

COMMUNICABLE DISEASE THREATS REPORT

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013

Latest update: 11 April 2013

An outbreak of hepatitis A infection has been reported in Denmark, Finland, Norway and Sweden over the last six months with 66 cases as of 11 April 2013. Sixteen of the cases were due to genotype 1b with identical RNA sequence. The source of the outbreak has not been identified but epidemiological investigations in the affected countries point towards frozen berries as vehicle of infection.

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

Opening date: 2 December 2011

Latest update: 11 April 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 and will finish after week 20/2013. 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 14/2013, decreasing or stable trends were reported by all reporting countries.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 11 April 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 8 032 cases of measles during the last 12-month period from February 2012 to January 2013. France, Italy, Romania, Spain and the United Kingdom accounted for 94% of all reported cases.

→ Update of the week

There are on-going large measles outbreaks in the North-East of England and in Wales. Denmark reported a small outbreak of measles in the Silkeborg area.

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 12 April, no new outbreaks were detected.

Non EU Threats

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 11 April 2013

On 31 March 2013, the Chinese health authorities announced that they identified a novel influenza A(H7N9) virus in three seriously ill patients. As of 11 April 2013, 38 human cases of infection with influenza A(H7N9) virus have been reported in four provinces of China: Shanghai (18), Jiangsu (12), Zhejiang (6) and Anhui (2). Of these cases, ten people have died, 25 are severe cases and three are mild cases. 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.

→Update of the week

During the last week 24 additional cases were confirmed by Chinese authorities, including two deaths. Two previous confirmed cases have died.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 11 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 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: 11 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 12 April 2013, two new polio cases were reported to WHO.

II. Detailed reports

New! Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013

Latest update: 11 April 2013

Epidemiological summary

Between 1 October 2012 and 8 April 2013, Denmark, Finland, Norway and Sweden reported 16 hepatitis A cases due to genotype 1b with identical RNA sequence. None of the cases have travel history outside the EU within the period of their potential exposure. There are 50 additional non-travel related cases of hepatitis A reported in the four countries for whom the sequence is not known.

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

According to a press release by the Swedish Institute for Communicable Disease Control (SMI) on 11 April, the Swedish National Food Administration recommends now that frozen purchased berries should be cooked before they are eaten.

Web sources: [ECDC HAV factsheet](#) | [SMI Press release](#)

ECDC assessment

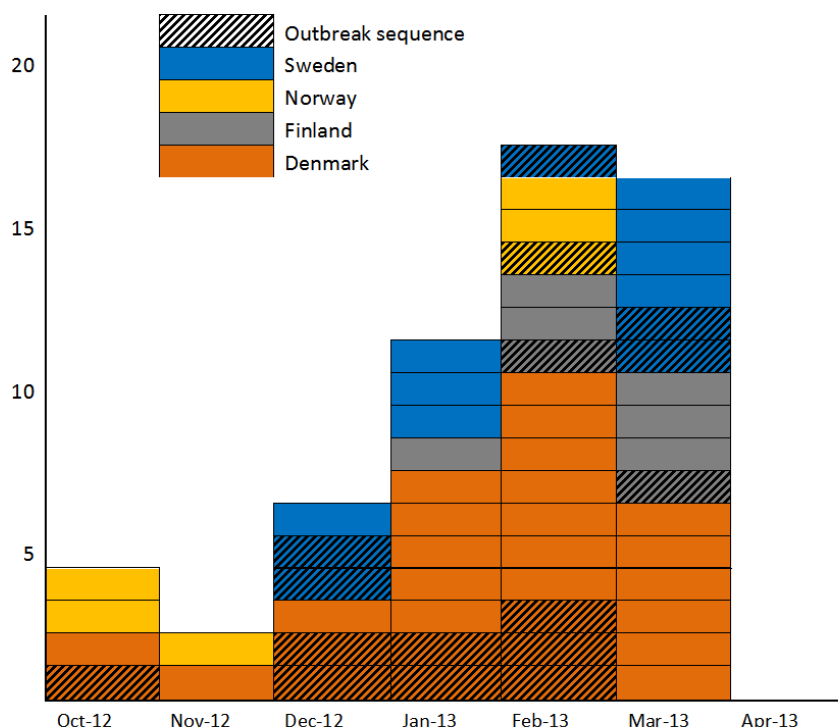
The identification of the same HAV sequence in four different countries confirms that this is a multinational food-borne outbreak. The distribution of cases over time suggests a persistent common source. As the most recent cases had onset in March 2013, the outbreak is most likely still on-going.

Actions

ECDC is preparing a Rapid Risk Assessment.

Distribution of cases of Hepatitis A virus by Member State and reporting month, outbreak sequence and unknown sequence, October 2012-April 2013 (n=56) as of 8 April 2013

ECDC



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

Opening date: 2 December 2011

Latest update: 11 April 2013

Epidemiological summary

During week 14/2013, 23 of 29 countries reporting indicated low-intensity transmission. The proportion of influenza-positive sentinel specimens (35%) has continued to decrease since the peak observed in week 5/2013 (61%) in line with lower numbers of specimens being 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(H1)pdm09 viruses has been 63%. Thirty-nine 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 had 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 getting closer to its end.

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: 11 April 2013

Epidemiological summary

UK – Update

There are several outbreaks still on-going in the UK. In England and Wales, cases of measles are at their highest for 18 years.

In Wales, on 9 April 2013 the number of measles cases reached 620 in the Swansea area where 15 to 20 cases of measles a day are being diagnosed. Despite a good response to vaccination clinics held in the area at the weekend – when more than 1 700 MMR immunisations were given – [Public Health Wales](#) is warning that there is no sign of the outbreak coming to an end. At least 6 000 children remain unvaccinated in the county of Swansea and parents, carers and communities continue to be urged to ensure that all children receive the two doses of the MMR vaccine.

The measles outbreak in the [North-East](#) of England is continuing to spread and the number of confirmed cases has gone up to 210 in the last week, an increase of 10 compared with the previous week. The number of suspected cases has also increased to 196, an increase of 20. To help raise awareness, NHS and Public Health England has produced a poster which has been sent to GP practices, clinics, hospitals, schools, leisure centres and youth centres. Schools on Teesside - where the outbreak is concentrated - have sent letters to parents alerting them to the increase in measles cases and asking them to check whether their children have had the two measles jabs they need to stay protected.

Denmark

[Statens Serum Institut](#) reported an outbreak of measles in Silkeborg area. A schoolchild, who had recently been on holiday abroad, was diagnosed with measles on 8 March. In week 13, there were six additional laboratory confirmed cases detected, five of which attend the same school as the index patient. Three children received one dose of MMR vaccine, while the remaining three are unvaccinated. The seventh patient is a 50-year-old man, who was born and raised in South America with unknown vaccination status.

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

ECDC assessment

So far in 2013, only the UK, Sweden and Denmark 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.

Actions

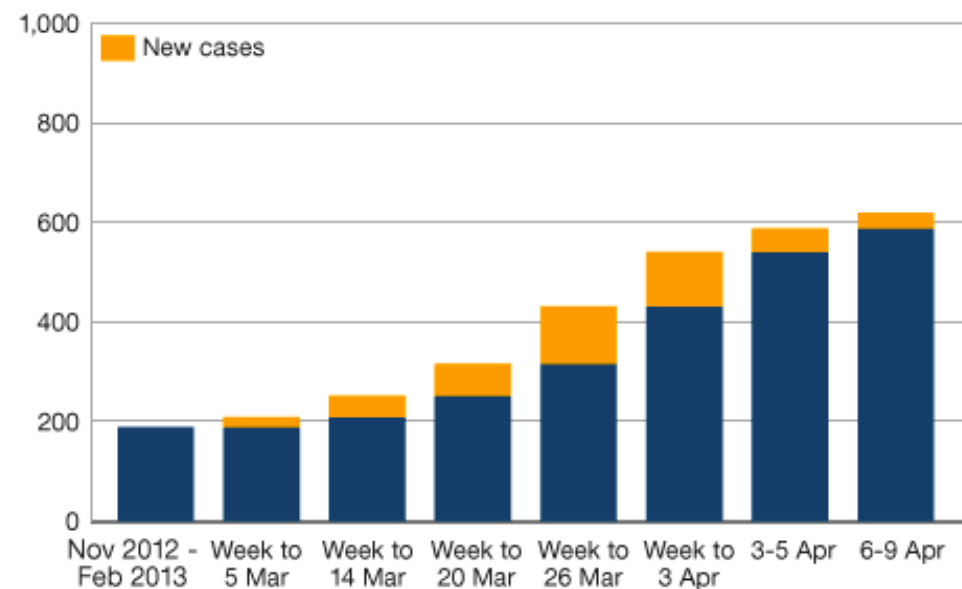
ECDC closely monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe through enhanced surveillance and epidemic intelligence activities. The countries in the WHO European Region, which include all EU Member States, have committed to eliminating measles and rubella transmission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

Measles outbreak, Wales November 2013 - April 2013

Public Health Wales

Measles outbreak

Reported cases in Wales, cumulative



Source: Public Health Wales

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 26 129 cases of rubella reported during the last 12-month period 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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 11 April 2013

Epidemiological summary

Thirty-eight cases of human infection with influenza A(H7N9) have been reported from four provinces in eastern China (18 in Shanghai, 12 in Jiangsu, six in Zhejiang and two in Anhui) since 31 March 2013, with onset of disease between 19 February and 4 April 2013. The date of disease onset is currently unknown for three patients. Ten patients died (case-fatality ratio=26%), 25 are severe cases and three are mild cases. Among the severe cases, patients are reported to be in a stable condition. The median age is 65 years with a range between 4 and 87 years; 12 of them are females.

No epidemiological link among cases has been identified to date. More than 700 close contacts of the confirmed cases are being closely monitored. There are reports of a potential small family cluster of disease around the first case, but this has not been confirmed by laboratory data. In Jiangsu, investigation is on-going regarding a contact of an earlier confirmed case who developed symptoms of illness.

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. The authorities reported to the World Organisation for Animal Health (OIE) that A(H7N9) was detected in samples from pigeons and chickens and in environmental specimens from three markets in Shanghai. These markets have been closed and the live poultry were culled. The virus has also been detected in 14 positive samples from five additional live bird markets in Jiangsu, Anhui and Zhejiang. It is currently unknown from which type of birds the samples have been taken.

The influenza A viruses from the first three cases were non-subtypeable and were sent to the WHO Influenza Collaborating Centre at the Chinese Centre for Disease Control and Prevention (CCDC). 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).

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

ECDC assessment

At this time there is no evidence of on-going human-to-human transmission and there has not been further geographical spread. More sporadic cases are expected to be reported. The risk of disease spread to Europe is considered low, although individual cases coming from China cannot be ruled out.

Actions

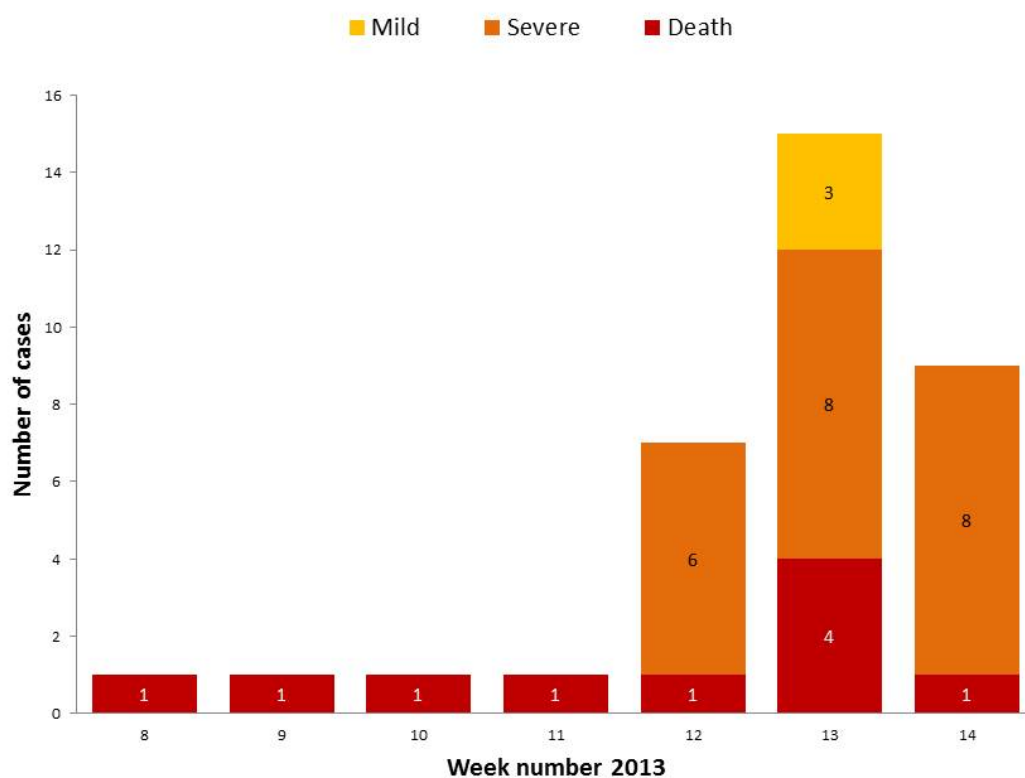
ECDC is monitoring this event in collaboration with partners.

ECDC published a [rapid risk assessment](#) and an [epidemiological update](#) on 5 April 2013. The risk assessment is currently being updated.

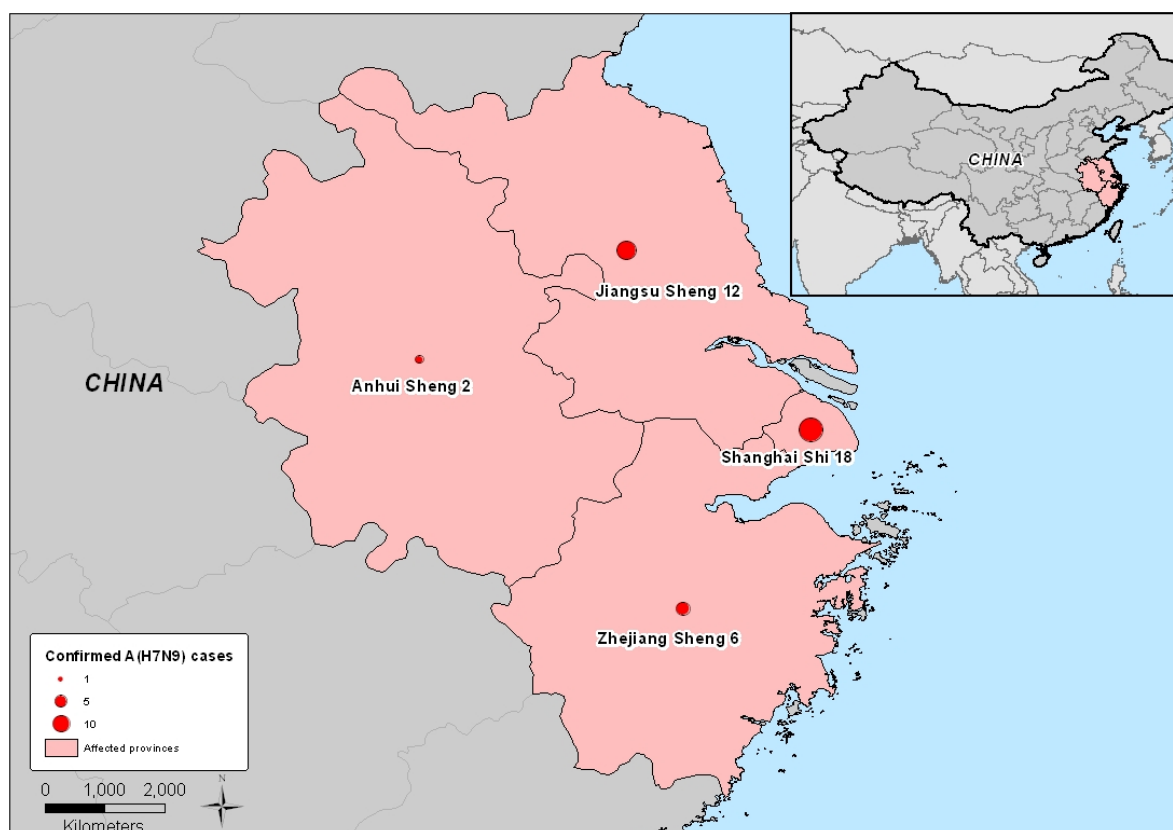
As of 8 April, ECDC has published daily situation reports on this outbreak. These daily reports are published on our website as [epidemiological updates](#).

Distribution of influenza A(H7N9) cases by week of onset of symptoms, China, as of 11 April 2013 (n=35)

*Date of onset is currently unknown for three patients.



Distribution of cumulative number of influenza A(H7N9) cases by province, China, 19 February – 11 April 2013



Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 11 April 2013

Epidemiological summary

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

Asia: According to the latest update from the WHO Western Pacific Region, as of 5 April 2013, Cambodia, Lao PDR, Singapore and Vietnam have reported more cases in 2013 than 2012 for the same time period. Malaysia, Lao PDR and Singapore are seeing sustained levels of dengue activity. However, recent trends are declining in Australia, Cambodia and the Philippines.

The Caribbean: The number of dengue cases in Puerto Rico is still above the epidemic threshold, according to the latest figures reported by the Department of Health. So far this year, more than 4 100 suspected cases have been reported compared to 3 247 for the same time period in 2012.

Central and South America: High dengue activity is reported across Central America, especially in El Salvador and Costa Rica.

9/12

According to the media, an outbreak of dengue fever in Costa Rica has affected up to 7 000 people and local health authorities have confirmed that around 2 500 of these cases are along Costa Rica's Pacific Coast, an area popular with foreign tourists. In South America, an increasing trend of dengue cases is reported across Brazil, Paraguay, Ecuador, Colombia, Peru and Argentina.

Pacific: New Caledonia has reported more cases in 2013 than 2012 for the same time period and continues to see sustained activity. The dengue outbreak in the Solomon Islands is still on-going with almost 600 confirmed cases and three reported deaths, according to the Ministry of Health.

A study published in Nature on 7 April 2013 estimates that the global burden of dengue is more than three times higher than the World Health Organisation's most recent estimates of 500-100 million. The main findings found that there are an estimated 390 million dengue infections globally each year, of which 96 million reach any level of clinical or sub clinical severity. Of the 96 million estimated infections, Asia accounted for 70% of the burden and India accounted for a third of all infections. Africa's burden is almost equivalent to the Americas and much larger than previously thought.

Web sources:

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

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](#).

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 11 April 2013

Epidemiological summary

During the past week two new polio cases were reported to WHO, both wild poliovirus type 1 (WPV1): one from Nigeria and one from Pakistan.

There have been 18 cases of polio globally so far in 2013 compared with 41 for the same period in 2012.

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 caused by WPV. Investigations showed that the virus originated from India. The latest outbreak in the WHO European Region was in Tajikistan in 2010 when WPV1 imported from Pakistan caused an outbreak of 460 reported cases. The last indigenous WPV case in Europe was in Turkey in 1998. An outbreak in the Netherlands in a religious community opposed to vaccinations caused two deaths and 71 cases of paralysis in 1992.

Actions

ECDC follows reports on polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of re-introduction of wild poliovirus (WPV) into the EU.

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