COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 37, 9-15 September 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: 7 September 2012

Since June 2012, eight autochthonous cases of malaria, caused by *Plasmodium vivax* infection, have been reported from Greece. Local control measures have been implemented in accordance with national guidelines.

➔Update of the week

No additional autochthonous cases were reported since the last update.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 12 September 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, so far in 2012, the number of outbreaks and reported cases in the Member States are significantly lower than during 2010 and 2011. As of 31 July, 5 037 cases of measles were reported to The European Sureveillance System (TESSy) in 2012. France, Italy, Romania, Spain and the United Kingdom accounted for 91% of the reported cases.

➔Update of the week

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

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 1 August 2012

Rubella, caused by the rubella virus and commonly known as German measles, is a usually mild and self-limiting disease and 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 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.

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

Opening date: 21 June 2012 Latest update: 7 September 2012

West Nile virus is a mosquito-borne disease causing severe neurological symptoms in a small proportion of infected people. During the West Nile virus transmission season (between June and November), ECDC monitors the situation in the 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 West Nile fever (WNF) were reported from the EU Member States and 207 cases in neighbouring countries. The 2012 transmission season is ongoing, with 157 probable and confirmed cases reported in the EU, and 367 cases in neighbouring countries so far.

➔Update of the week

Between 7 and 13 September, Greece has reported 11 new cases, with Drama being a newly affected prefecture; Romania reported one new case; and nine new cases were reported from Italy, including cases in a newly affected province (Vicenza). In countries neighbouring the EU 46 new cases were notified by various federal regions of Russia; 17 new cases were reported from Serbia; and Croatia reported three cases - the first human WNF cases in Croatia.

Salmonella Stanley - Multistate(EU) - 2012 outbreak

Opening date: 19 July 2012 Latest update: 20 August 2012

On 9 July, Belgium reported an outbreak of *Salmonella enterica* serovar Stanley (*S*. Stanley) through the Epidemic Intelligence Information System-FWD platform. Subsequently, Austria, Czech Republic, Germany and Hungary have reported cases of *S*. Stanley sharing the same PFGE pattern as the Belgian outbreak strain. The descriptive epidemiology indicates transmission from a persistent common source or multiple sources in the EU. Contamination early in the production chain of a widely distributed food item is a likely scenario. Food and veterinary investigations are ongoing in Member States and at EU level to identify the source of the outbreak.

➔Update of the week

From 1 August 2011 to 14 September 2012, EU Member States have reported 402 cases of *S*. Stanley on the Epidemic Intelligence Information System (EPIS). Of these, 144 are confirmed to be nalidixic acid resistant and to have indistinguishable XbaI-PFGE patterns. The number of new cases per month has been rising progressively since April 2012. The first cases were reported in August 2011.

Anthrax - Multistate - Injecting drug users

Opening date: 18 December 2009 Latest update: 10 September 2012

Ten confirmed cases of anthrax among injecting drug users have been reported in the EU since June 2012: three in Germany, two in Denmark, one in France, and four in the UK (Scotland, England and Wales). Four of these cases have died. These cases follow an outbreak of anthrax in 2009 and 2010 involving 127 injecting drug users in the UK (England and Scotland with five and 119 cases respectively) and Germany (three cases).

➔Update of the week

One new confirmed fatal case was reported between 7 and 13 September, bringing the total for UK this year to four.

Olympics and Paralympics 2012 - MG surveillance (weekly update)

Opening date: 13 July 2012

Since 20 July 2012, the CDTR includes a section on health events assessed for relevance to the EU in consideration of the London 2012 Olympic and Paralympic Games. It contains information gathered through ECDC epidemic intelligence activities. The Centre is working with the Health Protection Agency in the UK to monitor and assess international public health threats for potential impact on the Games.

The information in this section is grouped geographically by UK (as host country), Europe and rest of the world.

This will be the final report included in the ECDC weekly CDTR.

➔Update of the week

No major health events were detected.

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Non EU Threats

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 13 September 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. There are no significant recent developments in global dengue epidemiology. However, the identification of sporadic autochthonous cases in non-endemic areas in 2010 and 2011 highlights the risk of occurrence of locally acquired cases in EU countries where the competent vectors are present.

➔Update of the week

There have been no reports of confirmed autochthonous dengue infections in Europe so far in 2012. The previously reported potential autochthonous case of dengue in Greece (Agrinio region) has not been confirmed by KEELPNO. Intense activity is reported from Central America.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 13 September 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, 136 cases have been reported worldwide compared to 379 cases during the same period last year.

➔Update of the week

During 7-13 September, two new polio cases were reported by WHO.

Chikungunya - Multistate (world) - Monitoring seasonal epidemics

Opening date: 7 July 2005 Latest update: 16 August 2012

ECDC monitors reports of chikungunya outbreaks worldwide through epidemic intelligence activities in order to identify significant changes in epidemiological patterns. Chikungunya, a viral disease transmitted mainly by *Aedes albopictus* and *Aedes aegypti* has a potential to be established in Europe, due to the presence of these vectors in southern parts of Europe.

➔Update of the week

Since the beginning of the year, no autochthonous cases have been reported in Europe.

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

WHO reported no new case of human infection with avian influenza A(H5N1) virus since the last update.

Influenza A (H3N2)v - USA - 2011-2012 cases

Opening date: 24 November 2011 Latest update: 6 September 2012

Since July 2012, 296 cases of A(H3N2)v infection have been detected in 10 US states. The main risk factor for infection is exposure to pigs, especially in pig fair settings. Previously, between August 2011 and April 2012, 13 isolates with influenza A(H3N2)v were detected in the USA.

➔Update of the week

Nine new cases were reported by US public health authorities (CDC) since the last update.

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Hantavirus Pulmonary Syndrome outbreak - USA - Yosemite Park outbreak

Opening date: 3 September 2012 Latest update: 11 September 2012

An outbreak of Hantavirus Pulmonary Syndrome (HPS) among visitors to Yosemite National Park in California, originally detected through epidemic intelligence, has now been validated by US public health authorities (CDC). Eight confirmed cases including three fatalities have been reported since June 2012. Tent cabins in the Curry Village camp site in the Yosemite valley have been identified as the common site of exposure for seven of the cases and the period of risk of exposure for visitors has been from 10 June to 24 August 2012. Around 2 000 EU citizens have been staying at the camp during this period and were therefore possibly exposed.

➔Update of the week

All EU national health authorities have been informed about exposed EU citizens in the park by ECDC and the European Commission (EC). As of 14 September 2012, no HPS case linked to Yosemite Park has been confirmed among EU citizens.

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II. Detailed reports

Malaria - Greece - 2012

Opening date: 31 May 2012 Latest update: 7 September 2012

Epidemiological summary

On 22 June, Greece reported the first case this season in a Greek resident who did not report a history of travel to endemic areas in the past five years. He is believed to have been infected during a stay at his summer house in the Marathon area. Onset of symptoms was around 7 June. Laboratory investigation revealed *P. vivax*, confirmed by molecular biology (PCR).

A second case was reported by Greece on 17 July, in a resident of the municipality of Evrotas, Lakonia, the same area where most cases were reported in 2011. Laboratory investigation revealed *Plasmodium vivax*, confirmed by PCR. The patient reported onset of symptoms on 29 June and had not travelled to a malaria-endemic area during the last five years.

On 2 August two new cases of *P. vivax* malaria were notified to ECDC. These involved patients resident in East Attiki, in the Marathon and Markopoulo areas. Subsequently, on 7 August, Greece informally notified ECDC of its fifth and sixth cases, in residents of Evrotas, Lakonia. These four cases were all Greek citizens without travel to malaria endemic countries in the last five years.

Two new locally acquired cases of malaria were reported on 3 September, involving a Moroccan resident of Lakonia and a Greek resident of Markopoulo, East Attiki.

There are now eight autochthonous cases and 42 imported cases reported so far in 2012, all *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.

In 2011, autochthonous transmission of malaria was reported from Greece. Between 21 May and 9 December 2011, 63 cases of *P. vivax* infection were reported in Greece, of whom 33 were Greek citizens without travel history to an endemic country. The main affected area was Evrotas, located in the district of Lakonia in Pelloponese, southern Greece. Cases were also reported from the municipalities of Attiki, 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 | KEELPNO report on malaria surveillance, August 2012 (in Greek) | ECDC Epidemiological update: Local case of malaria in Greece | KEELPNO report on second case, July 2012 (in Greek)

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. Also in 2011 autochthonous cases occurred in these locations. Considering the time of infections last year, it is possible that more cases will be detected in the coming months.

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.

ECDC published an epidemiological update.

Greece is currently implementing a "Strategic work programme for malaria control in Greece 2012-2015".

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 12 September 2012

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Epidemiological summary

EU Member States
No new outbreaks or updates were identified this week.

Other information - Romania
Source: the media
Childhood vaccines including vaccines against measles, rubella and polio have not been available through the national immunisation programme during the past three months. Parents are told to go to family doctors and buy the vaccines themselves which few can afford. Doctors in the country are concerned about the consequences in the midst of ongoing outbreaks of rubella, measles and mumps.

Publications
Source: the media
A research study that tried to discover why a number of teenagers with two doses measles vaccine in childhood got infected with measles was presented recently at a conference in San Francisco. The study examined children infected during Quebec's large measles outbreak in 2011 with more than 700 measles cases. It showed that teenagers who received the recommended two doses of measles vaccine but who got the first does when they were 12 months old were six times more likely to contract the disease than those who got their first dose at 15 months. It is not established whether the difference is all due to maternal antibody interference or that waiting longer gives the immune system more time to mature and that results in a better response to the vaccine.

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 eliminate 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.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 1 August 2012

Epidemiological summary

No new outbreaks were identified since the last update.

From 1 January to 31 July 2012, 18 297 cases of rubella were reported by the 26 EU/EEA countries contributing to the enhanced surveillance for rubella compared to 3 672 cases during the same period in 2011. 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 from 87 to 13 708 cases. Other countries who 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 be 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

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who can be immunised after giving birth and for surveillance of the size of the susceptible female population.

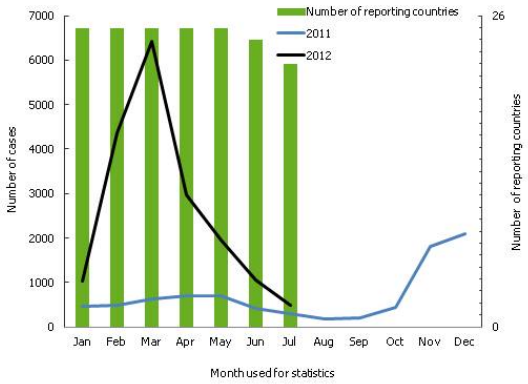
The increase in the number of rubella cases reported so far in 2012 compared to 2011 and the potential for an increase in the number of babies born with CRS are of concern.

Actions

ECDC closely monitors rubella transmission in Europe by analysing the cases reported to The European Surveillance System (TESSy) and through its epidemic intelligence activities. Twenty-four EU and two EEA countries contribute to the enhanced rubella surveillance. The purpose of the enhanced rubella monitoring is to provide regular and timely updates on the rubella situation in Europe in support of effective disease control, increased public awareness and for the achievement of the 2015 rubella and congenital rubella elimination target.

Number of rubella cases in 2011 and 2012 and number of countries reporting in 2012,

ECDC TESSy



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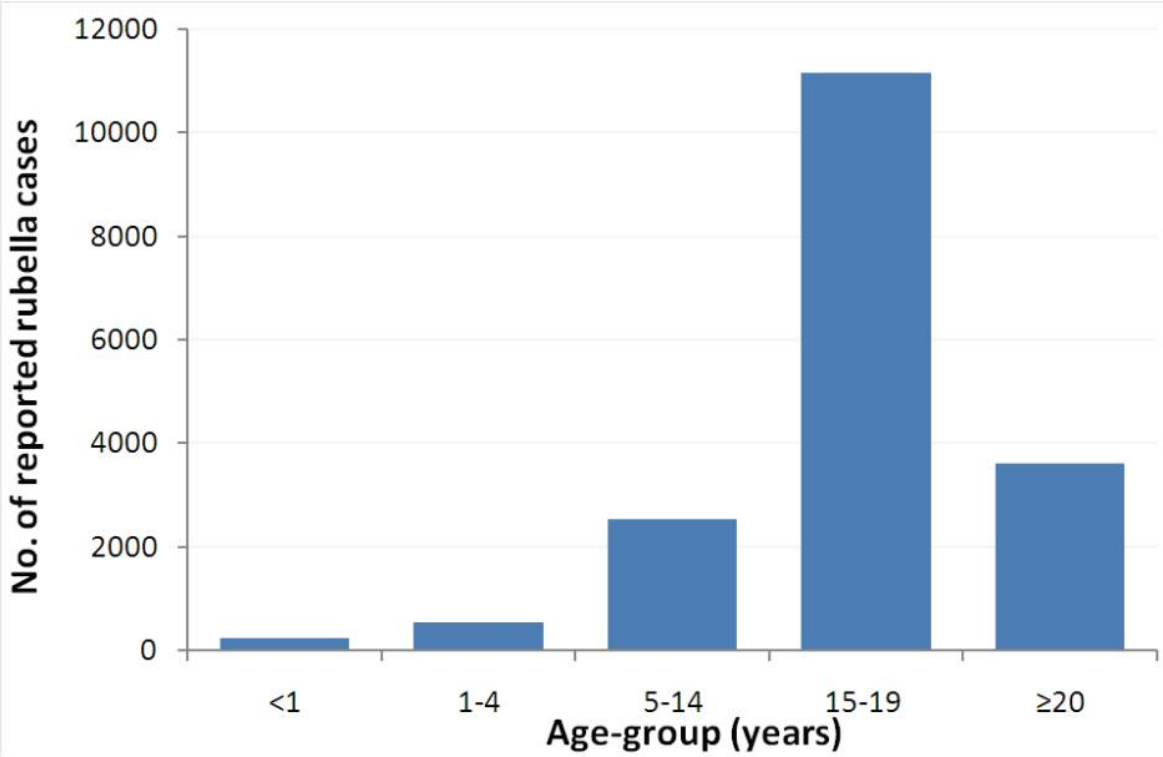
Age distribution of reported rubella cases in the WHO European Region

WHO Epidemiological Brief 26 - September 2012



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

Opening date: 21 June 2012 Latest update: 7 September 2012

Epidemiological summary

As of 13 September 2012, 157 probable and confirmed human cases of West Nile fever (WNF) have been reported in the EU this season and 367 cases in neighbouring countries.

EU Member States

Greece

Between 7 July and 13 September, Greece reported 129 autochthonous WNF cases (43 confirmed, 86 probable), in 13 former prefectures. Drama is a newly affected prefecture for this week. One case involves an immuno-compromised patient infected through blood transfusion. A WNV strain of lineage 2, similar to the strain of 2010, has been found in mosquitoes.

Hungary

On 6 September, Hungary reported the first two confirmed cases of WNF this year, in Hajdú-Bihar and Csongrád counties. No new cases have been notified this week.

Italy

So far this year, the Italian Ministry of Health has notified five neuroinvasive cases of WNF in the Veneto region. Additionally, enhanced seasonal surveillance within the Veneto Region, including testing of patients reporting fevers and systematic screening of blood donors, has identified eight more cases of confirmed WNV infection. RNA of WNV lineage 1A was detected in several cases. So far this year, affected provinces are: Treviso (one case), Venezia (ten cases), and Vicenza (two cases). Vicenza province is newly affected this week.

Romania

As of 11 September, Romania has reported 13 WNF cases (12 confirmed, one probable) this year. Bucharest municipality and five districts have been affected so far.

Neighbouring countries

Croatia

This week, Croatian health authorities notified the presence of three probable autochthonous cases of WNF, in Osijek-Baranja and Vukovar-Syrmia counties. These cases represent the first ever reported human cases of WNF from Croatia.

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Serbia
This week, Serbian health authorities communicated a total of 35 probable and confirmed WNF cases in Serbia. Previously, ECDC had excluded five of the Serbian cases, either due to a recent travel history or laboratory results not being consistent with recent infection. Therefore, ECDC considers the presence of 30 cases in Serbia. Grad Beograd (Belgrade City), Juzno-Banatski district, Podunavski district, Severno-Banatski district, and Sremski district are affected areas. The latter three are newly affected this week.

Russia
As of 5 September, regional health authorities have reported 316 cases of WNF in Russia in 10 federal subjects.

Israel and the occupied Palestinian territory
As of 14 August, Israel has reported 17 cases (seven confirmed, 10 probable) of WNF. This includes two cases in the occupied Palestinian territory, of which one was previously also reported by the Palestinian Authority through EpiSouth. Five districts in Israel and two governorates in the West Bank are affected. No new cases have been reported this week.

Tunisia
On 16 August, EpiSouth reported the first case of WNF in Tunisia this year, in Moknine municipality, in Monastir governorate. No new cases have been reported this week.

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

ECDC assessment

West Nile fever in humans is a notifiable disease in the EU. The implementation of control measures by the national health authorities are considered important for ensuring blood safety when human cases of West Nile fever occur. In accordance with the EU Blood Directive, efforts should be made to defer blood donations from affected areas that have ongoing virus transmission.

Actions

On 13 July, ECDC updated its Rapid Risk Assessment concerning the epidemiological situation of West Nile virus infection in the European Union. ECDC produces weekly West Nile fever risk maps to inform blood safety authorities regarding affected areas.

Salmonella Stanley - Multistate(EU) - 2012 outbreak

Opening date: 19 July 2012 Latest update: 20 August 2012

Epidemiological summary

From 1 August 2011 to 5 September 2012, EU Member States have reported 402 cases of *S.* Stanley on the Epidemic Intelligence Information System (EPIS), 144 of which confirmed as nalidixic acid resistant and with an indistinguishable XbaI-PFGE pattern. The number of cases rose progressively and continuously each month from April to August 2012.

Retrospective investigations have revealed that the first cases with the outbreak strain (PFGE profile) were notified in Hungary in August 2011. This was followed by an increase of new cases in January 2012 and a second peak in May 2012.

The median age among probable and confirmed cases is 17 years (range 0 to 87 years) 53% of whom are male. No cases have been reported travelling outside the EU/EEA countries prior to infection.

In Belgium, all the cases are reported from the northern part of the country while the majority of the regions in Austria, Germany, Czech Republic and Hungary have reported cases.

ECDC assessment

The outbreak of *S.* Stanley infections reported in Austria, Belgium, Czech Republic, Germany and Hungary in 2012 is not related to international travel. As cases do not have travel history outside the EU within their period of potential exposure, it strongly suggests a multistate outbreak with exposure currently taking place in the EU. The descriptive epidemiology and the microbiological evidence indicate a transmission originating from a persistent common source or multiple sources in the EU that are contaminated with a single clone of *S.* Stanley. The most recent cases have onset of disease in August; therefore, the

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outbreak may still be ongoing.

Considering the high diversity of *S.* Stanley observed in the historical databases, the occurrence of one single PFGE pattern of strains isolated from different countries suggests a multinational outbreak related to a common persisting source of infection.

ECDC is encouraging all Member States to perform PFGE analysis and to compare their results with the outbreak strain of all recent food, animal and human isolates of *S.* Stanley. This should allow refining the assessment of the situation and to draw conclusions on the risk of infection in the EU.

As the source of infection and potential vehicles are not yet identified and confirmed, it is likely that additional cases of *S.* Stanley infections will be reported in the affected EU Member States, with possibility of new Member States reporting cases linked to the outbreak strain as PFGE analysis of human isolates of *S.* Stanley is ongoing.

Actions

ECDC updated its rapid risk assessment on 29 August, which was circulated to public health authorities through the Early Warning Response System.

At the EU level, ECDC is facilitating a coordinated response for the investigation related to humans cases by gathering the available epidemiological and microbiological information, supporting investigations in the Member States and liaising with the EC, EFSA and competent food safety partners in the EU.

ECDC will continue to closely monitor this event.

Investigations are ongoing regarding the possible source by relevant national food safety/veterinary authorities in close collaboration with the public health authorities. Food safety investigations are coordinated by the EC Directorate General for Health and Consumers in collaboration with EFSA and the EU reference laboratory for Salmonellosis. The investigations focus on:

- comparison by molecular testing of isolates found in humans, feed, food and animals;
- epidemiological links in the food production chain.

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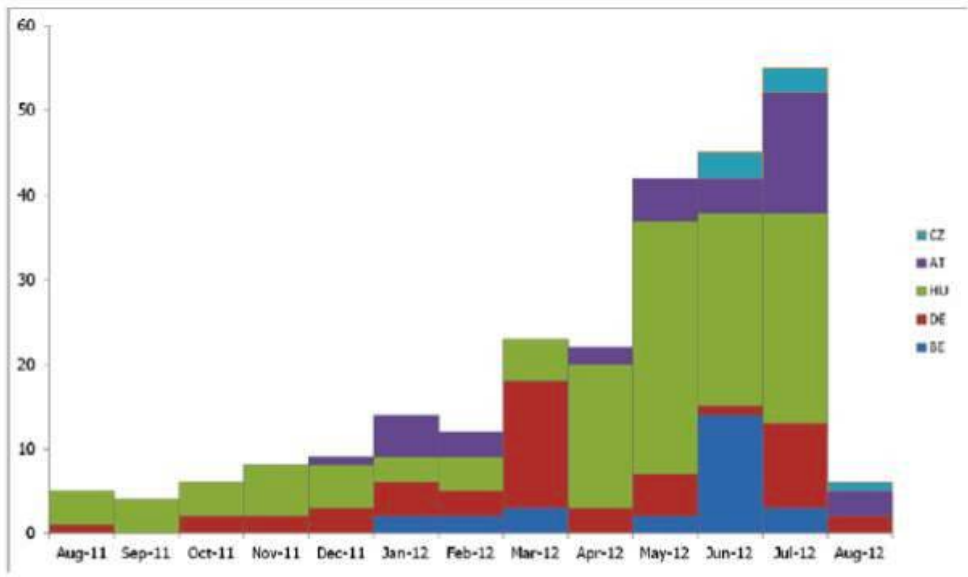
Distribution of cases of Salmonella Stanley by Member State and reporting month, confirmed and probable cases , August 2011 to August 2012**

ECDC



** As of 27 August 2012

The median age among probable and confirmed cases is nine years (range 1 to 89 years) and no case has reported travelling outside the EU/EEA countries prior to infection.

Anthrax - Multistate - Injecting drug users

Opening date: 18 December 2009 Latest update: 10 September 2012

Epidemiological summary

In June 2012, Germany reported two cases of anthrax among injecting drug users (IDU) in Regensburg. One of these cases died. The strain from these cases is reported to be almost identical to the strain from the 2009-2010 outbreak that mostly affected Scotland. A third confirmed case, a cutaneous anthrax affecting an IDU, was reported in July in Berlin. Initial molecular typing of *B. anthracis* DNA from this patient suggests that it could be genetically similar to the first two cases in the Regensburg region.

Denmark reported two confirmed (one fatal) and one possible case of cutaneous anthrax in IDUs in July in Copenhagen. The strain from both of the confirmed cases is identical to the 2009 and 2010 outbreak strain.

France informed ECDC of a case of anthrax in a known IDU in June 2012. The strain will be genotyped and compared with those isolated from German patients. Investigations revealed that the heroin used by this case was purchased in France in the Rhône-Alpes region and the patient had no recent history of travel.

The UK reported one case in July 2012 in Lanarkshire, Scotland and a second, fatal case on 17 August in Blackpool, England, a further case on 6 September in Wales. The latest case reported by the HPA on 10 September 2012 is a person who injected heroin and has died from anthrax infection in a Blackpool Hospital.

As of 14 September 2012 the total of anthrax cases among IDUs in the EU for this year is ten, including four fatalities.

Public Sources: RKI statement on German cases 2012 | Eurosurveillance article on 1st case in 2012 | SSI statement on Danish case | SSI statement on second Danish case | Statement on French case | HPS report on Scottish case 2012 | Last HPA report | RKI report | Last NHS report | NHS publication | RKI serological investigation

ECDC assessment

The conclusions of the rapid risk assessment published by ECDC and EMCDDA in February 2010 and updated on 13 July 2012 remain valid. The risk of exposure to contaminated heroin for IDU remains present, and accidental contamination is the most

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plausible explanation. The reports of cases of anthrax in IDUs across several countries suggests that contaminated heroin might be circulating across several European countries. The geographical distribution of the contaminated heroin is unknown at this time, but it is possible it has the same source as the contaminated heroin incriminated in the outbreak in 2009 and 2010. The possibility of additional cases among IDUs will be identified in the near future cannot be excluded.

Actions

ECDC and EMCDDA updated their joint rapid risk assessment (RRA) on 13 July, and ECDC published a further epidemiological update on 31 July. The two organisations will work together to produce joint guidance on the prevention of anthrax among IDUs.

Olympics and Paralympics 2012 - MG surveillance (weekly update)

Opening date: 13 July 2012

Epidemiological summary

Host country - UK
No major health events were detected.

Europe and rest of the world
In addition to those reported elsewhere in this CDTR, no further events with relevance for the Paralympics were detected.

ECDC assessment

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 13 September 2012

Epidemiological summary

Europe: There are no autochthonous cases reported in 2011 or in 2012 to date in Europe. Seasonal surveillance activities are ongoing in several regions in southern France but only imported cases have been reported so far in these areas as well as in other countries with competent vectors such as Italy. The previously reported potential autochthonous case of dengue in Greece (Agrinio region) has not been confirmed by KEELPNO and there are no updates on the ongoing field epidemiological and entomological investigations in the area.

Asia: The activity in the Western Pacific Region of WHO is still reported as variable, with only Cambodia reporting significantly higher activity than in 2011. There is an overall low trend in Malaysia and Singapore. Viet Nam and Laos are currently seeing high activity and the media report recent increase in Philippines and the southern part of Taiwan. Pakistan and India, in particular Kolkata, are still reporting suspected and confirmed cases.

Pacific Ocean: No relevant updates this week.

Latin America: Intense activity is described overall in Central America, with higher activities compared to previous years in the same period in almost all countries. For the rest of the region an intense, variable but not unexpected situation is reported in almost all countries.

Caribbean: No official national or WHO Regional Office for the Americas data are available for Cuba where media are reporting an increase in suspected and confirmed cases in different departments, including the Havana area and the eastern regions during the past weeks.

Publication
Source: The Lancet
A phase IIb clinical trial of a recombinant, live, attenuated tetravalent dengue vaccine in Thailand showed no efficacy against

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DENV2, which was the prevalent serotype during the study, thus diminishing the overall vaccine efficacy to 30.2%. However a 60% efficacy against dengue virus type 1 and 80-90% against types 3 and 4 were estimated in this study.

Web sources:
DengueMap CDC/HealthMap| MedISys dengue|KEELPNO report potential dengue case | ProMED dengue Greece|ProMED dengue Latin America latest update | ProMED dengue Asia latest update| ProMED Mekong Basin latest update | ECDC dengue fever factsheet| WPRO dengue latest update| Latest PAHO update| Global Strategy for Dengue Prevention and Control WHO

ECDC assessment

Regarding the suspected autochthonous case in Greece: the two positive commercial tests used indicate an acute dengue infection. The introduction of dengue virus to Greece via an infected person is a likely event. *Aedes albopictus* is present in western parts of Greece but presence in the residence area of the case remains to be established. The clinical picture is not typical of severe dengue disease but this does not exclude concomitant dengue infection. Whether the case represents true local transmission and what this represents in terms of risk of further transmission in Greece should be assessed when all relevant laboratory test results, and entomological and epidemiological data have become available. If confirmed in Greece, it would be the first local case in the country since more than 80 years and the first in EU since 2010 (Croatia).

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.

Actions

ECDC recently published a technical report on the climatic suitability for dengue transmission in continental Europe and guidance for invasive mosquitoes' surveillance.

On 7 September an epidemiological update was posted on the ECDC website regarding the suspected autochthonous dengue case in Greece.

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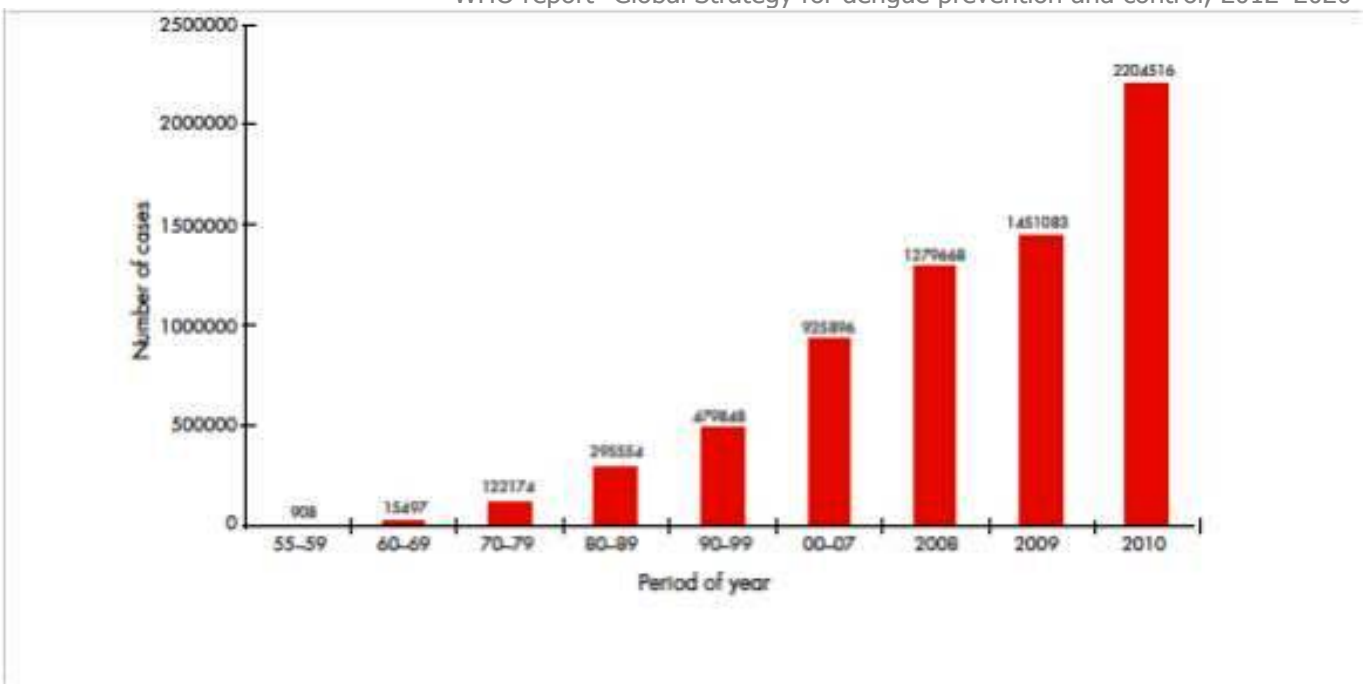
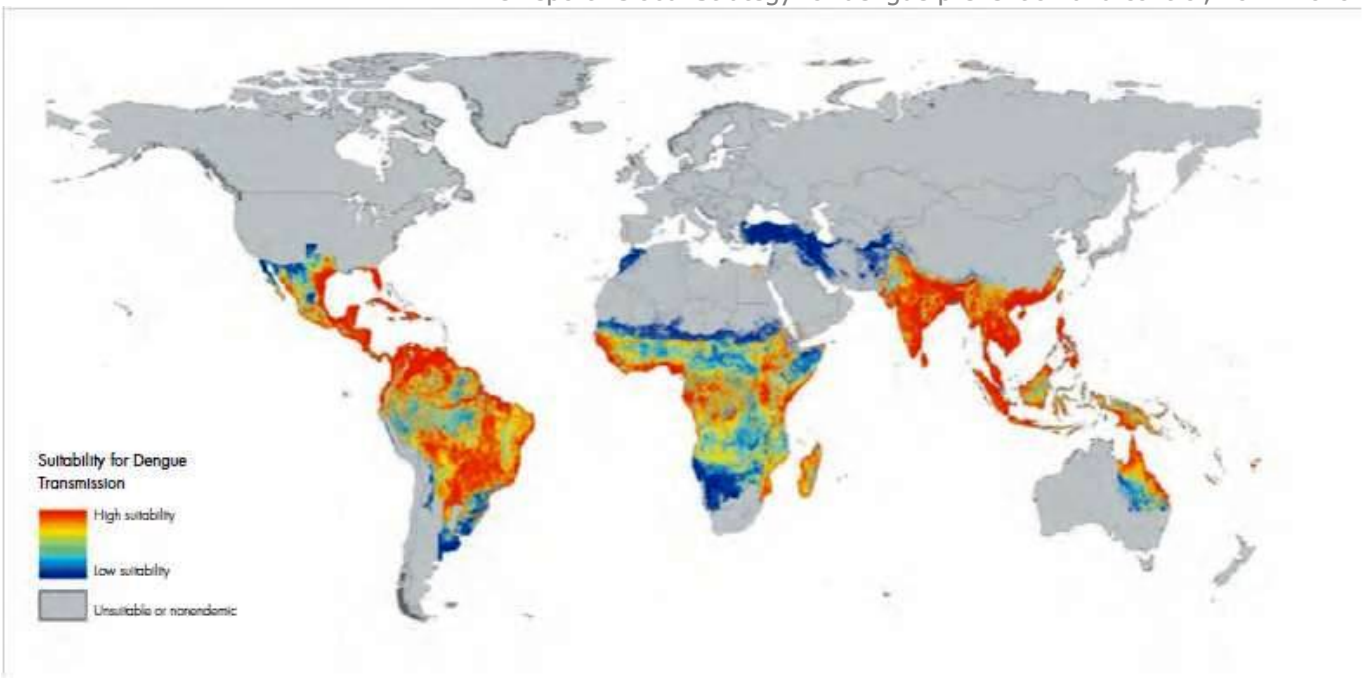
Average number of dengue and severe dengue cases reported annually to WHO in 1955 to 2007 and number of cases reported in recent years 2008-2010

WHO report "Global Strategy for dengue prevention and control, 2012–2020"



Distribution of global dengue risk

WHO report "Global Strategy for dengue prevention and control, 2012–2020"



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 13 September 2012

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Epidemiological summary

Since the last update two new cases of polio were reported, one WPV1 from Pakistan and one WPV3 from Nigeria. Nigeria continues to be the only country in the world affected by transmission of all three serotypes: WPV1, WPV3 and a cVDPV type 2.

There was a report in last week's CDTR about a confirmed cVDPV type 2 case in a Somali refugee camp in Dadaab, Kenya (linked to last year's cVDPV type 2 in south-central Somalia). An immunisation response is now being planned with more than 800 000 children targeted to be immunised in eastern Kenya, including in the Dadaab refugee camps (target age groups in the camps will be <15 years). The activity will be followed by a further campaign at end-October or early November. Serious problems remain to access children in south-central Somalia; however, a response campaign will be launched targeting 30 000 children in two recently-accessible Somali districts adjacent to the Kenya border. In south-central Somalia, the area affected by last year's cVDPV type 2, efforts are ongoing to strengthen surveillance activities.

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

ECDC assessment

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 WHO European Region is polio-free. 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.

Chikungunya - Multistate (world) - Monitoring seasonal epidemics

Opening date: 7 July 2005 Latest update: 16 August 2012

Epidemiological summary

No autochthonous cases have been reported in 2012 so far in Europe. Outside of Europe, no unusual activity has been detected this week.

Web sources: MedISys Chikungunya | ECDC chikungunya fact sheet |

ECDC assessment

Although the geographic range of the virus is primarily in Africa and Asia, there has been a rapid expansion of epidemics over the past decade to new regions of the world due to the worldwide distribution of the main vectors, *Aedes albopictus* and *Aedes aegypti*, combined with increased human travel. There is a risk of further importation of the chikungunya virus into previously unaffected areas of the EU by infected travellers.

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.

Worldwide, 30 cases (including 19 deaths) have been notified to WHO since the beginning of 2012.

Web sources: ECDC Rapid Risk Assessment | WHO Avian Influenza | Avian influenza on ECDC website | WHO H5N1 Table

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

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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.

Influenza A (H3N2)v - USA - 2011-2012 cases

Opening date: 24 November 2011 Latest update: 6 September 2012

Epidemiological summary

Until April 2012, 13 human infections with swine-origin influenza A(H3N2)v viruses had been identified since 2009. The new variant is a swine origin influenza A(H3N2) which has acquired the matrix (M) gene from the pandemic influenza A(H1N1). This virus appears to spread more easily from pigs to people than other variant viruses. There are now several outbreaks of H3N2v occurring in a number of US states. As of 7 September 2012, 296 cases have been detected in the US during this year's outbreaks. Most cases occurred in children who had documented contacts with swine, mainly at agricultural fairs. Infection with this virus so far has caused mostly mild symptoms similar to seasonal flu, but like seasonal flu, serious illness with H3N2v infection is possible.Sixteen cases needed hospitalisation including one death in a patient with underlying conditions.
Though limited person-to-person spread with this virus has occurred, H3N2v is not spreading readily from person-to-person at this time.

Web sources:ECDC scientific advice|WHO Global Alert and Response (GAR)|CDC |CDC update

ECDC assessment

The recent increase in number of cases is consistent with the conclusions of the ECDC risk assessment published in November and updated in December 2011:

- Sporadic infections and even localised outbreaks of A(H3N2)v infection among people will continue to occur in the US.
- While there is no evidence at this time that sustained human-to-human transmission is occurring, all influenza viruses have the capacity to change and spread widely.
- This variant causes mostly mild disease.
- This variant is susceptible to the neuraminidase inhibitors (oseltamivir and zanamivir) though the current A(H3N2) component of seasonal influenza vaccines is unlikely to provide protection. Older people are likely to have some protection from exposure to earlier vaccines.
- Overall, the immediate threat to human health is currently assessed as low in Europe.

Actions

ECDC is following the situation closely and is in direct contact with WHO, the US CDC and relevant experts in EU Member States. ECDC and the Community Network of Reference Laboratories (CNRL) have worked to assess and strengthen laboratory capacity in Europe for detecting A(H3N2)v virus. The results indicate that the variant viruses would be detected in most EU countries although some laboratories may not be able to subtype and identify the viruses as variant. In this context, all unsubtypable influenza A viruses need to be rapidly referred to the WHO Collaborating Centre for Reference and Research on Influenza, National Institute for Medical Research, London, UK.

The ECDC Rapid Risk Assessment was updated on 20 August.

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Hantavirus Pulmonary Syndrome outbreak - USA - Yosemite Park outbreak

Opening date: 3 September 2012 Latest update: 11 September 2012

Epidemiological summary

The U.S. Centers for Disease Control and Prevention and the Yosemite Park authorities have reported an outbreak of Hantavirus Pulmonary Syndrome (HPS) among visitors to Yosemite National Park, California. As of 14 September 2012, eight cases have been confirmed since June 10, including three fatalities; the five remaining individuals are recovering. All cases were among U.S. citizens, seven of whom have been linked to a specific area of Curry Village in Yosemite Valley while the eighth case stayed in a different area of the park. The Curry Village tents were disinfected and visitors moved on 24 August.

The US CDC has informed ECDC that 591 individuals from 17 Member States and French Polynesia had reservations in the affected accommodation between 10 June and 25 August 2012 for a total of 1 923 people in booked groups from the EU. It is likely that most of the people who stayed in the tent cabins were EU citizens but this information is unknown at present.

As of 14 September 2012, no HPS case linked to Yosemite Park has been confirmed among EU citizens.

A US CDC health advisory was published on 31 August 2012 for health care providers as well as a list of frequently asked questions. A park alert is currently in place at Yosemite and park authorities are updating the relevant information for visitors. The Californian Department of Public Health (CDPH) is regularly updating the epidemiological situation.

ECDC assessment

Several species of Hanta virus have been identified on the American continent but the Sin Nombre virus is responsible for most cases of HPS. Sin Nombre virus was first described in 1993 during a large outbreak HPS in the US and 602 laboratory confirmed cases have been reported so far as of 2 July 2012 by US CDC. The case-fatality rate is around 35%.

Thirty US states have notified cases and the highest numbers are reported from south-western states which is a reflection of the geographical distribution of the Sin Nombre virus' reservoir host, the deer mouse. HPS displays a strong seasonal pattern with maximum number of cases in May, June, and July, and minimum number of cases in December, January, and February. Hantaviruses are not believed to be novel to the American continent and there is serological evidence of human infections dating back to 1959. Clusters of cases have been reported before in the United States but there is no evidence of human-to-human or nosocomial transmission of hantaviruses in North America. There are rare but well-documented instances of human-to-human transmission of Andes virus in Argentina and Chile. The incubation period ranges from one to five weeks.

HPS is a rare disease and although it is unusual with a cluster of eight cases over two months, the risk remains very small for people who have visited Yosemite National Park during the summer of 2012. As HPS is not transmitted from person to person, there is no risk to the general public in Europe from this outbreak and no need for public health measures to be taken in the event of contact with cases. Clinicians should be reminded to consider the diagnosis of HPS in all persons presenting with symptoms compatible with HPS and a history to visit to the Yosemite National Park. People who have visited the affected area during the risk period should be advised to seek immediate medical attention if they develop symptoms.

ECDC considers that the risk of infection is low as only eight cases have been confirmed so far while several thousands have visited the area.

Actions

ECDC and the European Commission have provided EU Member States via Early Warning Response System, with the list and contact details of EU citizens who stayed in the 'Signature Tent Cabins' of Curry Village, including the list of visitors who could not be reached by the Park authorities.

ECDC has published a Rapid Risk Assessment (RRA) to assess the risk for European visitors to Yosemite National Park, and the campsite in question, and for the general public in Europe.

The European Network for Imported Viral Diseases (ENIVD-CLRN) has been mobilised while the European Commission has activated the QUANDHIP network to support Member States requiring further assistance in carrying out laboratory testing.

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Hantavirus Yosemite Park, number of EU citizens potentially exposed by country

Yosemite Park authorities

Member State	Number of EU citizens having booked	Number not reached by Park authorities	Number of people in the booked groups
Austria	10	3	34
Belgium	37	11	124
Denmark	32	8	105
Germany	74	33	250
Spain	33	6	88
Finland	3	0	5
France	143	46	502
French Polynesia	3	0	10
UK	108	31	342
Ireland	10	4	31
Island	1	0	4
Italy	46	9	140
Luxemburg	3	0	10
Netherlands	54	11	170
Norway	9	1	23
Poland	2	0	6
Sweden	21	5	71
Slovenia	2	1	8
Total EU/EEA	**591**	**169**	**1 923**

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