



#### COMMUNICABLE DISEASE THREATS REPORT

**CDTR** 

## Week 44, 26 October-1 November 2014

All users

This weekly bulletin provides updates on threats monitored by ECDC.

# I. Executive summary EU Threats

## Influenza - Multistate (Europe) - Monitoring 2014-2015 season

Opening date: 9 October 2014

Following the 2009 pandemic, influenza transmission in Europe has returned to its seasonal epidemic pattern, with peak activity during winter months. ECDC monitors influenza activity in Europe during the winter season and publishes the results on its website in the weekly Flu News Europe.

Latest update: 31 October 2014

→Update of the week

In the fourth week of the season, influenza activity across the WHO European Region remained low with indication of sporadic activity in ten countries.

## West Nile virus - Multistate (Europe) - Monitoring season 2014

Opening date: 3 June 2014 Latest update: 30 October 2014

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, no new cases were reported in the EU. In neighbouring countries, Serbia reported seven new cases in previously affected areas: City of Belgrade (2), Juzno-Banatski district (4) and Podunavski district (1).

## Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 2 October 2014

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease and is an infection which often passes unnoticed. The main reason for immunising against rubella is the high risk of congenital malformations associated with rubella infection during pregnancy. All EU Member States recommend vaccination against rubella with at least two doses of vaccine for both boys and girls. The vaccine is given at the same intervals as the measles vaccine as part of the MMR vaccine.

→Update of the week

No new outbreaks were detected during the past month.

## Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 31 October 2014

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

Since the last monthly update, no new outbreaks have been detected.

#### **Non EU Threats**

## **Ebola Virus Disease Epidemic - West Africa - 2014**

Opening date: 22 March 2014 Latest update: 31 October 2014

An epidemic of Ebola virus disease (EVD) has been ongoing in West Africa since December 2013, mainly affecting Guinea, Liberia and Sierra Leone. The situation in the affected countries remains critical. On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Emergency of International Concern (PHEIC). In recent weeks, cases of transmission to healthcare workers involved in caring for patients were reported by Spain (1) and the USA (3).

→Update of the week

Since the publication of the last CDTR on 24 October 2014, the affected countries have reported 3 767 additional cases and 43 additional fatalities.

No new cases have been reported in Spain or USA although EVD transmission remains persistent and widespread in Guinea, Liberia, and Sierra Leone.

### **Ebola Virus Disease Outbreak - the Democratic Republic of Congo - 2014**

Opening date: 26 August 2014 Latest update: 24 October 2014

On 24 August 2014, an outbreak of Ebola virus disease (EVD) was declared in the Boende health zone of Equateur province in the Democratic Republic of Congo. This outbreak is the seventh outbreak of EVD in the country.

→Update of the week

No new confirmed case has been reported during the past week.

#### Outbreak of Marburg fever – Uganda

Opening date: 6 October 2014 Latest update: 30 October 2014

On 5 October 2014, the Ministry of Health in Uganda reported a laboratory-confirmed outbreak of Marburg fever. The index case was a healthcare worker who died on 28 September at Mengo hospital in Kampala.

→Update of the week

No new confirmed cases of Marburg haemorrhagic fever have been reported since the detection of the index case in early October.

### **Outbreak of Enterovirus D68 - USA and Canada**

Opening date: 10 September 2014 Latest update: 30 October 2014

Since mid-August 2014, local health authorities in more than 45 states in the USA have been notifying the Centers for Disease Control and Prevention (CDC) of laboratory-confirmed enterovirus 68 (EV-D68) infections. Since mid-September Canada has also experienced an increase in severe respiratory illness associated with EV-D68 infections. All patients presented with respiratory symptoms. Several others, particularly those with pre-existing asthma, were admitted to paediatric intensive care units. Health authorities are also investigating reports of paralysis or muscle weakness and other polio-like symptoms in a small number of children, some of whom tested positive for EV-D68 in both the USA and Canada. It is not yet clear whether EV-D68 is associated with paralysis in these children.

#### →Update of the week

Since the last CDTR update on 23 October 2014, the US CDC has reported 128 additional cases of respiratory illness caused by EV-D68. Investigation of acute neurologic illness with focal limb weakness of unknown aetiology in children is still ongoing. <u>US</u> CDC verified 13 additional cases that meet the US case definition for acute neurologic disease.

In Canada as of 27 October 2014, confirmed cases have been reported in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia and Prince Edward Island. As of 16 October 2014, 150 specimens have been collected from across Canada between August and October 2014, which have tested positive for EV-D68.

#### Middle East respiratory syndrome – coronavirus (MERS CoV) – Multistate Latest update: 30 October 2014

Opening date: 24 September 2012

Since April 2012, 925 cases of MERS-CoV have been reported by local health authorities worldwide, including 370 deaths. To date, all cases have either occurred in the Middle East, have direct links to a primary case infected in the Middle East, or have returned from this area. The source of the virus remains unknown, but the pattern of transmission and virological studies points 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

Since the last CDTR of 23 October, 17 cases have been reported from Saudi Arabia.

## Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Latest update: 30 October 2014 Opening date: 8 September 2005

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission stops and the world is 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 the international spread of wild poliovirus during 2014.

→Update of the week

During the past week, ten new wild poliovirus type 1 (WPV1) cases have been reported in Pakistan.

## **II. Detailed reports**

## Influenza – Multistate (Europe) – Monitoring 2014–2015 season

Opening date: 9 October 2014 Latest update: 31 October 2014

### **Epidemiological summary**

#### Week 43/2014

- In the fourth week of the season, influenza activity across the WHO European Region remained low with indication of sporadic activity in ten countries.
- Clinical primary care data was reported by 36 countries, out of which all reported low intensity and nine reported sporadic geographic spread. Five countries reported increasing trends, the same as in the previous week.
- Twenty-nine countries tested 429 sentinel specimens, with five specimens (1%) reported positive by four countries. Two were subtyped as influenza A(H3N2); one as influenza A(H1N1) and two were influenza B unsubtyped.
- · One country reported a laboratory confirmed influenza case which was admitted to the intensive care unit.

#### Season

Influenza activity in the European Region is typically low at this time of year and there is no indication that the influenza season has started in the Region.

No indications of increased mortality due to influenza have been reported through the European monitoring of excess mortality for public health action (EuroMOMO –  $\frac{\text{http://www.euromomo.eu/}}{\text{otherwise}}$ ).

Web sources: Flu News Europe | ECDC Influenza |

#### **FCDC** assessment

Influenza activity in the European region is low for the time of year.

#### **Actions**

ECDC, together with WHO, produces Flu News Europe, which is updated weekly.

## West Nile virus - Multistate (Europe) - Monitoring season 2014

Opening date: 3 June 2014 Latest update: 30 October 2014

## Epidemiological summary

As of 30 October 2014, 74 human cases of West Nile fever have been reported in the EU, and 127 cases have been reported in neighbouring countries since the beginning of the 2014 transmission season.

#### **EU Member States**

Italy has reported 24 cases from the following provinces: Bologna (4), Parma (1), Cremona (3), Modena (2), Reggio nell'Emilia (1), Verona (1), Pavia (5), Mantova (2), Lodi (2), Piacenza (2) and Brescia (1). Romania has reported 23 cases in the districts of Mures (2), Olt (6), Constanta (1), Ialomita (1), Bucuresti (1), Dambovita (1), Dolj (3), Galati (1), Giurgiu (1), Teleorman (2), Sibiu (1), Braila (1), Iasi (1) and Valcea (1). Hungary has recorded 11 cases in the following areas: Budapest (4), Csongrad county (2), Pest County (1), Jasz-Nagykun-Szolnok county (1), Bekes county (1), Hajdu-Bihar county (1) and Bacs-Kiskun county (1). Austria reported one autochthonous case of West Nile fever in Vienna. In Greece, 15 human cases have been notified since the start of the 2014 transmission season in the following prefectures: Attiki (2), Ileia (6), Rodopi (4) and Xanthi (3).

#### **Neighbouring countries**

Thirteen cases have been reported by Bosnia and Herzegovina, in Republika Srpska, in the following municipalities: Banja Luka (4), Trebinje (1), Novi Grad (1), Kljuc (1), Krupa na Uni (1), Mrkonjic Grad (1), Gornji Ribnik (1), Teslic (1), Laktasi (1) and Prijedor (1). Serbia has reported 76 cases of West Nile fever in the following regions: City of Belgrade (35), Juzno-backi district (5), Nisavski (1), Kolubarski (4), Sremski (6), Juzno-banatski (19), Podunavski (4), Raski (1) and Sumadijski (1). Russia has reported 29 cases in the following oblasts: Saratovskaya (9), Samarskaya (6), Volgogradskaya (5), Astrakhanskaya

(3), Belgorodskaya (1), Altayskiy Kray (1), Chelyabinskaya (1) and Voronezhskaya (3). Israel has recorded nine cases of West Nile fever in the following areas: Central district (1), Tel Aviv district (3), Haifa district (2), Jerusalem (1) and Northern district (2).

Web sources: ECDC West Nile fever | ECDC West Nile fever risk assessment tool | 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.

#### **Actions**

Since week 23, ECDC has been producing weekly West Nile fever (WNF) risk maps during the transmission season to inform blood safety authorities regarding WNF affected areas.

Distribution of West Nile fever cases by affected areas, European region and Mediterranean basin Transmission season 2014; latest update 30 October 2014 Area reporting cases in 2014 Area not reporting cases in 201 Not included Malta Monaco Liechtenstein

Rubella - Multistate (EU) - Monitoring European outbreaks Opening date: 7 March 2012

#### Epidemiological summary

Twenty-eight EU/EEA countries reported 9 443 rubella cases during the most recent 12-month period between July 2013 and June 2014. The rubella notification rate of the desired less than one case per million population was achieved by 21 countries during the last 12 months.

Latest update: 2 October 2014

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

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**ECDC** 

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.

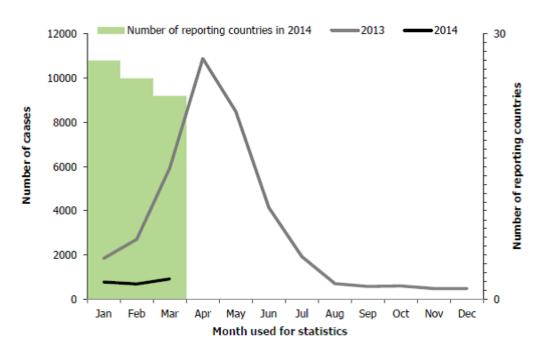
#### **Actions**

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: <u>Survey on rubella, rubella in pregnancy and congenital rubella surveillance systems in EU/EEA countries</u>

## Number of rubella cases in 2013 and 2014 and number of European countries reporting in 2014, by month

**ECDC** 



Note: Belgium and France do not have rubella surveillance with national coverage. Of the countries that have rubella surveillance with national coverage, only Italy did not report data for all months in 2013

## Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 31 October 2014

## **Epidemiological summary**

#### **EU MS**

#### <u>Austria</u>

Two cases of measles have been identified at the University of Innsbruck ten days apart. Students who attended the listed lectures are reminded to bring up to date their measles immunisation. The university announced that those who have not been immunised against measles with two doses or have not had measles infection should not attend lectures until the end of the

incubation period.

#### Poland

There are an increasing number of vaccine-preventable diseases reported, including measles, in the Poznan area with 66 measles cases between January and 15 October 2014

#### Rest of the world

#### Hawaii, US

Three unvaccinated adults on Maui, Kauai have been infected with measles. Each involves unvaccinated young adults who recently travelled either to the Philippines or Indonesia and Malaysia. Since January 2014, there have been 594 cases of measles reported in 22 states according to the US Centers for Disease Control and Prevention (CDC), including two cases in Hawaii reported earlier this year in February 2014. With the additional recently confirmed cases, Hawaii now has five confirmed cases reported in the state this year.

#### Solomon Islands

There is an ongoing measles outbreak with 3 802 reported cases, including seven fatalities.

Web sources: <a href="ECDC">ECDC</a> measles and rubella monitoring | <a href="ECDC/Euronews documentary">ECDC/Euronews documentary</a> | <a href="MedISys Measles page">MedISys Measles page</a> | <a href="EUVAC-net ECDC">EUVAC-net ECDC</a> | <a href="ECDC measles factsheet">ECDC measles factsheet</a>

#### **ECDC** assessment

During 2014, seven EU Member States have reported measles outbreaks. The target year for measles elimination in Europe is 2015. The current situation suggests that endemic measles transmission continues in many EU Member States and the prospect of achieving the 2015 objective is not obtainable.

## **Ebola Virus Disease Epidemic - West Africa - 2014**

Opening date: 22 March 2014 Latest update: 31 October 2014

## Epidemiological summary

Since December 2013 and as of 27 October 2014, WHO reports 13 703 cases, including 4 920 deaths. The distribution of cases is as follows:

Countries with widespread and intense transmission:

• Guinea: 1 906 cases and 997 deaths as of 27 October 2014; • Liberia: 6 535 cases and 2 413 deaths as of 25 October 2014; • Sierra Leone: 5 235 cases and 1 500 deaths as of 27 October 2014.

Countries with an initial case or cases, or with localised transmission:

• Mali: one confirmed imported case from Guinea was reported in Kayes, Mali on 23 October; the case died on 24 October;

• United States: four cases including one death. The last confirmed case occurred in New York on 23 October 2014;

• Spain: one case, no deaths. The case is the result of secondary transmission in Spain to a nurse who cared for an EVD patient who had been evacuated from Liberia. The nurse was isolated on 6 October 2014;

• Nigeria: 20 cases and eight deaths. Nigeria was declared Ebola free on 19 October 2014;

• Senegal: one confirmed imported case, no deaths. Senegal was declared Ebola free on 17 October 2014.

The increasing number of healthcare workers that have been infected by the Ebola virus is a major cause for concern: as of 27 October 2014 and according to WHO, 521 healthcare workers are known to have been infected with EVD and among them, 272 have died.

**United States**: No new cases have been reported since 23 October. The last case is medical aid worker who volunteered in Guinea and recently returned to the United States. According to WHO, as of 29 October, two healthcare workers who became infected with Ebola have tested negative twice and have now been released from hospital.

Spain: No new cases have been reported since 6 October. On 29 October, Spain notified that the confirmed secondary case of Ebola virus isolated in Spain tested negative in two samples taken 48 hours apart on 21 October 2014, and according to protocols

is now considered free of Ebola infection. Out of 83 contacts identified, there are six low-risk contacts currently under follow-up. All of them are asymptomatic. As of 27 October, the follow-up period for the 15 high-risk contacts finished and they have been discharged.

As of 30 October ten medical evacuations and repatriations to Europe have taken place of confirmed EVD cases: three to Germany, two to Spain, two to the Netherlands, one to the UK, one to France and one to Norway.

On 22 October 2014 Médecins Sans Frontières (MSF) Norway reported that the MSF worker who was medically evacuated to Oslo, Norway on 5 October 2014 from Sierra Leone was discharged from hospital on 20 October.

**Web sources**: ECDC Ebola page | ECDC Ebola and Marburg fact sheet | WHO Ebola Factsheet | Spanish MoH | CDC | WHO Roadmap | Media | MSF |

#### **ECDC** assessment

This is the largest ever documented epidemic of EVD in terms of numbers and geographical spread. The epidemic has not yet reached its peak and is currently in a phase of rapid spread.

The evolving epidemic of EVD over recent weeks 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 level of this risk is related to how well the infection control measures are being implemented in these settings and the nature of the care required.

As the epidemic is still evolving and more international staff are deployed to the affected countries to support the epidemic control, the risk of importation of EVD cases to the EU is increasing. The risk of Ebola virus spreading from an EVD patient who arrives in the EU as result of a planned medical evacuation is considered to be low when appropriate measures are strictly adhered to, but cannot be excluded in exceptional circumstances. The transmission of Ebola from a patient to a healthcare worker in Spain illustrates the connection between the epidemic in West Africa and the risk for the EU, and further stresses the need to control the epidemic in West Africa.

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. The highest risk is at an early stage of the disease, before the risk of EVD has been recognised, and at the late stage of the disease when patients have very high viral loads and undergo invasive therapeutic procedures.

#### **Actions**

An epidemiological update is published weekly on the <u>EVD ECDC page</u>. On 17 October, ECDC published an updated <u>rapid risk assessment</u>.

On 10 September, ECDC published an EU case definition.

On 22 September ECDC published <u>assessment and planning for medical evacuation by air to the EU of patients with Ebola virus disease and people exposed to Ebola virus.</u>

On 6 October ECDC published <u>risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU.</u>

On 13 October, ECDC published a document entitled "<u>Infection prevention and control measures for Ebola virus disease: Entry</u> and exit screening measures".

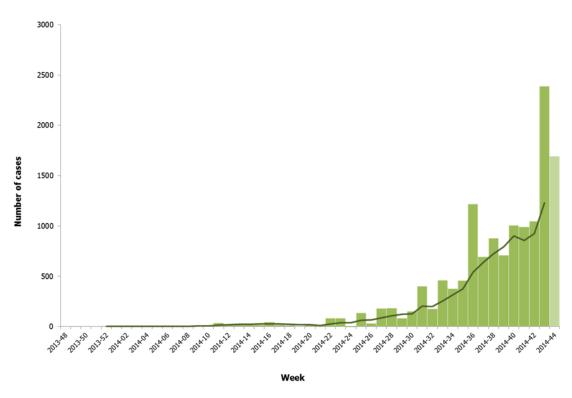
On 22 October ECDC published <u>Assessing and planning medical evacuation flights to Europe for patients with Ebola virus disease</u> and people exposed to Ebola virus.

On 23 October ECDC published <u>Public health management of persons having had contact with Ebola virus disease cases in the EU</u>. On 29 October, ECDC published a training tool on the <u>safe use of PPE</u> and <u>options for preparing for gatherings in the EU</u>

## Distribution of reported cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia, Nigeria and Senegal, weeks 48/2013 to 44\*/2014

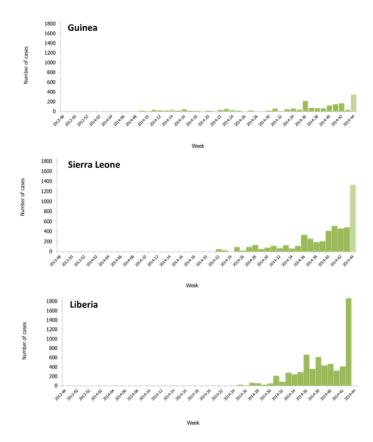
Source: Adapted from WHO; \*Data for week 44 are incomplete

#### Weekly number of EVD cases published on 29/10/2014

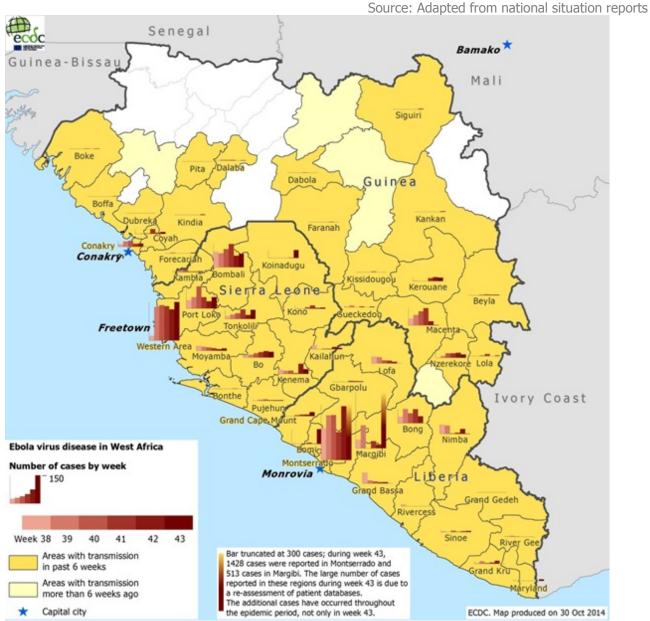


## Distribution of cases of EVD by week of reporting in the three countries with widespread and intense transmission, as of week 44\* 2014

Source: Adapted from WHO figures; \*Data for week 44 are incomplete



## Distribution of cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia and Nigeria (as of week 43/2014)



Ebola Virus Disease Outbreak - the Democratic Republic of Congo - 2014

Opening date: 26 August 2014 Latest update: 24 October 2014

## **Epidemiological summary**

The species causing this outbreak is *Zaïre ebolavirus*. The strain was found to be 99% homologous to Kikwit 1995 strain and therefore different from the *Zaïre ebolavirus* strain circulating in West Africa.

As of 26 October 2014, there have been 66 cases (38 confirmed, 28 probable) of Ebola virus disease (EVD) reported in the Democratic Republic of Congo (DRC), including 49 deaths. Eight of the deaths have been among healthcare workers. The index case was a pregnant woman exposed to bush meat who presented with symptoms of EVD and died in hospital on 11 August.

The last reported case tested negative for the second time on 10 October. The DRC will therefore be declared free of EVD 42 days after the date of the second negative test if no new cases are reported.

Web Sources: WHO AFRO | ECDC Ebola factsheet | OCHA | WHO situation report

#### **ECDC** assessment

The outbreak in DRC is unrelated to the current epidemic in West Africa. It appears at present that control measures implemented with the support of international partners have prevented further spread of the disease.

#### **Actions**

ECDC is monitoring this event through epidemic intelligence and published a rapid risk assessment.

## Outbreak of Marburg fever – Uganda

Opening date: 6 October 2014 Latest update: 30 October 2014

## **Epidemiological summary**

On 5 October 2014, the Ministry of Health in Uganda reported a laboratory-confirmed outbreak of Marburg fever. The index case was a healthcare worker, a radiographer recently recruited at Mengo hospital in Kampala. The onset of symptoms was on 11 September. The case presented to Mpigi District Health Centre on 17 September 2014, and was transferred to Mengo Hospital, Kampala, on 23 September 2014. On admission the case presented with symptoms including fever, headache, abdominal pain, vomiting and diarrhoea and died on 28 September 2014. The case reported no history of travel beyond Mpigi, and no contact with a person with similar illness. He had not eaten bush meat nor had he had contact with bats in the previous four weeks.

According to the last situation report on 17 October, there have been no new confirmed Marburg cases in Uganda since the index case was reported.

Source: CDC | MoH Uganda | WHO AFRO

#### **ECDC** assessment

Marburg virus disease is a severe and highly fatal disease caused by a virus from the same family as the one that causes Ebola virus disease. Both viruses can cause large outbreaks such as the ongoing Ebola virus disease outbreak in West Africa. Marburg fever cases are not unexpected in Uganda as authorities have reported several outbreaks there since the virus was identified in 1967: in 2007 (4 cases), in 2008 (2 cases) and in 2012 (20 cases including nine deaths). The last outbreak in 2012 affected four districts in Uganda (Kabale, Ibanda, Mbarara, and Kampala).

It appears at present that control measures implemented with the support of international partners have prevented further spread of the disease. The outbreak could be decleared over after 42 days have passed since the death of the index case.

#### **Actions**

The response to the current outbreak is led by the Ministry of Health, the US Centers for Disease Control and Prevention, Médecins Sans Frontières, and UNICEF.

## **Outbreak of Enterovirus D68 - USA and Canada**

Opening date: 10 September 2014 Latest update: 30 October 2014

## Epidemiological summary

#### **USA**

Hospitals in Missouri and Illinois were the first to document an increase of severe respiratory illness in children in the US in mid-August. Most of the cases were later found to be caused by EV-D68 infection. Almost all confirmed cases have been among children, and many of the children have a medical history of asthma and wheezing. According to US CDC, EV-D68 has been detected in specimens from eight patients who died and had samples submitted for testing.

The <u>US CDC</u> has reported that from mid-August to 29 October 2014, CDC or state public health laboratories have confirmed 1 101 cases in 47 states and the District of Columbia, with respiratory illness caused by EV-D68. This is an increase of 128 cases in the past week. EV-D68 has been detected in specimens from eight patients who died and had samples submitted for testing.

#### Canada

The current outbreak in Canada began on 15 September 2014, when Alberta Health Services reported 18 cases of EV-D68 among hospitalised patients under the age of 18 years. Nine cases were among children admitted to a Calgary children's hospital, with a diagnosis of asthma or bronchiolitis between 1 September and 11 September 2014.

In <u>Canada</u> as of 27 October 2014, confirmed cases have been reported in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia and Prince Edward Island. As of 16 October 2014 150 specimens, collected from across Canada between August and October 2014 have tested positive for EV-D68. On 16 October 2014 a death of young man with severe asthma was linked to EV-D68.

<u>Public Health Canada</u> is currently collecting additional clinical and epidemiological information on hospitalised cases of EV-D68 through a time-limited severe outcomes surveillance pilot. In addition they are collaborating with the Sentinel Physician Surveillance Network to determine whether some of the mild influenza-like-illnesses observed in the community during the 2013-2014 influenza season were due to EV-D68.

#### Possible linkage of acute neurologic disease to the EV-D68 outbreak USA and Canada

On 26 September 2014, the US CDC issued a National Health Advisory with a case definition to investigate the possible linkage of the clusters of acute neurologic disease to the EV-D68 outbreak. On 3 October 2014, two reports were published by the US CDC on clusters of neurologic illness, including acute flaccid paralysis (AFP) with possible association with EV-D68: Between 8 August and 15 September 2014, a cluster of nine children at Children's Hospital Colorado, Denver, developed symptoms of neurological illness characterised by extremity weakness and/or cranial nerve dysfunction. All had a preceding febrile illness 3–16 days prior to onset of neurologic illness.

Between January 2012 and May 2014, 23 cases of AFP, mainly children, with anterior myelitis of unknown etiology were detected by active surveillance in California. EV-D68 was identified in upper respiratory tract specimens of two out of 23 patients.

On 29 October 2014 the <u>US CDC</u> verified reports of 64 cases in 28 states that meet the <u>US case definition</u>. Half a dozen additional reports are under investigation. It is not yet clear how many tested positive for EV-D68.

According to health authorities in <u>British Columbia</u> in Canada, there have been two cases of AFP, both with upper respiratory specimens positive for EV-D68. In both cases serious and prolonged duration of paralytic findings were observed. In <u>Alberta</u>, four paralysis cases were investigated, two of which were positive for EV-D68 by upper respiratory specimen. In <u>Ontario</u>, nine paralysis cases are under investigation to determine if there might be a connection to EV-D68. There have been reports of a small number of children with some paralysis who also have EV-D68 in <u>Canada</u>. A link between paralysis and EV-D68 is not confirmed and all reports of paralysis in children under 15 years old in Canada will be investigated by treating physicians and relevant public health authorities. Paralysis in children is a rare occurrence. In Canada, approximately 25-60 cases are reported every year.

#### **Europe**

Sporadic cases of EV-D68 have been documented in several EU/EEA countries in recent years. In 2014, EV-D68 was detected in at least four EU/EEA countries, but no epidemic clusters of severe disease have been reported. To date, EU/EEA countries have not reported a growing number of acute respiratory infections or an increased number of hospital admissions.

On 23 October 2014 an article describing the EV D68 situation in the Netherlands was published in Eurosurveillance.

Web sources: MMWR | CDC | Kansas Health institute | Illinois Department of Health | CDC Q&A | Public Health Canada | Alberta health services

#### **ECDC** assessment

EV-D68 is a potential cause of respiratory tract infections, mainly among children. It can be found in respiratory secretions such as saliva, nasal mucus or sputum. The virus spreads from person to person when an infected person coughs, sneezes or touches contaminated surfaces. There are no available vaccines or specific treatments for EV-D68 and clinical care is symptomatic treatment.

EV-D68 has rarely been reported outside North America, and the number of cases are likely to be underestimated in the United States and Canada due to the absence of a mandatory surveillance system. This year, the magnitude of the outbreak in the United States exceeds previous years, and the transmission of the virus outside North America, including the EU/EEA, remains a possibility. However, the probability that EV-D68 cases will be laboratory-confirmed in EU/EEA countries is low because most EU Member States do not routinely screen for EV-D68, and the disease is not notifiable. EU/EEA countries need to remain vigilant and

consider strengthening respiratory sample screening for enteroviruses and enterovirus typing. More systematic testing of severe respiratory illness cases for EV-D68 could be considered in EU/EEA countries to better document the circulation of this virus.

A connection between EV-D68 and the observed neurological illness in the USA and Canada has not yet been proven.

#### **Actions**

ECDC published a first update of the rapid risk assessment on 15 October 2014.

## Middle East respiratory syndrome - coronavirus (MERS CoV) - Multistate

Opening date: 24 September 2012 Latest update: 30 October 2014

## Epidemiological summary

Since the last MERS-CoV update in the CDTR on 23 October 2014, 17 additional cases of MERS-CoV infection have been reported from Saudi Arabia, Taif (6), Riyadh (8), Jeddah (1), Al Jawf (1) and Hafr Al Batin (1). Twelve of the seventeen cases were male. Out of the 17 cases six were classified as nosocomial transmission, four in Taif and one each in Riyadh and Al Jawf. One case in Riyadh was classified as community transmission. Five cases occured among healthcare workers.

Since April 2012 and as of 30 October 2014, 925 cases of MERS-CoV have been reported by local health authorities worldwide, including 370 deaths. The distribution is as follows:

## Confirmed cases and deaths by region:

**Middle East** 

Saudi Arabia: 789 cases/337 deaths United Arab Emirates: 73 cases/9 deaths Oatar: 9 cases/4 deaths

Jordan: 18 cases/5 deaths Oman: 2 cases/2 deaths Kuwait: 3 cases/1 death Egypt: 1 case/0 deaths Yemen: 1 case/1 death Lebanon: 1 case/0 deaths Iran: 5 cases/2 deaths

#### **Europe**

Turkev: 1 case/1 death UK: 4 cases/3 deaths Germany: 2 cases/1 death 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: 1 case/0 deaths

#### **Americas**

United States of America: 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

The source of MERS-CoV infection and the mode of transmission have not been identified. Dromedary camels are a host species for the virus, and many of the primary cases in MERS-CoV clusters have reported direct or indirect camel exposure. Almost all of the recently reported secondary cases, many of whom are asymptomatic or have only mild symptoms, have been acquired in healthcare settings. There is therefore a continued risk of cases presenting in Europe following exposure in the Middle East. International surveillance for MERS-CoV cases is essential.

The risk of secondary transmission in the EU remains low and can be reduced further through screening for exposure among patients presenting with respiratory symptoms (and their contacts), and strict implementation of infection prevention and control measures for patients under investigation.

#### **Actions**

ECDC published an epidemiological update on 22 October 2014.

The last rapid risk assessment was updated on 16 October 2014.

ECDC is closely monitoring the situation in collaboration with WHO and EU Member States.

ECDC published a factsheet for health professionals regarding MERS-CoV on 20 August 2014.

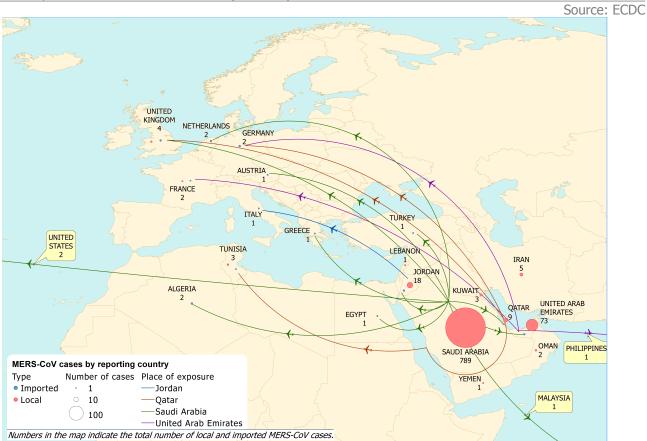
## Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 –30 October 2014 (n=925)

Number of cases 400 ■ Outside Middle East ■ Middle East 350 300 250 200 150 100 50 202.22 2013.01 3.ut 13.02 2012.01 2012.08 2012:10 2013.03 2013:04 2012.06 2013:01 2013.09 2012.09 2012:11 2013.05 2013:06 2013.08 2013-10 2013-11 2013:12 2014-01 2014.02 2014.03 2014.04 2014.05 2014.01 2012.05 2014.06 2014.08 2014.09 Month of onset\* \* Where the month of onset is unknown, the month of reporting has been used

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Source: ECDC

## Geographical distribution of confirmed MERS-CoV cases and place of probable infection, worldwide, as of 30 October 2014 (n=925)



## Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 30 October 2014

## **Epidemiological summary**

During the past week, ten new wild poliovirus type 1 (WPV1) cases have been reported in Pakistan.

Worldwide, 257 cases have been reported to WHO so far in 2014, compared with 312 for the same time period in 2013. In 2014, nine countries have reported cases: Pakistan (220 cases), Afghanistan (12 cases), Nigeria (6 cases), Equatorial Guinea (5 cases), Somalia (5 cases), Cameroon (5 cases), Iraq (2 cases), Syria (1 case), and Ethiopia (1 case).

After the declaration of a PHEIC, WHO issued a set of Temporary Recommendations that call for the vaccination of all residents in, and long-term visitors to, countries with polio transmission prior to international travel.

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet | Temporary Recommendations to Reduce International Spread of Poliovirus

#### **ECDC** assessment

Europe is polio-free. The last polio cases within the current EU borders were reported from Bulgaria in 2001. The latest 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 WPV in several countries and the documented exportation of WPV to other countries support the fact that there is a potential risk for WPV 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 the two.

**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? | WHO statement on the meeting of the International Health Regulations Emergency Committee concerning the international spread of wild poliovirus, 5 May 2014

#### **Actions**

ECDC follows 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 to the EU.

Following the declaration of polio as a PHEIC, ECDC updated its <u>risk assessment</u>. ECDC has also prepared a background document with travel recommendations for the EU.

On 4 September 2014, <u>ECDC</u> published a news item regarding the WHO IHR Emergency Committee decision to add Equatorial Guinea as a wild poliovirus-exporting country and the renewal of the WHO PHEIC recommendations.

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