

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: 30 January 2014

Following the 2009 pandemic, influenza transmission in Europe has returned to its seasonal epidemic pattern, with peak activity 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 the fourth week of 2014, influenza activity has been increasing in almost all EU countries.

### Non EU Threats

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

Opening date: 24 September 2012

Latest update: 30 January 2014

Since April 2012, 180 laboratory-confirmed cases, including 79 deaths, of acute respiratory disease caused by Middle East respiratory syndrome coronavirus (MERS-CoV), have been reported by national health authorities. 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. The source of the virus remains unknown but the pattern of transmission points towards an animal reservoir in the Middle East, from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission to close contacts and in hospital settings has occurred, but there is no evidence of sustained transmission among humans. MERS-CoV is genetically distinct from the coronavirus that caused the SARS outbreak.

→ Update of the week

Since the previous CDTR, one new fatal case has been reported from Jordan. There have been also two new deaths in previously reported cases: one from the United Arab Emirates and one from Saudia Arabia.

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

Opening date: 8 September 2005

Latest update: 30 January 2014

Polio, a crippling and potentially fatal vaccine-preventable disease that mainly affects children, is close to being eradicated as a result of global public health efforts. Polio remains endemic in three countries: Afghanistan, Pakistan and Nigeria, and there are currently cases reported from five other countries: Cameroon, Somalia, Syria, Ethiopia and Kenya.

### →Update of the week

Since the previous ECDC update, 12 new wild poliovirus 1 (WPV1) cases have been reported to WHO. Ten cases had date of onset in 2013 and are from Pakistan (1), Syria (7), Somalia (1) and Afghanistan (1). Two of the cases had onset in 2014 and they are from Pakistan (1) and Afghanistan (1).

## Chikungunya outbreak - The Caribbean, 2013

Opening date: 9 December 2013

Latest update: 31 January 2014

On 6 December 2013, France reported two laboratory-confirmed autochthonous cases of chikungunya in the French part of the Caribbean island of Saint Martin. Since then, local transmission has been confirmed in the Dutch part of Saint Martin, on Martinique, Saint Barthélemy, Guadeloupe, British Virgin Islands and Dominica. French Guyana reported two confirmed cases imported from Martinique. This is the first documented outbreak of chikungunya with autochthonous transmission in the Americas.

### →Update of the week

During the past week, 247 new cases of chikungunya have been reported in the Caribbean. New cases were reported from: Saint Martin (FR) (83), Martinique (97), Saint Barthélemy (11), Guadeloupe (51). French Guyana reported two additional imported cases. The media reports three autochthonous cases in Dominica.

## Zika virus infection outbreak - The Pacific - 2013-2014

Opening date: 9 January 2014

Latest update: 30 January 2014

There is an ongoing outbreak of Zika virus (ZIKV) infection in French Polynesia. This is the second documented outbreak of ZIKV in the Pacific. It is estimated that more than 27 000 cases sought medical care with Zika-like symptoms since the beginning of the outbreak in early October 2013. No deaths and no hospitalisations for acute infection have been reported. There is a simultaneous dengue outbreak in the region.

French Polynesia health authorities report a concurrent significant increase in neurological syndromes and autoimmune illnesses. The cause and possible links with Zika or dengue virus infections are being investigated.

Since 21 January 2014, New Caledonia is also reporting autochthonous cases of ZIKV infection.

### →Update of the week

During the past week, 15 additional confirmed cases of ZIKV infection were reported in French Polynesia. Japan reported two ZIKV cases in returning travellers from Bora Bora in the latest issue of *Eurosurveillance*. In New Caledonia during last week, four new autochthonous cases of ZIKV were reported.

## Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 30 January 2014

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, the outbreak has affected 14 Chinese provinces and two municipalities, causing 273 cases of human infection, including 58 deaths. Most cases have been unlinked and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak. Sustained person-to-person transmission has not been documented.

Since October 2013, 138 sporadic cases have been reported. The majority of these cases have been reported in previously affected provinces or in patients who visited such provinces prior to illness. However, two cases have been reported in newly affected provinces (Guizhou and Guangxi) during the second wave of the outbreak.

### →Update of the week

Between 24 and 30 January 2014, 48 new cases of A(H7N9) infection have been reported by local authorities in China: Zhejiang (25), Guangdong (11), Fujian (four), Jiangsu (four), Beijing (one), Guangxi (one)(newly affected province), Hong Kong (one) and Hunan (one).

## II. Detailed reports

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

Opening date: 4 October 2013

Latest update: 30 January 2014

#### Epidemiological summary

For week 04/2014:

- Influenza activity continued to increase in most reporting countries in the EU/EEA region. ILI rates were similar to or higher than the previous year in Bulgaria, Greece, Portugal and Spain.
- Proportions of sentinel A(H1N1)pdm09 and A(H3) viruses varied substantially between countries. Very few influenza B viruses were detected.
- In five reporting countries, 87% of hospitalised laboratory-confirmed influenza cases were related to A(H1)pdm09 virus.

Influenza activity continued to increase in almost all EU/EEA countries, with differing proportions of A(H1N1)pdm09 and A(H3) between countries.

Web sources: [WISO](#) | [ECDC Seasonal influenza](#) | [US-CDC health advisory](#) | [CDC Seasonal influenza](#) | [FluWatch, Canada](#) | [FluView, USA](#)

#### ECDC assessment

The influenza season started in EU/EEA countries in week 2/2014.

#### Actions

ECDC will continue to produce the weekly influenza surveillance overviews during the northern hemisphere influenza season.

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

Opening date: 24 September 2012

Latest update: 30 January 2014

#### Epidemiological summary

As of 30 January 2014, 180 laboratory-confirmed cases of MERS-CoV have been reported by local health authorities worldwide, including 79 deaths. The following countries have reported MERS-CoV cases:

Saudi Arabia: 142 cases / 59 deaths  
United Arab Emirates: 12 cases / 5 deaths  
Qatar: 7 cases / 4 deaths  
Jordan: 3 cases / 3 deaths  
Oman: 2 case / 2 deaths  
Kuwait: 2 cases / 0 deaths  
UK: 4 cases / 3 deaths  
Germany: 2 cases / 1 death  
France: 2 cases / 1 death  
Italy: 1 case / 0 deaths  
Tunisia: 3 cases / 1 death

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 UK, there has been local transmission among patients who had 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. However, with the exception of a possible nosocomial outbreak in Al-Ahsa, Saudi Arabia, secondary transmission has been limited. Twenty-two asymptomatic cases have been reported by Saudi Arabia and three by the

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United Arab Emirates.

The fourth meeting of the IHR Emergency Committee concerning MERS-CoV was held on 4 December 2013. The Committee concluded that there was no reason to change its previous advice to the Director-General. Their unanimous decision was that the conditions for a Public Health Emergency of International Concern (PHEIC) had not been met.

Based on events since its last meeting, the Committee emphasised the need for:

- investigative studies, including international case-control, serological, environmental, and animal-human interface studies, to better understand risk factors and the epidemiology;
- further review and strengthening of tools, such as standardised case definitions and surveillance, and further emphasis on infection control and prevention.

**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](#) |

## ECDC assessment

The source of MERS-CoV infection and the mode of transmission have not been identified, but the continued detection of cases in the Middle East indicates that there is an ongoing source of infection in the region. There is therefore a continued risk of cases presenting in Europe following exposure in the Middle East, and surveillance for MERS-CoV 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

ECDC's latest [epidemiological update](#) was published on 25 November 2013.

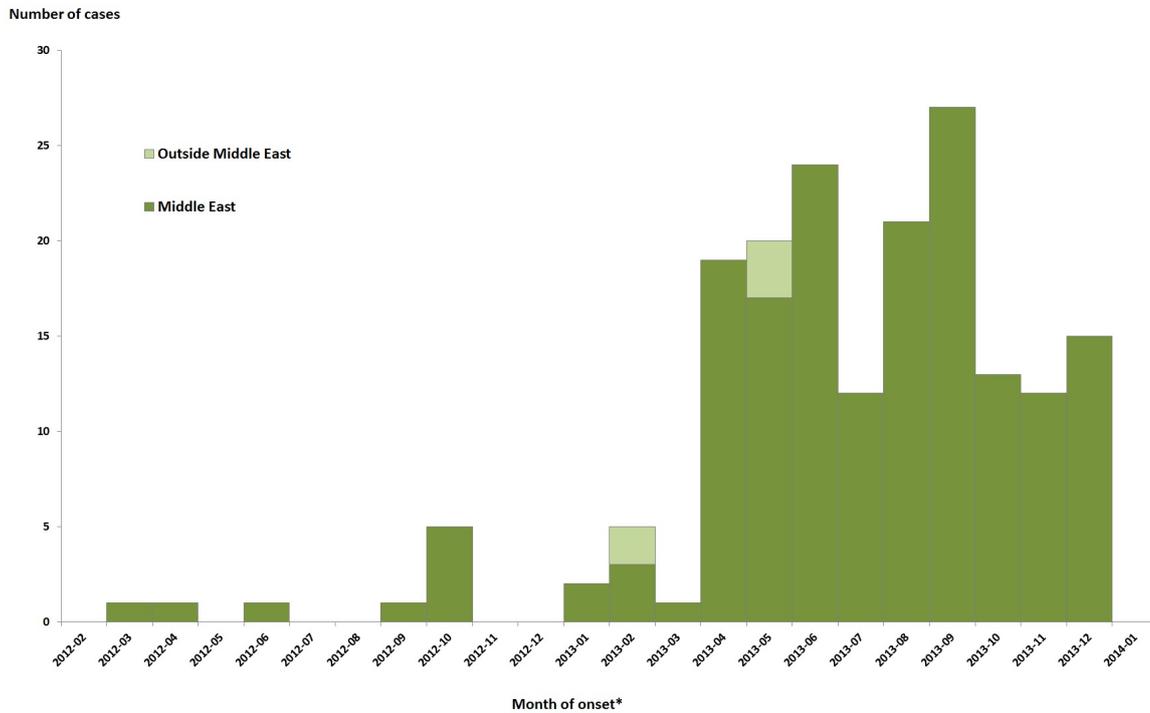
The latest update of a [rapid risk assessment](#) was published on 7 November 2013.

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 of onset and place of probable infection, March 2012 - 30 January 2014 (n=180\*)

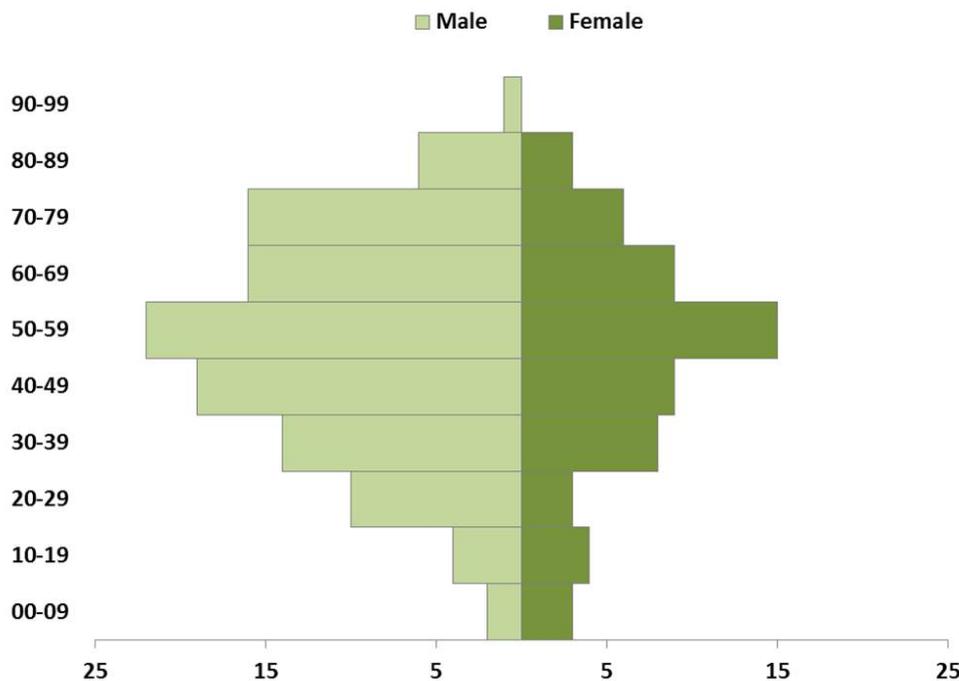
Source: ECDC SRS



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

Distribution of confirmed cases of MERS-CoV by gender and age group, March 2012 - 30 January 2014

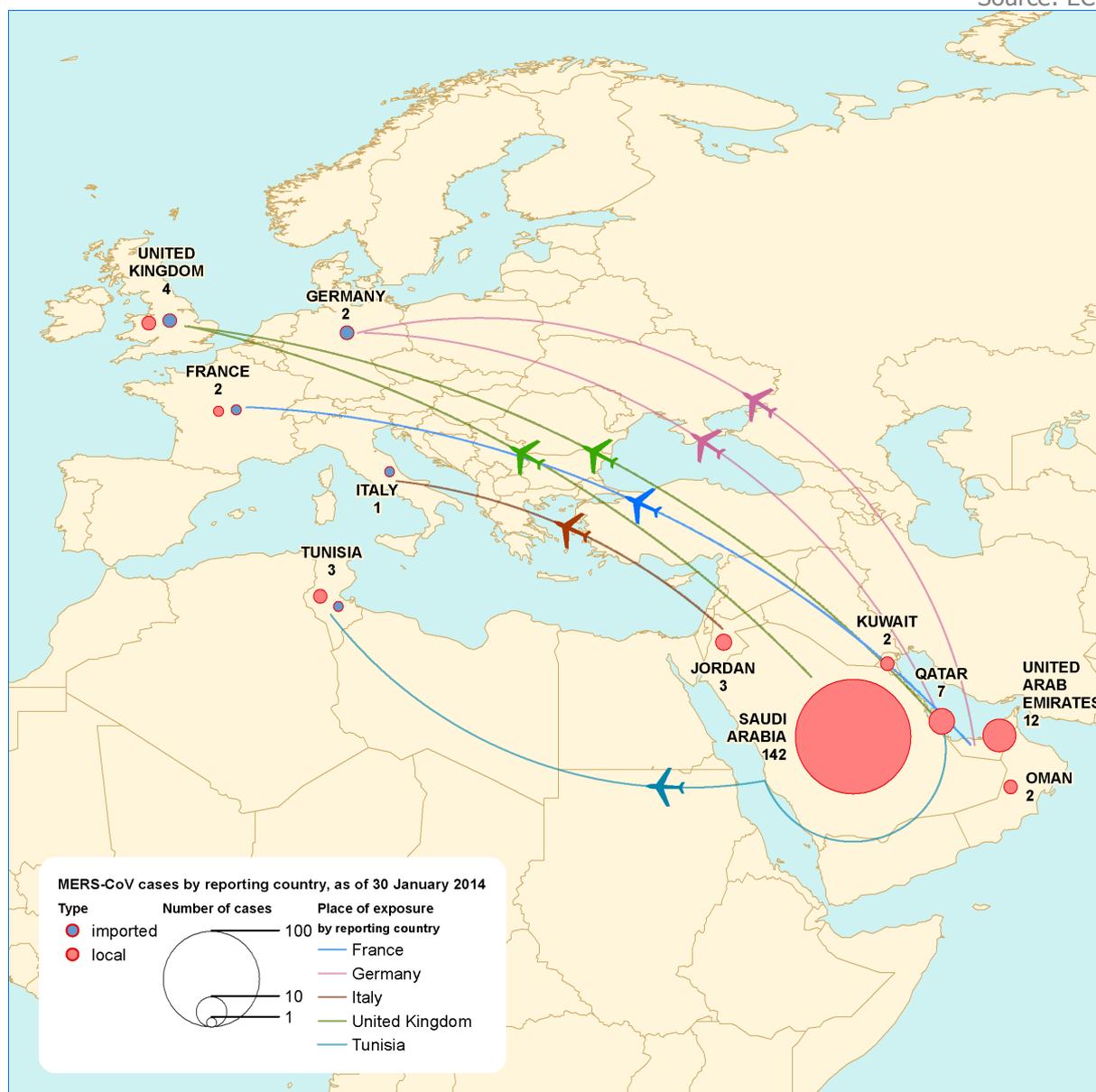
Source: ECDC SRS



\*10 cases for which age or sex data is missing have been excluded

## Distribution of confirmed MERS-CoV cases by place of reporting, March 2012 - 30 January 2014

Source: ECDC SRS



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

Opening date: 8 September 2005

Latest update: 30 January 2014

### Epidemiological summary

In Syria, seven new cases were reported this week, all with onset of paralysis in November and December 2013, bringing the number of WPV1 cases to 23. The reporting of new cases is a sign that surveillance is improving in the country, as expected in an outbreak. The response continues country-wide. The [WHO/UNICEF Strategic Plan for Polio Outbreak Response in the Middle East](#) outlines the action plan for Syria and neighbouring countries in response to the circulation of wild poliovirus following importation. The objective is to stop the outbreak in Syria by the end of March 2014 and prevent any further international spread.

In Israel, West Bank and Gaza, WPV1-positive samples have been detected by environmental surveillance since February 2013, and continue to be detected in 2014. Since 2005, only inactivated polio vaccine (IPV) has been used for routine childhood immunisation in Israel. To interrupt WPV1 transmission, a nationwide supplementary immunisation activity (SIA) with bivalent OPV targeting children under 10 years of age was conducted from August to October. Following a consultation with the country's immunisation advisory group, the Israeli Ministry of Health has recently decided to re-introduce OPV into the national

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immunisation schedule. SIAs in the occupied Palestinian territories were conducted 8-15 December 2013 and 8-15 January 2014.

In 2013, 399 cases of poliomyelitis were notified to WHO worldwide, all due to WPV1. Eight countries have recorded cases in 2013: Somalia, Nigeria, Pakistan, Kenya, Afghanistan, Ethiopia, Syria and Cameroon.

In 2014, six cases have been recorded so far, from Pakistan (5) and Afghanistan (1).

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#) | [WHO mission to Israel](#) | [Somalia Humanitarian Bulletin](#)

## ECDC assessment

Europe is polio free. The last polio cases within the current EU borders were reported from Bulgaria in 2001. This was an imported outbreak and it was demonstrated that the WPV originated from India. The latest outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases. The last indigenous WPV case in the WHO European Region was in Turkey in 1998. An outbreak in the Netherlands in a religious community opposed to vaccinations, caused two deaths and 71 cases of paralysis in 1992.

The recent detection of WPV in environmental samples in Israel, and the confirmed and ongoing outbreaks in Syria and Somalia, highlight the risk of re-importation into Europe. Recommendations are provided in the recent ECDC risk assessments:

[Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA](#)  
[Wild-type poliovirus 1 transmission in Israel – what is the risk to the EU/EEA?](#)

## Actions

ECDC follows reports of polio cases worldwide through epidemic intelligence, in order to highlight polio eradication efforts and identify events that increase the risk of re-introduction of wild poliovirus into the EU.

Due to the current situation of polio, the threat is being followed weekly.

## Chikungunya outbreak - The Caribbean, 2013

Opening date: 9 December 2013

Latest update: 31 January 2014

### Epidemiological summary

Cases reported as of 30 January 2014:

- Virgin Islands (UK), 3 confirmed cases;
- Saint Martin (FR), 476 confirmed cases;
- Saint Martin (NL), 9 confirmed cases;
- Martinique, 364 confirmed and probable cases;
- Saint Barthélemy, 56 confirmed and probable cases;
- Guadeloupe, 119 confirmed and probable cases;
- Dominica, 1 confirmed case (imported), 3 autochthonous cases (reported by media);
- French Guyana, 4 confirmed cases, all of which are imported.

**Web sources:** [Bureau de Veille Sanitaire](#) ; [Media on Dominica](#)

## ECDC assessment

Epidemiological data indicate that the outbreak, that started in Saint Martin (FR), is expanding. An increasing number of cases has been observed from most of the affected areas. The vector is endemic in the regions, where it also transmits dengue virus. Vigilance is recommended for the occurrence of imported cases of chikungunya in tourists returning to the EU from the Caribbean, including awareness among clinicians, travel clinics and blood safety authorities.

## Actions

ECDC published a [rapid risk assessment](#) on 12 December 2013 and an [epidemiological update](#) on 10 January 2014.

## The Caribbean islands



## Zika virus infection outbreak - The Pacific - 2013-2014

Opening date: 9 January 2014

Latest update: 30 January 2014

### Epidemiological summary

Since early October 2013, and as of 24 January 2014, 7 708 suspected cases of ZIKV infection were reported by the syndromic surveillance sentinel network of French Polynesia, of which 383 were confirmed by RT-PCR. It is estimated that more than 27 000 cases have sought medical care with Zika-like symptoms in French Polynesia since the beginning of the outbreak. The outbreak seems to be declining in most affected islands.

Since early November 2013, 69 cases presented with neurological or autoimmune complications: 37 cases of Guillain-Barré syndrome (GBS), 13 cases of encephalitis or meningo-encephalitis (ME), and 12 cases with other neurological complications, such as paraesthesia, facial paralysis and subdural haematoma. Seven cases had autoimmune illnesses: four with immune thrombocytopenic purpura (ITP), two had ophthalmologic complications and one had a cardiac complication.

The apparent clustering of such cases is considered very unusual, as the GBS cases occurred within only two months, compared with three or four cases per year on average in French Polynesia. All cases developed neurological symptoms following a viral infection compatible with symptoms of Zika virus infection, but not having been tested initially. All the GBS cases were born in French Polynesia. Sixteen of these patients required hospitalisation in the intensive care unit. No deaths have been reported.

Public health control measures, including increased surveillance and the promotion of measures to avoid mosquito bites, have been implemented.

There is a suspicion of recurrent infection in patients previously infected with ZIKV, which may indicate the presence of several genotypes of the Zika virus, similar to dengue virus.

In New Caledonia, as of 29 January 2014, 34 cases of ZIKV infection have been reported. Of these, 29 were imported cases and five autochthonous cases. No neurological or auto-immune complications have been reported in New Caledonia to date.

Web sources: [ECDC fact sheet](#) | [Bureau de Veille Sanitaire](#) | [NaTHNaC](#) | [DASS New Caledonia](#)

## ECDC assessment

This is the second documented outbreak of ZIKA infection in the Pacific, now affecting two French Overseas territories. The first documented transmission outside of the virus' traditional endemic areas in Africa and Asia occurred on the island of Yap in Micronesia in 2007.

ZIKV is a member of the *Flaviviridae* family and is transmitted to humans by mosquitoes. It is related to other pathogenic vector-borne flaviviruses including dengue, West Nile and Japanese encephalitis viruses. ZIKV is considered an emerging infectious disease with the potential to spread to new areas where the *Aedes* mosquito vector is present. There is a risk for the disease spreading further in the Pacific, and for sporadic imported cases in Europe from endemic areas. Travellers can protect themselves by preventing mosquito bites.

Zika infection is a mild illness and has not been known to have neurological complications. The reported complications in French Polynesia are not confirmed to be caused by ZIKV. However, they have temporal relationship to the simultaneous outbreaks of Zika and dengue. Investigations are currently underway to identify the cause of the increase in reported neurological and autoimmune complications to determine their possible association with the ongoing transmission of DENV-1, DENV-3 and ZIKV, and whether ZIKV has several genotypes.

## Actions

ECDC is preparing a risk assessment on this event.

## Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 30 January 2014

### 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, 273 cases of human infection with influenza A(H7N9) have been reported from: Zhejiang (113), Shanghai (42), Jiangsu (34), Henan (4), Anhui (4), Beijing (3), Shandong (2), Fujian (16), Hunan (4), Jiangxi (5), Hebei (1), Guizhou (1), Guangdong (37), Hong Kong (4), Taiwan (2), Guangxi (1). In addition, the virus has been detected in one asymptomatic case in Beijing. To date, WHO has acknowledged 259 of these cases and the remaining thirteen cases were reported by local health authorities on 29 and 30 January 2014.

Most cases have developed severe respiratory disease. Fifty-eight patients have died (case-fatality ratio=21%).

One-hundred and thirty eight cases have been reported since October 2013. The affected areas are: Taiwan (1), Hong Kong (4), Zhejiang (68), Guangdong (36), Jiangsu (7), Shanghai (7), Fujian (11), Guizhou (1), Beijing (1), Guangxi (1) and Hunan (1).

**Web sources:** [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [ECDC](#) |

## ECDC assessment

The continued and increasing transmission of a novel reassortant avian influenza virus, capable of causing severe disease in humans in one of the most densely populated areas in the world, is a cause for concern due to the pandemic potential. However, the most likely scenario for China is that this remains a local (but widespread) zoonotic outbreak, in which the virus is transmitted sporadically to humans in close contact with the animal reservoir, similar to the influenza A(H5N1) situation.

It is commendable that the Chinese authorities quickly notified the event to WHO under the International Health Regulations. The continued communication of outbreak investigations has facilitated the assessment of the risk to human health from this outbreak in Europe as well as elsewhere. It is essential that this continues.

The first human infection with influenza A(H7N9) virus was identified in March 2013, and this was the first time that human infection with a low pathogenic avian influenza A virus has been associated with a fatal outcome. After a period of several months with only few cases detected, the Chinese authorities have detected new cases with increasing frequency since October 2013. This indicates a persistent reservoir and transmission pattern which might have seasonal characteristics.

The recent fatal case of influenza A(H5N1) imported to Canada provides support to the notion that imported cases of influenza A(H7N9) might also be seen in Europe. However, the risk of the disease spreading to Europe via humans in the near future is still

considered low. People in the EU presenting with severe respiratory infection and a history of potential exposure in the outbreak area will require careful investigation in Europe.

To date, there is no epidemiological evidence that avian influenza can be transmitted to humans through the consumption of cooked food, notably poultry, meat and eggs. There is insufficient evidence to quantify the risk of influenza A(H7N9) developing into a virus that transmits from human to human, thereby increasing the risk of an influenza pandemic. Close monitoring of the outbreak epidemiology, clinical features and the genetic characteristics of the virus will be critical for assessing this risk; instruments like the Influenza Risk Assessment Tool (IRAT) can play a role.

The risk of increased transmission of H7N9 viruses between humans is not negligible. European countries should continue to prepare for the eventuality of future pandemics, including one caused by A(H7N9). Preparedness activities should include the precautionary development of early human vaccine candidates and increased monitoring of animal influenzas at the animal-human interface.

The risk of influenza A(H7N9) virus being transported to Europe in viraemic poultry through legal trade is negligible. EU regulations do not permit importation of live poultry, day-old chicks and hatching eggs and other birds (captive birds such as parrots, finches and ornamental birds) from China. The only poultry commodities authorised for import from China into the EU are sterilised meat products, heat-treated poultry meat from Shandong, and heat-treated egg products. Given the very heat-labile nature of all influenza viruses, these commodities are not considered to pose a risk of influenza virus transmission to consumers.

The risk of the avian influenza A(H7N9) viruses arriving in Europe with migratory birds cannot be quantified. ECDC and the European Food Safety Authority (EFSA) have performed multiple independent risk assessments in the past regarding avian influenza that also cover pathways for avian influenza A(H7N9). The hypothesis that poultry in the affected area has been infected by wild birds, has not been confirmed but neither can it be excluded. Surveillance in wild birds for this novel virus has not been initiated in the EU/EEA.

## Actions

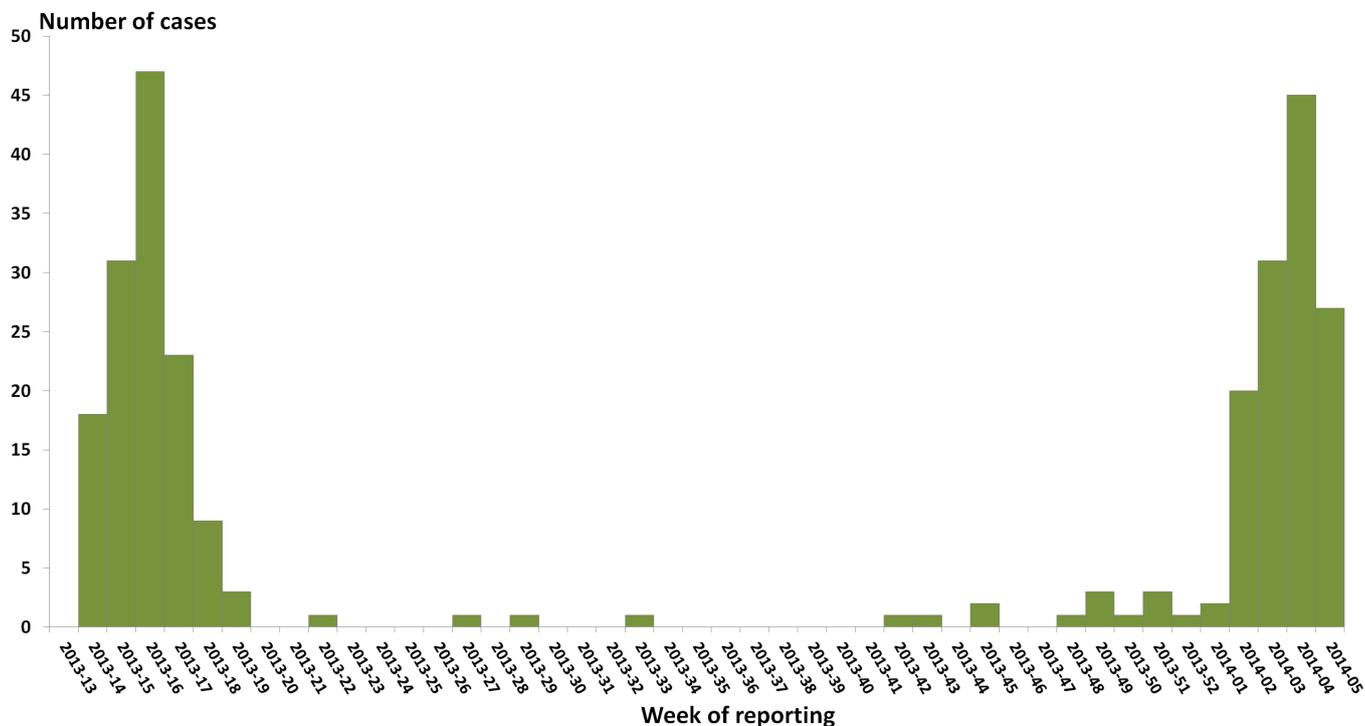
The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation, including scientific research. ECDC is closely monitoring developments.

ECDC published an updated [Rapid Risk Assessment](#) on 28 January 2014.

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

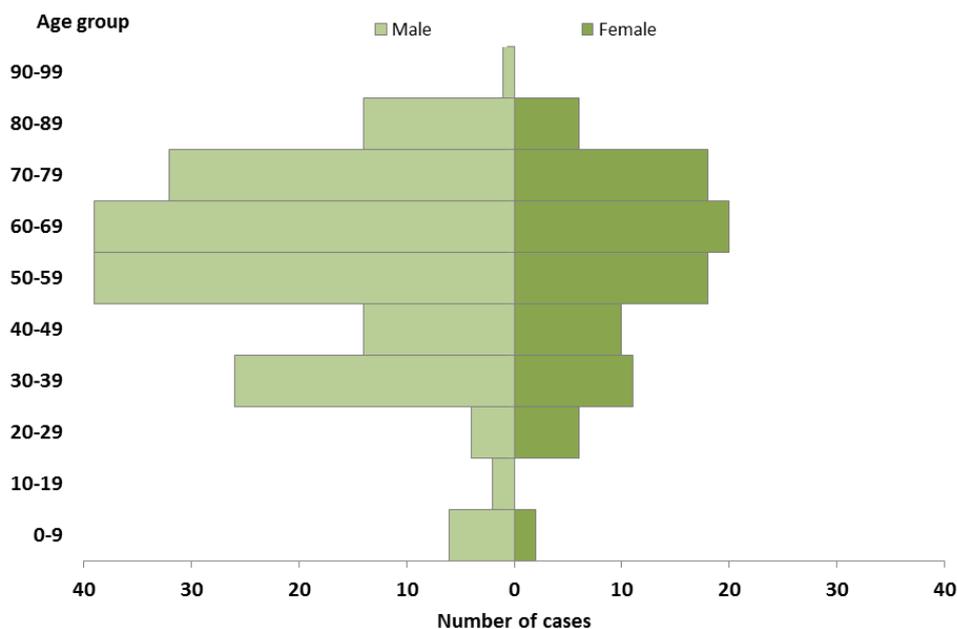
Distribution of confirmed A(H7N9) cases by week of reporting, week 14/2013 to 05/2014, China (n=273)

Source: ECDC SRS



Distribution of confirmed A(H7N9) cases by age and gender, 31/03/2013-30/01/2014, China (n=268\*)

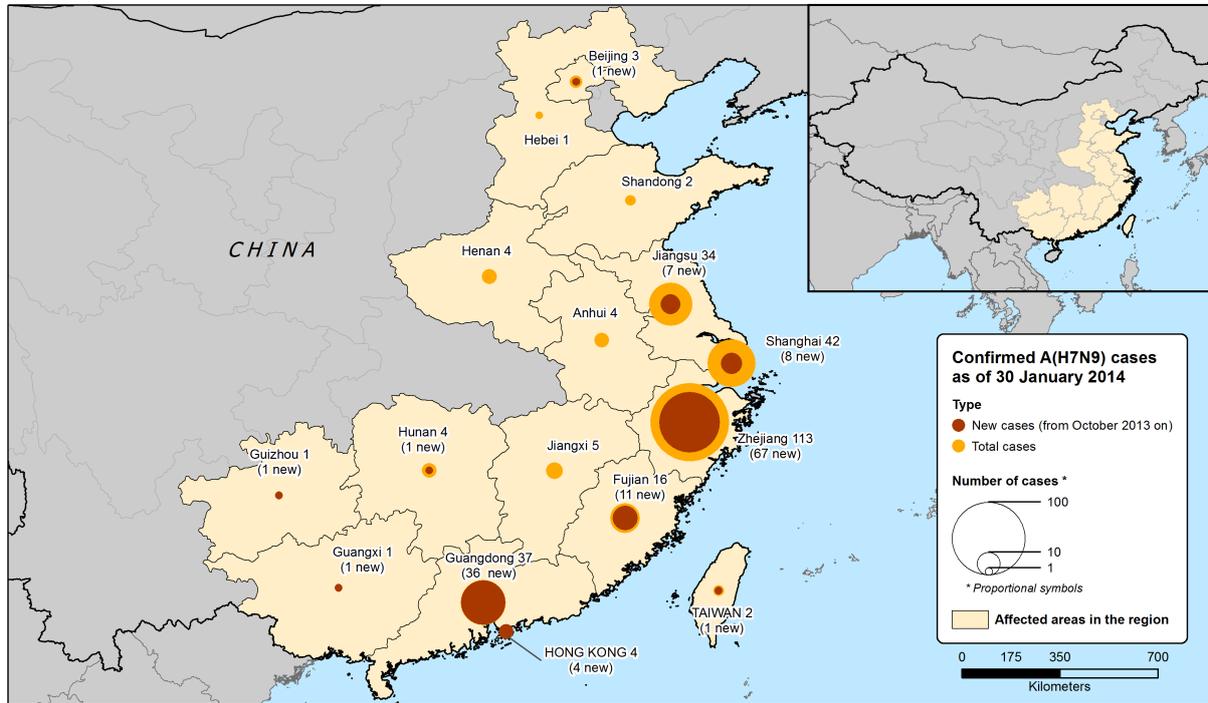
Source: ECDC SRS



\* 5 cases where age or gender is missing have been excluded

Distribution of confirmed A(H7N9) cases by place of reporting, week 14/2013 to 05/2014 (n=273)

Source: ECDC SRS



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