I. Executive summary

EU Threats

Influenza - Multistate (Europe) - Monitoring 2012-2013 season
Opening date: 2 December 2011  Latest update: 8 February 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
For week 5/2013, 19 of the reporting countries indicated concomitantly high/medium-intensity transmission and wide geographic spread. Twenty-two countries reported increasing trends of influenza activity.

Dengue - Portugal - Madeira outbreak
Opening date: 10 October 2012  Latest update: 8 February 2013

On 3 October 2012, the public health authorities of Portugal reported two autochthonous cases of dengue fever in patients residing in the Autonomous Region of Madeira. This signalled the onset of the first recorded outbreak of dengue in Madeira with more than 2 164 cases as of 3 February 2013. Thirteen European countries have reported dengue cases among travellers returning from Madeira. The presence of Aedes aegypti mosquitoes, the main vector for transmission of the virus, has been documented in Madeira since 2005.

Update of the week
The Portuguese Ministry of Health reported 20 new dengue cases between 6 January 2013 and 3 February 2013. There is one new imported case reported among a returning traveller by Portugal during the past week.

Measles - Multistate (EU) - Monitoring European outbreaks
Opening date: 9 February 2011  Latest update: 22 October 2012

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 the last two years. However, the number of outbreaks and reported cases in Member States in 2012 were significantly lower than during 2010 and 2011. The 29 participating EU and EEA countries reported 8 326 cases during the last 12-month period from December 2011 to November 2012 to the European Surveillance System for 2012. France, Italy, Romania, Spain and the United Kingdom accounted for 87% of all reported cases.

Update of the week
During the week leading up to 15 February 2013 no new outbreaks were reported in EU Member States.
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.

During the week leading up to 15 February 2013, no new outbreaks were detected in EU Member States.

Non EU Threats

Novel Coronavirus - Multistate - Severe respiratory syndrome
Opening date: 24 September 2012 Latest update: 14 February 2013
Since April 2012, eleven patients who presented with symptoms of severe acute respiratory syndrome have tested positive for a novel coronavirus. Cases have occurred in Saudi Arabia, Qatar, Jordan and the United Kingdom. There have been five reported associated deaths. The novel coronavirus has been temporarily named hCoV-EMC.

On 11 February 2013, the UK Health Protection Agency (HPA) announced that an additional case of the novel coronavirus (NCoV) infection has been confirmed in a UK resident who travelled to Pakistan and Saudi Arabia. The patient, a 60 year old male, became ill on 24 January 2013 and was admitted to a hospital in England, with a severe lower respiratory tract disease, on 31 January.

On 13 February 2013, the HPA announced that one family contact of the previously mentioned case was laboratory-confirmed to be infected with the novel coronavirus (NCoV) in England and was admitted to a hospital on 9 February. The patient has an existing medical condition that may have made him more susceptible to respiratory infections. He did not have a recent travel history.

Dengue - Multistate (world) - Monitoring seasonal epidemics
Opening date: 20 April 2006 Latest update: 14 February 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.

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

Influenza A(H5N1) - Multistate (world) - Monitoring human cases
Opening date: 15 June 2005 Latest update: 8 February 2013
The influenza A(H5N1) virus, commonly known as bird flu, is fatal in about 60% of human infections, and sporadic cases continue to be reported, usually after contact with sick or dead poultry from certain Asian and African countries. No human cases have been reported from Europe.

Since the last update on 1 February 2013, one new fatal laboratory-confirmed human case with influenza A(H5N1) virus infection was reported by WHO in Cambodia. Two laboratory-confirmed cases were reported in Guangdong, China.
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. Worldwide, 222 cases were reported in 2012 compared with 650 cases in 2011. Two polio cases have been reported so far in 2013.

Update of the week
During the week leading up to 13 February 2013, there was one polio case reported to WHO from Pakistan.
II. Detailed reports

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

Opening date: 2 December 2011   Latest update: 8 February 2013

Epidemiological summary

Weekly reporting on influenza surveillance in Europe for the 2012–13 season started in week 40/2012 but active influenza transmission began around week 49/2012, approximately six weeks earlier than in the 2011/2012 season.

For week 6/2013, 28 countries reported, of which

- Twenty countries reported concomitantly high/medium-intensity transmission and wide geographic spread.
- Thirteen countries reported increasing trends while six reported decreasing trends which compared to 22 reporting increasing trends and only one decreasing in week 5/2013.
- For week 6/2013, the proportion of influenza-positive sentinel specimens was only slightly less than in week 5/2013 (53% compared 55%).
- Since the start of the season, the proportions of influenza type A and B viruses have remained similar (51% vs. 49%), but among type A viruses, the percentage of A(H1N1)pdm09 has continued to increase to 65% as compared to 52% in week 2/2013.
- For week 6/2013, of 125 hospitalised laboratory-confirmed influenza cases reported by seven countries, 70 (56%) tested positive for influenza A viruses and 55 (44%) for type B viruses.

On 8 February 2012, ECDC published its annual risk assessment for seasonal influenza 2012-2013 based on data up to week 03/2013.

Web source: ECDC Weekly Influenza Surveillance Overview

ECDC assessment

Influenza activity continued to be substantial and important across Europe in week 6/2013, despite peak activity in a few countries having been reached in earlier weeks.

Actions

ECDC has updated its influenza website for the start of the season.

Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012   Latest update: 8 February 2013

Epidemiological summary

On 3 October 2012, the Portuguese public health authorities reported two cases of dengue infection confirmed in patients residing on the island of Madeira in the Autonomous Region of Madeira located around 400 km from the Canary Islands, 650 km from the African coast, and 1 000 km from the European continent. The autonomous region has 268 000 inhabitants.

As of 3 February 2013, 2 164 cases of dengue infection have been reported from the public health sector in Madeira. The sequence analysis of viral genomes (600 nucleotides) from several positive human samples indicates high sequence similarity with DENV-1 circulating in Venezuela and Colombia, strongly suggesting a Latin American origin.

The vast majority of confirmed cases are from the city of Funchal, which is the main port on Madeira island. The island of Madeira has an established mosquito population of *Aedes aegypti*, the main vector of dengue in tropical and subtropical countries.

Seventy-eight patients have been diagnosed in European countries with dengue infection after returning from Madeira: 11 in Portugal, 23 in the UK, 19 in Germany, three in France, five in Sweden, seven in Finland, two in Denmark, two in Austria, and two...
in Norway. Croatia, Slovenia, Spain and Switzerland have all reported one case each. The latest case was reported on 1 February 2013 from Finland.

Web sources: ECDC fact sheet for health professionals | PT Directorate-General of Health | National Institute of Health Dr. Ricardo Jorge | ECDC Rapid Risk Assessment | WHO | Madeira Institute of Health Administration and Social Affairs.

ECDC assessment

This is the first known occurrence of locally transmitted dengue infection in the Autonomous Region of Madeira, and consequently a new geographical area reporting autochthonous cases in the EU. This is a significant public health event but not entirely unexpected because of the known presence of *Aedes aegypti*, a competent vector for dengue.

The latest figures from the Portuguese Ministry of Health indicate an important decrease of the number of notified cases reported since mid-November 2012, week 46 (see the 'Situação em 03/02/2013' update on the Dengue fever page of the Direção-Geral da Saúde website). However, disease transmission is still on-going with 28 cases reported in 2013 and three cases last week recorded by the local epidemiological surveillance system. This is indicative of an uninterrupted transmission occurring since the start of the outbreak and continuous vector activity.

The cases of dengue among returning travellers from the island highlight the need for travellers to Madeira to take measures in order to reduce mosquito bites. Travellers experiencing febrile symptoms with severe headache, retro-orbital pain, myalgia, arthralgia and maculo-papular rash within 21 days of visiting the island of Madeira are advised to seek medical advice.

Neighbouring geographical areas (e.g. Canary Islands) and other EU Member States need to assess the risk of establishment of *Aedes* mosquito populations and the introduction of dengue. The epidemiological situation does not imply the need for any trade or travel restriction beyond the disinfestation policies currently implemented.

Actions

ECDC published an updated rapid risk assessment concerning the autochthonous dengue cases in Madeira.

Portuguese authorities published recommendations regarding personal protective measures, and measures for the safety of blood, cells, tissues and organ donations within the region.

Blood donor deferral for 28 days from day of departure for travellers returning from the Autonomous region of Madeira is now recommended in other EU countries.
**Measles - Multistate (EU) - Monitoring European outbreaks**

**Opening date:** 9 February 2011  
**Latest update:** 22 October 2012

**Epidemiological summary**

No new outbreaks were detected during the past week.


**ECDC assessment**

So far in 2013, only the UK has 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.

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.
Number of measles cases in 2011-2012 and number of EU and EEA countries reporting by month in 2012

**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 26,438 cases of rubella reported from January to November 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.
Number of rubella cases in 2011 and 2012 and number of EU and EEA countries reporting by month in 2012

![Chart showing number of rubella cases by month in 2011 and 2012](image)

No comprehensive surveillance system in place in Belgium, France, and Germany.

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**Novel Coronavirus - Multistate - Severe respiratory syndrome**

Opening date: 24 September 2012  
Latest update: 14 February 2013

**Epidemiological summary**

A first case reported, on 20 September 2012 through ProMED, was a 60-year-old patient in Jeddah, Saudi Arabia. He was admitted to hospital on 13 June with severe pneumonia. He developed acute renal failure and died on 24 June. Post mortem lung tissue tests were negative for influenza virus A, influenza virus B, parainfluenza virus, enterovirus and adenovirus. Testing with a pancoronavirus RT-PCR was positive for a coronavirus and the virus genome was later sequenced in Erasmus Medical Centre, Rotterdam, and identified as a putative novel beta-coronavirus, closely related to bat coronaviruses.

Another case was reported on Saturday 22 September 2012, by the UK Health Protection Agency (HPA). The case was a 49-year-old Qatari with no underlying health conditions and a history of travel to Mecca, Saudi Arabia. He developed respiratory symptoms on 3 September, and on 7 September was admitted to an intensive care unit (ICU) in Doha, Qatar, where he subsequently developed renal failure. He was transferred by air ambulance to an ICU in the United Kingdom on 11 September. On 21 September, tests on samples from this patient using a pancoronavirus RT-PCR test were positive. Comparison of a 250bp PCR
ECDC continues to closely monitor this event, which is ongoing.

February 2013, the UK Health Protection Agency (HPA) announced that an additional case of the novel coronavirus (NCoV) infection has been confirmed in a UK resident. The patient, a 60 year old male, became ill on 24 January 2013 and was admitted to hospital in England on 31 January, with a severe lower respiratory tract disease. In the 10 days before the onset of illness, the patient had visited both Pakistan (from 16 December 2012 to 20 January 2013) and Saudi Arabia (from 20 to 28 January 2013).

On 13 February 2013, the HPA announced that one family contact of the previously mentioned case in England was laboratory-confirmed to be infected with the novel coronavirus (NCoV). The patient has an existing medical condition that may have made him more susceptible to respiratory infections. He did not have a recent travel history.

This brings the total of laboratory-confirmed cases of severe pneumonia caused by the NCoV to eleven globally, of which five cases were fatal (see Table on the ECDC website).


**ECDC assessment**

The information available suggests human-to-human transmission of the NCoV in this family cluster.

Research on the complete genome sequence of HCoV-EMC/2012 has characterised the virus as a new genotype that is closely related to bat coronaviruses that are distinct from SARS-CoV. At present, the source and possible routes of transmission of the virus remain unknown; however, all cases have been reported from the countries of the Arabian Peninsula and the neighbouring country of Jordan.

It is possible that enhanced surveillance in the Arabian Peninsula, neighbouring countries, and worldwide will detect additional sporadic cases or clusters.

**Actions**

In light of this human-to-human transmission of the NCoV within the family cluster, ECDC is now updating its rapid risk assessment, previously published on 7 December 2012. The results of a survey to determine the laboratory capacity for testing for the novel coronavirus in Europe, conducted by ECDC in coordination with WHO Regional Office for Europe, was published recently in EuroSurveillance.

The HPA is also following-up regarding passengers who may have been exposed while flying with the case announced on 11 February 2013 and are in contact with the airline concerned.

ECDC continues to closely monitor this event.
**Dengue - Multistate (world) - Monitoring seasonal epidemics**  
Opening date: 20 April 2006  
Latest update: 14 February 2013

**Epidemiological summary**

**Europe**: There have been no reports of confirmed autochthonous dengue infections in Europe in 2013, besides the on-going dengue outbreak in Madeira.

**Asia**: Regional dengue activity is variable. While Cambodia, Lao PDR, Malaysia, Philippines, Singapore and Viet Nam all reported more cases as compared to the previous year for the same time period, the recent trend is declining or remains low in Cambodia, Lao PDR, Malaysia, and the Philippines. However, Australia and Singapore are experiencing an increase in dengue activity.

**Latin America**: In Central America, high dengue activity is reported across Mexico whilst Nicaragua has reported a decreasing trend in cases this week. In South America, there is an increasing trend in dengue activity reported in Brazil, Colombia, Ecuador, Venezuela and Paraguay.

**The Pacific**: There is still a fairly substantial dengue outbreak in New Caledonia which according to local health authorities may not have peaked yet. In January 2013, 965 new cases were identified and 470 cases have been recorded so far this month. Since the outbreak started in September 2012, a total of more than 1 900 cases of dengue fever have been recorded. The French Polynesia’s health authorities have confirmed two autochthonous dengue cases on the island Moorea. These are the first dengue cases reported on the island in four years.

**The Caribbean**: The dengue epidemic in Puerto Rico is still on-going with 1 028 suspected cases reported in the first two weeks of 2013, according to the latest figures from the CDC. In other regions, the Cayman Islands have reported 40 dengue cases so far this year and Barbados is seeing a recent surge in dengue cases compared to the same time period last year.

**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 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.

**Influenza A(H5N1) - Multistate (world) - Monitoring human cases**  
Opening date: 15 June 2005  
Latest update: 8 February 2013

**Epidemiological summary**

**Cambodia**
On 25 January 2013, WHO reported three confirmed cases of A(H5N1) virus infections in Cambodia. Two of them, a 15-year old girl and a 35 year old man, died. The third patient, an eight month old baby, has recovered. The three patients came from three different provinces in Cambodia. All three had contact with poultry prior to their onset of illness.

On 29 January 2013, the Cambodian Ministry of Health published a joint press release with WHO confirming that two more cases have tested positive for the A(H5N1) virus. These are the fourth and fifth confirmed cases of avian influenza in Cambodia so far this year. Both the fourth case, a 17-month-old girl from Kampong Speu province and the fifth case, a nine year old girl from...
Kampot Province, died. In both cases, there is evidence of recent deaths among poultry in the village.

On 8 February 2013, the Cambodian Health Ministry and the WHO published a joint press release confirming a death of a five year old girl of avian influenza H5N1.

On 13 February 2013, the Cambodian Health Ministry and WHO published a joint press release confirming a seventh case of H5N1. The case is a three-year-old girl from Kampot province. She was found positive for H5N1 influenza on 11 February 2013 and died on 13 February 2013. There is evidence of recent deaths among poultry in the village and the girl had a history of coming into contact with poultry prior to becoming sick. In 2013 there have been seven H5N1 cases in Cambodia, of which six cases died.

Since 2005, there have been twenty eight cases of H5N1 in Cambodia including 25 fatalities. Out of the twenty eight confirmed cases, nineteen were children aged under 14 years and nineteen occurred in females.

China
The Hong Kong Centre for Health Protection (CHP) of the Department of Health received notification from the Ministry of Health on 10 February concerning two confirmed human cases of influenza A (H5N1) in Guizhou. According to the CHP spokesman the patients were a 21-year-old woman and a 31-year-old man living in Guizhou. Both patients did not report obvious exposure history to poultry before the onset of symptoms. There is no epidemiological link between these two cases. Media reported on 13 February that the woman died of multiple organ failure.

Globally since 2003, there have been 619 laboratory confirmed cases of avian influenza with 366 related deaths.

Web sources: ECDC Rapid Risk Assessment | Avian influenza on ECDC website | WHO updates

ECDC assessment
Hong Kong reported the world's first recorded major outbreak of bird flu among humans in 1997, when six people died. Most human infections are the result of direct contact with infected birds, and countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. ECDC follows the worldwide A(H5N1) situation through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of a changing risk for A(H5N1) to humans on a regular basis. There are currently no indications that from a human health perspective there is any significant change in the epidemiology associated with any clade or strain of the A(H5N1) virus. This assessment is based on the absence of sustained human-to-human transmission, and on the observation that there is no apparent change in the size of clusters or reports of chains of infection. However, vigilance for avian influenza in domestic poultry and wild birds in Europe remains important.

Actions
WHO is now reporting H5N1 cases on a monthly basis. ECDC will continue monthly reporting in the CDTR to coincide with WHO reporting. The CDTR includes the A(H5N1) threat this week due to the new reported cases in Cambodia and China.
Areas with human cases of influenza A(H5N1) reported in 2012-2013

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

**Epidemiological summary**

One new case was reported in the past week, a WPV1 from Pakistan with onset of paralysis on 26 January 2013. The total number of cases for 2013 is two, compared with 14 cases for the same period in 2012.

On 8 February, two health facilities in Kano state, Nigeria, were attacked, killing eleven people, including health workers, and injuring several others.

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

**ECDC assessment**

Although the Global Polio Eradication Initiative missed its end-2012 milestone of stopping all wild poliovirus transmission globally, the programme brought the world very close to eradicating polio as 2012 ended, with the fewest wild polio cases ever reported. Two hundred and twenty-two wild polio cases were reported in 2012 – a reduction of over 60% compared with 2011.
However, there are profound concerns about the polio situation for 2013, especially due to difficulties in the implementation of the immunisation programme in Pakistan. The programme has been severely affected by the recent attacks that have killed several polio vaccination campaign workers in Pakistan. This may well have an effect on neighbouring Afghanistan, which, together with Pakistan and Nigeria, is one of the three remaining polio-endemic countries in the world. Other neighbouring countries, such as China where a polio outbreak in 2011 was imported from Pakistan, will be equally at risk. The discovery of the wild polio virus strain in Egypt linked to Pakistan and the recent violence against health care workers in Nigeria, gives further cause for unease.

The WHO European Region so far remains polio-free.

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