COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 48, 25 November - 1 December 2012

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

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 29 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 in 2012. France, Italy, Romania, Spain and the United Kingdom accounted for 92% of the reported cases.

➔Update of the week

Up to 28 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.

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

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

Opening date: 21 June 2012 Latest update: 28 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 670 cases in neighbouring countries.

➔Update of the week

Since 23 November, Serbia has reported one additional case; four additional cases were reported from the previously affected Lipetskaya oblast in the Russian Federation.

The transmission season within the EU for 2012 is now considered over and ECDC will no longer publish weekly WNF maps.

Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012 Latest update: 30 November 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. 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 25 November 2012, 1 819 cases of dengue fever have been reported from Madeira. Between 19 and 25 November, 219 cases were reported; a decrease of 30% from the previous week. Forty three cases of dengue have been reported among European travellers returning from the island since the start of the outbreak.

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 47/2012, all 28 reporting countries experienced low-intensity influenza activity.

TB - Romania - Adverse events after BCG vaccination

Opening date: 22 November 2012 Latest update: 30 November 2012

The Romanian media have reported an increase in the number of adverse events after the BCG vaccination. This follows the introduction of a vaccine produced in Denmark. One hundred and fifteen children have been affected since March, of whom 50 were hospitalised. The adverse effects have appeared over a period of several months and consist of lymph node swellings and abscesses. A joint ECDC-WHO mission was organised between 27 and 30 November following a request by the Romanian authorities to assist in assessing and responding to the situation.

➔Update of the week

A joint ECDC-WHO mission assessing the situation was in Romania between the 27 and 30 November.

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

Non EU Threats

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: 29 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, 202 cases have been reported worldwide compared to 553 cases during the same period last year.

➔Update of the week

Nine new polio cases were reported to WHO during the week leading up to 28 November.

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 disease

Opening date: 30 November 2012

Since June 2012, nine patients who presented with symptoms of severe acute respiratory syndrome and a history of residence in the Arabian Peninsula, have tested positive for a novel coronavirus.

➔Update of the week

On 23 November, WHO confirmed two additional cases of the novel coronavirus, including one death. On 28 November, a further case which had been under investigation was confirmed. On 30 November WHO confirmed that retrospectively two samples from a cluster of respiratory disease in Jordan in April 2012 have tested positive for the novel coronavirus. Both of these cases were fatal. In total nine cases have now been detected, out of which five were fatal.

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

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 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 were 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, which is 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.

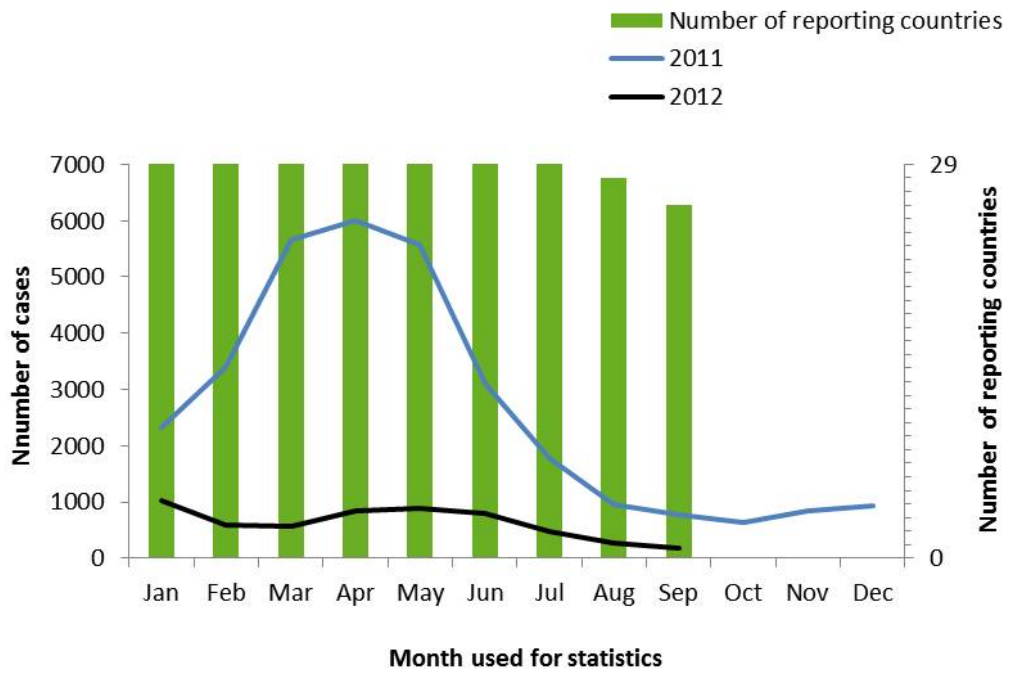
ECDC closely monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe through enhanced surveillance and epidemic intelligence activities. The countries in the WHO European Region, which include all EU Member States,

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

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.

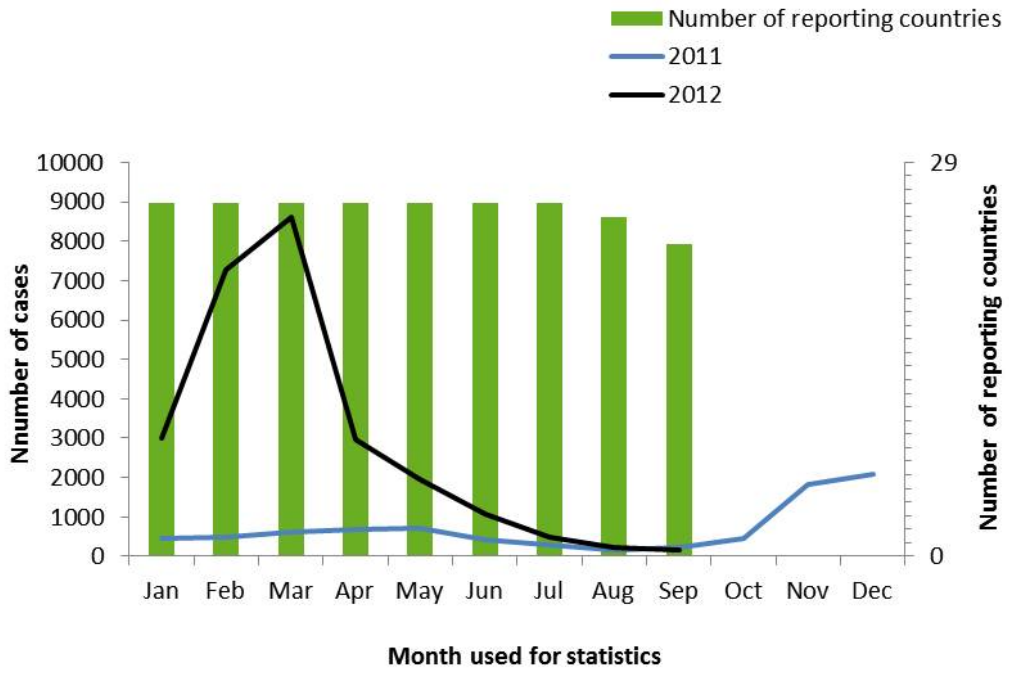
Actions

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

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.

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: 28 November 2012

Epidemiological summary

EU and neighbouring countries

As of 29 November, 237 probable and confirmed cases of WNF have been reported in the EU in 2012. In neighbouring countries 670 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 and 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.

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

Websources: 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 Definitions | EU Blood Directive | Italian Weekly update | KEELPNO weekly epidemiological report | Institut de Veille Sanitaire| EpiSouth | Tunisian West Nile Surveillance Bulletin

ECDC assessment

The 2012 transmission season is considered over and ECDC will shortly publish an end of season report.

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 seen in 2012, 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 during the transmission season 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. Weekly maps will no longer be published for 2012.

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

Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012 Latest update: 30 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 400 km from the Canary Islands, 650 km from the African coast, and 1 000 km from the European continent. The autonomous region has 268 000 inhabitants.

As of 25 November, 1 819 cases of dengue infection have been reported from the public health sector in Madeira. Since the beginning of the outbreak, there have been 118 patients hospitalised and eight remained in hospital as of 25 November. 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.

Forty three patients have been so far diagnosed with dengue after returning from Madeira in Portugal (ten), the UK (14), Germany (10), Sweden (one), France (three), Finland (two), Denmark (one), Spain (one), and Slovenia (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

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

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 published an updated rapid risk assessment concerning the autochthonous dengue cases in Madeira. The latest epidemiological update was posted on the ECDC website on 8 November.

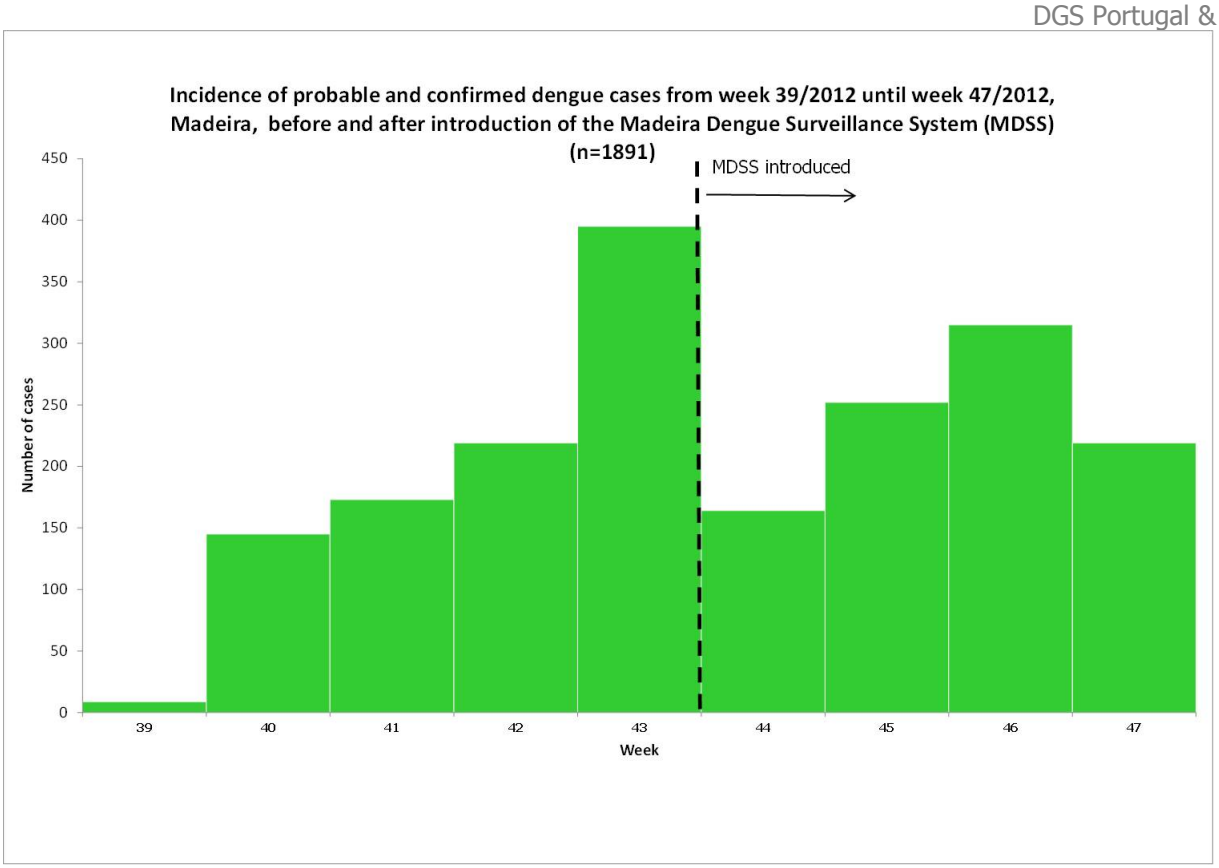
Portuguese authorities published recommendations regarding personal protective measures, and measures for the safety of blood, cells, tissues and organ donations within the region.

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 & ECDC



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 47/2012, all 28 reporting countries experienced low intensity of clinical influenza activity. Of 519 sentinel specimens collected from 27 countries, 16 (3.1%) 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 increased slightly since the early weeks of the season, there is currently little evidence of sustained influenza virus transmission in EU/EEA 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

TB - Romania - Adverse events after BCG vaccination

Opening date: 22 November 2012 Latest update: 30 November 2012

Epidemiological summary

The Romanian National Institute of Public Health has received notification of 115 cases of adverse events after BCG vaccination in 2012. 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. It is known from previous reports in other countries that the SSI vaccine is particularly reactogenic.

Links: media link 1 | media link 2

ECDC assessment

It is known that BCG vaccines have a relatively high rate of adverse events of the kind described in media articles, and that the SSI strain is particularly reactogenic.

Actions

A joint ECDC-WHO mission has been in Romania to assist the local authorities in assessing the situation. The European Medicines Agency has been informed.

Following the reported adverse events, the BCG vaccination programme in Romania was temporarily suspended, but has been resumed as of 30 November based on the findings of the joint mission.

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 from WHO Western Pacific Region. For the rest of Asia, the Ministry of Health in India has reported more than 35 000 dengue cases and 216 deaths in 2012, which is almost double the number of reported cases compared to the same period in 2011. Health authorities believe disproportionate population growth, lack of urbanisation planning and inadequate water management are all factors behind this increase.

Latin America: Increased dengue activity is reported across most countries in Central America, except El Salvador. In South America, the ongoing dengue epidemic in Peru has caused around 22 000 reported cases and 38 deaths according to the Ministry of Health. The most affected regions are Ucayali, Madre de Dios, San Martin and Lore. The government has declared a 60 day state of emergency across three Ucayali provinces to help accelerate the implementation of prevention measures. Elsewhere in South America, Paraguay has recorded almost 30 000 reported dengue cases and 69 deaths in 2012.

The Pacific: New Caledonia continues to see an increasing trend of dengue cases with 102 cases reported in November.

The Caribbean: Up to week 44, Puerto Rico has reported an additional 469 suspected dengue cases. This brings the total number of cases to 8 082 and six deaths. Relatively high activity is reported in other countries in the region, in particular the Dominican Republic. Latest official figures show the number of suspected dengue cases has risen to nearly 7 400 and 40 deaths.

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

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

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: 29 November 2012

Epidemiological summary

During the past week, nine new polio cases were reported to WHO, six in Nigeria, two in Pakistan and one in Afghanistan, all WPV1.

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.

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

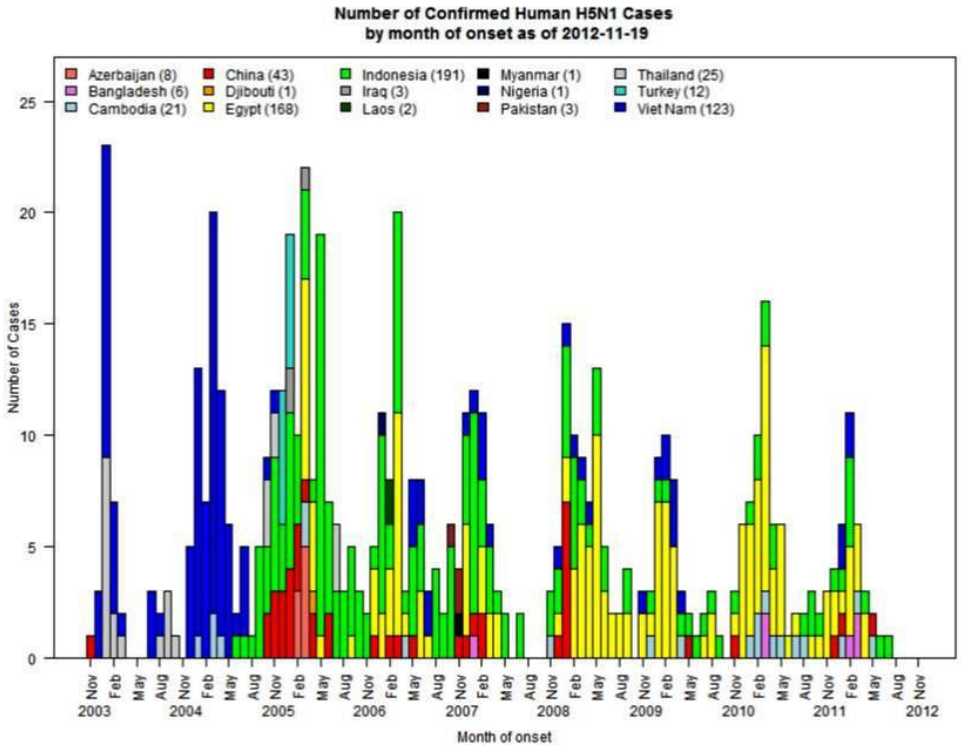
Hong Kong reported the world's first recorded major outbreak of bird flu among humans in 1997, when six people died. Most human infections are the result of direct contact with infected birds, and countries with large poultry populations in close contact with humans are considered to be most at risk 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.

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

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 disease

Opening date: 30 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. He was admitted to hospital on 13 June with severe pneumonia. He developed acute renal failure, and died on 24 June. Post mortem lung tissue tests were negative for influenza virus A, influenza virus B, parainfluenza virus, enterovirus and adenovirus. Testing with a pancoronavirus RT-PCR was positive for a coronavirus and the virus genome was later sequenced in Erasmus Medical Centre, Rotterdam, and identified as a putative novel beta-corononavirus, 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. On 11 September he was transferred by air ambulance to an ICU in the UK. On 21 September, tests on samples from the patient using a pancoronavirus RT-PCR test were positive. Comparison of a 250bp PCR fragment between this and the isolate of the first case performed by the Erasmus Medical Centre showed 99.5% sequence homology (1 nucleotide difference).

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. This patient also developed renal failure, however he did have a medical history of only one functional kidney. He is out of intensive care and is currently recovering. A case report on this case was published in the Saudi Medical Journal this week.

Germany reported a fourth case of the novel coronavirus on 23 November 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 Health Protection Agency using samples sent from Qatar. He has been discharged from hospital. The patient has no epidemiological link to the previous cases.

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

On 23 November WHO provided information on the above mentioned fourth case, and two further confirmed cases in Saudi Arabia, one of whom died. These two cases in Saudi Arabia were part of a cluster in a family household involving two additional cases: one of whom also died and was confirmed as positive on 28 November; the other recovered and is considered a probable case. This cluster may indicate the possibility of person-to-person transmission; however, it could also be explained by exposure to a common source.

On 30 November WHO confirmed that two samples taken during an investigation into an unexplained respiratory disease cluster in Jordan have retrospectively tested positive for novel coronavirus. Both of these two cases were fatal.

As of 30 November, a total of nine laboratory confirmed cases of the novel coronavirus have been reported to WHO – five cases (including 3 fatalities) from Saudi Arabia, two cases from Qatar and two cases (both fatal) from Jordan.

Further details on the first six cases are available in the rapid risk assessment of 24 September and the updated rapid risk assessment of the 26 November.

Web sources: Interim case definition -WHO |HPA infection control advice |Partial genetic sequence information |ProMed link to third reported case |whole genome sequence | ProMed fourth reported case | relatedness to bat coronaviruses| WHO update

ECDC assessment

A novel coronavirus has been identified in nine patients with severe respiratory and, in five cases, renal disease. Two of the cases were treated in the United Kingdom and Germany after medical evacuation, but so far there are no indications of transmission of the virus within the EU.

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. The source and possible routes of transmission of the virus remain unknown. At this stage, the detection of a household cluster does not provide conclusive evidence for or against limited person-to-person transmission.

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

Actions

ECDC updated the rapid risk assessment and this was published on the website on 26 November. ECDC are coordinating with relevant stakeholders regarding the detection, laboratory diagnosis, and management of cases should the threat evolve to affect the EU.

ECDC published an "Epi update" on 30 November and is in the process of updating the rapid risk assessment related to this event.

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