

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: 9 April 2015

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 its report weekly on the Flu News Europe website.

→ Update of the week

During week 14/2015, influenza activity continued to decrease in most reporting countries, although the proportion of influenza-virus-positive specimens remained high (36%). Since week 51/2014, the positivity rate has been over the threshold of 10% indicating seasonal influenza activity.

Non EU Threats

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 9 April 2015

The influenza A(H5N1) virus, commonly known as bird flu, is fatal in about 60% of human infections. Sporadic cases continue to be reported, usually after contact with sick or dead poultry from certain Asian and African countries. No human cases have been reported from Europe.

→ Update of the week

According to the Ministry of Health and Population of Egypt, as of 6 April 2015, there have been 134 human cases of influenza A(H5N1), including 38 deaths, reported in Egypt so far in 2015.

Since the last monthly update on 4 March 2015, [WHO Western Pacific Region \(WPRO\)](#) has reported four new human cases of influenza A(H5N1) virus in China.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 9 April 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 7 April 2015, WHO reported 25 567 cases of Ebola virus disease related to the outbreak in West Africa, including 10 599 deaths.

Thirty new confirmed cases of EVD were reported from WHO in the week from 30 March to 5 April (21 in Guinea and 9 in Sierra Leone). Liberia reported no new confirmed cases. This is the lowest weekly total since the third week of May 2014.

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

Opening date: 24 September 2012

Latest update: 9 April 2015

Since April 2012 and as of 7 April 2015, 1 122 cases of MERS-CoV have been reported by local health authorities worldwide, including 461 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 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

Since the last update in 2 April 2015, Saudi Arabia has reported four additional cases of MERS-CoV infections. The cases were reported from Jeddah, Makkah, Riyadh and Hail. All cases were male. The median age was 66 years and the age range is between 51 to 82 years. One of the cases was reported as a healthcare worker with contact with a case. Three deaths were recorded among previously reported cases.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 9 April 2015

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 27 February 2015, the Temporary Recommendations in relation to PHEIC have been extended for another three months.

→Update of the week

In the past week, one new wild poliovirus type 1 (WPV1) case was reported in Pakistan.

II. Detailed reports

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

Opening date: 9 October 2014

Latest update: 9 April 2015

Epidemiological summary

Influenza A(H1N1)pdm09, A(H3N2) and type B viruses continued to circulate in the WHO European Region, but type B viruses accounted for 77% of sentinel detections for week 14/2015.

The number of hospitalised influenza cases is returning to low levels. Excess all-cause mortality among people aged 65 years and above, concomitant with increased influenza activity and the predominance of A(H3N2) viruses, has been observed in most countries participating in the EuroMOMO project although it is currently decreasing in many, but not all countries (see [EuroMOMO](#)).

About two thirds of the A(H3N2) viruses characterised to date show evidence of antigenic differences from the virus included in the 2014–2015 northern hemisphere influenza vaccine. These differences may have contributed to the observed reduction in effectiveness of the A(H3N2) component of the vaccine and to the excess mortality reported among older age groups. The A(H1N1)pdm09 and B components of the vaccine are likely to be effective.

Three A(H3N2) viruses have shown reduced susceptibility for the neuraminidase inhibitor oseltamivir and one A(H3N2) virus for oseltamivir and zanamivir. There are no indications of reduced susceptibility of influenza A(H1N1)pdm09 and type B viruses to the neuraminidase inhibitors oseltamivir and zanamivir.

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

ECDC assessment

Influenza activity is decreasing in most of the reporting countries, but a high level of influenza virus positive samples remains (36%).

Actions

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

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 9 April 2015

Epidemiological summary

Egypt

In Egypt, as of 6 April 2015, the Ministry of Health and Population has reported 134 human cases of influenza A(H5N1), including 38 deaths. Since 2006, Egypt has reported 336 human cases, according to WHO/FAO.

The number of laboratory-confirmed human cases of avian influenza A(H5N1) virus infection in Egypt with onsets of illness from January to March 2015 is the highest reported for a three month period since the start of the epidemic in 2006. New cases have been reported every month since the surge that started in November 2014. No similar surge in cases has been reported in other affected countries. As communicated by WHO, during the recent surge (November 2014 to March 2015), cases have been reported from 21 of the 29 Egyptian governorates. Females represented 60% of cases. The number of fatal cases in Egypt in 2015 is the highest ever reported. The case-fatality rate for 2015 so far is 28%, although, for recent cases, the final outcomes may not yet be known. There appears to have been no discernible trend in the case-fatality rate between 2006 and 2015. According to [WHO EMRO](#), despite the recent surge in human cases, the demographic and epidemiological characteristics of the recently reported cases do not significantly differ from previous periods.

The increase in human cases in Egypt may be attributed to several factors including increased circulation of influenza A(H5N1) viruses in poultry, lower public health awareness of risks in middle and upper Egypt, seasonal factors such as closer proximity to poultry because of cold weather and possibly longer survival of the viruses in the environment. A high-level joint WHO/FAO/OIE

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mission to Egypt to assess the risks associated with the influenza A(H5N1) viruses and to recommend control measures was conducted in March 2015.

China

Since the last monthly update on 4 March 2015, [WHO Western Pacific Region \(WPRO\)](#) has reported four new human cases of influenza A(H5N1) virus in China. Three of the cases were from Yunnan province. So far in 2015, five human cases of influenza A (H5N1) have been reported in the WPRO, all from China.

From 2003 to 3 April 2015, WPRO reported 788 cases of human infection with avian influenza A(H5N1) virus from 16 countries worldwide. Of these cases, 430 were fatal, resulting in a case-fatality rate of 55%.

Web sources: [ECDC Rapid Risk Assessment](#) | [Avian influenza on ECDC website](#) | [WHO EMRO update](#) |

ECDC assessment

Most human infections of A(H5N1) are the result of direct contact with infected birds, and countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. The ongoing outbreak of influenza A(H5N1) among poultry and humans in Egypt has now caused more cases during one season than has been reported from any other country globally. The virus belongs to a clade, which appears to be restricted to transmission in Egypt and neighbouring countries only for several years. An emergence of a novel cluster within this clade was recently reported in [Eurosveillance](#), which might explain the increase in poultry infections and/or human cases.

The sharp increase in human cases of A(H5N1) infection in Egypt during the winter months 2014–2015 may be due to an increase in the circulation of A(H5N1) among backyard poultry and exposure to infected poultry across the country. Identification of such sporadic cases or small clusters is not unexpected as avian influenza A(H5N1) viruses are known to be circulating among poultry within the country. Strict implementation of control measures to reduce and eliminate infection in poultry is essential for reducing the risk of zoonotic transmission and human cases. Enhanced human infectivity of the circulating virus and the protection conferred by the poultry vaccines currently in use should be further investigated. Surveillance in poultry as well as in humans needs to be strengthened and coordinated. Intervention programmes to reduce virus circulation in the country should be reinforced. Travellers visiting Egypt should avoid direct contact with poultry and birds or uncooked/untreated poultry products.

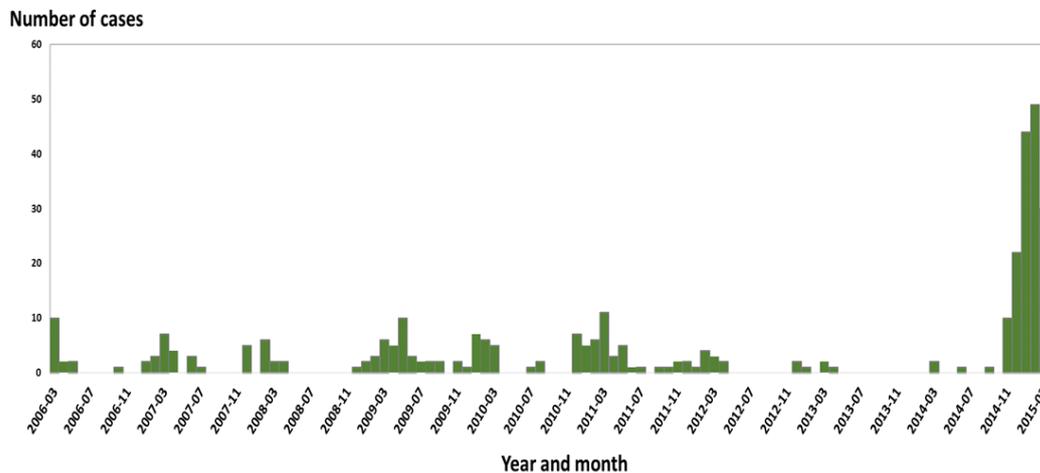
Actions

ECDC monitors the worldwide A(H5N1) situation through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of a changing risk for A(H5N1) to humans on a regular basis.

ECDC published a [Rapid Risk Assessment](#) covering A(H5N1) in Egypt on 13 March 2015.

Distribution of human influenza A(H5N1) cases in Egypt by month and year– March 2006 to March 2015

Source: FAO EMPRES



Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 9 April 2015

Epidemiological summary

Distribution of cases as of 7 April 2015:

Countries with intense transmission

- Guinea: 3 515 cases and 2 335 deaths (as of 7 April 2015)
- Liberia: 9 862 cases and 4 408 deaths (as of 5 April 2015)
- Sierra Leone: 12 155 cases and 3 841 deaths (as of 7 April 2015)

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

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- Mali, Nigeria, Senegal, Spain, the United States and United Kingdom have been declared free of EVD after having cases related to the current epidemic in West Africa.

Situation in specific West African countries

In **Guinea**, according to WHO, six prefectures reported at least one confirmed case in the week up to 5 April. The affected prefectures were in the western area, around and including the capital, Conakry. Response indicators for Guinea continue to present a mixed picture. Of 19 confirmed deaths from EVD in the week to 5 April, seven were identified post-mortem in the community, compared with 15 out of 35 the previous week. However, 21 unsafe burials were reported over the same period, compared with 20 in the previous week. These data indicate that although surveillance is improving, unknown chains of transmission could be a source of new infections in the coming weeks.

In **Sierra Leone**, WHO reported cases from four western districts: Kambia, Port Loko, Western Area Rural and Western Area Urban (which includes the capital Freetown).

Sierra Leone reported zero cases in 3 days during the week to 5 April. The absence of any reported unsafe burials over the same period, the low proportion of all EVD-positive deaths (3 out of 32) that were identified in the community after post-mortem testing, and the low proportion of laboratory samples that tested positive (10 of 1524: 1%) over the same period strengthen confidence that the downward trend in case incidence will continue.

In **Liberia**, the last confirmed case died on 27 March. Investigations are ongoing to establish the origin of infection and 332 contacts associated with this case are being monitored. Heightened vigilance is being maintained throughout the country.

Situation among healthcare workers

Up to 5 April 2015, 861 healthcare workers (HCWs) are reported to have been infected with EVD in Guinea (186), Liberia (372) and Sierra Leone (303), and 499 of them have died of the disease. Outside of the three most affected countries, two Ebola-infected HCWs were reported in Mali, 11 in Nigeria, one in Spain (infected while caring for an evacuated EVD patient), two in the UK (both infected in Sierra Leone), and six in the USA (two infected in Sierra Leone, two in Liberia and two infected while caring for confirmed case in Texas).

Medical evacuations and repatriations from EVD-affected countries

Since the beginning of the epidemic and as of 9 April 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), 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), 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 and 2*: these epicurves show the total number of cases (confirmed, probable and suspected).
- *Epicurve 3 and 4*: these epicurves show only the confirmed cases in the three most affected countries.
- *Map*: this map is based on the country situation reports and shows only confirmed cases of EVD in the past six weeks. The scale of the bar graphs is reduced to 50 cases.

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 remain 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 the latest weekly situation report from WHO in the week leading up to 5 April, the number of reported cases are declining in Guinea and Sierra Leone. Liberia has not reported any new confirmed cases. Although surveillance is improving in Guinea unknown chains of transmission could be a source of new infections in the coming weeks. The downward trend in Sierra Leone continues although challenges remain.

Actions

As of 10 April 2015, ECDC has deployed 56 experts coming from within and outside the EU in response to the Ebola outbreak. This includes an ECDC mobilised contingent of experts to Guinea. Furthermore, eight additional experts are already confirmed for deployment to Guinea over the next three months while additional deployments are envisaged but still pending confirmation.

ECDC is looking for additional French-speaking experts with field epidemiology experience from EU Member States to join the ECDC-coordinated contingent in response to the Ebola outbreak in Guinea. For further information, please contact Niklas Danielsson, Response group leader at: niklas.danielsson@ecdc.europa.eu with cc to support@ecdc.europa.eu

An epidemiological update is published weekly on the [EVD ECDC page](#)

On 4 February 2015, ECDC published an updated [rapid risk assessment](#)

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-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](#)

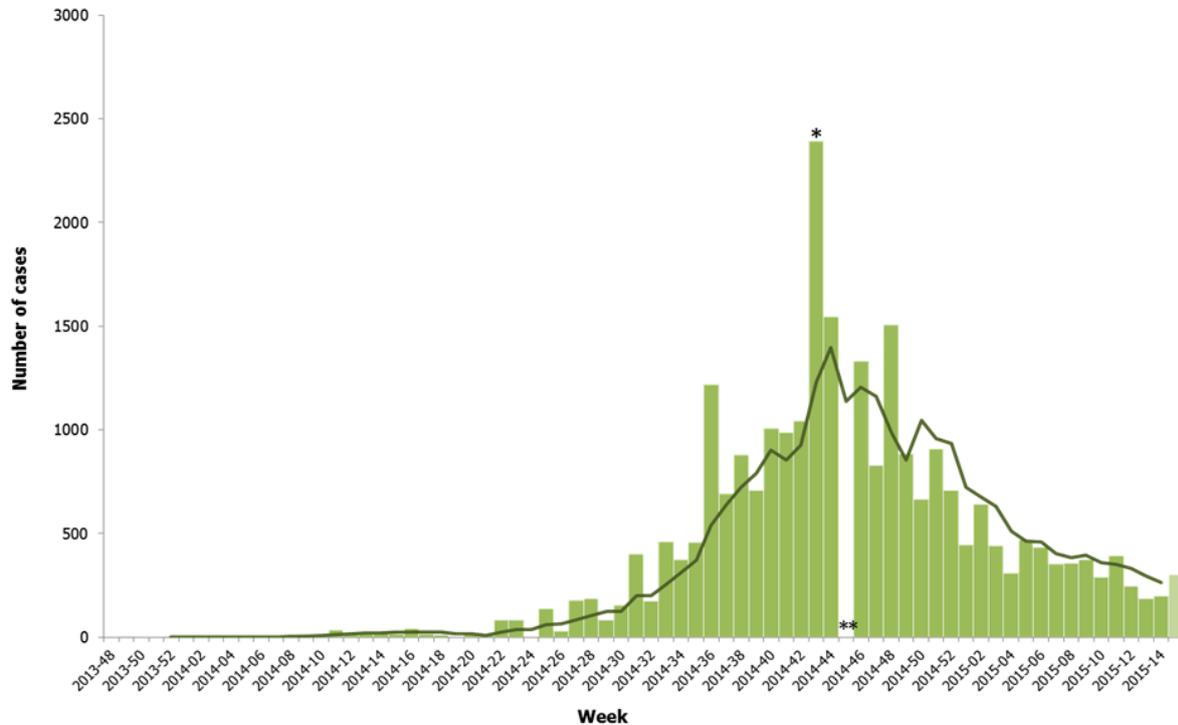
On 6 October 2014, ECDC published [risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU](#)

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](#)

Distribution of EVD cases by week of reporting in Guinea, Sierra Leone, Liberia, Mali, Nigeria and Senegal, weeks 48/2013 to 15*/2015

Adapted from WHO figures; *data for week 15/2015 are incomplete

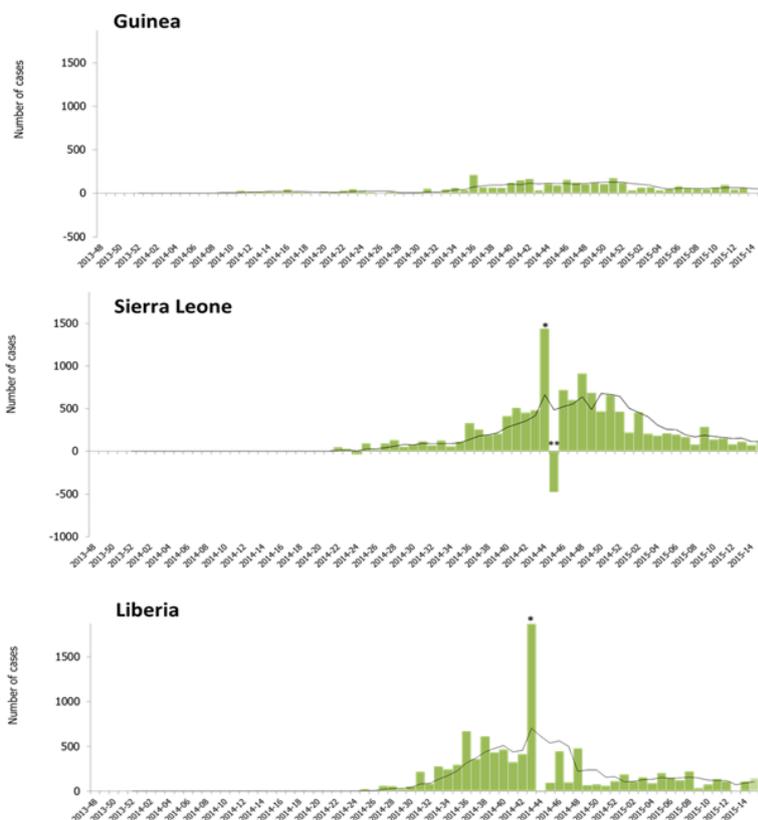


* According to WHO, the marked increase in week 43/2014 is due to a more comprehensive assessment of patient databases.

** 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.

Distribution of EVD cases by week of reporting in Guinea, Sierra Leone and Liberia, as of week 15* 2015

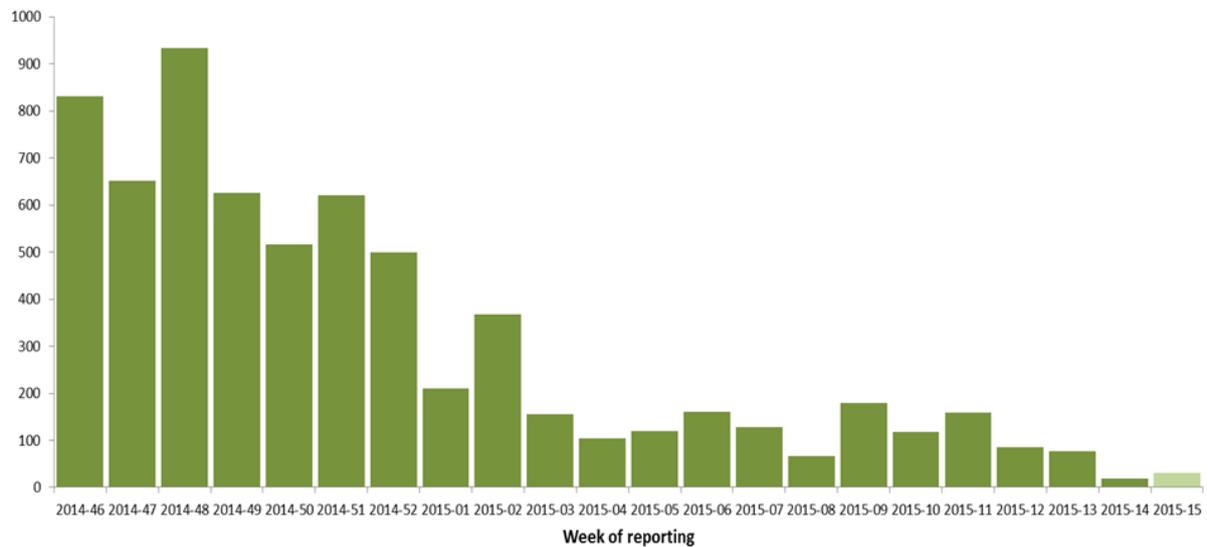
Adapted from WHO figures; *data for week 15/2015 are incomplete



* According to WHO, the marked increase in the number of cases reported in Sierra Leone (week 44/2014) and in Liberia (week 43/2014) is due to a more comprehensive assessment of patient databases.
 ** In week 45/2014, WHO reported -476 cases in Sierra Leone due to retrospective corrections.

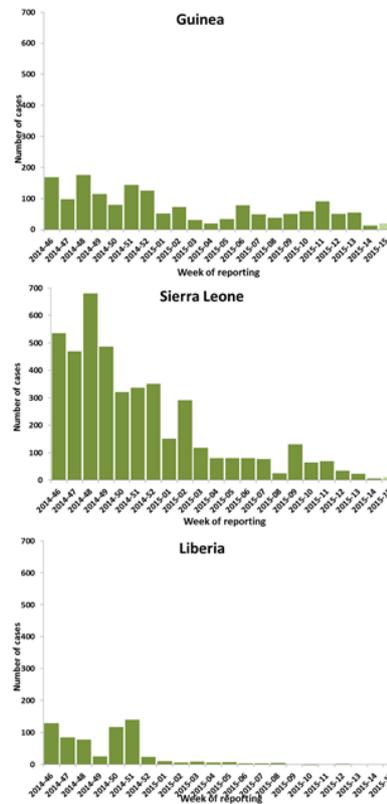
Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (weeks 46/2014 to 15*/2015)

Adapted from WHO figures; *data for week 15/2015 are incomplete



Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (weeks 46/2014 to 15*/2015)

Adapted from WHO figures; *data for week 15/2015 are incomplete



Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (as of week 14/2015)

Adapted from national situation reports



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

Opening date: 24 September 2012

Latest update: 9 April 2015

Epidemiological summary

Since April 2012 and as of 7 April 2015, 1 122 cases of MERS-CoV have been reported by local health authorities worldwide, including 461 deaths.

The distribution is as follows:

Confirmed cases and deaths by region:

Middle East

Saudi Arabia: 977 cases/425 deaths

United Arab Emirates: 74 cases/10 deaths

Qatar: 11 cases/4 deaths

Jordan: 19 cases/6 deaths
Oman: 5 cases/3 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: 3 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: 2 cases/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 to primary cases have not been identified. The majority of MERS-CoV cases are secondary cases and many result from nosocomial transmission. Dromedary camels are a host species for the virus. There is continued risk of cases presenting in Europe following exposure in the Middle East and international surveillance for MERS-CoV cases remains essential.

The risk of secondary transmission in the EU remains low and can be reduced further by 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

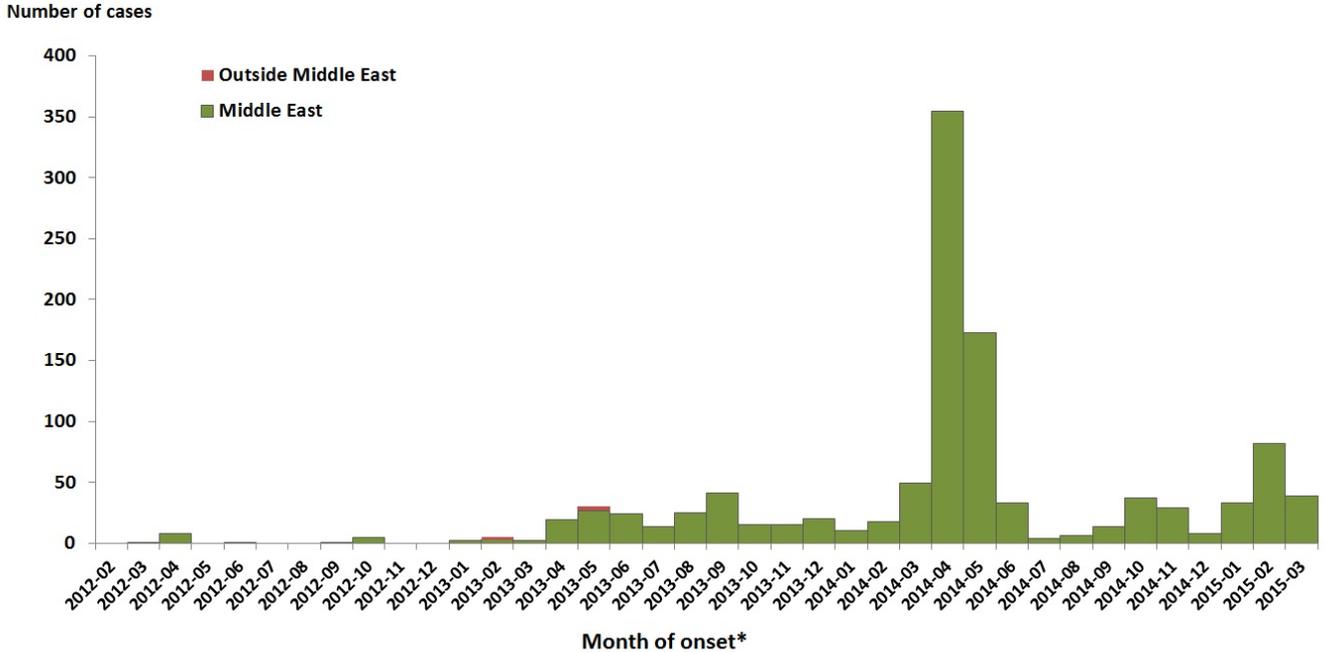
The last [rapid risk assessment](#) was updated on 9 March 2015.

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 probable place of infection, March 2012 – 9 April 2015 (n=1 122)

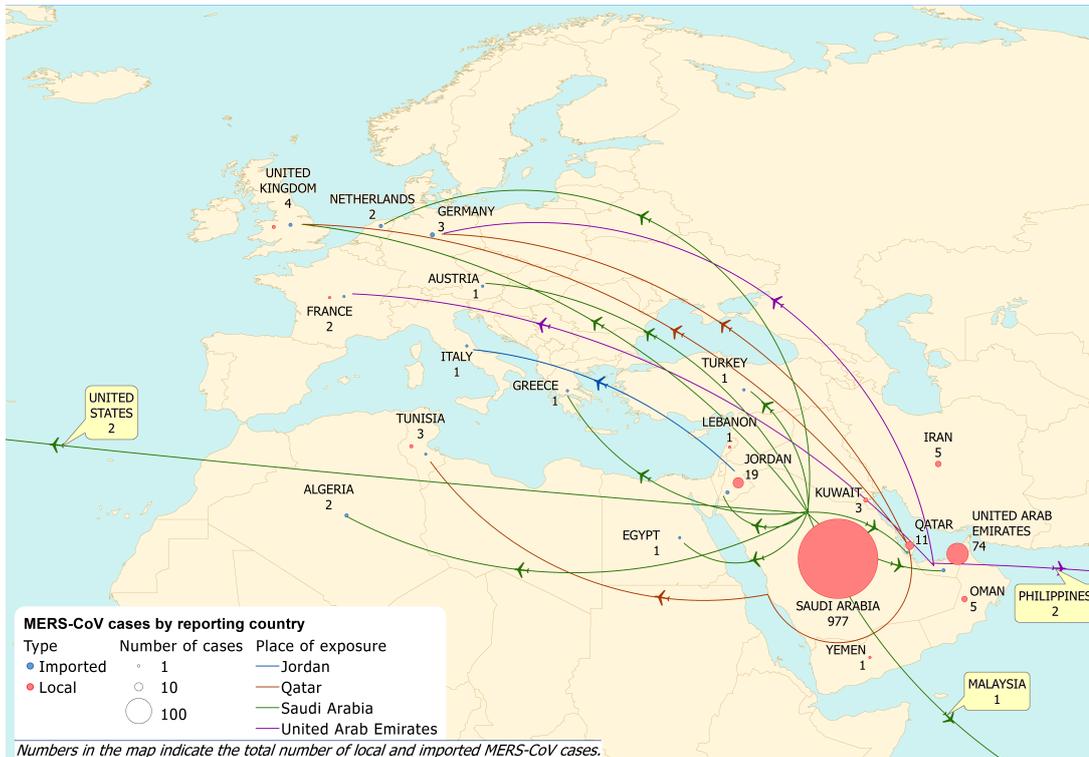
Source: ECDC



* Where the month of onset is unknown, the month of reporting has been used

Geographical distribution of confirmed MERS-CoV cases and place of probable infection, worldwide, as of 9 April 2015 (n=1 122)

Source: ECDC



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 9 April 2015

Epidemiological summary

Worldwide in 2015, 22 wild poliovirus type 1 (WPV1) cases have been reported to WHO, compared with 56 for the same period in 2014. Since the beginning of the year, two countries have reported cases: Pakistan (21 cases) and Afghanistan (1 case).

No circulating vaccine-derived poliovirus (cVDPV) cases were reported so far in 2015.

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 for 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.

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