

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Influenza - Multistate (Europe) - Monitoring 2012-2013 season

Opening date: 2 December 2011

Latest update: 8 March 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.

Weekly reporting on influenza surveillance in Europe for the 2012–13 season started in week 40/2012. Active influenza transmission began around week 49/2012 with influenza-like illness/acute respiratory infection rates peaking in almost all countries between weeks 52/2012 and 8/2013.

→Update of the week

In week 13/2013, decreasing or stable trends were reported by almost all reporting countries.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 27 March 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. More than 30 000 cases were reported in EU Member States in each of 2010 and 2011. However, the number of outbreaks and reported cases in Member States decreased significantly in 2012. The 29 participating EU and EEA countries reported 8 230 cases to the European Surveillance System for 2012. France, Italy, Romania, Spain and the United Kingdom accounted for 94% of all reported cases.

→Update of the week

There are on-going measles outbreaks in the north east of England and in Wales.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 19 September 2012

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 5 April, no new outbreaks were detected.

Non EU Threats

New! Influenza A (H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 5 April 2013

On 31 March 2013, the Chinese health authorities announced that they identified a novel influenza A(H7N9) virus in three seriously ill people. As of 5 April 2013, 14 human cases of infection with influenza A(H7N9) virus, including six deaths, have been reported in four provinces of China: Shanghai, Anhui, Jiangsu and Zhejiang. No epidemiological link has been identified among cases. The source of these infections and the mode of transmission are yet to be determined. This is the first time that human infection with influenza A(H7N9) virus has been identified.

Novel Coronavirus - Multistate - Severe respiratory syndrome

Opening date: 24 September 2012

Latest update: 31 March 2013

From April 2012 to 28 March 2013, 17 laboratory-confirmed cases including eleven deaths from an acute respiratory disease caused by nCov have been notified. 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 and the United Kingdom. There have been three clusters of cases with evidence of human-to-human transmission, one in Jordan, one in Saudi Arabia and one in the United Kingdom, where the index case is believed to have been infected during a visit to Saudi Arabia. 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

No new cases were reported since 25 March 2013.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 4 April 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 detection of a dengue outbreak in the Autonomous Region of Madeira, Portugal, further underlines the importance of surveillance and vector control in other European countries.

→Update of the week

The Autonomous Region of Madeira, Portugal, experienced an outbreak of dengue starting in October 2012 with a few sporadic cases still being reported between week 1 and week 9 in 2013. So far in 2013, no autochthonous dengue cases have been reported in other European countries.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 4 April 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 5 April 2013, no new polio cases were reported to WHO.

II. Detailed reports

Influenza - Multistate (Europe) - Monitoring 2012-2013 season

Opening date: 2 December 2011

Latest update: 8 March 2013

Epidemiological summary

During week 13/2013, 19 of 26 countries reporting indicated low-intensity transmission.

The proportion of influenza-positive cases among sentinel specimens remained high (40%) but continued to decrease since the peak observed in week 5/2013 (61%) and with a considerably lower number of specimens tested.

Since week 40/2012, 47% of sentinel surveillance specimens testing positive for influenza virus have been type A, and 53% type B. Of the influenza A viruses subtyped, the proportion of A(H1N1)pdm09 viruses has been 63%.

Thirty-two hospitalised laboratory-confirmed influenza cases were reported by six countries, including one fatality.

Web source: [ECDC Weekly Influenza Surveillance Overview](#) |

ECDC assessment

In all reporting countries, influenza activity continued to decline or already returned to baseline levels. After more than three months of active transmission, a long period compared to other years, the 2012-13 influenza season is waning and slowly moving towards its close.

Actions

ECDC updated its influenza website for the start of the season and published its annual risk assessment for seasonal influenza 2012-2013 in early February based on data up to week 3/2013.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 27 March 2013

Epidemiological summary

UK - update

The measles outbreak in the north east of England is on-going with an additional 17 confirmed and four suspected cases of measles reported in the last week. Since the beginning of September 2012, 181 confirmed cases and 162 suspected cases have been reported. The majority of cases continue to be seen in the Teesside, County Durham and Darlington areas. People aged between 10 and 19 years continue to be the most affected, accounting for 41 per cent of all cases.

In Wales, Public Health Wales is strongly emphasising the need for children to receive the MMR vaccination as the number of cases in the Swansea area reached 541. In the past week alone, 109 new cases were reported. Cases continue to be reported across Wales, with the majority in Abertawe Bro Morgannwg, Powys and Hywel Dda Health Board areas.

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

So far in 2013, only the UK and Sweden have reported outbreaks. In 2012, considerably fewer measles cases were reported in the EU than in 2011, primarily due to the dramatic decrease in the number of cases reported from France. There was no increase in the number of cases during the peak transmission season from February to June and there have been very few outbreaks detected by epidemic intelligence methods in 2012. There have been no measles-related deaths during the last 12 months, but seven cases were complicated by acute measles encephalitis. The reduction in notified cases in 2012 indicates that the incidence at EU/EEA level is back at the level before the 2010-2011 outbreaks, but does not signify a long-term downward trend in measles notifications.

3/9

ECDC closely monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe through enhanced surveillance and epidemic intelligence activities. The countries in the WHO European Region, which include all EU Member States, have committed to eliminating measles and rubella transmission by 2015. 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.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 19 September 2012

Epidemiological summary

No new outbreaks have been identified since the last update.

There were 27 267 cases of rubella reported during 2012 by the 26 EU and EEA countries which contribute to the enhanced surveillance for rubella. Poland and Romania accounted for 99% of all reported rubella cases in the 12-month period.

Web sources: [ECDC measles and rubella monitoring](#) | [WHO epidemiological brief summary tables](#) | [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. CRS surveillance plays an important role but tends to be biased towards the severe end of the spectrum as the rubella infection is known to cause a wide range of conditions from mild hearing impairment to complex malformations which are incompatible with life. Routine control of immunity during antenatal care is important for identifying susceptible women who can be immunised after giving birth and for surveillance of the size of the susceptible female population. 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 are of 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.

New! Influenza A (H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 5 April 2013

Epidemiological summary

Fourteen cases of infection with a novel influenza virus A(H7N9) have been reported from four provinces in eastern China (six in Shanghai, four in Jiangsu, three in Zhejiang and one in Anhui) since 31 March 2013 with onset of disease between 19 February and 29 March 2013. Six of these patients died. Five patients had contact with animals prior to falling ill.

No epidemiological link among cases has been identified to date. More than 400 close contacts of the confirmed cases are being closely monitored. Thus far, none of them have developed any symptoms of illness. However, there are reports of a small family cluster of disease around the first case, but this has not been confirmed by laboratory data.

The Chinese Health authorities are responding to this public health event by 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. A(H7N9) was detected in pigeon samples taken from a farm produce wholesale market in Shanghai.

Web sources: [Chinese CDC](#) | [WHO](#) | [Centre for Health Protection Hong Kong](#)

ECDC assessment

The influenza A viruses from the first three cases were non-subtypeable and were sent to the WHO Influenza Collaborating Centre at the Chinese Center for Disease Control and Prevention (CDC). The genetic comparison indicated that these cases were caused by a novel reassortant avian influenza virus with avian origin genes from both A(H7N9) and A(H9N2). No similar viruses have been seen before and A(H7N9) differs from A(H7) and A(H9) viruses that have been seen previously in Europe. No vaccine is currently available for this subtype of the influenza virus. Preliminary test results suggest that the virus is susceptible to the neuraminidase inhibitors (oseltamivir and zanamivir).

At this time there is no evidence of on-going human-to-human transmission and the risk of disease spread to Europe is considered low, although individual cases coming from China cannot be ruled out.

Actions

ECDC is monitoring this event in collaboration with partners.

ECDC published a [rapid risk assessment](#) and an [epidemiological update](#) on 3 April 2013.

Novel Coronavirus - Multistate - Severe respiratory syndrome

Opening date: 24 September 2012

Latest update: 31 March 2013

Epidemiological summary

The first described case of novel coronavirus infection was a 60-year-old male resident of Saudi Arabia who died from severe pneumonia complicated by renal failure in June 2012. A previously unknown coronavirus isolated from this patient was identified and named Human Coronavirus-Erasmus Medical Centre (HCoV-EMC/2012). In September 2012, a second case was reported, a Qatari man, who was transferred for care to Europe. In November 2012, additional cases with similar symptomatology were diagnosed in Qatar and Saudi Arabia. These included a family cluster of three confirmed and one probable case. Subsequently, two fatal cases were confirmed retrospectively by testing stored samples from a cluster of 11 cases of lower respiratory infection linked to a hospital in Jordan in April 2012.

In February 2013, a cluster of novel coronavirus cases was reported from the United Kingdom where the index case had travelled to Pakistan and Saudi Arabia ten days before symptom onset and where contact tracing identified two secondary cases among family members without recent travel. One person died, the other had a self-limiting influenza-like illness which did not require hospitalisation. Three additional sporadic cases have been reported since February, all from Saudi Arabia and fatal.

A latest case, was reported on 25 March by Robert Koch Institute (RKI), Germany, the second imported case to be reported in this EU Member State. The patient, a 73 year old male with underlying clinical conditions, had been hospitalised in United Arab Emirates and transferred to a hospital in Germany (Munich) for specific clinical care where subsequent diagnosis of nCoV infection was confirmed. The patient died on 26 March.

This brings the number of cases to 17 globally, including eleven deaths.

Web sources: [WHO | HPA press release 11 February](#) | [HPA press release 15 February](#) | [HPA update 19 February](#) | [ECDC updated RRA 19 February](#) | [WHO revised interim case definition 19 February](#) | [ECDC novel coronavirus website](#) | [WHO update 21 February 2013](#) | [WHO update 6 March 2013](#) | [WHO update 12 March 2013](#) | [RKI risk assessment 26 March](#) | [WHO update 26 March](#)

ECDC assessment

Research on the complete genome sequence of the novel coronavirus has characterised the virus as a new genotype that is closely related to bat coronaviruses. It is genetically distinct from SARS-CoV. The routes of transmission to humans and the virus reservoir have not been determined. This is a common problem with emerging zoonoses where there is often simultaneous possibilities including environmental, animal and human exposures.

The cluster of three cases in the UK is evidence of limited human-to-human transmission. However, several hundred contacts of the UK cluster and the case treated in Germany have now been actively followed up without evidence of novel coronavirus infection indicating that the risk of transmission remains low.

Actions

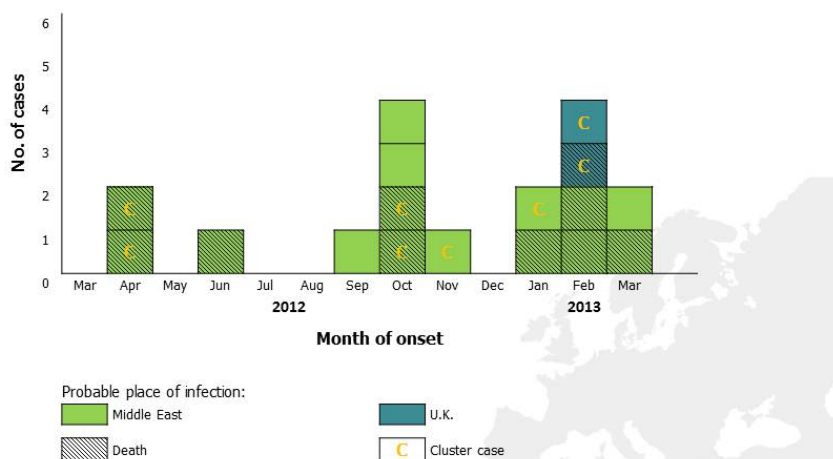
ECDC updated its [rapid risk assessment](#), first published on 7 December 2012 and an epi-update on 27 March ([Epidemiological update ECDC](#)). The results of an ECDC coordinated survey on laboratory capacity for testing for the novel coronavirus in Europe were published in [EuroSurveillance](#). On 18 March, WHO posted interim surveillance recommendations for human infection with novel coronavirus on their [website](#).

ECDC is closely monitoring the situation in collaboration with WHO and the European Union Member States. If new sporadic cases of confirmed NCoV infection are reported, ECDC will communicate them through this report.

Confirmed Novel Coronavirus Infections, April 2012 - March 2013



Confirmed Novel Coronavirus Infections, April 2012 - March 2013



Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 4 April 2013

Epidemiological summary

Europe: There have been no reports of confirmed autochthonous dengue cases in Europe in 2013, besides sporadic cases in Madeira.

According to recent figures, published by the Swedish Institute for Infectious Disease Control (SMI), Sweden reported 175 imported dengue cases in 2012, the highest number of cases ever recorded in Sweden. More than half of these were infected in Thailand. The number of reported imported dengue cases continues to be high even in 2013. As of 26 March, 99 cases have been reported compared with 54 cases during the same period last year. The majority (almost 70 percent) had been infected in Thailand.

Asia: The Philippines are experiencing increased dengue activity, particularly in the Central Visayas region. At least 3 100 dengue cases have been reported in Singapore since March 2013 with two serotypes co-circulating: DENV-3 and DENV-4. Thailand's Ministry of Public Health is warning residents in Bangkok to be aware of a possible dengue outbreak following a recent surge in cases. From December 2012 to March 2013, more than 2 600 people were diagnosed with dengue fever which is three times higher than the past five years' average, according to official figures published by the Bangkok Health Department.

The Caribbean: In Puerto Rico, 325 suspected cases were reported in week 8. This brings the number of suspected cases to 3

541 so far in 2013 which is approximately three times higher than for the same period last year. DENV-1 and DENV-4 are the predominant serotypes.

Central and South America: Increased dengue activity is reported across two states in Mexico (Sinaloa and Tamaulipas) and Costa Rica has reported more than 5 600 cases nationally since the end of March. In South America, there is an increase in the number of cases seen in Argentina, Brazil, Bolivia, Colombia, Paraguay and Venezuela. In Brazil, the state of Minas Gerais is experiencing a very intense dengue epidemic following the re-emergence of DENV-4 with more than 37 800 cases reported in the first three months of the year.

Pacific: New Caledonia continues to see an increase in the number of dengue cases with 2 777 cases, including one death, reported in March. In the French Polynesia, 34 dengue cases have been recorded in Tahiti and Moorea.

Africa: Four new dengue cases have been reported this week in the French overseas department of La Réunion.

Web sources:

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

ECDC assessment

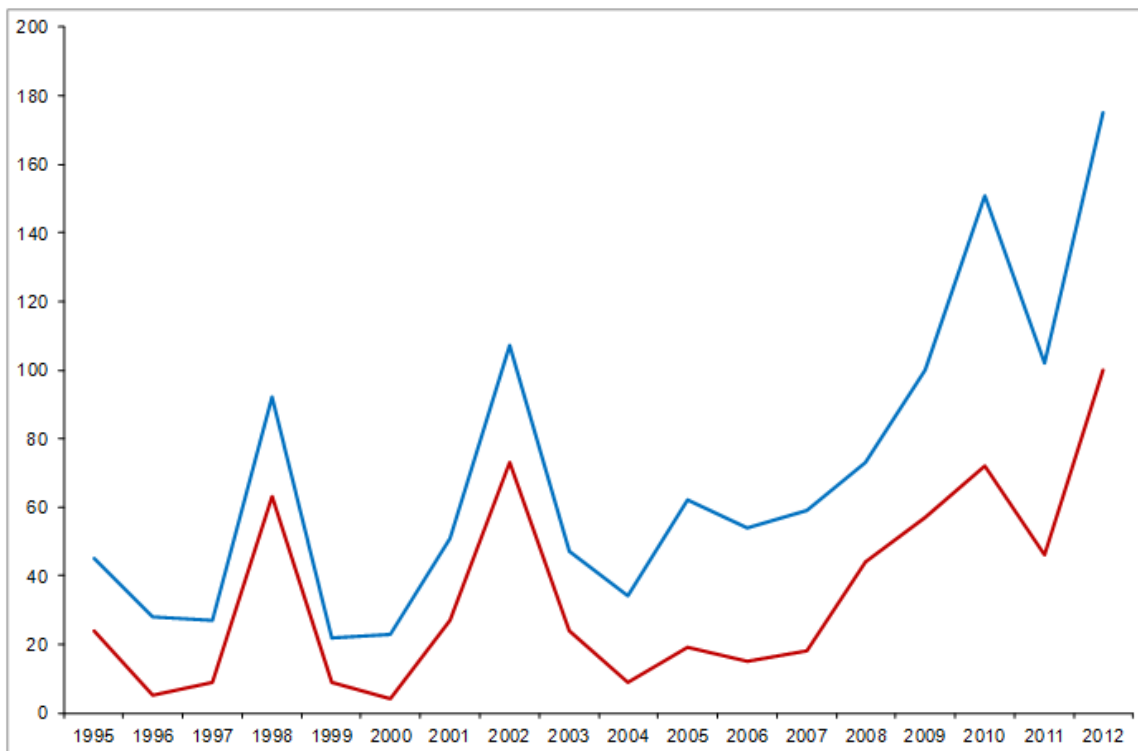
ECDC monitors individual outbreaks, seasonal transmission patterns and inter-annual epidemic cycles of dengue through epidemic intelligence activities in order to identify significant changes in disease epidemiology. Of particular concern is the potential for the establishment of dengue transmission in Europe. Before the current 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.

Actions

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

Number of reported imported cases of dengue fever in Sweden 1995-2012. The blue line represents the total number of cases and the red those infected in Thailand.

SMI



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 4 April 2013

Epidemiological summary

During the past week no new polio cases were reported to WHO.

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

ECDC assessment

The WHO European Region so far remains polio-free.

The last polio cases in the European Union occurred in 2001 when three young Bulgarian children of Roma ethnicity developed flaccid paralysis from 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.

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