

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! TB - Romania - Adverse events after BCG vaccination

Opening date: 22 November 2012

The Romanian media have reported adverse events after BCG vaccination with a vaccine produced in Denmark. One hundred and fifteen children have been affected since March, of which 50 were hospitalised. The adverse effects have appeared over a period of several months and consist of lymph node swellings and abscesses.

Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012

Latest update: 8 November 2012

On 3 October 2012, the public health authorities of Portugal reported two cases of 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. The outbreak is ongoing and more cases are expected both in the resident population and among returning tourists. 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 18 November 2012, 1 672 cases of dengue fever have been reported from Madeira. Between 12 and 18 November, 315 more cases were reported. Twenty-seven cases of dengue have been reported among European travellers returning from the island since the start of the outbreak.

Cryptosporidiosis - Multistate (EU) - Unusual increase of cases

Opening date: 9 November 2012

Latest update: 19 November 2012

The Netherlands posted an EPIS urgent inquiry on 25 October regarding a large increase in the number of cryptosporidiosis cases in 2012 across the country. Subsequently the UK and Germany responded that they have also detected significant increases in cryptosporidiosis cases in the second half of 2012. On 16 November, Finland reported an increase in cases in October and November.

→Update of the week

On 16 November 2012, Finland posted an urgent enquiry in EPIS FWD. They reported that cryptosporidiosis cases have increased in Finland during October and November this year. This is partly due to two separate outbreaks that are currently under investigation. In one of the outbreaks, preliminary results from patient samples suggest *C. parvum* and sequencing is planned. *Cryptosporidium* species are not routinely tested for in Finland.

Malaria - Greece - 2012

Opening date: 31 May 2012

Latest update: 28 September 2012

Since June 2012, Greece has been reporting malaria cases due to *Plasmodium vivax* infection. Local control measures have been implemented in accordance with national guidelines.

→Update of the week

As of 22 November, 75 cases of malaria were reported by the national public health authorities: 59 imported and 16 autochthonous cases.

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 so far in 2012 are significantly lower than during 2010 and 2011. As of 31 September, 5 360 cases of measles were reported to The European Surveillance System (TESSy) in 2012. France, Italy, Romania, Spain and the United Kingdom accounted for 92% of the reported cases.

→Update of the week

During the period 17-23 November 2012 no new outbreaks were detected.

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.

West Nile virus - Multistate (Europe) - Monitoring season 2012

Opening date: 21 June 2012

Latest update: 13 November 2012

West Nile fever (WNF) is a mosquito-borne disease which causes severe neurological symptoms in a small proportion of infected people. During the transmission season (between June and November), ECDC monitors the situation in EU Member States and in neighbouring countries in order to identify significant changes in the epidemiology of the disease. In 2011, 130 probable and confirmed cases of WNF were reported from EU Member States and 207 cases in neighbouring countries. To date in the 2012 transmission season 237 probable and confirmed cases have been reported in the EU, and 669 cases in neighbouring countries.

→Update of the week

Since 16 November, two cases have been reported from Hungary; dates of onset of illness were in August and September. In Russia, 48 additional cases were reported: eight cases were reported from a new area - Samara Oblast; five additional cases were reported from the previously affected Saratovskaya oblast; for the remainder of additional cases the breakdown of affected areas is not known; all cases occurred prior to November.

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 peaks 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 46/2012, all 27 reporting countries experienced low-intensity influenza activity.

Non EU Threats

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 27 August 2012

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.

→Update of the week

There have been no reported cases of human infection with avian influenza A(H5N1) virus since 10 August 2012. WHO posted an announcement on their [Disease Outbreak News website](#) regarding a change in the way they report H5N1 cases.

Novel Coronavirus - Multistate - Severe respiratory syndrome

Opening date: 24 September 2012

Latest update: 5 November 2012

Since June 2012, five patients who presented with symptoms of severe acute respiratory syndrome and a history of travel to or residence in the Middle East, have tested positive for a novel coronavirus.

→Update of the week

On 21 November, media quoting the Ministry of Health of Saudi Arabia reported on a fourth case of novel coronavirus. On 23 November the Robert Koch Institute in Germany reported a fifth case of the novel coronavirus in a patient from Qatar.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 6 November 2012

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, underlines even more 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 any other European country so far this year.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 22 November 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. So far in 2012, 193 cases have been reported worldwide compared to 536 cases during the same period last year.

→Update of the week

Seven new polio cases were reported to WHO during the week leading up to 23 November.

II. Detailed reports

New! TB - Romania - Adverse events after BCG vaccination

Opening date: 22 November 2012

Epidemiological summary

The Romanian National Institute of Public Health has reportedly received notification of 115 cases of adverse reactions, after BCG vaccination in 2012. No reliable data are available at this stage about diagnosis, the age and gender of the affected children, nor about time and place within Romania.

In 2011, Romania started to use a different brand of BCG vaccine than the domestic product used before. The current BCG vaccine in use is produced by Statens Serum Institut (SSI) in Denmark and distributed in Romania through UNICEF.

Links: [media link 1](#) | [media link 2](#)

ECDC assessment

At this stage there is unclarity whether this signal constitutes a perceived or a real increase in adverse events incidence, compared to that expected. It is known that BCG vaccines have a relatively high rate of adverse events of the kind described in the media articles, and that the SSI strain is particularly reactogenic.

Actions

ECDC will gather information in order to assess the alert. A request for support is expected from the MoH in Romania for ECDC and WHO, and planning for a support mission has begun. The European Medicines Agency has been informed.

Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012

Latest update: 8 November 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 650 km from the African coast, 1 000 km from the European continent and 400 km from the Canary Islands. The autonomous region has 268 000 inhabitants.

As of 18 November, 1 672 cases of dengue infection have been reported from the public health sector in Madeira. Since the beginning of the outbreak, there have been 100 patients hospitalised and five remain in hospital at present. 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. Cases have also been reported on Porto Santo, the other inhabited island within the Autonomous Region of Madeira, although it is likely that infections occurred in Funchal. The island of Madeira has an established mosquito population of *Aedes aegypti*, the main vector of dengue in tropical and subtropical countries.

Twenty-seven patients have been so far diagnosed with dengue after returning from Madeira in Portugal (ten), the UK (six), Germany (seven), Sweden (one), France (two) and Finland (one).

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 is ongoing and more cases among the island's population as well as returning tourists should be expected. The cases of dengue among returning travellers from the island

highlights the need for travellers to the island of Madeira to take measures to reduce mosquito bites during the day. Travellers experiencing febrile symptoms with severe headache, retro-orbital pain, myalgia, arthralgia and maculo-papular rash within 14 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 for the 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 currently implemented.

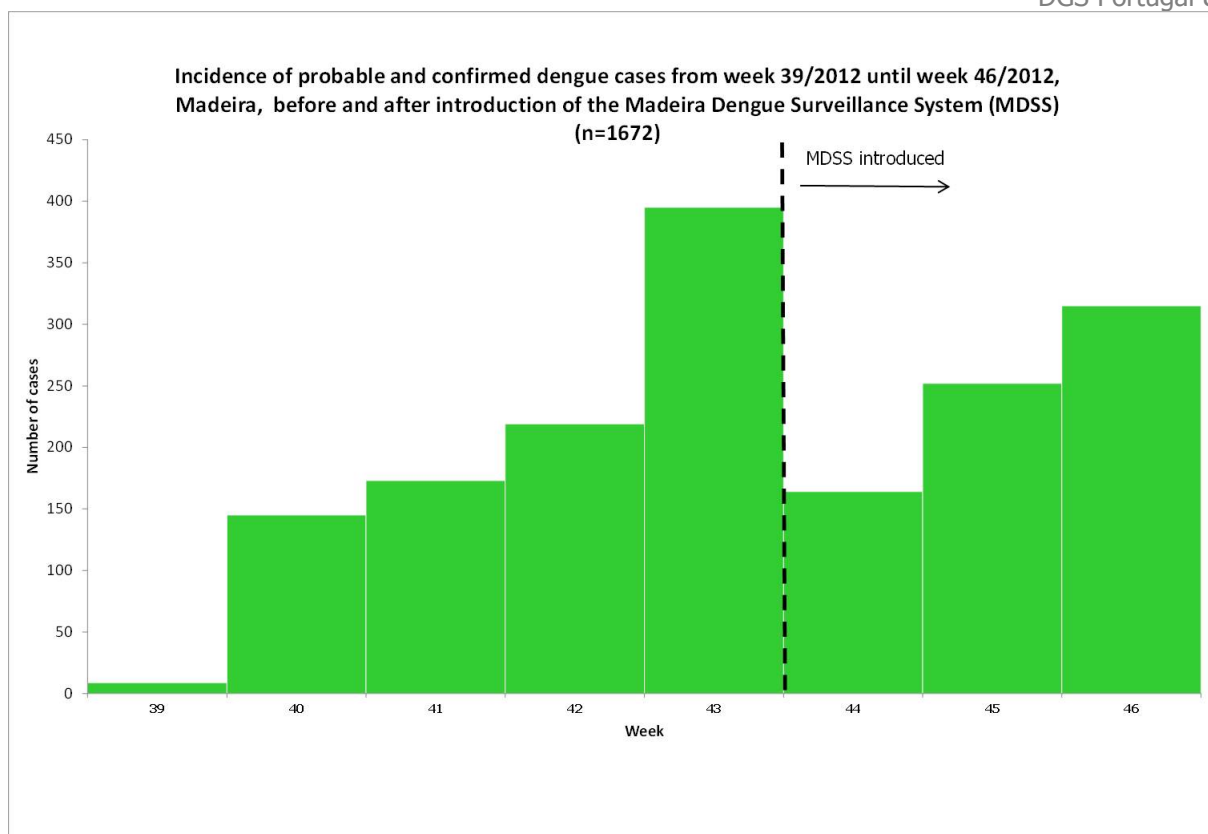
Actions

ECDC has published the updated [rapid risk assessment](#) concerning the autochthonous dengue cases in Madeira. The latest epidemiological update was posted on the [ECDC website](#) on 8 November.

Portuguese authorities have published recommendations regarding [personal protective measures](#), and [measures for the safety](#) of blood, cells, tissues and organ donations.

Dengue cases by week, Madeira 2012

DGS Portugal & ECDC



Cryptosporidiosis - Multistate (EU) - Unusual increase of cases

Opening date: 9 November 2012

Latest update: 19 November 2012

Epidemiological summary

The Netherlands posted an urgent inquiry on the epidemic intelligence information system for food- and waterborne diseases (EPIS-FWD) on 25 October to inform European Union/European Economic Area (EU/EEA) Member States of a 6- to 14-fold increase in reported cryptosporidiosis in 2012 compared to previous years. The increase started in August 2012 across the country and has continued since. The most frequently isolated species was *C. hominis* with the dominant type 1bA10G2. This type is the most frequent type found in humans in the Netherlands in recent years. Overall, the age and gender distribution did not differ from previous years. The age distribution of cases has two peaks: 19 to 65 years (mostly women), and 0 to five years (mostly boys in some regions). There were relatively more adults in the first part of 2012's increase, shifting then more towards children. RIVM does not have any direct evidence of secondary transmission parent-to-child or child-to-parent.

Subsequently, England and Wales also reported a significant increase of *Cryptosporidium* cases from the end of August 2012, with 2 173 cases reported between weeks 33 and 43 of 2012 across all regions in England and Wales. This is the largest increase in cryptosporidiosis seen since 2003. An average of 1 430 cases was reported between weeks 33 and 43 for the previous six years. *C. hominis* accounted for 77% of strains with a high proportion belonging to the 1bA10G2 subtype.

Germany has also observed an increase of about 25% in the number of notified cases of cryptosporidiosis in weeks 1 to 42 of 2012, and an increase of 88% in September 2012 compared with September in the previous five years. Age and gender distribution was similar to the five previous years.

The UK carried out in-depth interviews with cases in 2012 using standard questionnaires and did not identify a common source(s) of infection. A higher proportion of infections was observed in those returning from Spain, and to a lesser extent Turkey. Some small outbreaks and case clusters associated with this time period were also observed, involving recreational water and foreign travel.

The Netherlands carried out a case-control study in four regions, involving 85 cases and 121 controls. There were no questions on specific brands of products. Results indicated evidence of an elevated risk related to mineral water (odds ratio 2.5 by multivariate analysis) although only 20% of cases reported drinking bottled water. There was no evidence of increased risk from swimming in surface water. Travel abroad was reported by a fifth of cases. Exclusion of these cases from analysis did not affect the findings.

Environmental drivers and climatic patterns may partly explain the increase of cases in the United Kingdom and the Netherlands as they experienced heavy rainfall during the summer months in 2012.

ECDC assessment

According to affected Member States, the increase is unlikely to be due to surveillance or notification artefacts. Laboratory and epidemiological investigations into the cause(s) of the increase are ongoing.

The available information from investigations does not indicate that there is a single source, and there may be a combination of several causes. Also, at this stage there is no evidence that the outbreaks notified by Finland are associated with the increases reported by any of the other countries.

Therefore, the overall threat for the EU is considered to be low. However, Member States should be alert to an increase in cases, particularly in relation to immunocompromised and other at-risk groups.

Actions

The final version of [the RRA](#) has been made public. Further epidemiological and microbiological investigation is needed and the FWD programme will follow up on this event.

Malaria - Greece - 2012

Opening date: 31 May 2012

Latest update: 28 September 2012

Epidemiological summary

Since 22 June 2012, Greece has reported 16 cases of malaria due to *Plasmodium vivax* infection in patients who did not have a

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travel history to endemic areas. Eight of the autochthonous cases are residents in Laconia, four in Attica, two in Karditsa and one in Xanti and Viotia each. Fifty-nine cases are reported as imported in 2012. All these cases are also *Plasmodium vivax* infections.

According to the Greek authorities, active screening of neighbours and seasonal immigrants is being carried out to detect malarial infection, and vector control measures are being implemented.

Autochthonous transmission of malaria was also reported from Greece in 2011. Between 21 May and 9 December 2011, 63 cases of *P. vivax* infection were reported, of whom 33 were Greek citizens without travel history to an endemic country. The most affected area was Evrotas, located in the district of Lakonia in Pelloponese, southern Greece. Cases were also reported from the municipalities of Attica, Evoia, Viotia and Larissa. In addition, 30 cases of *P. vivax* infection in migrant workers were reported from the area of Evrotas.

Web sources: [KEELPNO malaria page](#) | [ECDC Epidemiological update: Local case of malaria in Greece](#) | [Eurosurveillance autochthonous Plasmodium vivax malaria Greece 2011](#)

ECDC assessment

The Marathon and Evrotas areas are environments well suited for malaria transmission, combining humid zones and intensive agricultural activities. Climatic conditions are now considered favourable for local vector development. Frequent migration and travel patterns from endemic areas of the world provide opportunities for introduction of the parasite into the area. Autochthonous cases also occurred in 2011 in these locations.

Actions

ECDC has been requested to provide technical support to the Hellenic Centre for Disease Control and Prevention and is in close communication with them to see where this can best be provided. Greece is currently implementing a 'Strategic work programme for malaria control in Greece 2012-2015'.

There was a joint ECDC-WHO mission to Greece recently to assess the malaria and West Nile Fever situation in the country.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 22 October 2012

Epidemiological summary

EU Member States

No new outbreaks 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](#)

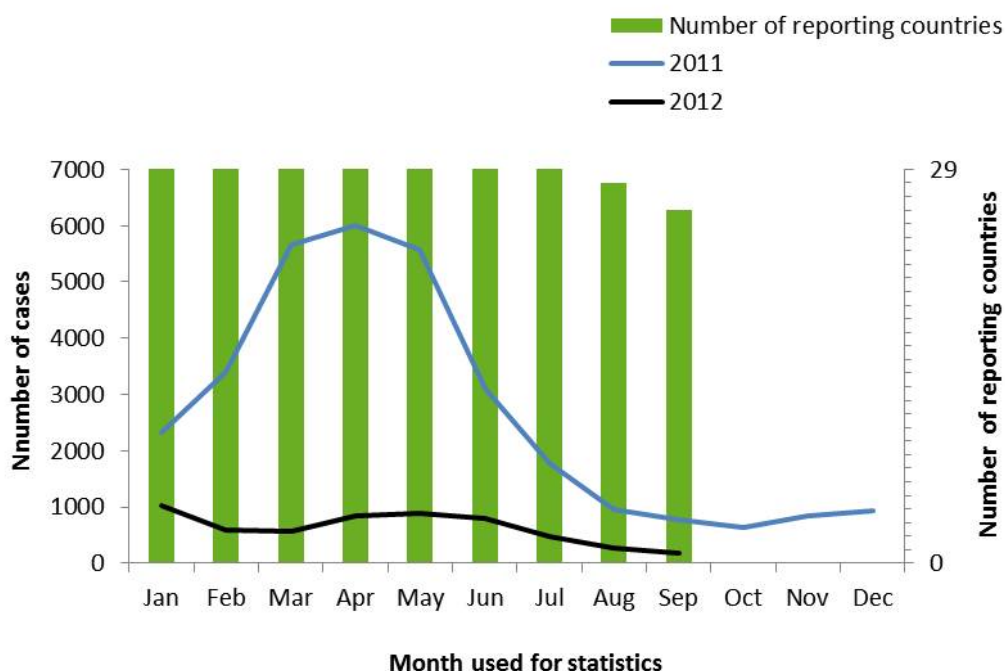
ECDC assessment

Considerably fewer measles cases have been reported in 2012 than during the same period 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 so far in 2012.

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 and 2012 and number of EU_EEA countries reporting by month in 2012

ECDC



Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 19 September 2012

Epidemiological summary

No new outbreaks were identified since the last update.

From 1 January to 31 September 2012, 25 759 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 to 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 so far in 2012 compared to 2011 and the potential for an increase in the number of babies born with CRS are of concern.

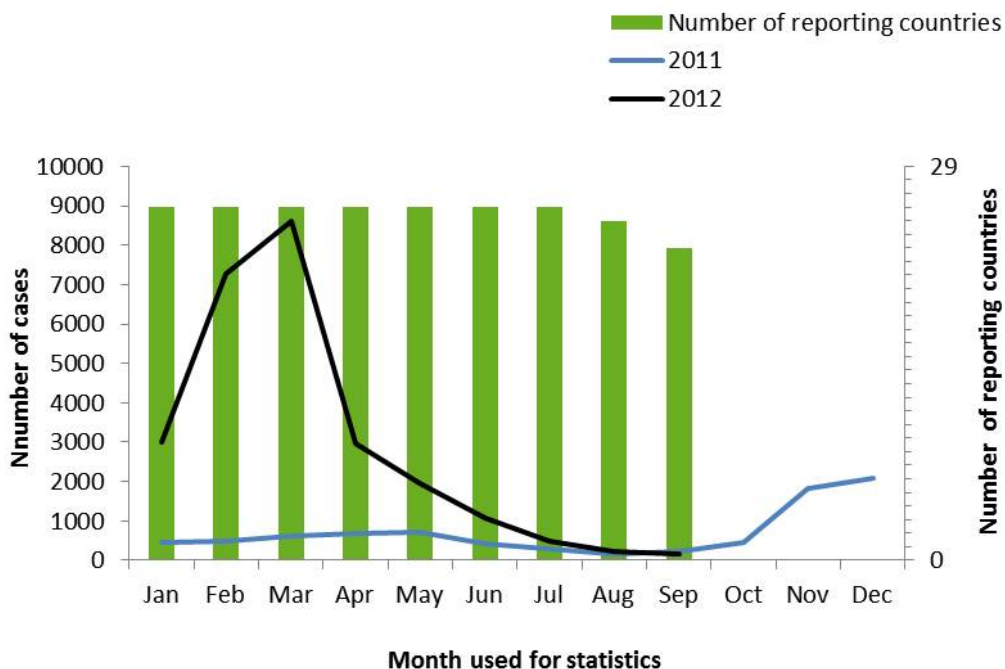
Actions

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

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Number of rubella cases in 2011 and 2012 and number of EU_EEA countries reporting by month in 2012

ECDC



West Nile virus - Multistate (Europe) - Monitoring season 2012

Opening date: 21 June 2012

Latest update: 13 November 2012

Epidemiological summary

EU and neighbouring countries

As of 22 November, 237 probable and confirmed cases of WNF have been reported in the EU in 2012. In neighbouring countries 669 cases have been reported. Within the EU, Greece, Italy, Romania and Hungary are affected. This is the third consecutive year for these countries to be affected, and the geographic distribution in each country has expanded to affect new areas. Seventeen WNF-associated deaths have been reported in the EU (16 in Greece, one in Romania).

Outside of the EU, affected countries include Croatia, Montenegro, Serbia, Kosovo*, the former Yugoslav Republic of Macedonia, Russia, Ukraine, Israel and the occupied Palestinian territory, Algeria and Tunisia. This is the first year that human cases of WNF have been reported from Croatia, Serbia, Kosovo* and Montenegro. However, WNV circulation in horses was demonstrated through serological studies in Serbia in 2009-2010, and in Croatia in 2010 and 2011. A detailed breakdown of affected countries and areas, and maps illustrating the recent historical distribution, are available on the [ECDC website](#).

Only one case within the EU is reported to have been acquired through blood products in 2012. This case occurred in Greece and involved an immuno-compromised patient, where both the blood donation and the transfusion occurred before the first case of WNF for 2012 was reported. In Italy, as per a 2012 national directive, nucleic acid amplification test (NAT) screening of blood donations is implemented from 15 July to 30 November in areas which were affected in 2011. Notably, an infected donation was detected in Italy on 15 July, the first day of screening. Four other cases of asymptomatic WNF were detected by NAT screening of blood donations in Italy.

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Web sources: [ECDC West Nile fever risk maps](#) | [ECDC Rapid Risk Assessment](#) (13 July) | [MedISys West Nile Disease](#) | [ECDC summary of the transmission season 2011](#) | [Official Journal of the EU - Notifiable Diseases](#) | [European Commission Case](#)

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[Definitions](#) | [EU Blood Directive](#) | [Italian Weekly update](#) | [KEELPNO weekly epidemiological report](#) | [Institut de Veille Sanitaire| EpiSouth](#) | [Tunisian West Nile Surveillance Bulletin](#)

ECDC assessment

No new autochthonous cases of WNF have occurred (as per the date of onset of illness) within EU countries since week 43 and therefore the transmission season for WNF within the EU is considered to be over. However, case numbers may continue to rise due to late reported cases.

The epidemiology of WNF in Europe is still evolving and is not yet fully understood. It is unclear whether the increase in cases reported this year, the earlier season, and the geographic expansion, are due to a true epidemiological change, or a reflection of increased awareness amongst clinicians and the enhanced surveillance implemented in some areas.

Actions

ECDC produces weekly [West Nile fever risk maps](#) to inform blood safety authorities regarding WNF affected areas. This supports national authorities in implementing control measures to prevent the transmission of WNF through blood products. Appropriate control measures as per the [EU WNV and blood safety preparedness plan](#) and the [EU blood directive](#) include either geographical donor deferral or the implementation of systematic NAT screening of blood donors or visitors from affected areas.

On 13 July, ECDC updated its [rapid risk assessment](#) concerning the epidemiological situation of West Nile virus infection in the European Union.

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

Opening date: 2 December 2011

Latest update: 24 May 2012

Epidemiological summary

Weekly reporting on influenza surveillance for the 2012-2013 season started in week 40/2012 in Europe. In week 46/2012, all 27 reporting countries experienced low intensity of clinical influenza activity. Of 416 sentinel specimens collected from twenty-one countries, 13 (3%) were positive for influenza viruses. No hospitalised laboratory-confirmed influenza cases were reported.

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

ECDC assessment

Although the proportion of positive sentinel specimens has slightly increased since week 45, there is currently no evidence of sustained influenza virus transmission in EU/EEA countries.

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 27 August 2012

Epidemiological summary

No new cases of human A(H5N1) infection were reported last week. Since the beginning of 2012, 30 cases (including 19 deaths) have been notified to WHO .

From now on WHO will publish information on human cases with H5N1 avian influenza infection on a monthly basis. Cases of human infection with H5N1 will only be reported on Disease Outbreak News for events that are unusual or associated with potential increased risks. WHO Member States will continue to be required to report information on every sporadic case of H5N1 human infection or novel influenza virus infection to WHO as per Article 6 of the International Health Regulations (2005).

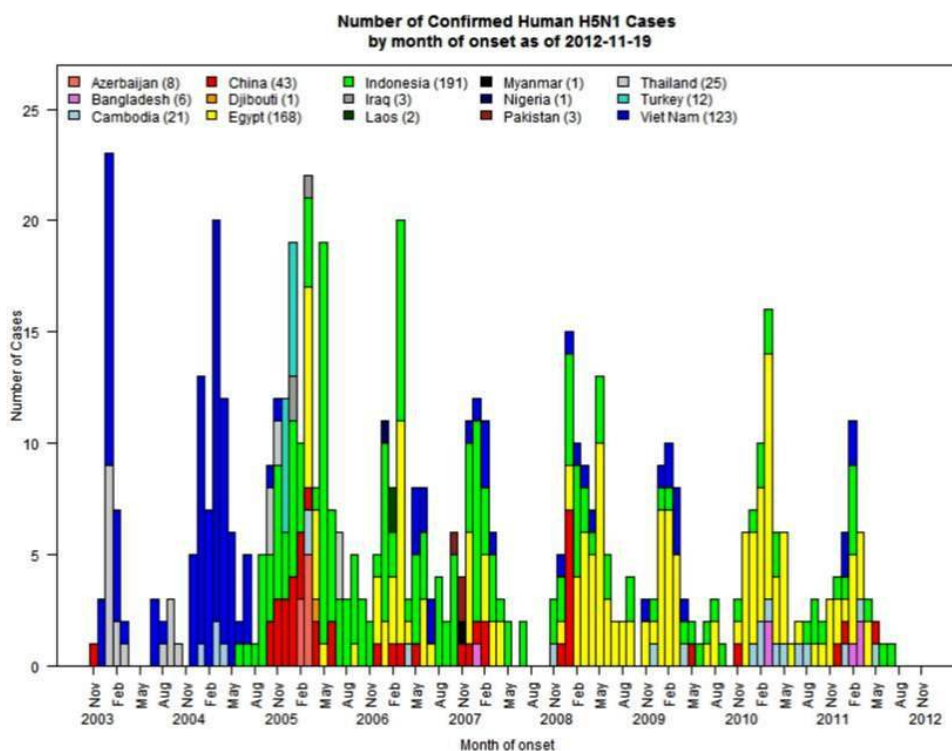
Web sources: [ECDC Rapid Risk Assessment](#) | [WHO Avian Influenza](#) | [Avian influenza on ECDC website](#) | [WHO H5N1 Table](#) | [WHO updates](#)

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.

Epidemiological curve of human H5N1 cases by country and month of onset

WHO



Novel Coronavirus - Multistate - Severe respiratory syndrome

Opening date: 24 September 2012

Latest update: 5 November 2012

Epidemiological summary

A first case, reported on Thursday 20 September through ProMED, was a 60-year-old patient in Jeddah, Kingdom of Saudi Arabia, from whom a novel coronavirus was isolated. He was admitted to hospital on 13 June with severe pneumonia, having had symptoms for seven days. 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.

A second case was reported on Saturday 22 September, by the UK Health Protection Agency (HPA). The case is 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 UK on 11 September. Laboratory tests were performed between 17 and 20 September on upper and lower respiratory samples and tested negative for respiratory viruses including influenza A (H1/H3/H1N1pdm09), influenza B, hMPV, RSV, and specific tests for the human coronaviruses NL63, 229E, OC43 and SARS-CoV. On 21 September, tests using a pancoronavirus RT-PCR test were positive from two lower respiratory tract samples only. On 13 November, HPA published the full genome sequence of the virus isolated from this case. Analysis of the variation in the genomic sequences, coupled with the three-month gap between patients infected with this coronavirus, indicate that there

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are probably independent sources of infection. Genomic analysis also indicates that the closest relative to this coronavirus was a bat virus identified in 2008 in the Netherlands.

A third case of infection with the novel coronavirus was reported on 4 November by Saudi Arabia. The patient was admitted to hospital in Riyadh with pneumonia and was subsequently diagnosed with the novel coronavirus by RT-PCR. He is out of intensive care and is currently recovering.

Media and ProMed reported on 21 November a fourth case of novel coronavirus in a Saudi citizen hospitalised in Riyadh. Laboratory results confirmed the diagnosis and the Ministry is reported to have implemented the necessary precautionary measures. The patient was treated and is now recovering.

Germany reported a fifth case of the novel coronavirus (HCoV-EMC) on 23 November 2012 in a patient from Qatar with onset of symptoms in October. He was initially treated in Qatar but was later transferred to Germany for treatment for severe respiratory distress syndrome and acute renal failure. The diagnosis of the novel coronavirus was made at the HPA using samples sent from Qatar. He has been discharged from hospital. No secondary cases have been detected among close contacts or healthcare staff. The patient has no epidemiological link to the previous cases.

On 20 November, a [research paper](#) was published indicating the relationship of the new coronavirus strain to coronaviruses in bats in Asia, such as *Pipistrellus* bats, also present in Saudi Arabia and neighbouring countries.

Web sources: [Interim case definition -WHO](#) | [HPA infection control advice](#) | [Partial genetic sequence information](#) | [ProMed link to third reported case](#) | [whole genome sequence](#) | [ProMed regarding fourth case](#) | [RKI press release](#) |

ECDC assessment

A novel coronavirus has been identified in five patients with severe respiratory and, in at least three of the cases, renal disease. 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 there is no evidence of human-to-human transmission of this virus. Based on the available information, ECDC assesses the current risk as low. However, close monitoring for further sporadic or clustered cases remains important.

Actions

ECDC has prepared a rapid risk assessment which was posted on the ECDC [website](#).

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006

Latest update: 6 November 2012

Epidemiological summary

Europe: There are no reports of other confirmed autochthonous dengue infections in Europe so far in 2012 besides the ongoing dengue outbreak in Madeira.

Asia: There is no new update this week from WHO Western Pacific Region. For the rest of Asia, an upward trend of dengue cases has been seen across most states in India. There is increased activity in all parts of Thailand, particularly in the south, and health authorities are implementing prevention measures to reduce mosquito breeding sites.

Latin America: High activity continues to be reported in all of Central America. In particular, Mexico continues to see a high proportion of DHF cases compared to other countries. Among EU overseas countries and territories, New Caledonia has reported 50 cases of dengue fever in November. In North America, three autochthonous cases have been reported in Florida this year. In South America, an overall high incidence is reported but this is not an unexpected situation. There is an ongoing dengue outbreak in the Ucayali region of Peru, with 1 914 confirmed cases and nine deaths. Brazil and Colombia are experiencing increased activity.

The Caribbean: High activity is reported in Puerto Rico. Up to week 43, there were 7 578 suspected cases, 25 confirmed DHF cases and six confirmed deaths. Despite the number of suspected cases being well above the epidemic threshold there has been a small decrease in cases since week 41. In the last eight weeks, the predominant serotypes have been DENV-1 and DENV-4.

12/14

There is a continued dengue epidemic affecting the Dominican Republic with almost 7 000 suspected cases. The Ministry of Health of Jamaica has reported more than 3 100 dengue cases so far this year which almost equals the total number of cases recorded during the 2010 outbreak.

Web sources:

[HealthMap](#) | [MedISys](#) | [ProMED Asia update](#) | [ProMED Americas update](#) | [PAHO/AMRO](#) | [WPRO](#) | [CDC](#) | [ECDC](#) | [WHO](#) | [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. 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: 22 November 2012

Epidemiological summary

During the past week, seven new polio cases were reported to WHO, three in Afghanistan and four in Nigeria, all WPV1.

Immunisation campaigns are being implemented in all three remaining endemic countries: Nigeria, Pakistan and Afghanistan. Focus continues to be on urgently boosting immunity levels in known high-risk areas.

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

ECDC assessment

The WHO European Region is 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.

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