COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 31, 26 July-1 August 2015

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Fatal case of anthrax following animal exposure – Bulgaria

Opening date: 22 July 2015 Latest update: 23 July 2015

On 21 July 2015, the Bulgarian Ministry of Health reported a fatal case of *B. anthracis* in a man who handled contaminated meat whilst unprotected.

➔Update of the week

No new human cases were reported during the past week.

Cutaneous diphtheria - cases reported in the EU

Opening date: 20 July 2015 Latest update: 23 July 2015

Three countries (Denmark, Germany and Sweden) reported seven cases of toxigenic cutaneous diphtheria and two cases of non-toxigenic cutaneous diphtheria among refugees in 2015, while 13 other EU Member States reported no notifications of cases of cutaneous diphtheria among refugees in 2015.

Louse-borne relapsing fever – The Netherlands

Opening date: 15 July 2015 Latest update: 29 July 2015

The Netherlands posted an EWRS message on 10 July regarding two cases of louse-borne relapsing fever in asylum seekers from Eritrea, reported on 7 and 9 July 2015, respectively. In the Netherlands all asylum seekers from Eritrea are screened for fever and skin rash.

➔Update of the week

ECDC published a rapid risk assessment on 24 July and has prepared a factsheet on louse-borne relapsing fever.

West Nile virus - Multistate (Europe) - Monitoring season 2015

Opening date: 2 June 2015 Latest update: 30 July 2015

West Nile fever (WNF) is a mosquito-borne disease which causes severe neurological symptoms in a small proportion of infected people. During the June-to-November transmission season, ECDC monitors the situation in EU Member States and neighbouring countries in order to inform blood safety authorities of WNF-affected areas and identify significant changes in the epidemiology of the disease.

➔Update of the week

During the past week one new case was detected 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

Monitoring environmental suitability of Vibrio growth in the Baltic Sea – Summer 2015

Opening date: 6 July 2015

ECDC has developed a model to map the environmental suitability for *Vibrio* growth in the Baltic Sea (ECDC E3 Geoportal).

➔Update of the week

This week, the environmental conditions for *Vibrio* growth are considered suitable at a very low level in the southern part of the Baltic Sea.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 30 July 2015

Measles, a highly transmissible vaccine-preventable disease, is still endemic in many EU countries where vaccination uptake remains below the level required to interrupt the transmission cycle. Elimination of measles requires consistent vaccination uptake above 95% with two doses of measles vaccine in all population groups, strong surveillance and effective outbreak control measures.

➔Update of the week

In the EU, since the last monthly update, outbreaks have been detected in Austria. The outbreaks in Lithuania continue. The earlier reported outbreak in Alsace, France is nearing its end.

In the rest of the world, measles outbreaks are reported from South Sudan, Cameroon and Malaysia.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 29 May 2015

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease 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 outbreaks have been detected in EU Member States since the last monthly update.

Non EU Threats

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 30 July 2015

An epidemic of Ebola virus disease (EVD) has been ongoing in West Africa since December 2013, mainly affecting Guinea, Liberia and Sierra Leone. On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Emergency of International Concern (PHEIC).

➔Update of the week

As of 26 July 2015, WHO has reported 27 784 cases of Ebola virus disease related to the outbreak in West Africa, including 11 294 deaths.

According to the latest WHO situation report published on 29 July 2015, seven confirmed cases of EVD were reported in the week up to 26 July: four in Guinea and three in Sierra Leone. Liberia has reported no new cases.

This is the lowest weekly number in over a year, and comes after eight consecutive weeks during which case incidence had plateaued at between 20 and 30 cases per week.

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Middle East respiratory syndrome – coronavirus (MERS CoV) – Multistate

Opening date: 24 September 2012 Latest update: 30 July 2015

Since April 2012 and as of 30 July 2015, 1 401 cases of MERS have been reported by local health authorities worldwide, including 543 deaths. The source of the virus remains unknown but the pattern of transmission and virological studies point towards dromedary camels in the Middle East being a reservoir from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission is amplified among household contacts and in healthcare settings.

➔Update of the week

South Korea has not reported any new cases since 4 July. The number of cases remains at 186, including one case who travelled to China, and the number of deaths at 36.

Since 23 July 2015, Saudi Arabia has reported six new cases and three deaths of previously reported cases.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 30 July 2015

Dengue fever is one of the most prevalent vector-borne diseases in the world. It affects 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 has already highlighted the risk of locally acquired cases occurring in EU countries where the competent vectors are present. The dengue outbreak in the autonomous province of Madeira, Portugal, in October 2012 and the autochthonous dengue cases in the south of France in 2014 further underline the importance of surveillance and vector control in other European countries.

➔Update of the week

There are several ongoing outbreaks of dengue fever across the globe.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 30 July 2015

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until all transmission of the virus stopped and the world becomes polio-free. Polio was declared a Public Health Emergency of International Concern (PHEIC) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 6 May 2015, the Temporary Recommendations in relation to PHEIC were extended for another three months.

➔Update of the week

During the past week, a new case of wild poliovirus type 1 (WPV1) has been reported in Afghanistan by WHO. No new cases of vaccine-derived poliovirus (cVDPV) were reported.

24 July 2015 marked one year since the last reported case due to wild poliovirus in Nigeria had onset of paralysis. Final laboratory results on all specimens for the full 12-month period are expected by September 2015, which, if clear for poliovirus, may lead to Nigeria being removed from the list of polio-endemic countries.

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013 Latest update: 30 July 2015

An outbreak of chikungunya virus infection has been ongoing in the Caribbean since December 2013 and has spread to North, Central and South America. There is a concurrent epidemic of chikungunya in the Pacific area. In Europe, France reported autochthonous cases of chikungunya virus infection in 2014. This was the first time that locally-acquired transmission of chikungunya had been detected in France since 2010.

➔Update of the week

According to the latest update from the WHO Pan American Health Organization (WHO PAHO) on 24 July 2015, there have been nearly 50 000 new chikungunya cases reported in the Americas during the last two weeks.

There have been no autochthonous cases reported so far in Europe in 2015.

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
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II. Detailed reports

Fatal case of anthrax following animal exposure – Bulgaria

Opening date: 22 July 2015 Latest update: 23 July 2015

Epidemiological summary

On 21 July, Bulgaria reported a fatal case of *B. anthracis* in a 53-year-old breeder of sheep and cows who died on 17 July in Varna after having slaughtered a sick animal. Further investigations revealed that a meat-processing plant used the contaminated meat from the sick animal to prepare sausages. Prosecutors closed the plant and confiscated all products both those on the premises and those already in the market. Disinfection measures were undertaken and all personnel are under medical observation.

ECDC assessment

The number of anthrax cases in domestic animals might still increase in the Varna area. The risk of further infections occurring in humans cannot be excluded if they come into direct contact with, and slaughter, infected animals. Surfaces at the meat-processing plant might have been in contact with other meat that was processed after the anthrax-contaminated meat. This may have led to secondary contamination that may in turn pose a risk of gastrointestinal anthrax for individuals exposed to it.

Actions

ECDC is writing a joint Rapid Outbreak Assessment with EFSA.

Cutaneous diphtheria - cases reported in the EU

Opening date: 20 July 2015 Latest update: 23 July 2015

Epidemiological summary

On 16 July 2015, Denmark reported one case of toxigenic cutaneous diphtheria in an asylum seeker from Eritrea through the Early Warning and Response System (EWRS). The patient, who reported having been vaccinated against diphtheria during childhood, arrived in Denmark on 20 June 2015 while presenting with a traumatic leg wound received in Libya two months earlier. Sampling and biopsy of the wound showed growth of haemolytic *Streptococci* group A and *Staphylococcus aureus*. *Corynebacterium diphtheriae* was detected by Matrix Assisted Laser Desorption/Ionization Time of Flight Mass Spectrometry (MALDI-TOF MS) and was confirmed by PCR. On 6 July, PCR was positive for the toxin gene and on 8 July Elek's test confirmed the diagnosis of toxin-producing cutaneous diphtheria.

At the same time, Sweden reported two confirmed cases (MALDI-TOF MS + PCR) of cutaneous diphtheria caused by toxigenic *C. diphtheriae* in asylum seekers from Eritrea. Sweden has also diagnosed two cases of non-toxigenic cutaneous diphtheria in asylum seekers from Eritrea and Ethiopia.

As of 27 July, Germany has reported four cases of cutaneous diphtheria associated with asylum seekers in 2015. All infections were caused by toxigenic *C. diphtheriae* (three by biotype *mitis*, one unknown biotype). One was in a refugee from Libya, one in a refugee from Ethiopia, one in a refugee from Eritrea, and one in a patient from Syria (unknown if refugee). In addition, two cutaneous cases caused by *C. diphtheriae* were associated with asylum seekers or foreign visitors and reported to TESSy in 2014. The first case was a refugee from Somalia, the second case was a child from Angola who stayed for medical care in Germany.

ECDC assessment

There is currently no indication that the cases of cutaneous diphtheria among refugees and asylum seekers reported by Denmark, Germany and Sweden in 2015 represent a significant outbreak of diphtheria among refugees in Europe. However, notifications through the health system are unlikely to be a sensitive mechanism for detecting outbreaks of cutaneous diphtheria among refugees as they may have more limited access to healthcare services than other population groups.

Cutaneous diphtheria is a potential risk factor for transmission of diphtheria. Most refugees who arrive in Europe are from endemic countries and have travelled under conditions that increase the risk of acquiring cutaneous diphtheria, and many of them continue to be exposed to over-crowding and poor hygiene once they have arrived in the EU. This may increase the risk of diphtheria.

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European travellers may become infected and develop cutaneous diphtheria while travelling or working in endemic countries. ECDC data show that most of the travellers who were diagnosed with cutaneous diphtheria on their return had not received booster vaccinations or had unknown vaccination status.

Limitations in the capacity to confirm toxigenic infections may delay diagnosis, treatment and public health interventions in some EU Member States. Enhanced surveillance, molecular typing and whole genome sequencing of patient isolates have the potential to improve the understanding and monitoring of transmission patterns of cutaneous diphtheria.

Actions

ECDC is preparing a rapid risk assessment.

Louse-borne relapsing fever – The Netherlands

Opening date: 15 July 2015 Latest update: 29 July 2015

Epidemiological summary

Louse-borne relapsing fever (LBRF) is an arthropod-borne infection spread by body lice and is caused by *Borrelia recurrentis*. No animal reservoir exists. Case-fatality is 1% with treatment and 30 to 70% without treatment. Severe reaction occurs in 80 to 90% of patients when treated with antibiotics (Jarisch-Herxheimer reaction). Louse-borne relapsing fever occurs in epidemics amid poor living conditions, famine and war in the developing world. Between 1919 and 1923, 13 million cases resulting in 5 million deaths occurred in Russia and Eastern Europe. During World War II, a million cases occurred in North Africa. LBRF is currently commonly found in Ethiopia, Sudan, Eritrea and Somalia. Due to the rarity of the disease in Europe, it can easily be missed. Laboratory confirmation is done by identifying the spirochaete *Borrelia recurrentis* on a Giemsa-stained bloodsmear or by PCR.

ECDC assessment

That two cases of LBRF were found among asylum seekers coming from Eritrea and reported by the Netherlands is not unexpected as the disease is present in north-eastern Africa. In 2014, an increase of immigrants from LBRF-endemic areas has been observed in the EU (FRONTEX and European Asylum Support Office) suggesting that additional importation of cases may occur. LBRF is a vector-borne disease caused by the spirochaete *Borrelia recurrentis*, a human-restricted pathogen transmitted by the body louse *Pediculus humanus humanus*. Body lice infestations are linked to low socioeconomic status, over-crowding and poor personal hygiene. In Europe, populations at risk for body lice infestations, and hence louse-borne diseases, include the homeless and migrants. The risk for occurrence of LBRF is limited to these risk groups.

Actions

ECDC published a rapid risk assessment and has prepared a factsheet on louse-borne relapsing fever.

West Nile virus - Multistate (Europe) - Monitoring season 2015

Opening date: 2 June 2015 Latest update: 30 July 2015

Epidemiological summary

Since the beginning of the 2015 transmission season and as of 31 July, two human cases of West Nile fever have been reported in the EU, one in Italy and one in Bulgaria. Two cases have been detected in the neighbouring countries (Israel).

Web sources: ECDC West Nile fever | ECDC West Nile fever risk assessment tool | ECDC West Nile fever maps | WHO fact sheet

ECDC assessment

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

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Postal address: ECDC 171 83 Stockholm, Sweden
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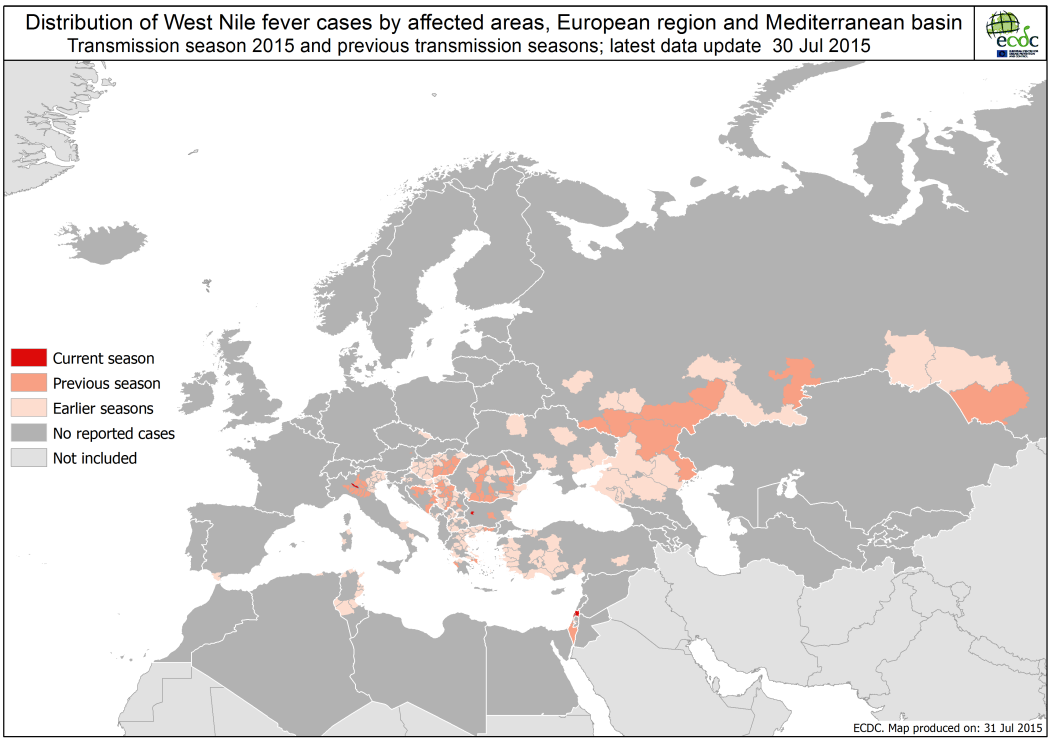
Epidemic Intelligence duty email: support@ecdc.europa.eu

Actions

ECDC produces weekly West Nile fever (WNF) maps during the transmission season (June to November) to inform blood safety authorities of WNF affected areas.

ECDC



Monitoring environmental suitability of Vibrio growth in the Baltic Sea – Summer 2015

Opening date: 6 July 2015

Epidemiological summary

In late June 2015, the *Vibrio* suitability tool on the ECDC E3 Geoportal helped ECDC to ascertain favourable environmental factors for *Vibrio* growth.
On 3 July 2015, ECDC launched an Urgent Inquiry (UI) in EPIS-FWD after detecting elevated sea surface temperatures (according to the National Oceanic and Atmospheric Administration, NOAA) in the Baltic Sea (as of 2 July 2015).

ECDC assessment

Elevated sea surface temperatures in marine environments with low salt content provide ideal environmental growth conditions for certain *Vibrio* species. These conditions can be found during the summer months in estuaries and enclosed water bodies with moderate salinity. In contrast, open ocean environments do not offer appropriate growth conditions for these bacteria due to the high salt content, low temperatures, and limited nutrient content. These *Vibrio* species can cause vibriosis infections, particularly *V. parahaemolyticus, V. vulnificus* and non-toxigenic *V. cholerae*.
Vibriosis in humans caused by these species in the Baltic region have occurred in the past during hot summer months, particularly when the sea surface temperature has been elevated. The most common clinical manifestations are gastroenteritis (with nausea, vomiting, and diarrhoea), wound infections (exposure of a cut, wound, or abrasion to contaminated seawater), primary septicaemia, and otitis externa (swimmer's ear). Risk factors for illness include consumption of shellfish, particularly raw oysters, and contact with natural bodies of water, especially marine or estuarine waters.

Actions

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
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ECDC launched an UI in EPIS-FWD to inform the FWD network about the elevated surface water temperatures measured in the Baltic Sea which create a favourable environment for the growth of *Vibrio* bacteria. ECDC will monitor this threat on a weekly basis during the summer of 2015 and report on increased environmental suitability for growth of *Vibrio* bacteria.

The *Vibrio* suitability tool is available on the ECDC E3 Geoportal. Please note that this model has been calibrated to the Baltic region in northern Europe and might not be compatible with other regional settings prior to validation.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 30 July 2015

Epidemiological summary

EU Member States

France -update

The number of cases in the outbreak in Alsace that started in mid-April 2015 has declined with only one case reported during the past week. As of 23 July 2015, the number of cases has reached 229. The outbreak will be declared over on 7 August if no more cases are reported.

Lithuania

Health authorities report a measles outbreak in Lithuania with 44 cases as of 27 July affecting several regions, including the capital Vilnius.

Austria

The Austrian Ministry of Health reports an increase in reported measles cases. Between 1 January and 22 July 2015, 305 measles cases were reported in eight of the nine states involving several clusters with most cases reported in Niederösterreich (40%), Oberösterreich (27%), Vienna (19%) and Steiermark (10%). The cases occurred in all age groups. Adolescents and young adults were most commonly affected. The majority of cases were not vaccinated (70%), or had unknown vaccination status (21%). Eight of the cases were infants too young to be vaccinated. So far, 57 (19%) of the cases needed hospitalisation. Sixteen cases were imported from abroad: eight from Germany, three from Bosnia and Herzegovina and one case each from India, Hungary, Romania, Spain and France. Genotype D8 has been identified, the same strain that was responsible for an outbreak in Bosnia and Herzegovina and an outbreak in Berlin.

Twelve transmissions occurred in hospitals or physicians' waiting rooms. Sixteen healthcare workers have been affected by measles this year, the majority of them had not been vaccinated (69%).

Rest of the world

United States

According to a press release from the Washington State Department of Health, a woman died in the spring of 2015 due to an undetected measles infection that was discovered at autopsy. The woman was most likely exposed to measles at a local medical facility during a recent outbreak in Clallam County. She was there at the same time as a person who later developed a rash and was contagious for measles. The woman had several other health conditions and was on medication that contributed to a suppressed immune system. She did not present with common symptoms of measles such as a rash, so the infection was not discovered until after her death. The cause of death was pneumonia due to measles. This was the first fatality in 12 years in the US due to measles.

California: According to a new law, California will require schoolchildren to receive vaccinations unless there are medical reasons not to do so. Families with a non-medical reason for declining vaccines will have to home-school their children. Unvaccinated children who are currently in school will be allowed to remain, although they will be expected to show proof of vaccination when they enter kindergarten and seventh grade.

Cameroon

There are media reports that an outbreak of measles is ongoing in North West Region in Benakuma, with 148 measles cases including nine fatalities as of 21 July 2015.

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South Sudan

According to the media, as of 12 July, 338 measles cases including five deaths have been registered in Bentiu since the beginning of 2015.

Malaysia

The media report that Kuala Lumpur in Malaysia recorded 73 cases of measles between 1 January and 30 June 2015, with 79% of them not having been vaccinated against the disease.

Publications

WHO
Genetic diversity of wild-type measles viruses and the global measles nucleotide surveillance database (MeaNS)

MMWR

Measles Transmission in an International Airport at a Domestic Terminal Gate — April–May 2014

A 46-year-old man has contracted measles from a 19-month-old child without meeting the patient. They both travelled through a Chicago airport and used the same gate for their respective flights. Although transmission could have occurred anywhere in the airport where the child and the adult were both present, it most likely occurred in the gate area during the 46-minute interval between the arrival of the adult's flight and the scheduled departure of the child's flight. Both cases were genotyped as D8, endemic in India, where the child evidently acquired measles, and the corresponding nucleotide sequences were determined to be identical. The adult was admitted for isolation only at a Massachusetts hospital during the last 5 days of his infectious period. The child was admitted for 3 days at a Minnesota hospital. Both recovered fully without complications.

Journal of Infectious Diseases

Whole-Genome Sequencing of Measles Virus Genotypes H1 and D8 During Outbreaks of Infection Following the 2010 Olympic Winter Games Reveals Viral Transmission Routes

Following the 2010 Olympics Winter Games, there has been a measles outbreak in British Columbia (BC). In early March 2010 three adults in Vancouver became ill. They had all visited the Games. By the end of April, 82 were people infected. Researchers from the British Columbia Centre for Disease Control (BCCDC) and the University of British Columbia sequenced the whole genome of the virus in samples collected from infected people to study the transmission routes of the virus. Genetic analysis revealed that there were two distinct outbreaks, caused by measles virus genotypes H1 and D8. The team was able to sequence 27 complete genomes from both H1 and D8 genotype measles viruses, making this the biggest measles genomics effort to date. They found that while the H1 virus spread across BC, the D8 outbreak remained restricted to Vancouver, and that all the northern BC cases arose from a single introduction, likely from a person travelling along Highway 97. D8 also occurs in Italy, the United States and India; H1 in China.

Web sources: ECDC measles and rubella monitoring | ECDC/Euronews documentary | MedISys Measles page | EUVAC-net ECDC | ECDC measles factsheet

ECDC assessment

During the recent 12-month period (May 2014 - April 2015), the reporting EU/EEA Member States conducting measles surveillance reported 4 116 cases. Six Member States reported no cases.
Twelve Member States reported less than one case per million population during the last 12 months.

The target for measles elimination in Europe has not been reached in 2015 due to continuing endemic measles transmission in many EU Member States.

Actions

ECDC monitors measles transmission and outbreaks in EU and neighbouring countries in Europe on a monthly basis through enhanced surveillance and epidemic intelligence activities.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
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Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 29 May 2015

Epidemiological summary

During the recent 12-month period (May 2014 to April 2015), 28 EU/EEA Member States reported 3 811 rubella cases. Twenty-six of these Member States reported consistently throughout the 12-month period. Poland accounted for 95% of all rubella cases in the period (n=3 608). In 23 of the Member States that reported consistently, the rubella notification rate was less than one case per million population for the 12-month period. Fourteen of these Member States reported zero cases.
Only 2.7% of the cases were supported by a positive rubella laboratory test result.

Web sources: ECDC measles and rubella monitoring | ECDC rubella factsheet | WHO epidemiological brief summary tables | WHO epidemiological briefs |Progress report on measles and rubella elimination |Towards rubella elimination in Poland

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. The increase in the number of rubella cases reported in Romania and Poland during the last two years and the number of babies born with CRS are cause for concern. Rubella occurs predominantly in age and sex cohorts historically not included in vaccination recommendations. To achieve rubella elimination, supplemental immunisation activities in these cohorts are needed.

Actions

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

An ECDC report is available online: Survey on rubella, rubella in pregnancy and congenital rubella surveillance systems in EU/EEA countries

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 30 July 2015

Epidemiological summary

Distribution of cases as of 26 July 2015:

Countries with intense transmission:

- **Guinea:** 3 786 cases of which 3 326 are confirmed and 2 520 deaths.
- **Sierra Leone:** 13 290 cases of which 8 694 are confirmed and 3 951 deaths.
- **Liberia:** 10 666 cases as of 9 May 2015, when Liberia was declared Ebola-free. Since then, as of 22 July, 6 cases and 2 deaths have been reported.

Countries that have reported an initial case or localised transmission:

- Nigeria, Senegal, the USA, Spain, Mali, the UK and Italy.

Situation in West African countries
In **Guinea**, WHO reported four new confirmed cases in the week up to 26 July, compared to 22 during the previous week. Transmission was centred in two prefectures: Conakry (n=3) and Coyah (n=1). According to WHO, for the first time since the starting of the outbreak all cases reported were registered contacts. For the first time since September 2014, WHO hasn't reported any positive community death. One of the cases in Conakry is a healthcare worker.

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In **Sierra Leone**, WHO reported three new confirmed cases in the week up to 26 July, compared with four during the previous week. Transmission was centred in two prefectures: Western Area Urban, which includes the capital Freetown (n=2) and Tonkolili (n=1). According to WHO, the cases in Freetown were registered contacts residing in a voluntary quarantine facility. The case in Tonkolili arose from an unknown chain of transmission. He travelled from Tonkolili to Freetown on 16 July and died on 23 July in a community hospital, where he was confirmed EVD-positive post-mortem. WHO reports that the case visited at least two healthcare facilities between 19 and 21 July in Freetown, and over 500 contacts have been identified.

In **Liberia**, no new cases were reported from WHO in Liberia. Of the six confirmed cases reported by WHO since 29 June, two have died, and the remaining four have now all been discharged after treatment. There are currently 33 contacts under follow-up in Liberia, all of whom will have completed the 21-day follow-up period by 2 August.

Situation among healthcare workers
One new infection in a healthcare worker has been reported from Guinea in the week up to 26 July. There have been 880 confirmed infections among healthcare workers reported from Guinea, Liberia, and Sierra Leone since the start of the outbreak, with 510 reported deaths.

Outside of the three most affected countries, 2 Ebola-infected healthcare workers were reported in Mali, 11 in Nigeria, 1 in Spain (infected while caring for an evacuated EVD patient), 2 in the UK (both infected in Sierra Leone), 6 in the USA (2 infected in Sierra Leone, 2 in Liberia, and 2 infected while caring for a confirmed case in Texas) and 1 in Italy (infected in Sierra Leone).

Medical evacuations and repatriations from EVD-affected countries
Since the beginning of the epidemic and as of 31 July 2015, 65 individuals have been evacuated or repatriated worldwide from the EVD-affected countries. Of these, 38 individuals have been evacuated or repatriated to Europe. Thirteen were medical evacuations of confirmed EVD-infected patients to: Germany (3), Spain (2), France (2), UK (2), Norway (1), Italy (1), the Netherlands (1) and Switzerland (1). Twenty-five asymptomatic persons have been repatriated to Europe as a result of exposure to Ebola in West Africa: UK (13), Denmark (4), Sweden (3), the Netherlands (2), Germany (1), Spain (1) and Switzerland (1). Twenty-seven persons have been evacuated to the United States.
No new medical evacuations have taken place since 18 March 2015.

Images
- Epicurve 1: the epicurve shows the confirmed cases in the three most affected countries.
- Epicurve 2: the epicurve shows the confirmed cases in Guinea, Sierra Leone and Liberia.
- Map: this map is based on country situation reports and shows only confirmed cases of EVD in the past six weeks.

Web sources: ECDC Ebola page | ECDC Ebola and Marburg fact sheet | WHO situation summary | WHO Roadmap | WHO Ebola Factsheet | CDC

ECDC assessment

This is the largest-ever documented epidemic of EVD, both in terms of numbers and geographical spread. The epidemic of EVD increases the likelihood that EU residents and travellers to the EVD-affected countries will be exposed to infected or ill persons. The risk of infection for residents and visitors in the affected countries through exposure in the community is considered low if they adhere to the recommended precautions. Residents and visitors to the affected areas run a risk of exposure to EVD in healthcare facilities.

The risk of importing EVD into the EU and the risk of transmission within the EU following an importation remains low or very low as a result of the range of risk reduction measures that have been put in place by the Member States and by the affected countries in West Africa. However, continued vigilance is essential. If a symptomatic case of EVD presents in an EU Member State, secondary transmission to caregivers in the family and in healthcare facilities cannot be excluded.

According to WHO, this is the lowest weekly total in over a year. They reported several high-risk events in both Guinea and Sierra Leone in the past 14 days. There are over 2 000 contacts still within their 21-day follow-up period in Guinea, Liberia, and Sierra Leone. In recent weeks a higher proportion of cases arose from contacts and a lower proportion of cases were identified post-mortem.

Actions

As of 31 July 2015, ECDC has deployed 89 experts (on a rotating basis) from within and outside the EU in response to the Ebola outbreak. This includes an ECDC-mobilised contingent of experts to Guinea. Furthermore, additional experts are already confirmed for deployment to Guinea over the next few months.

ECDC is looking for additional French-speaking experts with field epidemiology experience from EU Member States to join the

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ECDC-coordinated contingent in response to the Ebola outbreak in Guinea. For further information, please contact Alice Friaux at alice.friaux@ecdc.europa.eu with copy to support@ecdc.europa.eu.

An epidemiological update is published weekly on the EVD ECDC page.

ECDC updated the list of affected countries and regions on its website to include the newly affected county of Margibi, Liberia.
ECDC updated the event background on its website to report the newly reported cases in Liberia.
The latest (12th) update of the rapid risk assessment was published on 1 July 2015.
On 22 January 2014, ECDC published Infection prevention and control measures for Ebola virus disease. Management of healthcare workers returning from Ebola-affected areas.
On 4 December 2014, EFSA and ECDC published a Scientific report assessing Risk related to household pets in contact with Ebola cases in humans.
On 29 October 2014, ECDC published a training tool on the safe use of PPE and options for preparing for gatherings in the EU.
On 23 October 2014, ECDC published Public health management of persons having had contact with Ebola virus disease cases in the EU.
On 22 October 2014, ECDC published Assessing and planning medical evacuation flights to Europe for patients with Ebola virus disease and people exposed to Ebola virus.
On 13 October 2014, ECDC published Infection prevention and control measures for Ebola virus disease: Entry and exit screening measures.
On 6 October 2014, ECDC published risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU.
On 22 September 2014, ECDC published assessment and planning for medical evacuation by air to the EU of patients with Ebola virus disease and people exposed to Ebola virus.
On 10 September 2014, ECDC published an EU case definition.

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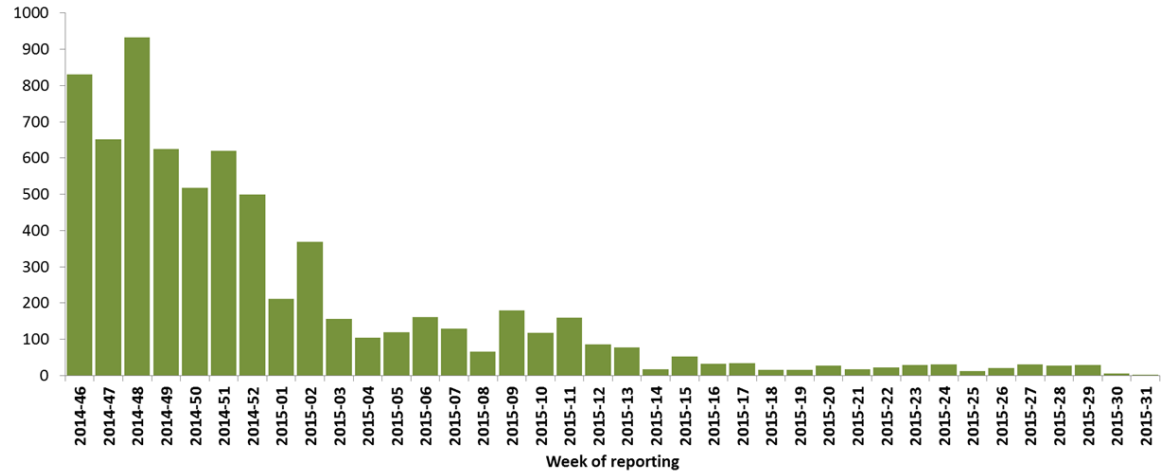
Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (weeks 46/2014 to 31/2015)

Adapted from WHO figures; *data for week 31/2015 are incomplete



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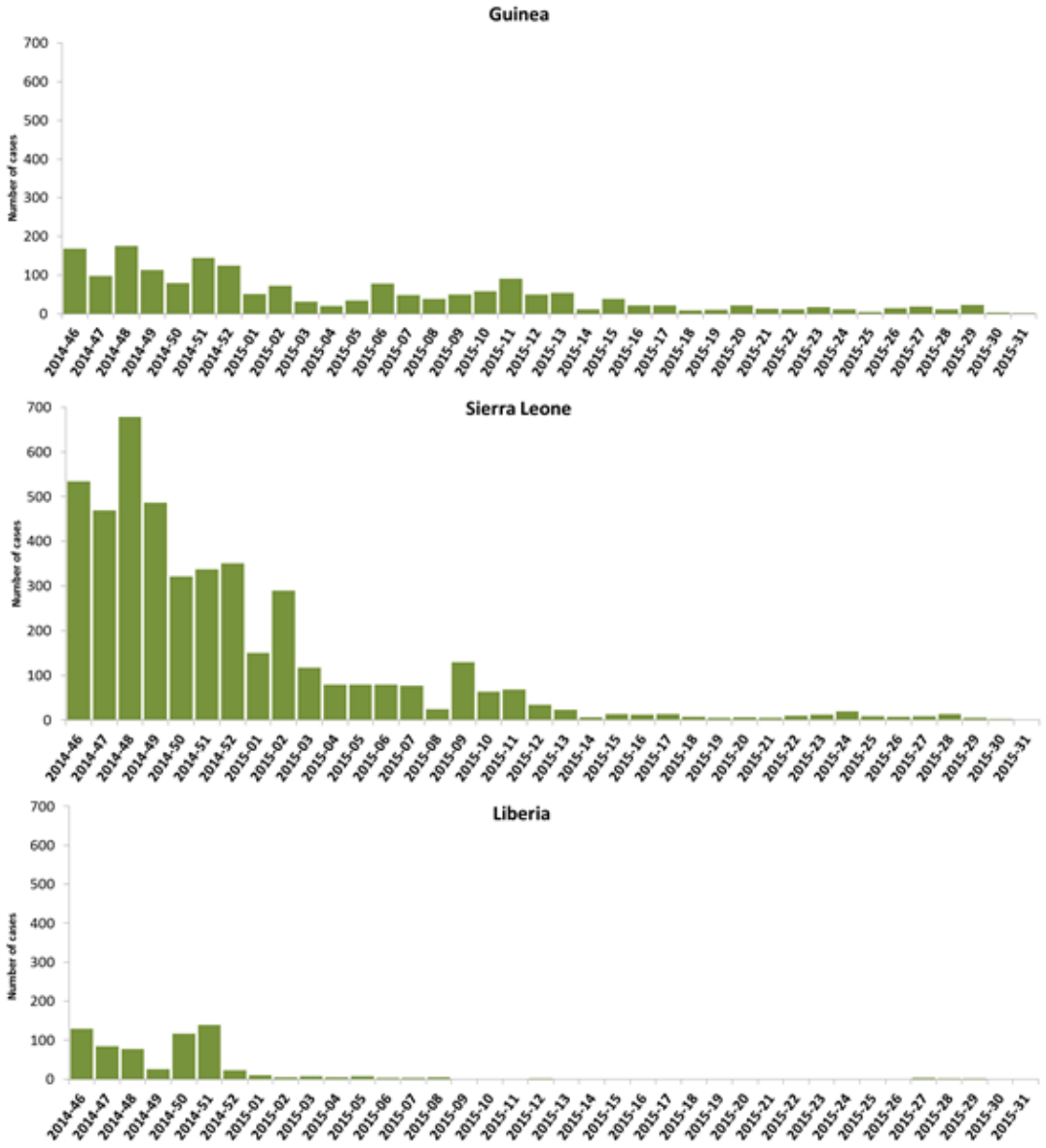
Distribution of confirmed cases of EVD by week of reporting in Guinea and Sierra Leone (weeks 46/2014 to 31/2015)

Adapted from WHO figures; *data for week 31/2015 are incomplete



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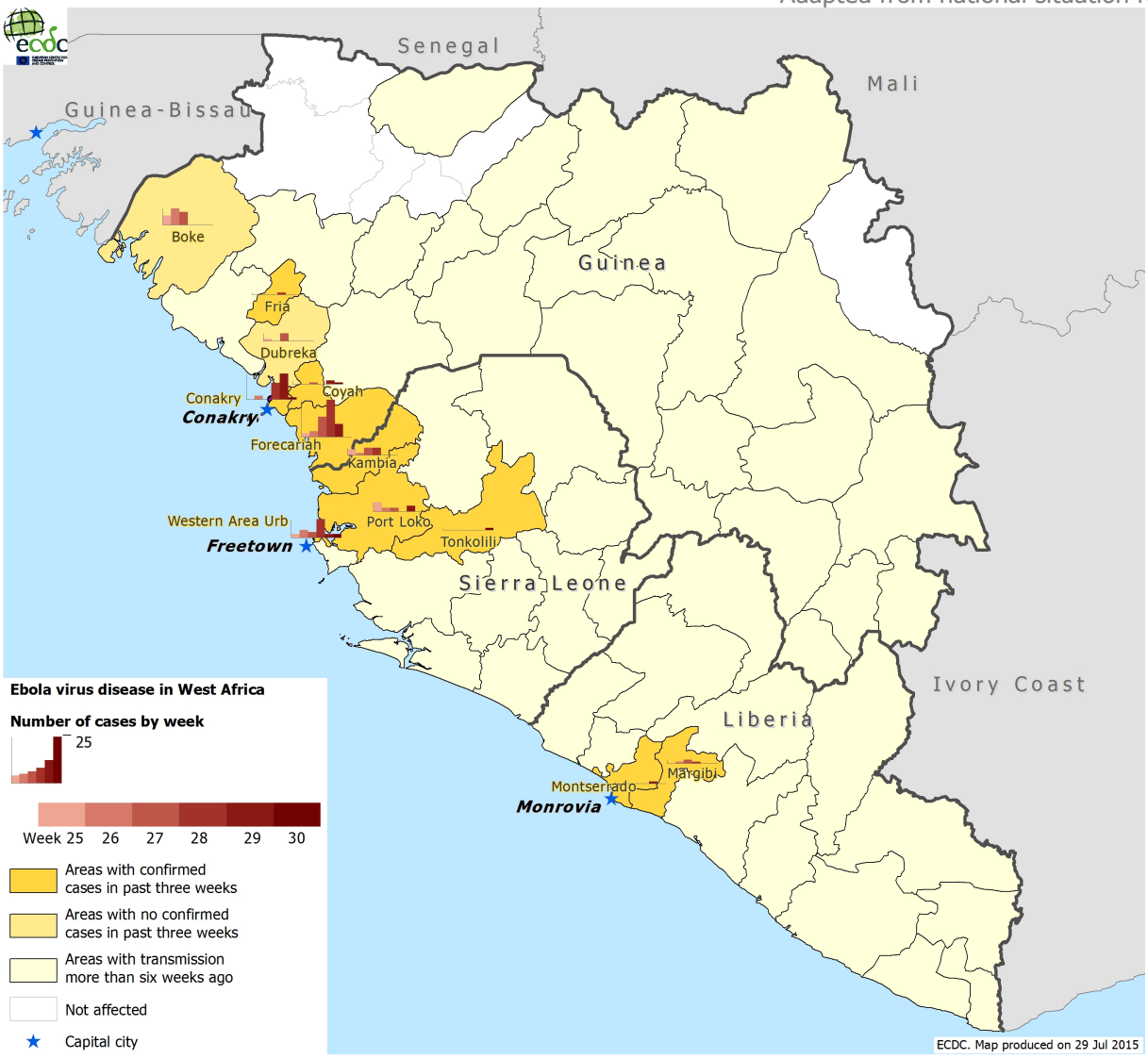
Distribution of confirmed cases of EVD by week of reporting in Guinea and Sierra Leone (as of week 30/2015)

Adapted from national situation reports



Middle East respiratory syndrome – coronavirus (MERS CoV) – Multistate

Opening date: 24 September 2012 Latest update: 30 July 2015

Epidemiological summary

The last case from South Korea was reported on 4 July 2015. Transmission can be considered to have ended when no new cases are detected for a period of 28 days (two times the maximum 14-day incubation period) after the last case being treated has tested negative two times (with a minimum of 24 hours between the two tests) or the case has died. South Korean local health authorities have called the transmission de facto over.

Between April 2012 and 30 July 2015, 1 401 cases of MERS have been reported by local health authorities worldwide, including 543 deaths.

The distribution is as follows:
Confirmed cases and deaths by region:

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Middle East
Saudi Arabia: 1 057 cases/467 deaths
United Arab Emirates: 81 cases/11 deaths
Qatar: 13 cases/5 deaths
Jordan: 19 cases/6 deaths
Oman: 6 cases/3 deaths
Kuwait: 3 cases/1 death
Egypt: 1 case/0 deaths
Yemen: 1 case/1 death
Lebanon: 1 case/0 deaths
Iran: 6 cases/2 deaths

Europe
Turkey: 1 case/1 death
UK: 4 cases/3 deaths
Germany: 3 cases/2 deaths
France: 2 cases/1 death
Italy: 1 case/0 deaths
Greece: 1 case/1 death
Netherlands: 2 cases/0 deaths
Austria: 1 case/0 deaths

Africa
Tunisia: 3 cases/1 death
Algeria: 2 cases/1 death

Asia
Malaysia: 1 case/1 death
Philippines: 3 cases/0 deaths
South Korea: 185 cases/36 deaths
China: 1 case/0 deaths
Thailand: 1 case/ 0 deaths

Americas
United States: 2 cases/0 deaths

Web sources: ECDC's latest rapid risk assessment | ECDC novel coronavirus webpage | WHO | WHO MERS updates | WHO travel health update | WHO Euro MERS updates | CDC MERS | Saudi Arabia MoH | ECDC factsheet for professionals

ECDC assessment

According to ECDC experts, the MERS outbreak poses a low risk to the EU. Efforts to contain the nosocomial clusters in the affected countries are vital to prevent wider transmission. Although sustained human-to-human community transmission is unlikely, secondary transmission to unprotected close contacts, especially in healthcare settings, remains possible, as documented in South Korea.

Countries should advise travellers returning from all countries affected by MERS to seek medical attention if they develop a respiratory illness with fever and cough during the two weeks after their return and to disclose their recent travel history to the healthcare provider. The travellers, especially those with pre-existing medical conditions, should be reminded of the importance of good hand and food hygiene, and to avoid contact with sick people. In addition, travellers to the Arabian Peninsula should avoid close contact with camels, visiting farms and consuming unpasteurised camel milk, urine or improperly cooked meat.

Actions

ECDC published an epidemiological update on 22 July 2015.

ECDC published a rapid risk assessment on 1 July 2015.

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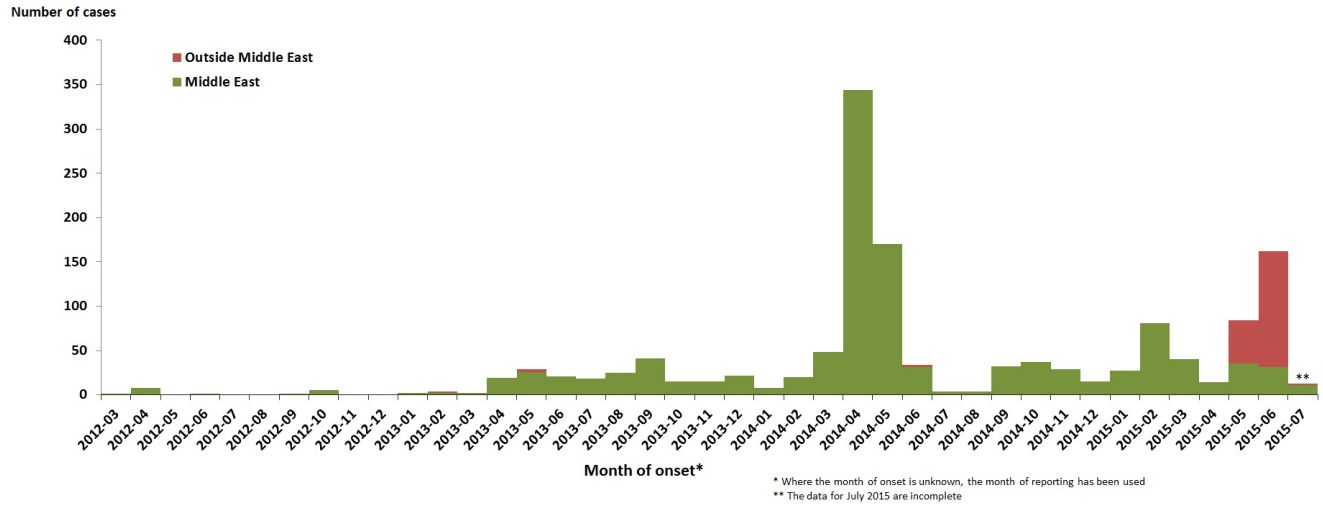
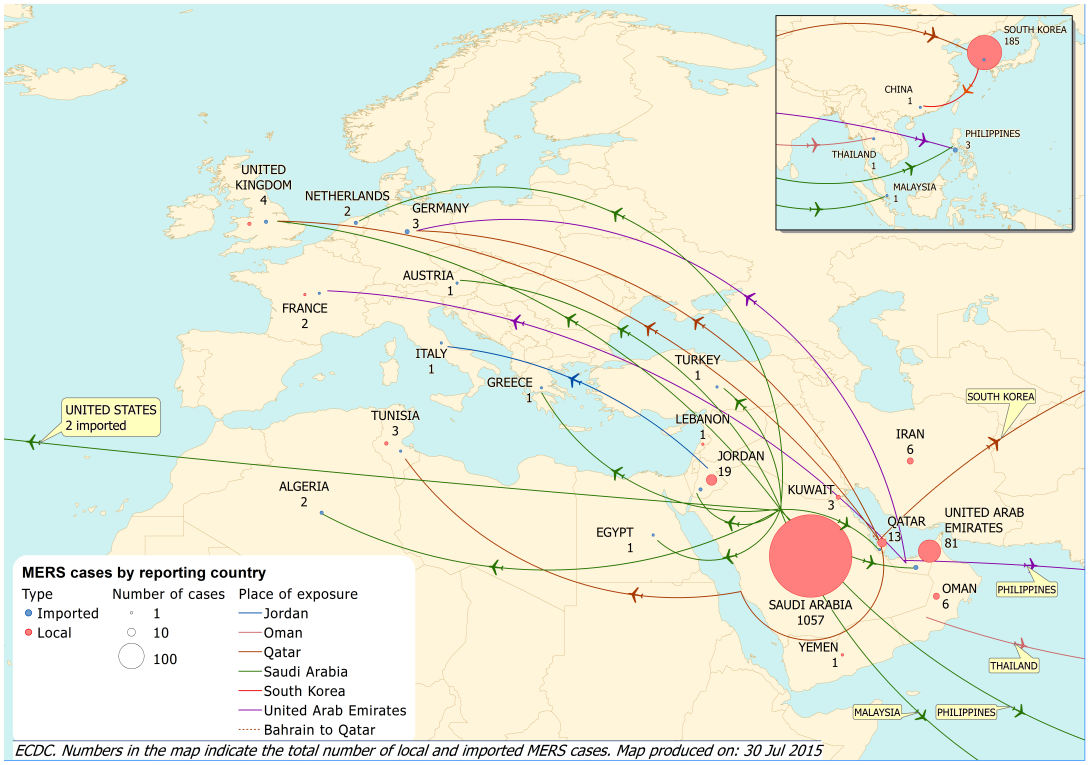
Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 30 July 2015 (n=1 401)

Source: ECDC



Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 30 July 2015 (n=1 401)

Source: ECDC



ECDC. Numbers in the map indicate the total number of local and imported MERS cases. Map produced on: 30 Jul 2015

Dengue - Multistate (world) - Monitoring seasonal epidemics

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Visiting address: Tomtebodavägen 11a, Solna, Sweden
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Opening date: 20 April 2006 Latest update: 30 July 2015

Epidemiological summary

Europe
No new autochthonous dengue cases have been detected so far in 2015.

Asia
Cambodia has seen 2 688 dengue fever cases (DENV-1) in the first six months of 2015, this is an increase of 116 percent from the 1 245 cases over the same period last year according to local health officials on 25 July 2015. Over 71% of the cases have occurred in children aged between 5 and 14 years. In **Cambodia**, the outbreak of the disease usually occurs in the rainy season from May to October. As of 22 July, **Taiwan** has reported 38 locally acquired cases during the past week. **Vietnam** is seeing an increasing number of cases and as of 20 July more than 12 000 cases have been recorded. The areas most affected have been Ho Chi Minh City (5 000 cases) and Ha Noi city (300 cases). As of 24 July, **Malaysia** is reporting 6 267 cases. As of 27 July, Sri Lanka has reported 17 436 cases. In **India** 30 new cases were reported from Delhi. Cases are also being seen in Gujarat state, Goa, Karnataka state, Kerala, Pasighat and Telangana. **Bangladesh** and **Pakistan** continue to report cases.

Americas
In the Americas, over 1.5 million suspected and confirmed cases have been reported so far this year, according to a PAHO report. **Mexico** and **Colombia** have reported around 50 000 cases each. In **Brazil**, the number of dengue fever cases had reached 1 254 907 by week 26.

Caribbean
In **Puerto Rico**, 26 suspected cases of dengue fever were reported in week 26, a level of reporting which remains below the epidemic threshold. Between the beginning of the year and 22 July, 952 cases have been reported. DENV-4 has been the predominant circulating serotype during the past eight weeks.

Pacific Islands and Australia
There are ongoing dengue outbreaks in **American Samoa** and **Samoa** (DENV-3), in **Fiji** (DENV-2) and **Papua New Guinea** (DENV-1 and DENV-2) as of 19 July 2015. The number of cases is decreasing in **French Polynesia** according to the Pacific Public Health Surveillance Network (PACNET). In **Australia**, the two ongoing DENV-1 outbreaks in Cairns and Townsville are also diminishing.

Web sources: ECDC Dengue | Healthmap Dengue | MedISys | ProMed Americas, Asia, Pacific |

ECDC assessment

The autochthonous transmission of dengue fever in the south of France during 2014 highlights the risk of locally acquired cases occurring in countries where competent vectors are present. This underlines the importance of surveillance and vector control in European countries that have competent vectors.

Actions

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

ECDC monitors the dengue situation worldwide on a monthly basis.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 30 July 2015

Epidemiological summary

Worldwide in 2015, 34 wild poliovirus type 1 (WPV1) cases have been reported to WHO so far, compared with 130 for the same period in 2014. Since the beginning of the year, two countries have reported cases: Pakistan (28 cases) and Afghanistan (6 cases).

In 2015, nine cases (eight in Madagascar and one in Nigeria) of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO so far, compared with 30 for the same period in 2014. The cases in Madagascar are genetically linked to a case reported in September 2014, indicating prolonged and widespread circulation of the virus.

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

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet | Temporary Recommendations to Reduce International Spread of Poliovirus | Statement on the 4th IHR Emergency Committee meeting regarding the international spread of wild poliovirus

ECDC assessment

Europe is polio-free. The last locally acquired wild-polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases.
The confirmed circulation of wild poliovirus in several countries and the documented exportation of wild poliovirus to other countries support the fact that there is a potential risk of wild poliovirus being re-introduced to the EU/EEA. The highest risk of large poliomyelitis outbreaks occurs in areas with clusters of unvaccinated populations and in people living in poor sanitary conditions, or a combination of both.

References: ECDC latest RRA | Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA | Wild-type poliovirus 1 transmission in Israel - what is the risk to the EU/EEA? |

Actions

ECDC monitors reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being re-introduced into the EU. Following the declaration of polio as a PHEIC, ECDC updated its risk assessment. ECDC has also prepared a background document with travel recommendations for the EU.

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013 Latest update: 30 July 2015

Epidemiological summary

Americas

Since the beginning of the year and as of 24 July 2015, PAHO has reported 477 371 suspected and confirmed cases of chikungunya virus infection and 61 deaths in the WHO region of the Americas.
The number of cases reached 1 614 318 since the start of the epidemic in December 2013.

Pacific region

The weekly number of cases is decreasing everywhere in the region, except in the Marshall Islands that reported 38 laboratory-confirmed cases in the week ending on 23 July bringing the number of cases to 1 201 since February 2015.

Web sources: PAHO update| ECDC Chikungunya | WHO Factsheet | Medisys page |

ECDC assessment

Epidemiological data indicate that the outbreaks are still expanding in the Caribbean, the Americas and the Pacific. The vector is endemic in all three regions, where it also transmits dengue virus. Continued vigilance is needed to detect imported cases of chikungunya in tourists returning to the EU from these regions.

Actions

ECDC published a Rapid Risk Assessment on 27 June 2014.

ECDC monitors the global chikungunya situation on a bi-weekly basis.

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
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