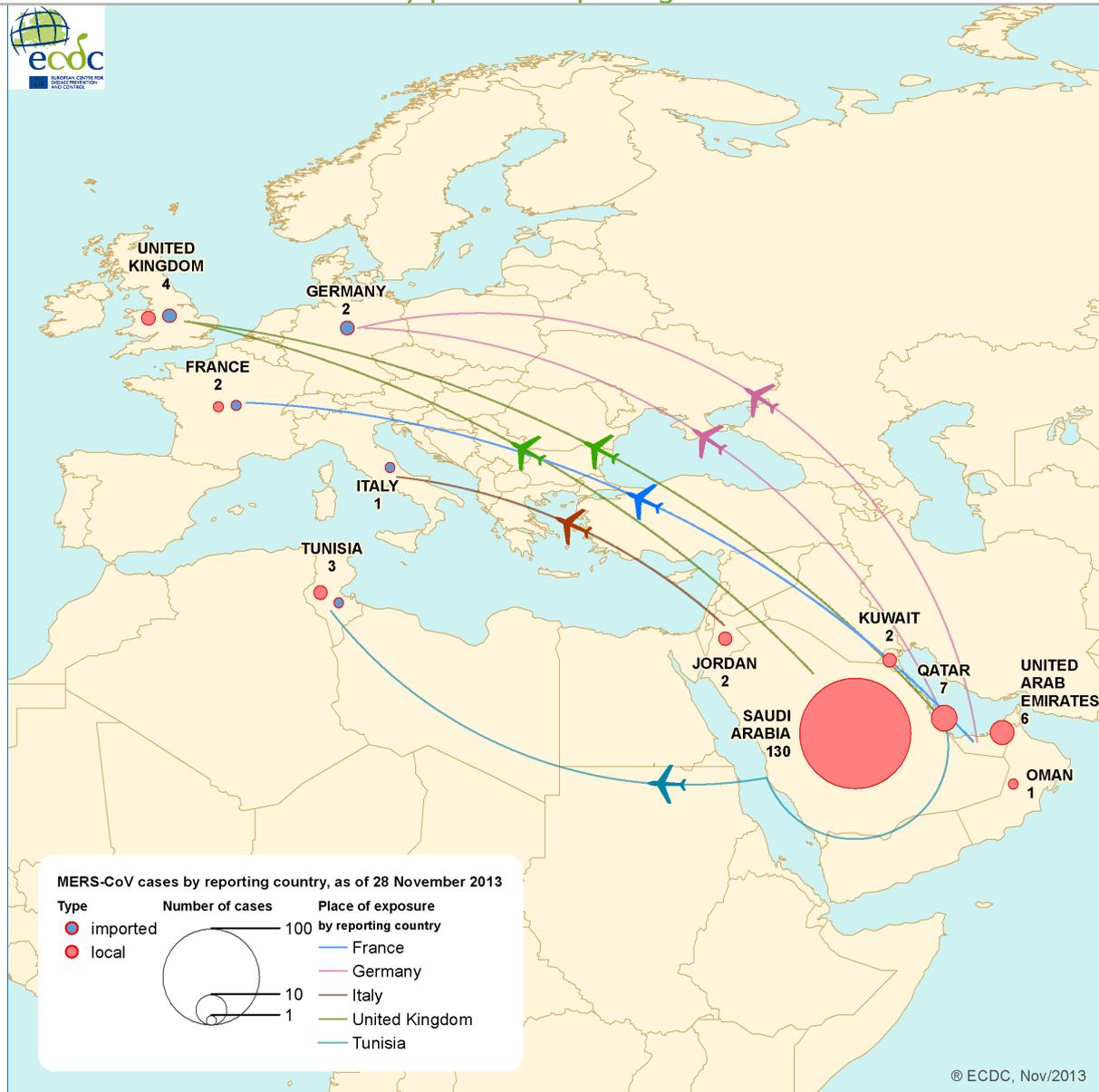
Distribution of confirmed cases of MERS-CoV by age and gender, March 2012 - 28 November 2013 (n=155*)

Source: ECDC SRS



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

Distribution of MERS-CoV cases by place of reporting as of 28 November 2013



Outbreak of poliomyelitis - Syria - 2013

Opening date: 22 October 2013

Latest update: 21 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 Regional Office for the Eastern Mediterranean (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 six to eight 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.

On 26 November, WHO confirmed that there are now 17 confirmed cases of WPV1 with one case reported in rural Damascus and Aleppo.

On 26 November, according to [two](#) Austrian media [sources](#), four enterovirus positive cases are being investigated. At this stage there is no indication that poliovirus will be identified as enterovirus found in stool samples is common. If positive, these cases may be related to vaccine derived polioviruses as refugees are likely to have been vaccinated with oral polio vaccine (OPV) prior to transfer to Austria.

Web sources: [WHO DON on 29 October](#) | [ECDC RRA](#) | [WHO DON on 11 November](#) | [WHO DON on 26 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.

Seventeen confirmed cases of WPV1 have been reported from Syria, from Deir Al Zour province, rural Damascus and Aleppo. This is an indication 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: 28 November 2013

Epidemiological summary

Asia: The recent trend has increased in Pakistan, particularly in Punjab and Sindh provinces. In India, dengue cases continue to rise in Delhi with 5 115 cases and six deaths reported to date. Singapore has reported more than 20 000 dengue cases and seven deaths nationally in 2013. As of 18 November 2013, Taiwan has reported 295 indigenous dengue cases so far during this year's dengue season, according to [Taiwan CDC](#).

Caribbean: The dengue epidemic in [Martinique](#) is ongoing and virus circulation remains high, according to InVS. In [Guadeloupe](#), the dengue epidemic is continuing but recent figures published from InVS indicate that the outbreak may have reached its peak. DENV-4 has been the predominant serotype circulating in Guadeloupe since June 2013. Dengue activity remains active in both [Saint Martin](#) and [Saint Barthélemy](#). As of 20 November, the Dominican Republic has recorded 14 432 cases and 103 deaths so far in 2013.

Americas: In Central America, Honduras has reported a 53% decrease in the number of dengue cases compared to week 31 which marked the peak of this year's epidemic. In North America, the first reported locally acquired case of dengue fever was identified in a 50 year old man living in Suffolk County, New York, in September 2013. He had no recent travel history. As of 23 November 2013, [Florida Health](#) has reported 23 cases of locally acquired dengue in 2013. According to recent media reports, Texas has recorded 32 cases of locally acquired dengue since the beginning of the year. In South America, Brazil has reported 1.4 million suspected dengue cases so far in 2013. This is more than double the total number of cases compared to the same time period in 2010. The Southeast region in Brazil continues to be the most affected region of the country and accounts for nearly 64% of all dengue cases. Venezuela has reported 50 398 cases of dengue fever in 2013 whilst Colombia has recorded around 110 000 cases nationally. The Ucayali region in Peru reports increased dengue activity and on average 45 new dengue cases are being recorded each week.

Oceania: [French Polynesia](#) continues to report dengue activity with Tahiti and Moorea the most affected islands.

Africa: The [media](#) reports that Burkina Faso has recorded 33 cases of dengue fever in 2013.

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 bi-weekly basis.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 28 November 2013

Epidemiological summary

In March 2013, Chinese authorities announced the identification of a novel reassortant A(H7N9) influenza virus in patients in eastern China. Since then, 140 cases of human infection with influenza A(H7N9) have been reported from: Zhejiang (50 cases), Shanghai (34), Jiangsu (27), Henan (4), Anhui (4), Beijing (2), Shandong (2), Fujian (5), Hunan (3), Jiangxi (5), Hebei (1), Guangdong (2) and Taiwan (1). In addition, the virus has been detected in one asymptomatic case in Beijing. Most cases have developed severe respiratory disease. Forty-five patients have died (case-fatality ratio=32%). The median age is 58 years, ranging between four and 91 years; 40 of 140 patients are female, with gender being unknown in five cases.

Five cases have been reported in China since 23 October 2013, three of them have been notified during the past two weeks. Two of these cases had contact with live poultry. The first case is a three-year-old male from Guangdong Province. He became ill on 29 October 2013. The second patient is a 64-year-old female from Zhejiang Province with date of onset on 30 October 2013.

Web sources: [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [OIE](#) | [Chinese MOA](#) | [Hong Kong NHFPC](#) |

ECDC assessment

Influenza A(H7N9) is a zoonotic disease that has spread in poultry in parts of eastern China, causing severe disease in humans. There is no evidence of sustained person-to-person transmission. Close to 3 000 contacts have been followed up, and only a few are reported to have developed symptoms, as part of three small family clusters. Many unanswered questions remain regarding this outbreak, e.g. the reservoir, the route of transmission, the spectrum of disease and the reason for an unusual age-gender imbalance.

Authorities have employed strict control measures including closing live poultry markets and culling poultry in affected areas. Following these measures, the number of reported cases has dropped. It is not possible to determine at this point whether these four new cases, reported during the last two weeks, mark the resurgence of the outbreak. ECDC's earlier risk assessment remains valid.

EU citizens travelling and living in China are strongly advised to avoid live bird markets. The risk of the disease spreading to Europe via humans is considered low. However, it is not unlikely that people presenting with severe respiratory infection in the EU and a history of potential exposure in the outbreak area will require investigation in Europe.

Actions

The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation including scientific research.

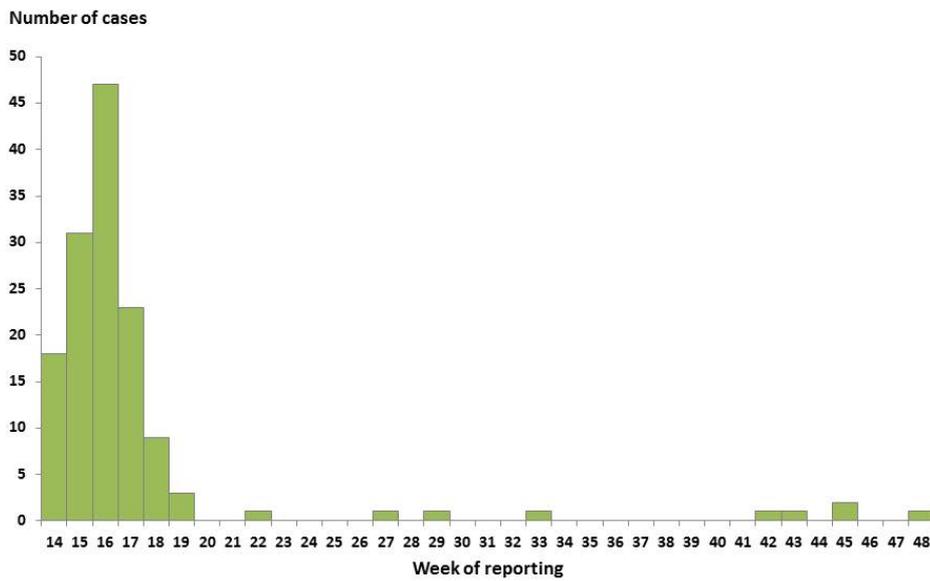
ECDC is closely monitoring developments.

ECDC published an updated [Rapid Risk Assessment](#) on 8 May 2013.

ECDC guidance for [Supporting diagnostic preparedness for detection of avian influenza A\(H7N9\) viruses in Europe](#) for laboratories was published on 24 April 2013.

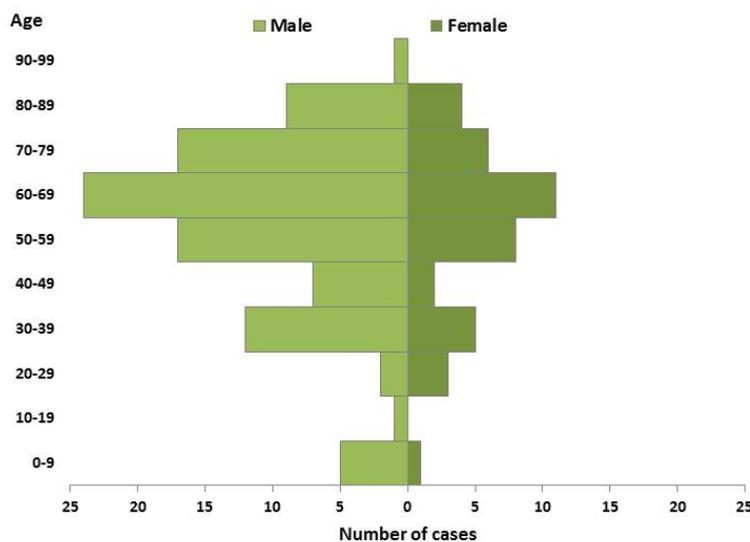
Number of A(H7N9) cases by the date of reporting as of 28 November 2013 (n=140)

ECDC SRS

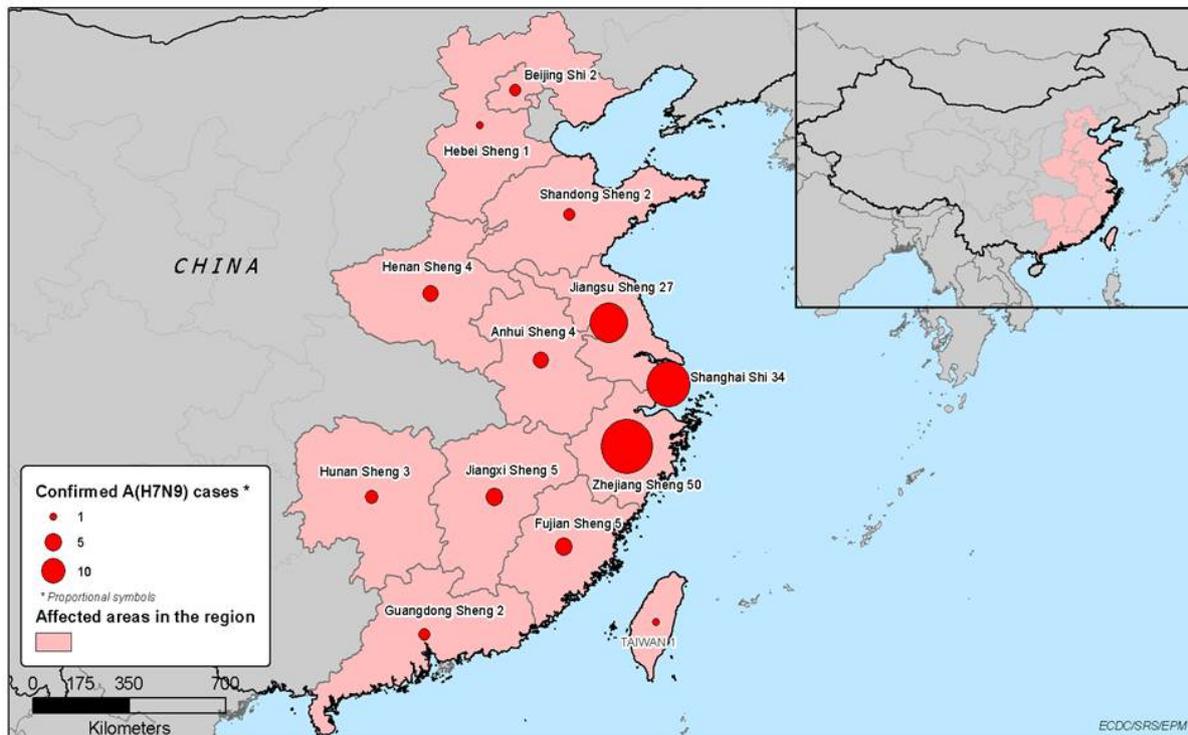


Number of A(H7N9) cases by gender and age distribution as of 28 November 2013 (n=135)

ECDC SRS



Reported cumulative number of confirmed cases of novel influenza A(H7N9) by province in China, as of 28 November 2013, 15.00 CEST



Cholera - Mexico - Monitoring outbreak 2013

Opening date: 14 October 2013

Latest update: 28 November 2013

Epidemiological summary

As of 28 November 2013, Mexico has reported 184 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 (160 cases), the state of Mexico (9 cases), the state of San Luis Potosi (2 cases) and the state of Veracruz (11 cases).

An antimicrobial susceptibility test for *Vibrio cholerae* O:1 Ogawa toxigenic was conducted by the Institute of Epidemiological Diagnostics and Reference (INBRE) 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](#) | [WHO DON on 25 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.

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