

This weekly bulletin provides updates on threats monitored by ECDC.

## I. Executive summary

### EU Threats

#### Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013

Latest update: 16 May 2013

Between 1 October 2012 and 17 May 2013, Denmark, Finland, Norway and Sweden reported hepatitis A (HAV) cases due to genotype 1b with two related sequences. None of the cases have travel history outside the EU within the period of their potential exposure. Overall, 85 cases have so far been reported associated with this outbreak, of which 34 are confirmed. The source of the outbreak has not been identified but epidemiological investigations in the affected countries point towards frozen berries as vehicle of infection.

→ Update of the week

During the week leading up to 17 May 2013, Norway reported one new probable case. Denmark has four new probable cases and confirmed the diagnosis of six previously probable cases.

#### Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 14 May 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. According to the latest enhanced measles surveillance data retrieved from the European Surveillance System, the 30 contributing countries (29 EU and EEA countries and Croatia) reported 8 499 cases of measles during the last 12-month period from March 2012 to February 2013. There have been no measles-related deaths during the reporting period, but seven cases were complicated by acute measles encephalitis. During the last 12-month period France, Italy, Romania, Spain and the United Kingdom accounted for 94% of the measles cases. Measles is targeted for elimination in Europe by 2015. Sixteen countries met the elimination target of less than one case of measles per million population during the last 12 months.

→ Update of the week

There are on-going measles outbreaks in the UK and Germany.

## Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 2 May 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

During the week leading up to 17 May, no new outbreaks were detected.

## Non EU Threats

### Novel Coronavirus (MERS-CoV) - Multistate - Severe respiratory syndrome

Opening date: 24 September 2012

Latest update: 16 May 2013

Between April 2012 and 16 May 2013, 40 laboratory-confirmed cases, including 20 deaths, were notified from an acute respiratory disease caused by a novel coronavirus. The new virus is genetically distinct from the coronavirus that caused the SARS outbreak. Cases have occurred in Saudi Arabia, Qatar, Jordan, United Arab Emirates, the United Kingdom and France. The reservoir of the novel coronavirus has not been established, nor is it clear how transmission is sustained from one sporadic case to another.

→Update of the week

Between 10 and 16 May 2013, the Ministry of Health in Saudi Arabia reported seven new cases, of which one was fatal. All cases originated from Al-Ahsa governorate. On 12 May 2013, France reported a second case.

On 16 May 2013, the [Coronavirus Study Group of the International Committee on Taxonomy of Viruses](#) decided to call the new virus Middle East respiratory syndrome coronavirus (MERS-CoV) in order to provide uniformity and to facilitate communication about the disease.

### Hepatitis A - Multistate - Travel to Egypt

Opening date: 22 April 2013

Latest update: 17 May 2013

From November 2012 to May 2013, several EU Members States reported hepatitis A virus (HAV) infections affecting travellers returning from Egypt. The identification of the same HAV sequence in 18 cases from three of the affected countries confirms a multinational outbreak. The source of the outbreak is still unknown but the descriptive epidemiology suggests a possible persistent common source of infection in Egypt. This outbreak is a reminder that travelers should be made aware of the importance of HAV vaccination before travelling to HAV endemic areas.

→Update of the week

Two new probable cases were reported by Germany during the past week.

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

Opening date: 8 September 2005

Latest update: 16 May 2013

Polio, a crippling and potentially fatal vaccine-preventable disease mainly affecting children under five years of age, is close to being eradicated from the world after a significant global public health investment and effort. The WHO European Region is polio-free.

→Update of the week

During the week leading up to 17 May 2013, seven new polio cases were reported to WHO, all WPV1. Four cases in Nigeria, two cases in Pakistan and one case in Somalia.

## Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 16 May 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 the occurrence of locally acquired cases in EU countries where the competent vectors are present. The dengue outbreak in the Autonomous Region of Madeira, Portugal, that started 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.

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

Opening date: 31 March 2013

Latest update: 16 May 2013

On 31 March 2013, the Chinese health authorities announced the identification of a novel avian influenza A(H7N9) virus in three seriously ill patients in Shanghai. The outbreak has since spread to Zhejiang (46), Shanghai (33), Jiangsu (27), Henan (4), Anhui (4), Beijing (1), Shandong (2), Fujian (5), Hunan (2), Jiangxi (6) and Taiwan (1). The source of infection and the mode of transmission are yet to be determined. Zoonotic transmission from poultry to humans is the most likely scenario. There is no epidemiological link between most of the cases and sustained person-to-person transmission has not been confirmed.

→Update of the week

Between 9 May and 16 May 2013, there were no additional confirmed human cases of influenza A(H7N9) virus reported. Since the beginning of the outbreak there have been 131 confirmed cases, including 32 deaths.

## II. Detailed reports

### Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013

Latest update: 16 May 2013

#### Epidemiological summary

Between 1 October 2012 and 17 May 2013, Denmark, Finland, Norway and Sweden have reported 34 HAV cases due to genotype 1b with two related sequences. None of the cases have travel history outside the EU within the period of their potential exposure. There are 51 additional non-travel-related cases of HAV reported in the four countries for whom the sequence is not known.

Epidemiological investigations in Denmark, Finland and Sweden revealed that all the patients had consumed berries, in particular frozen berries in smoothies. Strawberries were the food item with the strongest association with the disease. No hepatitis A virus (HAV) could be isolated from food samples so far. Food safety authorities and Public Health Authorities in the affected countries are actively collaborating to uncover the vehicle of infection and to prevent occurrences of additional cases.

Following epidemiological investigations, the food authorities in all four countries recommended that citizens should boil frozen berries or berries of non-domestic origin before consumption.

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

#### ECDC assessment

The identification of closely related HAV sequences in four different countries confirms that this is a multinational food-borne outbreak. The distribution of cases over time suggests a persistent source with possibly one or more vehicles of infections.

#### Actions

Swedish authorities have initiated a case-control study and questionnaires have been sent out to the controls.

In order to strengthen the information for source identification Danish authorities have done a product distribution analysis and shared it with food authorities in the four countries.

ECDC and EFSA published a joint [rapid outbreak assessment](#) on 16 April.

### Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 14 May 2013

#### Epidemiological summary

##### UK – update

The number of cases in the measles outbreak centred on the Swansea area in Wales has risen to 1 105. The majority of cases have been seen in people aged 10 to 18. [Public Health Wales](#) has reported that 52 502 non-routine MMR vaccinations were given to people of all ages in the Swansea area between the beginning of March and 13 May. However, less than a third of these vaccinations were given to people aged between 10 and 18.

Across Wales, there have been 1 292 notified cases reported since the start of November 2012.

##### Germany – update

As of 24 April, the number of measles cases in the Berlin outbreak has risen to 104 since the outbreak started in February 2013. Eleven of the twelve districts in Berlin are affected by the outbreak and eight cases have been notified in Brandenburg, the federal state around Berlin. The outbreak has mainly affected families as well as an asylum center. Half of all the measles cases are aged over 18 years and nearly a third of cases are aged over 30 years. About a third of cases have been hospitalized.

**Web sources:** [ECDC measles and rubella monitoring](#) | [ECDC/Euronews documentary](#) | [WHO Epidemiological Briefs](#) | [MedISys Measles page](#) | [EU-VAC-net ECDC](#) | [ECDC measles factsheet](#) | [Public Health Wales](#) |

#### ECDC assessment

There was a significant reduction in notified cases in 2012 compared to the two previous years indicating that the incidence at EU/EEA level was back at the level before the 2010–2011 outbreaks. However, this is just one single annual incidence figure and does not signify a longer-term downward trend in measles notifications. Endemic measles transmission continues in a number of EU countries and the risk of new outbreaks increases as the unvaccinated population grows over time. In endemic areas, measles incidence fluctuates in multi-annual cycles which are determined by the vaccination uptake over time and the size of the susceptible population.

## Actions

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. ECDC closely monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe through enhanced surveillance and epidemic intelligence activities.

## Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 2 May 2013

### Epidemiological summary

No new outbreaks have been identified since the last update.

The 26 EU and EEA countries contributing to enhanced rubella surveillance together reported 21 549 cases during the last 12-month period from March 2012 to February 2013. Poland and Romania accounted for 99% of all reported rubella cases in the 12-month period. Since August 2012, Poland alone contributed over 90% of cases, due to the decreasing trend in Romania.

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

### 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 2012 compared with 2011 and the potential for an increase in the number of babies born with CRS in EU countries are of serious 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. 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.

## Novel Coronavirus (MERS-CoV) - Multistate - Severe respiratory syndrome

Opening date: 24 September 2012

Latest update: 16 May 2013

### Epidemiological summary

The first described case of MERS-CoV infection was a 60-year-old male resident of Saudi Arabia who died of severe pneumonia complicated by renal failure in June 2012. A previously unknown coronavirus isolated from this patient was identified.

As of 16 May, 40 laboratory confirmed cases have been reported by Saudi Arabia (30), Jordan (2), Germany (2), United Kingdom (4) and France (2). Twenty of these cases have died. All cases worldwide remain associated (including indirect association following secondary person-to-person transmission in the UK and France) with transmission in the Arabian Peninsula. The age of cases ranges from 24 to 94 years (age is unknown for 4 cases). Eight cases are female and 31 are male (gender is unknown for 1 case).

Since the beginning of May 2013, the Ministry of Health in Saudi Arabia reported 21 cases, seven of which were fatal. All cases were from the eastern Al HAsa governorate. The outbreak is primarily linked to a health care facility. Two patients are healthcare workers who were exposed to patients with confirmed MERS-CoV.

On 8 May 2013, there was a first case reported in France in a patient with recent travel history to the United Arab Emirates who presented with diarrhoea and fever. He was hospitalised on 23 April. On 12 May, France reported a second case. This patient shared a hospital room with the first patient from 27 to 29 April 2013. After the UK, France is the second country reporting local transmission in Europe.

**Web sources:** [WHO](#) | [ECDC RRA 19 February](#) | [ECDC novel coronavirus website](#) | [RKI risk assessment 26 March](#) | [WHO update 2 May](#) | [MoH France 08 May](#) | [InVS 13 May](#)

### ECDC assessment

The additional recent coronavirus cases reported by the Saudi Arabian authorities indicate an ongoing source of infection present in the Arabian Peninsula.

The first French case who presented with diarrhoea is a reminder of the possibility that presentations may not include respiratory symptoms initially, especially in those with immunosuppression or underlying chronic conditions. This needs to be taken into account when revising case-finding strategies. The imported case in France is the second nosocomial transmission in Europe following one in the UK in February 2013 highlighting the risk of onward transmissions in Europe, in particular in healthcare settings. Both French patients had underlying conditions, and a degree of immunosuppression. One of the transmissions in the UK was also to an immunosuppressed person. These underlying conditions may be increasing vulnerability and the risk of transmission.

Information on many of the basic epidemiological indicators required for determining effective control measures are still missing for most cases that occurred in the Middle East, e.g. the reservoir of infection, risk groups, incubation period, period of infectivity, settings where infection has occurred.

The recent imported cases reported by Germany and France, following medical evacuation and travel, indicate that more cases may be expected to be identified in the EU in the immediate future.

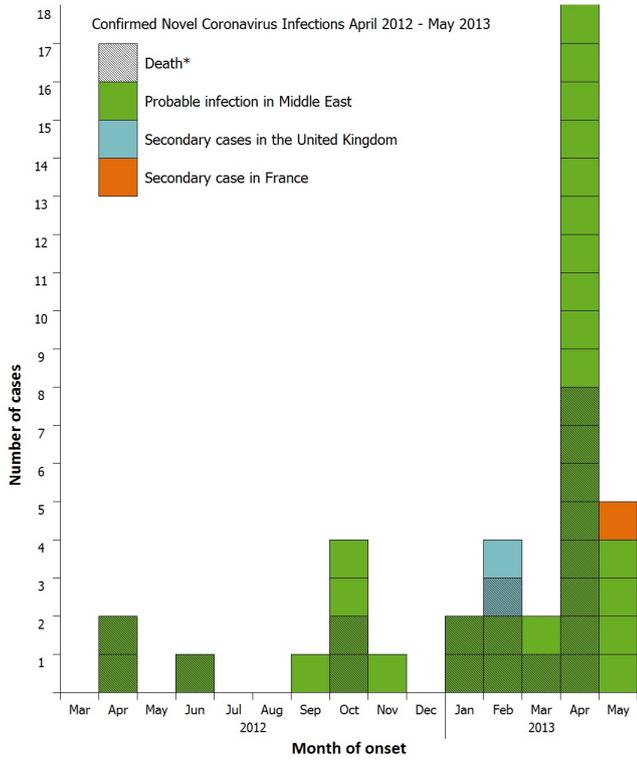
### Actions

ECDC has updated the rapid risk assessment, and published an epi-update on 7 May ([Epidemiological update ECDC](#)). The results of an ECDC coordinated survey on laboratory capacity for testing for the novel coronavirus in Europe were published in [EuroSurveillance](#). On 6 May, WHO posted technical guidance on infection prevention and control on their [website](#).

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

Distribution of cases of novel coronavirus reported worldwide by month of disease onset, outcome and place of infection, as of 16 May (n=40) \* 1 death missing

WHO



## Cases of novel coronavirus reported in the Arabian Peninsula and Jordan, April 2012-15 May 2013 (n=35)

WHO



### Hepatitis A - Multistate - Travel to Egypt

Opening date: 22 April 2013

Latest update: 17 May 2013

#### Epidemiological summary

Fifteen EU/EEA countries have reported 102 cases with hepatitis A infections among travellers returning from Egypt. Of these, 18 cases share an identical RNA sequence. The dates of onset of symptoms (or laboratory testing date for those with no available onset dates) were between 1 November 2012 and 24 April 2013. Interviewed cases reported having travelled to at least two different locations in the Red Sea region (Sharm-El-Sheikh and Hurghada) and stayed at several hotels and resorts. Sixty-eight cases have information about their vaccination status and all were unvaccinated.

Web source: [ECDC rapid risk assessment](#) | [Eurosurveillance 25 April 2013](#)

#### ECDC assessment

HAV infections in travellers returning from Egypt have been reported in several EU Member States. The same HAV sequence was identified in cases from the Netherlands, Norway and the UK confirming a multinational outbreak. The distribution of cases over

8/13

time suggests a persistent source outbreak - potentially food borne - the source of which has not yet been identified.

## Actions

ECDC has published a [rapid risk assessment](#). Public health authorities in the affected countries, ECDC and WHO are actively collaborating to detect the source of the infection in order to prevent the occurrence of additional cases. ECDC is coordinating this investigation. Interviews with some of the cases using a trawling questionnaire are under way.

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

Opening date: 8 September 2005

Latest update: 16 May 2013

### Epidemiological summary

During the past week, seven new polio cases were reported to WHO, all WPV1. Four cases were from Nigeria, two cases from Pakistan and one case from Somalia.

This is the first confirmed WPV1 case reported in Somalia since 2007.

Globally 33 cases have been reported so far in 2013 compared with 55 for the same period in 2012.

The Taliban in Afghanistan have released a statement supporting health programmes in the country with particular reference to polio vaccination campaigns. This statement is supported by WHO as it promises to respect local conditions and support all efforts to protect the children of Afghanistan from polio and other diseases.

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#) | [WHO EMRO](#)

### ECDC assessment

The last polio cases in the European Union occurred in 2001 when three young Bulgarian children of Roma ethnicity developed flaccid paralysis caused by WPV. Investigations showed that the virus originated from India. The latest outbreak in the WHO European Region was in Tajikistan in 2010 when WPV1 imported from Pakistan caused an outbreak of 460 reported cases. The last indigenous WPV case in Europe 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.

## Actions

ECDC follows reports on 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 (WPV) into the EU.

## Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 16 May 2013

### Epidemiological summary

**Europe:** The number of imported dengue cases reported in England, Wales and Northern Ireland has increased compared to the same time period last year, according to Public Health England. The latest figures show that up until the end of April 2013, 141 confirmed and probable cases of dengue fever were reported compared to 51 cases during the same period in 2012.

**Asia:** Thailand has reported around 26 000 cases and 33 deaths across all provinces so far this year, according to the Ministry of Public Health. The majority of cases are in the southern region.

**The Caribbean:** Health Authorities in Puerto Rico have advised citizens to strengthen dengue preventive measures due to the constant heavy rainfall. During the last two weeks of April, the latest epidemiological indicators show that the dengue outbreak in the French overseas territory of Saint Barthelemy remains active, according to InVS.

**Central and South America:** High activity is reported across Mexico and Honduras. In South America, an increasing trend of cases is reported in Argentina, Brazil, Venezuela, Colombia and Paraguay. French Guiana continues to experience a serious dengue epidemic with nearly 3 000 laboratory confirmed cases, 450 hospitalized cases and five deaths reported since the outbreak started last September.

**Pacific:** The Solomon Islands continue to see sustained dengue activity with more than 4 200 suspected cases and 6 fatalities reported to date. The majority of cases are located in the capital, Honiara.

**Africa:** The Ministry of Health in Angola has confirmed that between 21 March and 9 April, there were 197 confirmed dengue cases out of the suspected 275 cases reported in Angola. Thirty-three people were hospitalized. Most of the cases were recorded in Luanda province and two cases were reported in the province of Malanje.

#### Web sources:

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

### ECDC assessment

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

### Actions

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

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

Opening date: 31 March 2013

Latest update: 16 May 2013

### Epidemiological summary

On 31 March 2013, Chinese authorities announced the identification of a novel reassortant A(H7N9) influenza virus isolated from three unlinked fatal cases of severe respiratory disease in eastern China, two in Shanghai and one in Anhui province. The WHO Collaborating Centre for Reference and Research on Influenza at the Chinese Center for Disease Control and Prevention (CCDC) had subtyped and sequenced the viruses and found to be of almost identical low pathogenic avian origin.

Since 31 March 2013, 131 cases of human infection with influenza A(H7N9) have been reported from eastern China and Taiwan: Zhejiang (46), Shanghai (33), Jiangsu (27), Henan (4), Anhui (4), Beijing (1), Shandong (2), Fujian (5), Hunan (2), Jiangxi (6) and Taiwan (1). In addition, the virus has been detected in one asymptomatic case in Beijing. Onset of disease was between 19 February and 29 April 2013. The date of disease onset is currently unknown for fifteen patients. Most cases have developed severe respiratory disease. Thirty two patients have died (case-fatality ratio=24%). The median age is 61 years ranging between four and 91 years; 37 of 131 patients are female.

The Chinese health authorities are responding to this public health event with enhanced surveillance, epidemiological and laboratory investigation and contact tracing. The animal health sector has intensified investigations into the possible sources and reservoirs of the virus. The authorities reported to the World Organisation for Animal Health (OIE) that avian influenza A(H7N9) was detected in samples from pigeons, chickens and ducks, and in environmental samples from live bird markets ('wet markets') in Shanghai, Jiangsu, Anhui and Zhejiang provinces. Authorities have closed markets and culled poultry in affected areas.

**Web sources:** [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [Centre for Health Protection Hong Kong](#) | [OIE](#) | [Chinese MOA](#) |

### ECDC assessment

Influenza A(H7N9) is a zoonotic disease that has spread or is spreading in poultry in parts of eastern China causing

a severe disease in humans. At this time there is no evidence of sustained person-to-person transmission. Close to 3 000 contacts have been followed-up and only four are reported to have developed symptoms, as part of three small family clusters.

At present, the most immediate threat to EU citizens is to those in China who are strongly advised to avoid live bird markets. The risk of the disease spreading to Europe via humans in the near future is considered low. However, it is likely 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.

There is no specific guidance on blood or tissue donor deferral for exposure to avian influenza. The incubation period for A(H7N9) is assumed to be 10 days or less, and there is no reason to believe that infected people will be viraemic beyond the acute disease episode. Therefore, the risk of transmission through blood transfusion can be considered very low in the context of the current donor selection procedures.

The gradual geographical extension seems to have slowed down and there has been a decline in the number of cases during the last week possibly due to closing urban live bird markets in China. However, many unanswered questions remain regarding this outbreak e.g. the reservoir, the route of transmission, the spectrum of disease, the reason for the unusual age-gender imbalance.

## Actions

ECDC is closely monitoring developments and is continuously re-assessing the situation in collaboration with WHO, the US CDC, the Chinese CDC and other partners.

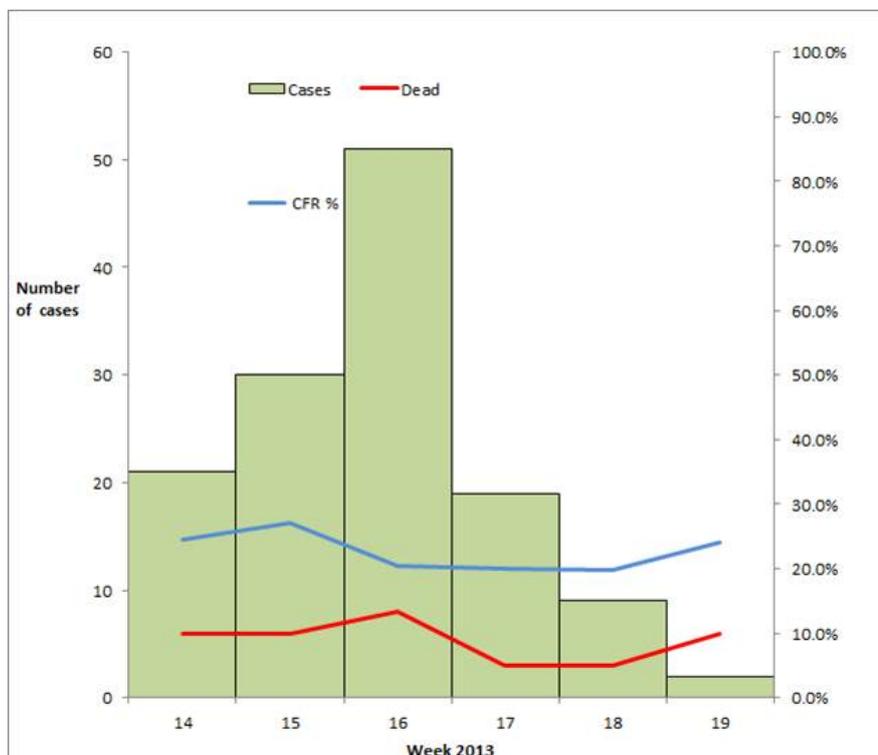
ECDC published an updated [Rapid Risk Assessment](#) on 8 May 2013.

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.

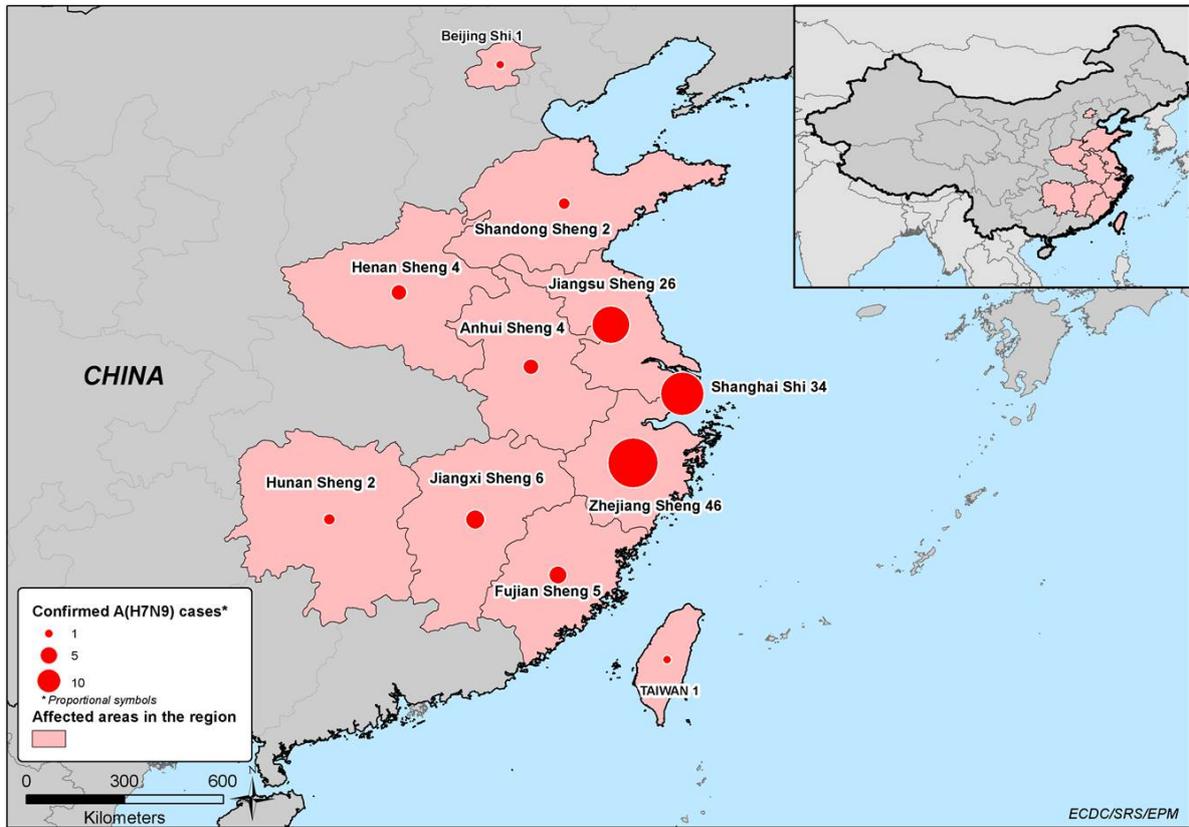
## Distribution of influenza A(H7N9) cases by week of reporting, as of 16 May 2013 (cases =131, fatalities=32, CFR=24%)

WHO



Distribution of cumulative number of influenza A(H7N9) cases, 19 February-16 May 2013

ECDC



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