

This weekly bulletin provides updates on threats monitored by ECDC.

## I. Executive summary

### EU Threats

#### Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012

Latest update: 13 December 2012

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 2 000 cases as of 6 January 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

As of 6 January 2013, 2 144 cases of dengue infection have been reported in Madeira, an increase of 41 cases since the last update on 16 December 2012.

#### 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 11 January 2013, no new outbreaks were detected in EU Member States.

#### 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. As of 31 October 2012, 7 016 cases of measles had been reported to the European Surveillance System (TESSy) for 2012. France, Italy, Romania, Spain and the United Kingdom accounted for 94% of the reported cases.

→Update of the week

During the week leading up to 11 January 2013, no new outbreaks were detected in EU Member States.

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

Opening date: 2 December 2011

Latest update: 24 May 2012

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. There is currently intense media interest on the 2012-2013 influenza season.

→Update of the week

Influenza activity and disease has increased substantially in a number of EU/EEA countries in week 1/2012, especially in north western Europe. The virology is different from North America.

## Non EU Threats

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

Opening date: 20 April 2006

Latest update: 10 January 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 (see separate section).

→Update of the week

There is an ongoing outbreak of dengue in the Autonomous Region of Madeira, Portugal, described in a separate section of this report, with some imported cases reported from other EU Member States.

No autochthonous cases were reported in other European countries in 2012 and at the start of 2013.

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

Opening date: 8 September 2005

Latest update: 10 January 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. As of 9 January 2013, 222 cases had been reported worldwide for 2012 compared with 627 cases in 2011. All cases reported in 2013 had onset of paralysis in 2012.

→Update of the week

During the week leading up to 4 January, three new polio cases were reported to WHO, one in Nigeria, one in Pakistan and one in Niger, all WPV1. In the following week, leading up to 9 January, four new polio cases were reported. Two in Afghanistan and two in Nigeria, all WPV1.

### Cholera - Cuba - Monitoring outbreak

Opening date: 4 July 2012

Latest update: 11 January 2013

In July 2012, 85 cases of *Vibrio cholerae* infection were officially confirmed in Cuba, including three fatalities. This is the first time in almost 150 years that Cuba has reported an outbreak of cholera. On 27 August 2012, the Cuban Ministry of Public Health declared the outbreak to be over. Since December 2012, media have reported cholera cases in three provinces including cases in the capital, Havana.

→Update of the week

According to the latest media report, three of Havana's 19 municipalities are affected by a cholera outbreak. A recently published epidemiological update on cholera from WHO PAHO does not mention any cases or rumours of cases in western Cuba, including Havana.

## II. Detailed reports

### Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012

Latest update: 13 December 2012

#### 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.

Since the beginning of the outbreak, 2 144 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.

As of 9 January 2013, 74 patients have been diagnosed with dengue after returning from Madeira: 10 in Portugal, 23 in the UK, 19 in Germany, three in France, five in Sweden, four 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 3 January 2013.

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 updated figures indicate that the outbreak has peaked, with a decrease in the number of cases being reported since mid-November. Entomological surveillance has shown a decrease in mosquito activity as well.

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

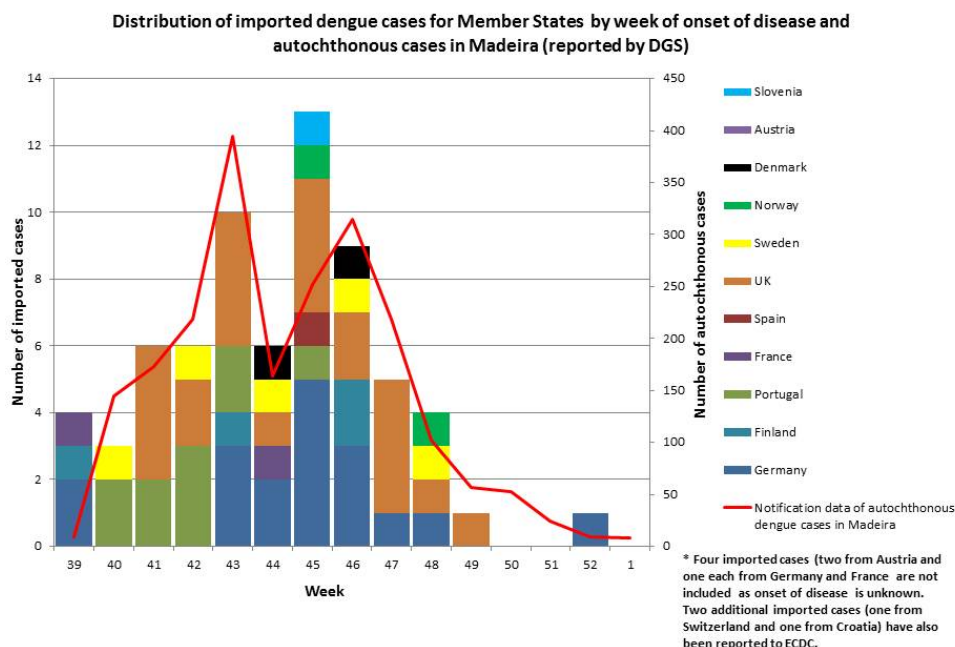
ECDC published an updated [rapid risk assessment](#) concerning the autochthonous dengue cases in Madeira. An epidemiological update was published on the ECDC website on 13 December 2012.

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.

## Dengue cases by week, Madeira, 2012-2013

ECDC and DGS



## 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.

From 1 January to 31 October 2012, 26 014 cases of rubella were reported by the 26 EU/EEA countries, contributing to the enhanced surveillance for rubella. Poland and Romania accounted for 99% of all reported rubella cases. Romania in particular has experienced a significant increase in the number of reported cases compared with the same period in 2011. Other countries that reported an increased number of rubella cases in 2012 include the UK, Spain and Sweden.

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 because the rubella virus can cause a wide range of conditions from mild hearing impairment to complex malformations which are incompatible with life, such surveillance is biased towards the severe end of the spectrum. 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 (TESSy) 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.

4/10

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

Opening date: 9 February 2011

Latest update: 22 October 2012

### Epidemiological summary

#### EU Member States

No new outbreaks have been detected in EU Member States since the last update.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC/Euronews documentary](#) | [WHO Epidemiological Brief](#) | [MedISys Measles page](#) | [EUVAC-net ECDC](#) | [ECDC measles factsheet](#)

### ECDC assessment

Considerably fewer measles cases have been reported in 2012 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. 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.

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

Opening date: 2 December 2011

Latest update: 24 May 2012

### Epidemiological summary

Weekly reporting on influenza surveillance in Europe for the 2012–13 season started in week 40/2012 and the period of influenza transmission started around week 49/2012, considerably earlier than in 2011/2012.

In week 01/2013:

- Twenty six countries reported clinical information.
- Increasing trends were reported by 16 countries compared to only nine of 20 countries in week 52. Stable trends in clinical activity were reported by nine countries in week 1/2013. Only Romania reported decreasing trends.
- Twelve countries reported medium or high intensity transmission. The geographic pattern of influenza activity was reported as widespread by 10 countries, representing an increase in proportion compared to week 52. Countries in northern and western Europe were most affected.
- Of 734 sentinel specimens tested across 20 countries, 320 (44%) were positive for influenza virus - a high percentage but similar to that was seen in week 52.
- A total of 167 hospitalised, laboratory-confirmed influenza cases were reported by four countries.
- No overall excess of all-cause deaths has appeared as yet this season to date but individual deaths are being reported.

Since the official start of this season in week 40/2012:

- Of the influenza virus detections in sentinel specimens 44% were type A, and 56% were type B viruses. Of influenza A viruses subtyped, 51% were A(H3) and 49% were A(H1). Of the B viruses 84% were Yamagata and 16% Victoria. In week 1/2013, the proportion of B viruses was somewhat reduced.
- The virological match with the strains in the current seasonal influenza vaccine is considered good.

Influenza activity and disease increased substantially in a number of EU/EEA countries in week 1/2012, especially in north-western

Europe. The virological pattern being identified in the EU/EEA is different from that being reported so far in North America.

There is currently high media interest in the 2012-2013 influenza season. Google flutrends is showing intense influenza activity in North America, particularly the north eastern US states and Canada. The media attention in the US has focused on describing a widespread influenza wave, with descriptions of individual deaths in many parts of the US. On 9 January 2013, the attention was on Boston declaring a public health emergency due to pressures in emergency rooms. There have also been school closures. In Boston, 700 confirmed cases have been reported this year, compared to 70 confirmed cases last year. Media attention in Canada is also strong and focusses mainly on the pressure on healthcare and individual fatalities in several Canadian cities. The federal government has decided to release Tamiflu stockpiles due to a lack of supplies in pharmacies. In several cities across the US and Canada the emergency room capacity is being further undermined by a concomitant seasonal peak of norovirus infections.

In Europe, national media attention is concentrating on individual influenza-related fatalities in each country. Fatalities have been reported from Norway (4), Poland (4) and the Czech Republic (2). However it should be noted that [ECDC](#) estimates up to 38,500 influenza associated deaths may occur in EU/EEA countries each season. Overcrowding of emergency rooms was reported from Ireland and cities in Italy and the UK.

**Web source:** [ECDC Weekly Influenza Surveillance Overview](#) [Media1](#) [Media2](#)

### ECDC assessment

Influenza activity continues to rise in a number of EU/EEA countries and probably approaching its peak.

### Actions

ECDC has updated its influenza website for the start of the season and is preparing its annual seasonal influenza risk assessment.

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

Opening date: 20 April 2006

Latest update: 10 January 2013

### Epidemiological summary

**Europe:** There have been no reports of confirmed autochthonous dengue infections in Europe in 2012 and the start of 2013, besides the ongoing dengue outbreak in Madeira.

**Asia:** The latest update from WHO Western Pacific Region reports that regional dengue activity is variable. Recent dengue activity is declining or remains low in Australia, Cambodia, Malaysia, Philippines and Singapore, Viet Nam and Lao People's Democratic Republic continue to see sustained levels.

**Latin America:** High dengue activity is reported across Central America, particularly in Mexico and Costa Rica. According to the media, there is still high ongoing dengue activity in South America, especially in Bolivia, Brazil, Paraguay and Peru. The dengue epidemic in Ecuador affected more than 16 500 people and caused 23 deaths in 2012, according to the Ministry of Public Health.

**The Pacific:** In New Caledonia, 714 cases of dengue fever were reported in 2012, including one death. During the first week of January 2013, 69 new dengue cases were confirmed. The serotype in circulation is DENV-1. The dengue situation was given an official epidemic status on 4 December 2012 as a result of the 128 confirmed cases in November.

**The Caribbean:** In Puerto Rico, 515 suspected dengue cases were reported in week 50. This brings the total number of suspected cases in 2012 to nearly 12 000. In other regions, the dengue epidemic in the Dominican Republic is still ongoing and Barbados has reported an increase in dengue cases in 2012 compared to the same time period in 2011.

### Web sources:

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

### 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. Local transmission of dengue was reported for the first time in France and Croatia in 2010, and imported cases are detected in other European countries, highlighting the risk of locally acquired cases occurring in countries where the competent vectors are present.



Assessment in relation to the outbreak in Madeira: see separate section.

## Actions

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

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

Opening date: 8 September 2005

Latest update: 10 January 2013

### Epidemiological summary

During the week leading up to 4 January, three new polio cases were reported to WHO. One in Nigeria and one in Pakistan, both were WPV1. The third case, also WPV1, was reported from Tahoua province in Niger with onset of paralysis on 15 November. This is the first case in the region since December 2011 and is related to a virus originating in Nigeria.

During the week leading up to 9 January, four new polio cases were reported to WHO. Two in Afghanistan, in the newly infected province Nangarhar, and two in Nigeria. All cases were WPV1 and had an onset of paralysis in December 2012.

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

### ECDC assessment

The year 2012 ends with the fewest wild polio cases reported ever. Two hundred and twenty-two wild polio cases were reported – a reduction of over 60% on 2011. There are, however, concerns about the polio situation for 2013, due to difficulties in the immunisation programme in Pakistan. The programme has been severely affected by the recent attacks that 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 will be equally at risk. A polio outbreak there in 2011, the first one since 1999, was imported from Pakistan. There were 18 cases including one death.

The WHO European Region 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.

## Cholera - Cuba - Monitoring outbreak

Opening date: 4 July 2012

Latest update: 11 January 2013

### Epidemiological summary

In June and July 2012, the communicable diseases surveillance system in Cuba recorded an increasing trend in diarrhoeal diseases, which were thought to be caused by high temperatures and heavy rains. In Granma province, around 1 000 patients were reported to have been treated for gastrointestinal infections and among them 85 were confirmed to be infected with *Vibrio cholerae*: 63 cases in Manzanillo, 13 cases in Yara, five cases in Niquero, two cases in Bayamo and two cases in Campechuela. Three of the confirmed cholera cases have died: all three were older (66, 70 and 95 years of age) and afflicted with chronic illnesses.

Control measures included the closure of contaminated wells, sampling of water in private dwellings, increased chlorination of the

municipal water supply, the removal of water leaks, pit cleaning and sanitation and a health education programme in the local population.

On 27 August 2012, the Cuban Ministry of Public Health declared the outbreak to be over.

On 18 November 2012, media reported 200 new cases in Boniato prison north of Santiago de Cuba. The eastern province of Holguín, one of the hardest hit by Hurricane Sandy, also reported at least 12 new cases of cholera on 19 November 2012.

In December, some media sources reported cholera cases in the capital Havana and in additional provinces (Santiago de Cuba, Las Tunas and Guantánamo).

According to a media report from 10 January 2013, a health alert was declared in three of the 19 municipalities of Havana where nearly 50 hospitalised cases have been reported, including one death.

On the 7 January 2013, PAHO published a new epidemiological update on cholera. It states that the cumulative number of confirmed cholera cases in 2012 has reached around 500 and three deaths have been reported. Following the passage of Hurricane Sandy through the eastern provinces of the country, isolated cases were recorded in the provinces of Santiago de Cuba, Camagüey and Guantánamo. A total of 47 confirmed cholera cases were recorded in these three provinces. According to this update, as of 15 December 2012, no further cases had been detected.

Websources: [Official press release](#) | [PAHO website](#) | [ECDC Factsheet](#) | [Media 1](#) | [Media 2](#) | [Media3](#) | [Media4](#) | [Media5](#) | [Media 6](#)

### ECDC assessment

Despite the measures taken to control the outbreak during the summer, new cases occurred in Manzanillo. Consequently, a further spread to surrounding areas and other provinces cannot be excluded at this stage. If, however, the media reports of the outbreak spreading to other provinces and the capital are confirmed, ECDC will reassess the risk of infection for European tourists.

The risk of cholera infection for travellers visiting Cuba should still be considered low given the current confirmed information. Visitors to cholera-endemic or cholera-epidemic countries should always follow appropriate precautionary measures and drink only safe water (bottled water/water treated with chlorine), wash all fruits and vegetables with bottled or chlorinated water before consumption, regularly wash hands, avoid consuming raw sea-food products, and only eat sea food when thoroughly cooked. A cholera vaccine is licensed and available in Europe.

### Actions

ECDC prepared a [rapid risk assessment](#) in July 2012.



## Cholera affected area in Cuba in July 2012

ECDC



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