

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

Non EU Threats

New! Cholera - Mexico - Monitoring outbreak 2013

Opening date: 14 October 2013

Latest update: 17 October 2013

Since August of this year, there has been an ongoing outbreak of cholera in Mexico, affecting five provinces, with 159 reported cases, including one death.

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

Opening date: 3 June 2013

Latest update: 17 October 2013

West Nile fever (WNF) is a mosquito-borne disease which causes severe neurological symptoms in a small proportion of infected people. During the June to November transmission season, ECDC monitors the situation in EU Member States and neighbouring countries in order to inform blood safety authorities regarding WNF-affected areas and identify significant changes in the epidemiology of the disease. As of 10 October 2013, 217 human cases of West Nile fever have been reported in the EU and 509 cases in neighbouring countries since the beginning of the 2013 transmission season.

→Update of the week

During the past week, two new cases were detected in the EU: Italy reported two cases in the provinces of Treviso and Verona. In neighbouring countries, two cases were reported by Montenegro in the Podgorica region.

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

Opening date: 4 October 2013

Latest update: 17 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 41/2013, all 24 reporting countries experienced low intensity influenza activity, and geographic spread was reported as local or sporadic by four countries and the UK (Scotland).

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

Opening date: 24 September 2012

Latest update: 10 October 2013

Since April 2012, 142 laboratory-confirmed cases, including 62 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 or have had direct links to a primary case infected in the Middle East.

→Update of the week

Between 11 and 17 October 2013, there was one new case reported from Qatar. The case is a 61 year old Qatari male with underlying medical conditions currently in a stable condition. The case has not had any exposure to sick people or animals.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 15 October 2013

In March of this year, a novel avian influenza A(H7N9) virus was detected in patients in China. The outbreak affected 12 Chinese provinces and Taiwan causing 136 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 have 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

On 15 October 2013, the National Health and Family Planning Commission of China notified the World Health Organization of one new laboratory-confirmed case of human infection with avian influenza A(H7N9) virus from Zhejiang Province. This is the first new confirmed case of human infection with avian influenza A(H7N9) virus since 11 August 2013.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 17 October 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.

II. Detailed reports

New! Cholera - Mexico - Monitoring outbreak 2013

Opening date: 14 October 2013

Latest update: 17 October 2013

Epidemiological summary

As of 10 October 2013, Mexico has reported 159 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 (145 cases), the state of Mexico (9 cases), the state of San Luis Potosi (1 case) and the state of Veracruz (2 cases). Eighty-four (53%) cases are female and 75 (47%) are male with ages ranging from 3 months to 88 years old. Forty-three (27%) of the cases were hospitalised.

The current strain is different from the one that circulated during 1991-2001, however, genetic testing suggests it to be similar to the strain circulating in Haiti, Dominican Republic and Cuba.

Investigation results are indicating that the river water is the source of contamination for the affected persons in the state of Hidalgo.

Web sources: [PAHO epidemiological alert on 1 October](#) | [PAHO epidemiological alert 12 October](#) | [PAHO epidemiological alert 26 September 2013](#)

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 published an [epidemiological update](#) on 10 October.

Map of cumulative case distribution in Mexico by federal entity. 12 October 2013.

Mexico IHR National Focal Point. Secretary of Health, Mexico



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

Opening date: 3 June 2013

Latest update: 17 October 2013

Epidemiological summary

As of 17 October 2013, 221 human cases of West Nile fever have been reported in the EU and 511 cases in neighbouring countries since the beginning of the 2013 transmission season.

EU Member States

Croatia

Croatia has recorded 16 cases of West Nile virus (WNV) so far this year. The affected areas are Zagrebacka county (8), Medimurska county (1) and Zagreb (7).

Greece

Eighty-six cases of WNV have been reported in Greece. The regions affected are Attiki (36), Imathia (3), Kavala (11), Thessaloniki (6), Xanthi (16), Kerkyra (1), Serres (8) Ileia (1), Pella (4).

Italy

Italy has reported 68 cases (39 neuroinvasive and 29 non-neuroinvasive) of WNV. The provinces affected are Modena (16), Rovigo (10), Verona (7), Reggio Emilia (5), Mantova (7), Bologna (2), Padova (1), Ferrara (6), Parma (3), Cremona (1), Treviso (5), Venezia (2), Foggia (1), Lodi (1) and Brescia (1).

Hungary

Hungary has reported 29 cases so far this year. The counties affected are: Fejer (2), Pest (5), Komaron (1), Békés (2), Budapest (6), Csongrád (3), Hajdú-Bihar (2), Jász-Nagykun-Szolnok (3), Heves (3), Bács-Kiskun (1) and Szabolcs-Szatmár-Bereg (1).

Romania

Romania has reported 22 cases of WNV. The counties affected are Braila (4), Ialomita (3), Iasi (2), Galati (2), Constanta (2), Tulcea (3), Bucuresti (2), Ilof (1) Mures (1) and Bacau (2).

Spain

The [Andalusia Ministry of Agriculture](#) in Spain detected four additional horses with West Nile encephalitis in three newly affected municipalities in the province of Seville (Cantillana, Constantina, La Puebla de los Infantes) and in a newly affected municipality in

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the province of Huelva (Nerva).

Neighbouring countries

Bosnia and Herzegovina

Three cases of WNF have been reported so far this year, two cases in Tuzlansko-podrinjski canton and one case in Modrica canton.

Israel

Fifty-nine cases of WNV have been reported in Israel. The affected districts are Central (28), Haifa (18), Tel Aviv (12) and the Southern district (1)

Montenegro

Montenegro has reported four cases to date. Three cases in the Podgorica region and one case in the Cetinje region.

Serbia

Serbia has reported 260 cases of WNF from eight districts: Grad Beograd (155), Podunavski (14), Sremski (10), Juzno-backi (8), Juzno-banatski (45), Kolubarski (10), Macvanski (3) Branicevski district (2), Jablancki (1), Srednje-banatski (4), Severno-banacki (3) Moravicki (2), Severno-banatski (1), Zapadno-backi (1) and Zlatiborski district (1).

the former Yugoslav Republic of Macedonia

One case has been reported in Kocani (Eastern Macedonia).

Russia

Russia has reported 177 cases of WNF from ten oblasts and one republic in Russia: Adygeya oblast (1), Astrakhanskaya oblast (69), Lipetskaya oblast (2), Rostovskaya oblast (8), Samarskaya oblast (9), Saratovskaya oblast (30), Volgogradskaya oblast (49), Voronezhskaya oblast (4), Belgorodskaya oblast (2) Kaluzhskaya oblast (1), Omskaya oblast (1) and Orenburgskaya oblast (1).

Ukraine

The first case for this year was reported in Zhytomyrs'ka oblast.

Tunisia

Tunisia has reported six cases since the beginning of the transmission season in July. The five affected governorates are Gabes (2), Mahdia (1), Monastir (1), Nabeul (1) and Sousse (1).

Web sources: [ECDC West Nile fever risk maps](#) | [ECDC West Nile fever risk assessment tool](#) | [Volgograd oblast](#) | [Serbia MoH](#) | [Macedonian PH Institute](#) | [Croatia PHI](#) | [Israel MoH](#) |

ECDC assessment

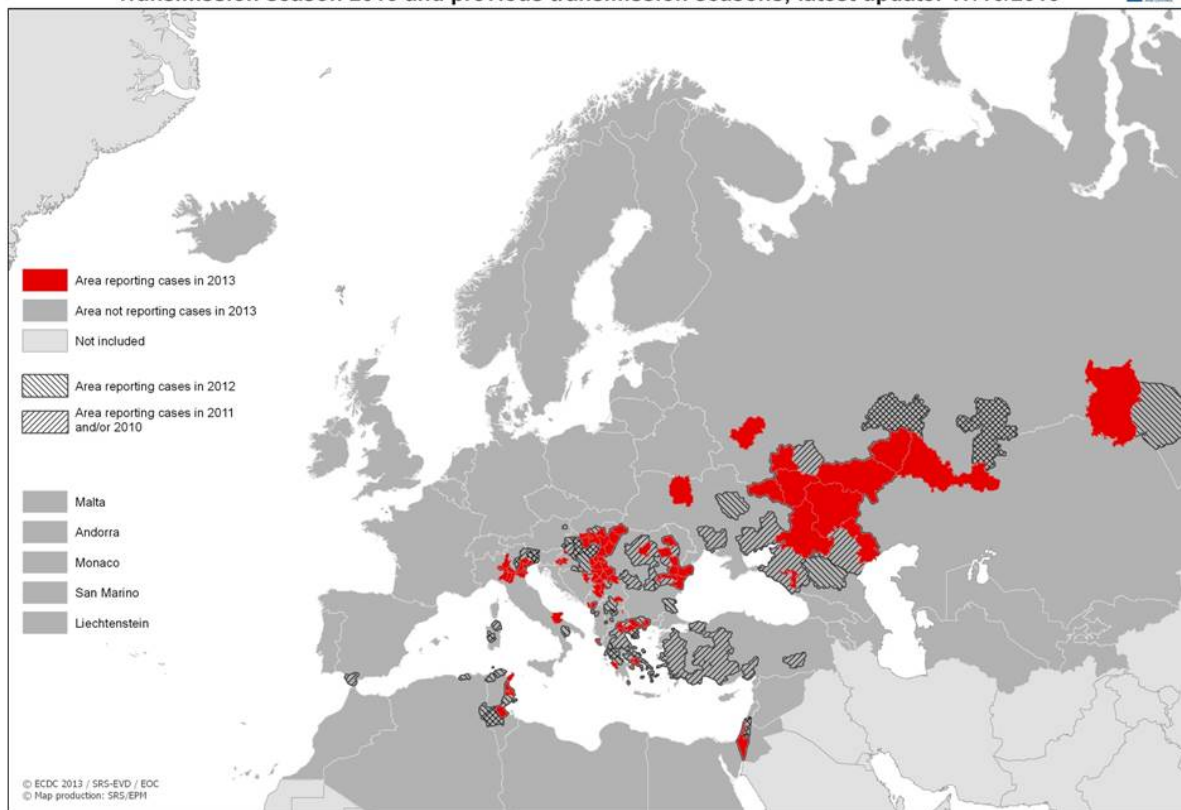
The 2013 season is progressing in comparable fashion to previous years in the EU and neighbouring countries. West Nile fever in humans is a notifiable disease in the EU. The implementation of control measures are important for ensuring blood safety by the national health authorities when human cases 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 to humans.

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.

Reported cases of West Nile fever for the EU and neighbouring countries Transmission season 2013 and previous transmission seasons; latest update: 17/10/2013



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

Opening date: 4 October 2013

Latest update: 17 October 2013

Epidemiological summary

During week 41/2013, all 24 reporting countries experienced low intensity influenza activity, and geographic spread was reported as local or sporadic by four countries and the UK (Scotland). Of 220 sentinel specimens collected by 16 countries, one (0.5%) tested positive for influenza virus. Since week 40/2013, three hospitalised laboratory-confirmed influenza cases were reported by Ireland and the UK.

ECDC assessment

During the first two weeks of the 2013–2014 influenza season, the influenza activity in Europe has remained at inter-season levels.

Actions

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

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

Opening date: 24 September 2012

Latest update: 10 October 2013

Epidemiological summary

As of 17 October 2013, there have been 142 laboratory-confirmed cases of MERS-CoV worldwide, including 62 deaths. All cases have either occurred in the Middle East or have had direct links to a primary case infected in the Middle East.

Saudi Arabia has reported 119 symptomatic and asymptomatic cases including 51 deaths, Jordan two cases, who both died, United Arab Emirates five cases, including one fatality and Qatar four cases, including two deaths.

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 were reported by Saudi Arabia and two by the UAE. Seven of these cases were healthcare workers.

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, pilgrims with immune deficiency, malignancy and terminal illnesses, pregnant women and children coming for Hajj and Umrah this year should postpone their journey. This year, the pilgrimage takes place from 13 to 18 October.

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

On 18 September WHO issued an [interim recommendation to laboratories and stakeholders](#) involved in laboratory testing for Middle East respiratory syndrome coronavirus (MERS-CoV).

The [WHO third meeting of the Emergency Committee](#) on 25 September 2013 concluded that the conditions for a Public Health Emergency of International Concern (PHEIC) have not at present been met.

Web sources: [ECDC RRA Update 26 September](#) | [ECDC novel coronavirus webpage](#) | [WHO](#) | [WHO MERS updates](#) | [WHO travel health update](#) | [WHO Euro MERS updates](#) | [CDC MERS](#) | [Saudi Arabia MoH](#) | [Qatar SCH](#) | [Eurosurveillance article](#) | [Eurosurveillance article 26 September](#)

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, particularly with expected increased travel to Saudi Arabia for 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 26 September 2013.

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

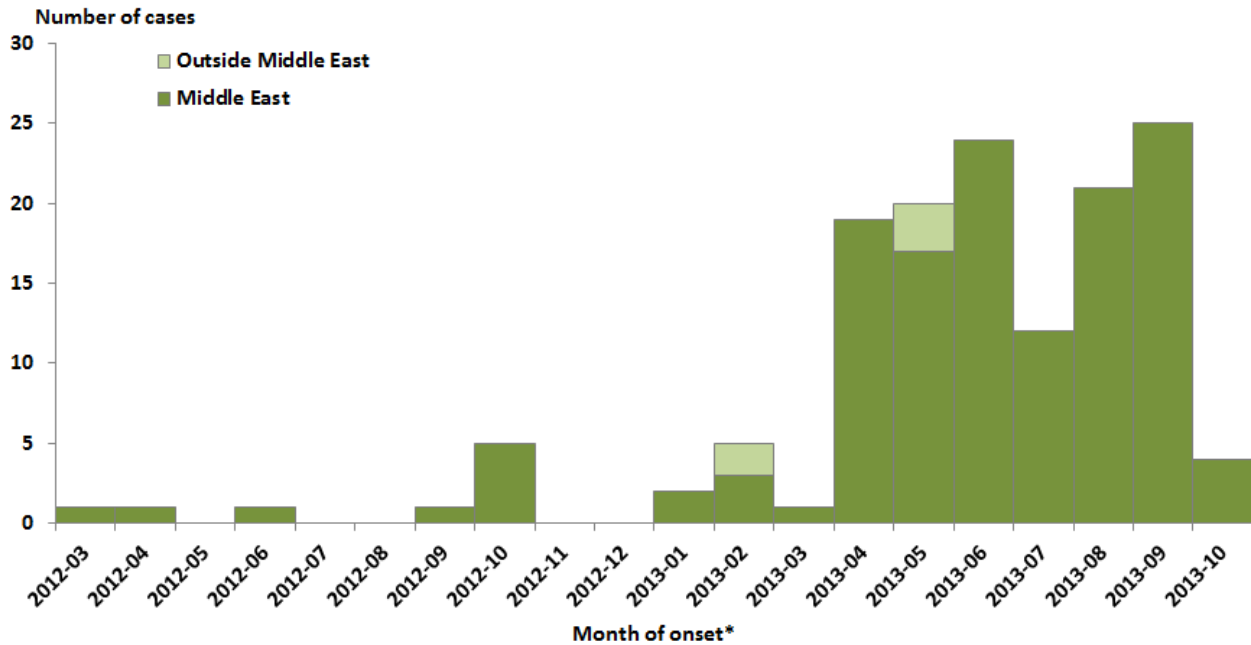
ECDC published a [Public Health Development](#) on 27 August 2013 regarding the isolation of MERS-CoV from a bat sample.

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 - 17 October 2013 (N=142)

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 - 17 October 2013 (n=137*)

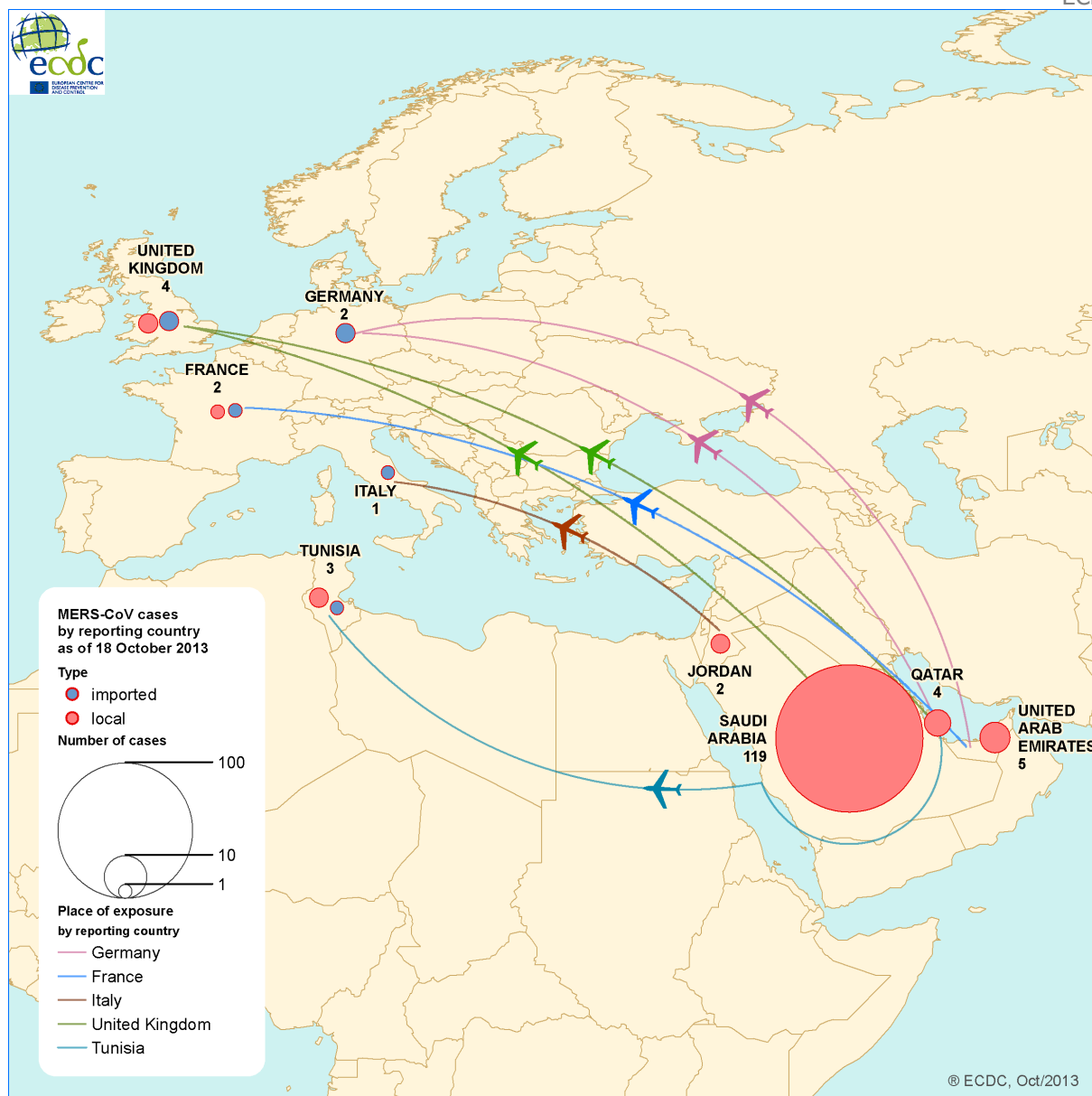
ECDC SRS



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

Distribution of MERS-CoV cases by place of reporting as of 18 October 2013

ECDC SRS



Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 15 October 2013

Epidemiological summary

On 31 March 2013, Chinese authorities announced the identification of a novel reassortant A(H7N9) influenza virus in patients in eastern China. Since then, 136 cases of human infection with influenza A(H7N9) have been reported from: Zhejiang (47 cases), Shanghai (34), Jiangsu (27), Henan (4), Anhui (4), Beijing (2), Shandong (2), Fujian (5), Hunan (3), Jiangxi (5), Hebei (1), Guangdong (1) 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=33%). The median age is 58 years, ranging between four and 91 years; 39 of 136 patients are female, with gender being unknown in five cases. Since the end of May 2013, only sporadic cases have been reported.

A new case was reported on 15 October in a 35 year old male from Zhejiang Province, who was admitted to a hospital on 8 October and was transferred to the intensive care unit in another hospital on 11 October 2013. This is the first new confirmed case since 11 August 2013. The patient is currently in critical condition. Information on history of exposure is not available.

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

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 have dropped. It is not possible to determine at this point whether this new case marks the resurgence of the outbreak. ECDC's earlier risk assessment remains valid.

EU citizens 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.

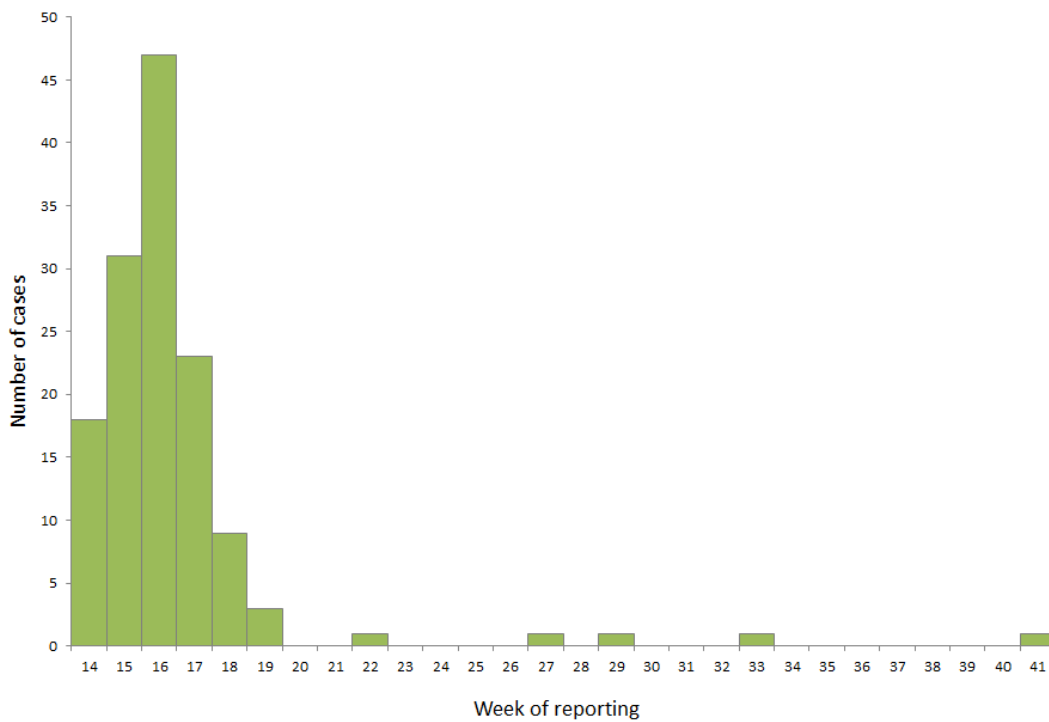
ECDC published an updated [Rapid Risk Assessment](#) on 8 May 2013.

A case detection algorithm and an EU case definition has been developed and shared with EU Member States.

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

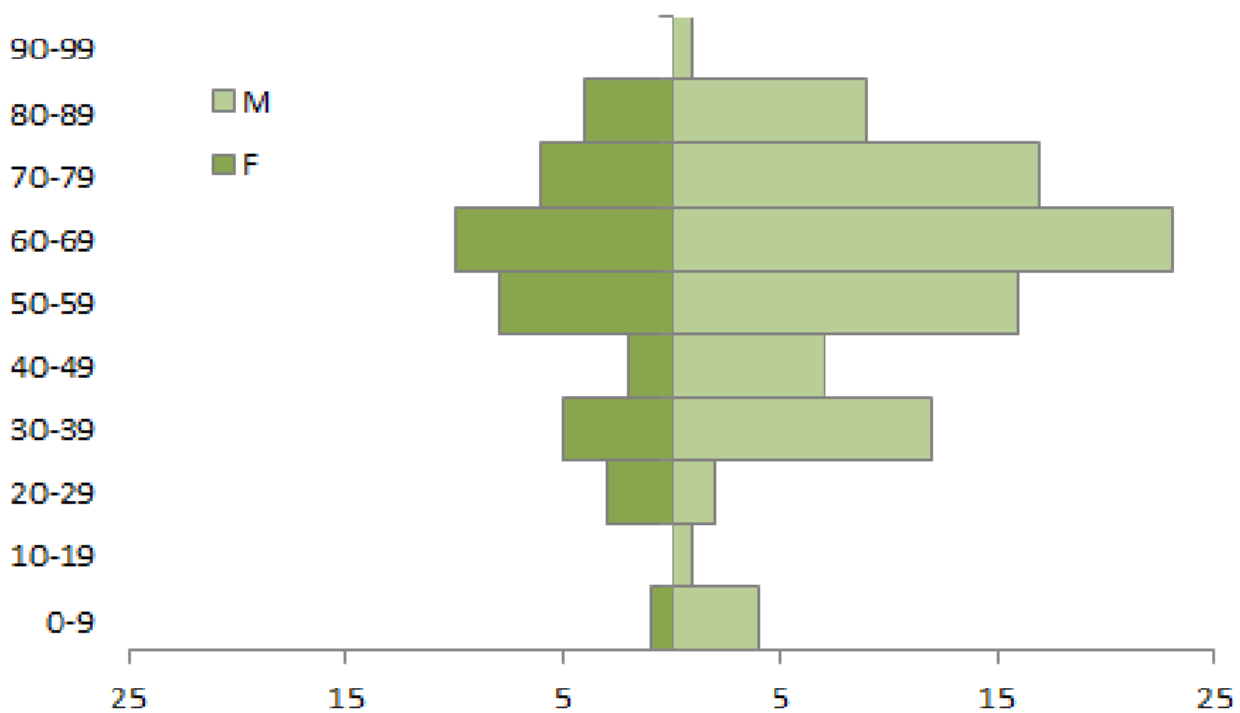
Number of A(H7N9) cases by the date of reporting as of 17 October 2013 (n=136)

ECDC SRS



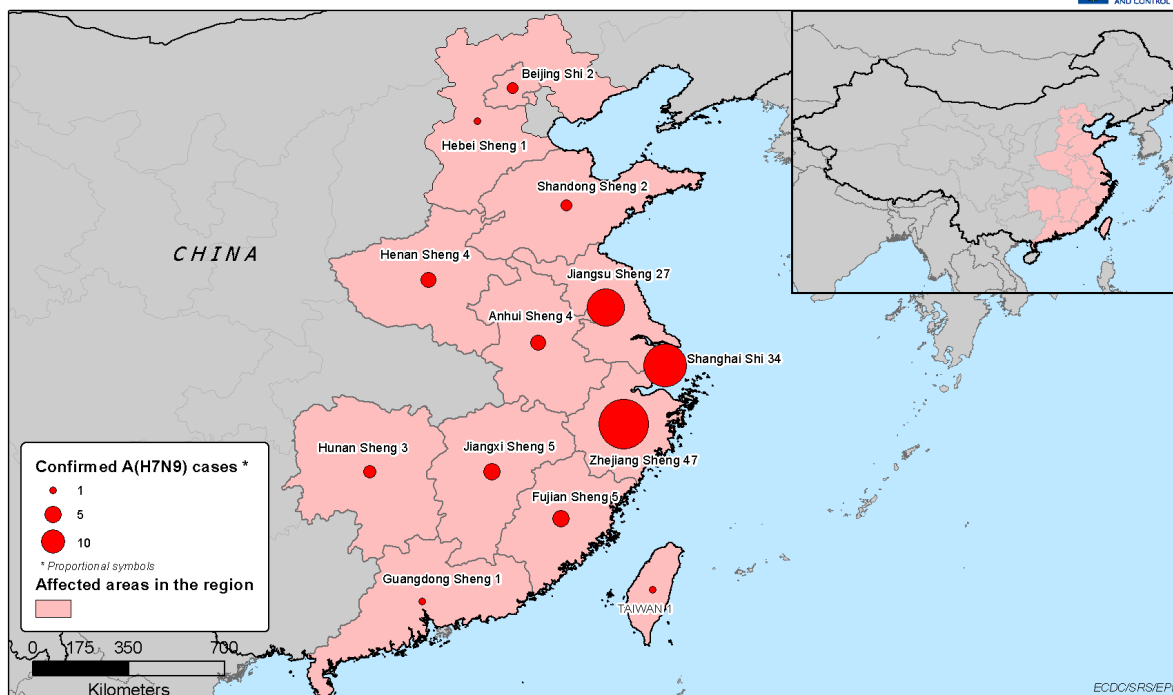
Number of A(H7N9) cases by gender and age distribution as of 17 October 2013 (n=131)

ECDC SRS



Reported cumulative number of confirmed cases of novel influenza A(H7N9) by province in China, as of 17 October 2013

Reported cumulative number of confirmed cases of novel influenza A(H7N9) by province in China, as of 17 October 2013, 15.00 CEST



Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 17 October 2013

Epidemiological summary

Asia: Australia, Lao PDR, Malaysia, Singapore have reported more cases in 2013 than 2012 for the same time period. The recent trend has increased in Malaysia, Singapore and Vietnam and continued to decrease in Australia, Cambodia and Lao PDR.

High dengue activity is reported across most states of India, particularly in New Delhi, which has recorded more than 3 000 cases so far this year and 400 new cases in the past week alone. Sri Lanka has reported a decrease in dengue cases and deaths so far this year compared to the same time period last year (In 2013, 24 384 cases and 64 deaths compared to 35 000 cases and 80 deaths in 2012). The Swat district and Sindh province in Pakistan have reported increased dengue activity in the past two weeks.

Caribbean: Dengue activity is increasing in Barbados. The Ministry of Health reported 511 confirmed cases of dengue fever so far this year, compared to 169 confirmed cases for the same period in 2012. The predominant serotype is DENV-1, which has not circulated in Barbados in previous years. In the Dominican Republic, 10 685 suspected cases have been reported to date, according to the latest update from the National Centre for Epidemiology. A dengue alert has been issued in St Lucia following a

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recent rise in cases. In Guadeloupe, dengue activity continues to be high and new cases have been registered in all of the island's communes.

Americas: In Central America, as of 5 October 2013, Mexico has reported 137 925 cases nationally and the most affected states are Tamaulipas, Tabasco and Veracruz. Guatemala has recorded 6 846 cases nationally and 12 cases of severe dengue so far this year. In Honduras, dengue cases are still on the rise, particularly in Tegucigalpa. In South America, a state of emergency has been declared in two districts of Bolivia following a sharp rise in dengue infections during the past two weeks.

In French Guiana, the dengue epidemic has come to an end in all the country's sectors, except for Kourou, where new cases are still being reported.

Pacific: The French Polynesia continues to report dengue activity. As of 8 October, 602 cases have been reported since the beginning of the epidemic in February 2013. The predominant circulating serotype is DENV-1 with DENV-3 accounting for 25% of the cases. DENV-3 has not circulated in the French Polynesia since the 1990s. The recent trend in New Caledonia, where 10 536 cases have been reported up to 7 October 2013, has declined to low levels.

New study

A retrospective study published in *Vector-Borne and Zoonotic Diseases* suggests that the dengue virus has recently been transmitted in Houston. Researchers found that 47 of 3 768 individuals tested in Houston for West Nile fever infection between 2003 and 2005 were positive for antibodies to acute dengue infection. The study reports that two of the 47 died from the infection.

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

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.