

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

Latest update: 19 December 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.

→Update of the week

In week 51/2014, influenza activity in the WHO European Region remained low but continues to increase.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 18 December 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

No new outbreaks have been detected in the EU since the last monthly update.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 18 December 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 have been detected in the EU since the last monthly update.

Non EU Threats

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 18 December 2014

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. On 14 November, the Temporary Recommendations in relation to PHEIC, were extended for a further three months.

→Update of the week

During the past week, nine new cases of wild poliovirus type 1 (WPV1) were reported: eight in Pakistan and one in Afghanistan. No new cases of wild polio virus have been reported from Africa in the last four months.

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

Opening date: 24 September 2012

Latest update: 18 December 2014

Since April 2012, 958 cases of MERS-CoV have been reported by local health authorities worldwide, including 389 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

Saudi Arabia reported one new case of MERS-CoV infection on 19 December. The patient is a 53 yearold male from the city of Alkharj (Riyadh region).

Ebola Virus Disease Epidemic - West Africa - 2014

Opening date: 22 March 2014

Latest update: 18 December 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 serious. On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Emergency of International Concern (PHEIC).

→Update of the week

Since the last CDTR on 19 December, WHO has reported 894 additional cases in the affected countries and 673 additional deaths.

As of 24 December, [WHO](#) reports 19 497 confirmed, probable, and suspected cases of Ebola virus disease, with 7 588 deaths, in four affected countries (Guinea, Liberia, Mali and Sierra Leone) and four previously affected countries (Nigeria, Senegal, Spain and the United States of America).

Since 25 November, no additional cases of EVD have been reported in Mali.

II. Detailed reports

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

Opening date: 9 October 2014

Latest update: 19 December 2014

Epidemiological summary

In week 51/2014:

- Consultations for influenza-like illness (ILI) and/or acute respiratory infection (ARI) were stable and the percentage of positive sentinel specimens slightly increased to 9%, compared to 8% in the previous week.
- The predominant influenza virus was type A in both primary care and hospitalised cases. A(H3N2) was the predominant subtype in cases from primary care.
- The genetic characteristics of A(H3N2) viruses indicate that in Europe, as in the United States of America, there may be significant differences between circulating A(H3N2) viruses and the virus used in the influenza vaccine.

Web sources: [Flu News Europe](#) | [ECDC Influenza](#) |

ECDC assessment

Although sporadic influenza virus detections are being reported in an increasing number of countries, there is no indication that the influenza season has started in the region, which is normal for this time of year.

Actions

ECDC and WHO produce the [Flu News Europe](#) bulletin weekly.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 18 December 2014

Epidemiological summary

EU Member States

Slovenia - update

Source: [National Institute of Public Health \(NIJZ\)](#)

As of 12 December, the National Institute of Public Health reported 35 measles cases linked to an international dog show held on 8 and 9 November in Šempeter. Of these cases, 22 attended the dog show and 13 have been classified as secondary cases. Most of the reported cases were adults aged 34 to 51 years and three were children aged 3 to 11 years. Eight cases reported vaccination with two doses of vaccine and six cases with a single dose. In addition, the NIJZ has been informed of four additional measles cases imported from Bosnia and Herzegovina which were not associated with the dog show.

Rest of the World

Bosnia and Herzegovina

Source: [Public Health Institute of Federation of Bosnia and Herzegovina](#)

An outbreak of measles is still ongoing across the country. There were 170 cases reported in October which is twice as many cases as in the previous month. In the past three months, the Public Health Institute of Federation of Bosnia and Herzegovina has recorded 549 cases, mostly in unvaccinated or incompletely vaccinated persons. The largest proportion of patients were aged 15-19 years, with a shift towards the younger age groups (<1 year). Since the outbreak began in February 2014, more than 2 000 cases have been notified.

Western Pacific Region

Source: [WPRO](#)

The Philippines is still experiencing a large measles outbreak. During November, 1 578 new cases and five additional deaths were

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reported, according to the latest WHO measles and rubella bulletin. The number of suspected and confirmed cases has now reached 55 388. The number of suspected and confirmed cases in China has risen to more than 100 000 so far this year.

USA

Source: [CDC](#)

From 1 January to 29 November 2014, 610 confirmed measles cases in 24 States were reported to CDC's National Center for Immunization and Respiratory Diseases (NCIRD). Many of the cases in the USA in 2014 have been associated with cases imported from the Philippines.

South Africa

Source: [National Institute for Communicable Diseases \(NICD\)](#)

Over the past two months, there has been an increase in laboratory-confirmed (IgM positive) measles cases in five provinces (Gauteng, Mpumalanga, KwaZulu-Natal, Northern Cape and Western Cape). Northern Cape Province is reporting the highest increase, with five laboratory-confirmed measles cases detected within a four-week period in Siyanda District Municipality alone. Siyanda District borders both Namibia and Botswana and of concern is that Namibia has recently reported an increase in measles cases from certain districts.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC/Euronews documentary](#) | [MedISys Measles page](#) | [EUVAC-net ECDC](#) | [ECDC measles factsheet](#)

ECDC assessment

During 2014, eight 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 feasible.

Actions

On 10 December, ECDC published a [rapid risk assessment](#) on the outbreak of measles linked to an international dog exhibition in Slovenia.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 18 December 2014

Epidemiological summary

Twenty-seven EU/EEA countries reported 6 396 cases during the recent 12-month period between November 2013 and October 2014. In 21 countries, the rubella notification rate was less than one case per million population during the last 12 months.

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.

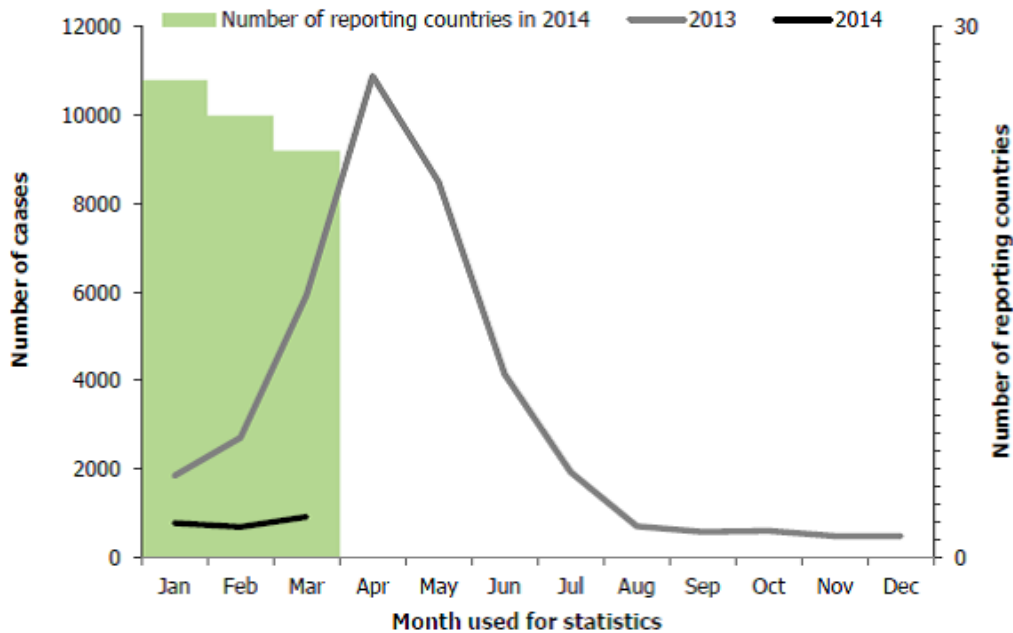
Actions

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](#)

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

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 18 December 2014

Epidemiological summary

Worldwide in 2014, 342 cases have been reported to WHO so far, compared with 416 for the same time period in 2013. In 2014, nine countries have reported cases: Pakistan (291 cases), Afghanistan (26 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.

On 14 November, after a third meeting on PHEIC, WHO recommended the extension of the Temporary Recommendations for an additional three months period.

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](#)

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[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](#) | [WHO statement on the third meeting of the International Health Regulations Emergency Committee regarding the international spread of wild poliovirus, 14 November 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 [risk assessment](#). ECDC has also prepared a background document with travel recommendations for the EU.

On 4 September 2014, [ECDC](#) 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.

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

Opening date: 24 September 2012

Latest update: 18 December 2014

Epidemiological summary

Since April 2012 and as of 25 December 2014, 958 cases of MERS-CoV have been reported by local health authorities worldwide, including 389 deaths. The distribution is as follows:

Confirmed cases and deaths by region:

Middle East

Saudi Arabia: 822 cases/355 deaths
United Arab Emirates: 73 cases/9 deaths
Qatar: 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

Turkey: 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 6 November 2014.

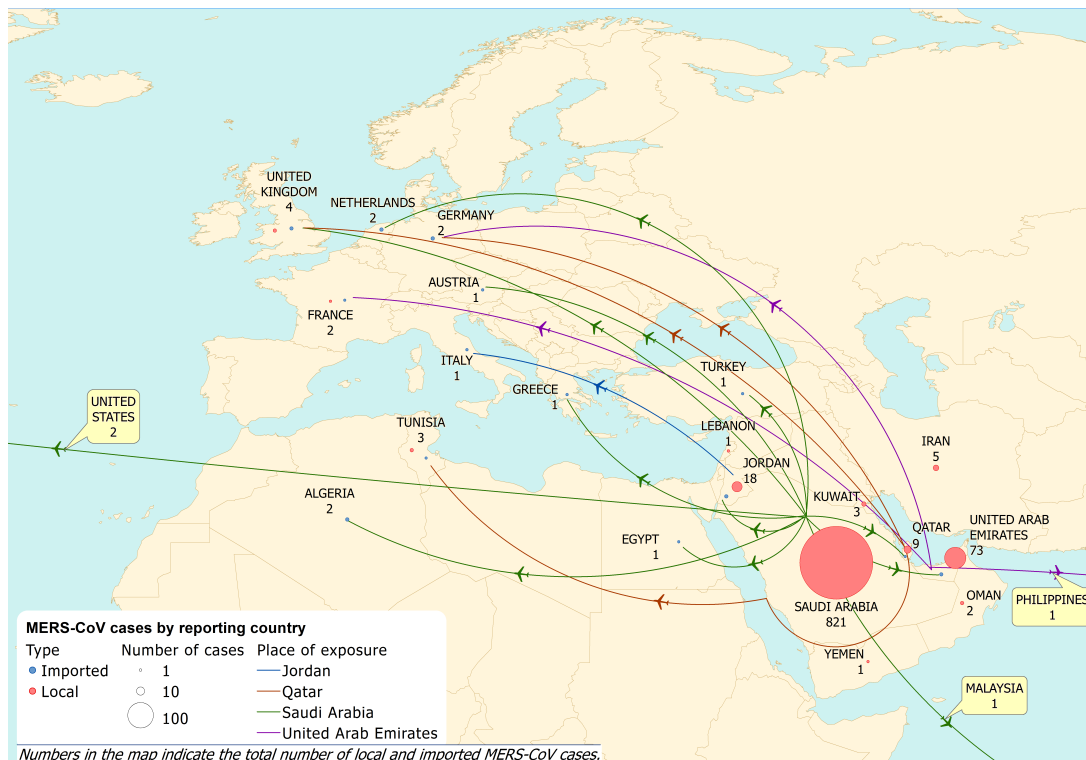
The last [rapid risk assessment](#) was updated on 16 October 2014.

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.

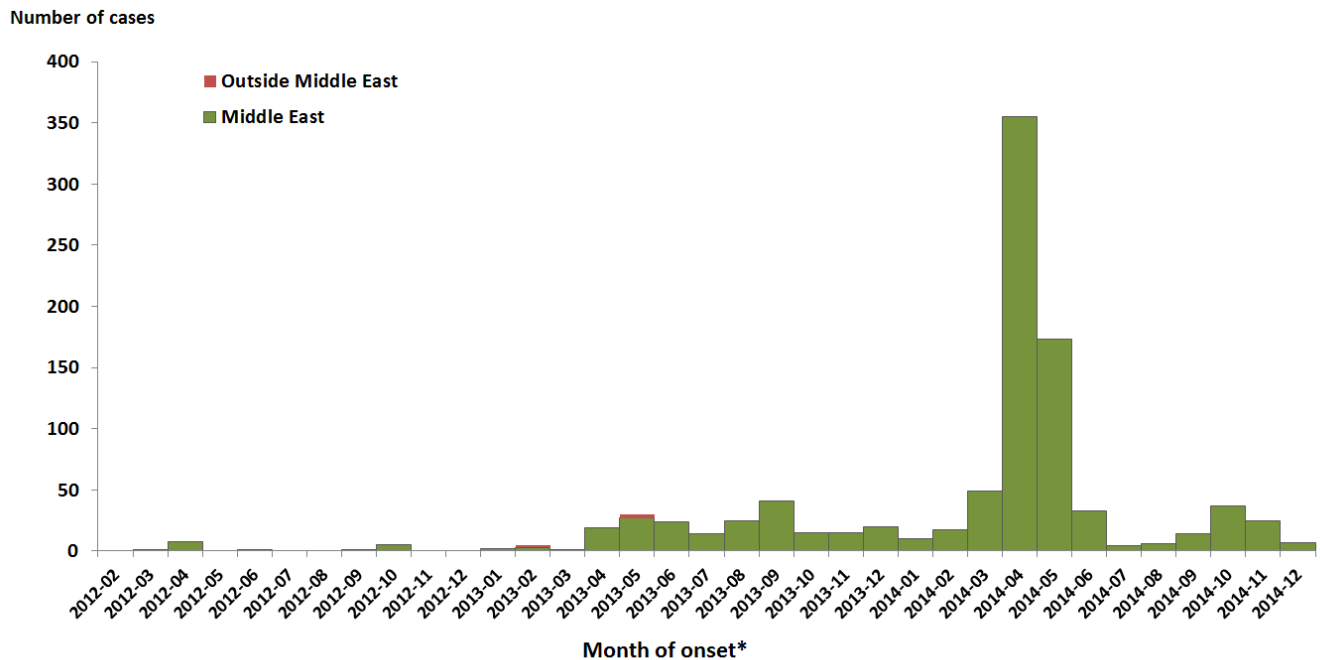
Geographical distribution of confirmed MERS-CoV cases and place of probable infection, worldwide, as of 18 December 2014 (n=957)

Source: ECDC



Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 18 December 2014 (n=957)

Data for December 2014 is incomplete



Ebola Virus Disease Epidemic - West Africa - 2014

Opening date: 22 March 2014

Latest update: 18 December 2014

Epidemiological summary

Distribution of cases

Countries with intense transmission:

- Guinea: 2 597 cases and 1 607 deaths (as of 21 December 2014) - increase of 181 cases since 14 December,
- Liberia: 7 862 cases and 3 384 deaths (as of 20 December) - increase of 65 cases since 9 December,
- Sierra Leone: 9 004 cases and 2 582 deaths (as of 21 December 2014) - increase of 648 cases since 14 December.

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

- United States: four cases including one death. The last case tested negative on 11 November 2014 in New York.
- Mali: eight cases, six deaths.
- Nigeria, Senegal and Spain are declared free of EVD after having cases related to this current epidemic in West Africa.

Please note that since the beginning of November 2014, WHO does not consistently report probable and suspected cases for the three most affected countries due to the high proportion of cases that are later re-classified.

Situation in specific West African countries

According to WHO, reported case incidence is fluctuating in Guinea and declining in Liberia, while in Sierra Leone the increase in incidence seems to be slowing down. Guinea has recorded its highest weekly case incidence in this outbreak and is mainly due to an increase in cases in the south-eastern district of Kissidougou. The district reported 58 confirmed cases which is one-third of cases reported in the country in the past week. The district has previously reported no more than five cases each week. Transmission remains high in northern and western Sierra Leone. In Liberia the case-incidence has been consistently declining since mid-November. Transmissions in Liberia remain high however.

The case fatality rate in the three intense-transmission countries among all cases for whom a definitive outcome is recorded is 70%, and between 58 and 60% in hospitalised patients. The number of EVD reported cases in the three most affected countries, is about the same in males and females.

According to the latest WHO Ebola Response Roadmap there is sufficient bed capacity in the EVD treatment facilities to treat and isolate all reported EVD cases in each of the three intense-transmission countries, although due to uneven distribution of beds and cases there are serious shortfalls in some areas.

As reported by WHO, the last confirmed case in Mali tested negative for the second time on 6 December, and was discharged from hospital on 11 December. All identified contacts connected with both the initial case and the outbreak in Bamako have now completed 21 day follow-up.

Situation among healthcare workers

As of 21 December, 666 healthcare workers have been reported to be infected with EVD, 366 of whom have died.

Situation outside of West Africa

USA

No new autochthonous EVD cases have been reported since 23 October. The latest autochthonous reported case concerns a medical aid worker who volunteered in Guinea and recently returned to the United States. He was hospitalised in New York City and was discharged healthy on 11 November 2014.

Source: [Centers for Disease Control and Prevention](#)

On the 24th December, the Centers for Disease Control and Prevention [reported](#) on the possible exposure of one laboratory technician to live Ebola virus after a small amount of material was mistakenly transferred from a Select-Agent-approved BSL-4 lab to a Select-Agent-approved BSL-2 lab. The material has been sealed but the possible exposure of the laboratory technician could not be ruled out. The laboratory technician will now be under observation for 21 days.

Medical evacuations and repatriations from EVD-affected countries

Twenty-four individuals have been evacuated or repatriated from the EVD-affected countries. As of 11 December, there have been 12 medical evacuations of confirmed EVD-infected patients to Europe (three to Germany, three to Spain, two to France, one to the UK, one to Norway, one to Italy and one to the Netherlands). Two persons exposed to Ebola have been repatriated to the Netherlands and tested negative. One individual was evacuated to Switzerland and was confirmed not to have EVD in September.

Figures

First epi-curve: Distribution of reported cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia, Nigeria, Mali and Senegal, weeks 48/2013 to 52*/2014

* In week 45/2014, WHO carried out retrospective correction in the data, resulting in 299 fewer cases being reported, which resulted in a negative value for new cases in week 45 which is not plotted.

** According to WHO, the marked increase in the cumulative total number of cases in week 43 is due to a more comprehensive assessment of patient databases leading to 3 792 additional reported cases. However, these cases have occurred throughout the epidemic period.

Second epi-curve: Distribution of cases of EVD by week of reporting in the three countries with widespread and intense transmission, as of week 52* 2014.

* The marked increase in the number of cases reported in Sierra Leone (week 44) and Liberia (week 43) resulted from a more comprehensive assessment of patient databases. The additional 3 792 cases have occurred throughout the epidemic period.

** In week 45/2014, WHO reported -476 cases in Sierra Leone due to retrospective corrections.

§ In week 44/2014, WHO reported zero cases for Liberia.

Web sources: [ECDC Ebola page](#) | [ECDC Ebola and Marburg fact sheet](#) | [WHO Ebola Factsheet](#) | [CDC](#) | [WHO Roadmap](#) |

ECDC assessment

This is the largest ever documented epidemic of EVD in terms of numbers and geographical spread. The evolving 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 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, there remains a risk of importation of EVD cases to the EU. 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. 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 [EVD ECDC page](#).

On 4 December, EFSA-ECDC published a [Scientific report assessing Risk related to household pets in contact with Ebola cases in humans](#).

On 18 November, ECDC published an updated [rapid risk assessment](#).

On 10 September, ECDC published an EU [case definition](#).

On 22 September 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 6 October ECDC published [risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU](#).

On 13 October, ECDC published [Infection prevention and control measures for Ebola virus disease: Entry and exit screening measures](#).

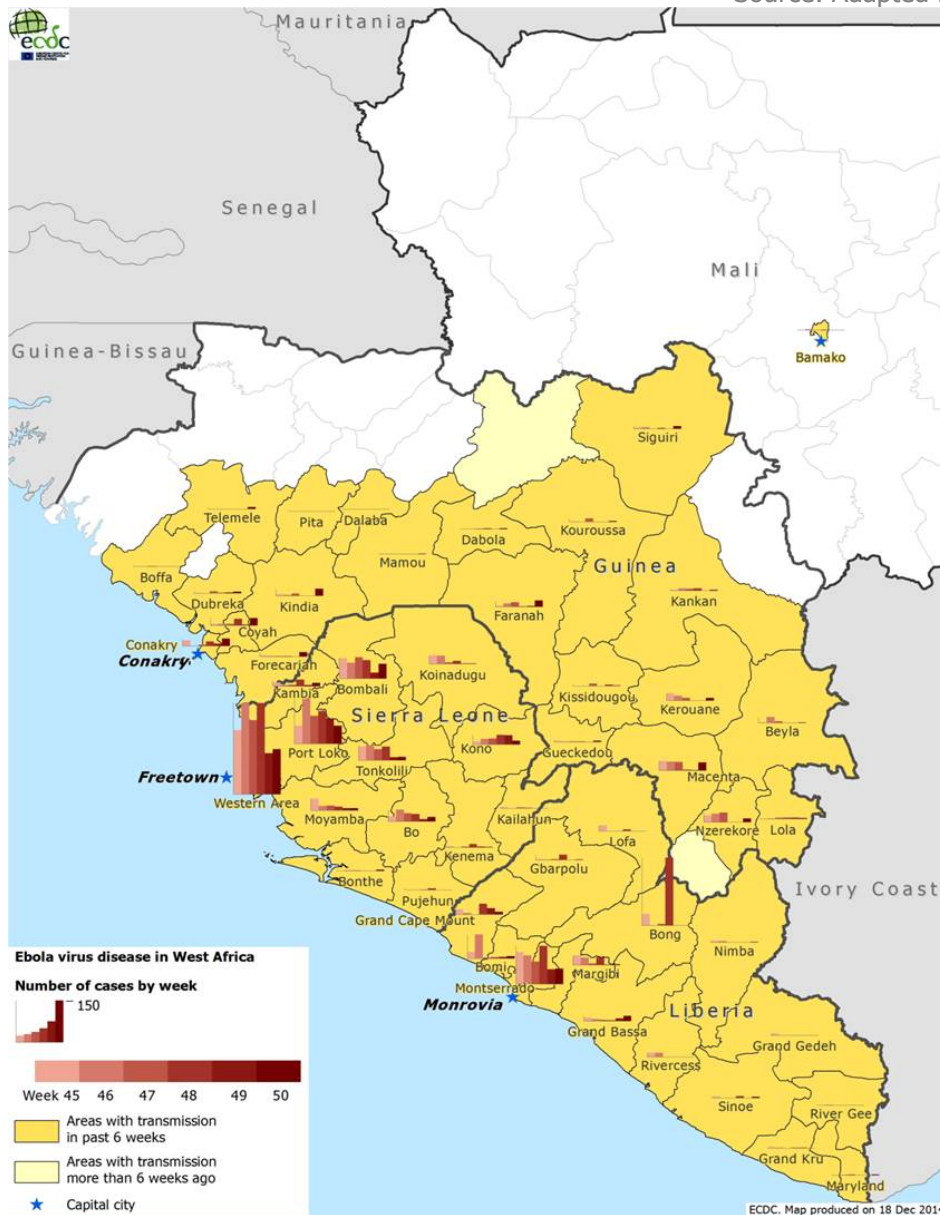
On 22 October ECDC published [Assessing and planning medical evacuation flights to Europe for patients with Ebola virus disease and people exposed to Ebola virus](#).

On 23 October ECDC published [Public health management of persons having had contact with Ebola virus disease cases in the EU](#).

On 29 October, ECDC published a training tool on the [safe use of PPE and options for preparing for gatherings in the EU](#)

Distribution of cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia and Mali (as of week 50/2014)

Source: Adapted from national situation reports



Distribution of reported cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia, Mali, Nigeria and Senegal, weeks 48/2013 to 52*/2014

Source: Adapted from WHO figures; *data for week 52 are incomplete



Distribution of cases of EVD by week of reporting in the three countries with widespread transmission

Source: Adapted from WHO national situation figures



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