COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 1, 30 December-5 January 2013

All users

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 16 December. 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 16 December, 2 103 cases of dengue infection have been reported in Madeira. The Portuguese health authorities are now publishing updates on the number of dengue cases in Madeira every month.

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.

➔Update of the week

During week 52/2012, four EU countries reported medium intensity transmission and five countries reported widespread geographical transmission.

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

No new outbreaks were detected in EU Member States during the past week.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu

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 numbers 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 4 January 2013, no new outbreaks were detected in EU Member States.

Non EU Threats

Cholera - Cuba - Monitoring outbreak

Opening date: 4 July 2012 Latest update: 16 July 2012

On 3 July 2012, the Ministry of Public Health in Cuba reported an increase during previous weeks in the number of acute diarrhoeal diseases mainly in Manzanillo, the province of Granma. As of 12 July 2012, 85 cases of *Vibrio cholerae* infection were officially confirmed, 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.

➔Update of the week

Since 17 December 2012, the media have been reporting new outbreaks of cholera in Cuba following hurricane Sandy, including a number of cases in the capital, Havana. These media reports have not been officially confirmed by national public health authorities in Cuba.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 1 January 2013

Dengue fever is one of the most prevalent vector-borne diseases in the world, affecting an estimated 50 to 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 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 so far this year.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 27 December 2012

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 28 December 2012, 215 cases have been reported worldwide compared with 604 cases during the same period in 2011.

➔Update of the week

There was no update on the number of new cases for this week from WHO.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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, 2 103 cases of dengue infection have been reported from the public health sector in Madeira. One hundred and twenty-two patients have been hospitalised and, on 16 December, one remained in hospital. No deaths have been recorded. 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 3 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. It is possible that there is an under-reporting of imported cases due to the holiday period.

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 for the last three consecutive weeks. Despite this, the outbreak is still ongoing and therefore more cases among the island's population as well as returning tourists should be expected, particularly given that visitors to the region peak over the Christmas period. 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 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.

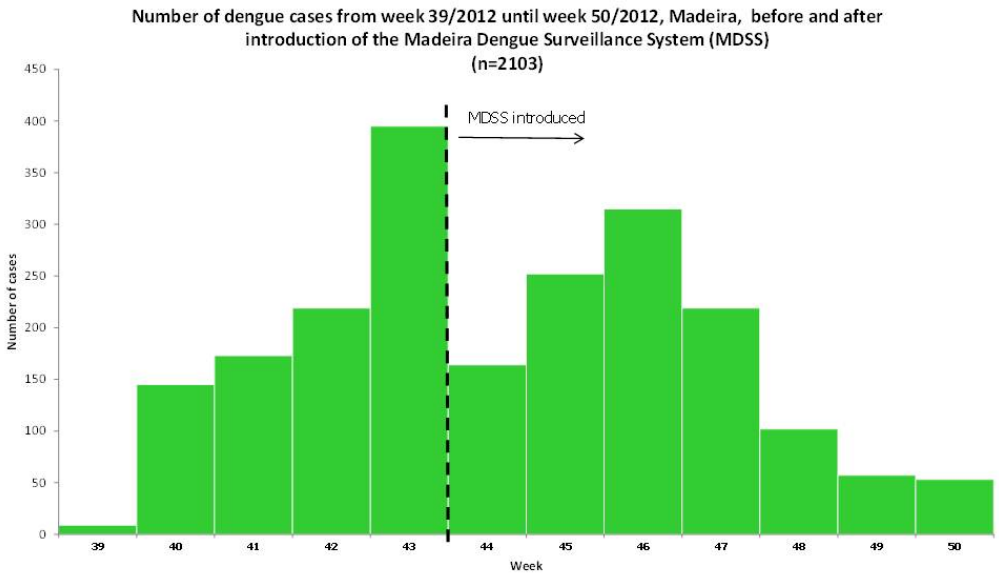
Portuguese authorities published recommendations regarding personal protective measures, and measures for the safety of blood, cells, tissues and organ donations within the region.

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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Dengue cases by week, Madeira 2012

DGS Portugal and ECDC



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

Opening date: 2 December 2011 Latest update: 24 May 2012

Epidemiological summary

Weekly influenza surveillance in Europe for the season 2012-2013 started in week 40/2012. ECDC announced that the period of influenza transmission had started in week 49. In weeks 51 and 52, surveillance data in Europe are subject to particular delays and under-reporting because of the holiday season over Christmas and the New Year and data have to be interpreted in the light of this. In week 52, 20 of a potential 29 countries reported clinical data. During week 52/2012 four countries (France, Italy, the Netherlands and Norway) reported medium intensity transmission; geographic spread of influenza activity was reported as widespread by five countries (Belgium, Denmark, France, Norway and the UK (England)); and nine countries (Belgium, Denmark, France, Ireland, Luxembourg, the Netherlands, Norway, Poland and the UK) reported increasing trends. Of 375 specimens tested from sentinel patients, 25% were positive for influenza virus; a small decline compared to 27% in the previous week. This may be related to lower physician consultations over the New Year holiday. Virus typing of sentinel specimens since week 40 indicated that 46% were type A and 54% were type B. The proportions of the type A viruses have been 56% A(H3) and 44% A(H1). More recently the proportion of B viruses in the sentinel group have declined somewhat. Viruses characterised to-date match well with the vaccine viruses. Countries undertaking surveillance of laboratory confirmed severe influenza cases requiring hospitalisation are starting to report increasing numbers of such individuals. Despite limitations due to under and delayed reporting during the Christmas and New Year holidays, influenza activity continues to rise in a number of EU/EEA countries especially in the western countries. More severe laboratory-confirmed cases are now being reported.

Web source: ECDC Weekly Influenza Surveillance Overview

ECDC assessment

The influenza season has started in EU/EEA countries. The real impact of this season is yet to be determined and this is being described by those in Member States and ECDC in the annual risk assessment currently being prepared.

Actions

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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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 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 for the achievement of the 2015 rubella and congenital rubella elimination target.

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.

The rest of the world
Pakistan

The media quoting the WHO country office reported 306 child fatalities due to measles in 2012, compared with 64 the year before. Most of the deaths occurred in the southern Sindh province (210 deaths) that was devastated by floods during recent years. One hundred children died in Sindh province in December 2012 alone. A large measles vaccination campaign is planned targeting 2.9 million children in eight districts of Sindh as an emergency response to the outbreak in the province.

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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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 downward long-term 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.

Cholera - Cuba - Monitoring outbreak

Opening date: 4 July 2012 Latest update: 16 July 2012

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

Websources: Official press release | PAHO website| ECDC Factsheet | Media 1 | Media 2 | Media3 | Media4 |Media5

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 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.

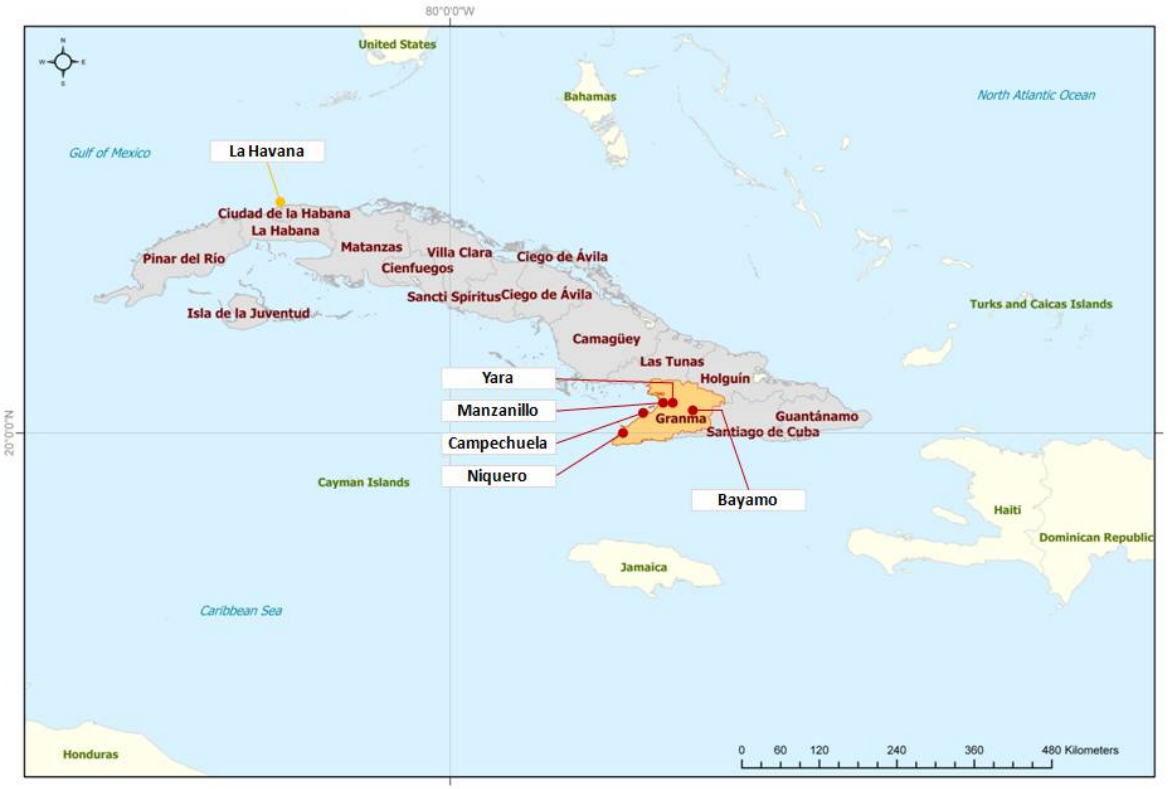
Actions

ECDC prepared a rapid risk assessment in July 2012.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Cholera affected area in Cuba in July 2012

ECDC



Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 1 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 on-going dengue outbreak in Madeira.

Asia: During the past week, media reported dengue activity in Sri Lanka.

Latin America: An increasing number of cases are reported from across Central America, among which several states across Mexico. According to media reports, there is still ongoing high activity in South America, particularly in Paraguay, Brazil, Columbia and Peru. In Santa Cruz (Bolivia) fewer cases of dengue were reported in 2012 than in 2011, after conducting a dengue management programme.

The Caribbean: New fatal cases continue to be notified in the Dominican Republic. As of 22 December, there have been 91 suspected cases reported in the Cayman Islands. Of the five most recent cases, four are believed to have contracted the disease

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

locally.

The Pacific: In New Caledonia 303 cases were reported in December 2012 and two cases in January 2013.

Web sources:
HealthMap | MedISys | ProMED Asia update| ProMED Americas update| WPRO | CDC | ECDC | WHO

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: 27 December 2012

Epidemiological summary

WHO posted no update this week regarding new polio cases.

The media reported a new attack on aid workers in Pakistan motivated by anti-polio immunisation views. On 2 January 2013 a doctor and six female aid workers were ambushed and killed by unknown gunmen in Pakistan in the same area where a 15 -year-old girl who was an outspoken proponent for education was shot and seriously wounded last month.

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet | WHO EMRO |

ECDC assessment

The WHO European Region remains polio-free.

ECDC follows reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and to 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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu