

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: 11 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 49/2014, influenza activity remained low across the WHO European Region.

Non EU Threats

Ebola Virus Disease Epidemic - West Africa - 2014

Opening date: 22 March 2014

Latest update: 11 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 critical. On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Emergency of International Concern (PHEIC).

→ Update of the week

WHO has reported 18 152 confirmed, probable, and suspected cases of Ebola virus disease, with 6 548 deaths, in five affected countries (Guinea, Liberia, Mali, Sierra Leone and the United States of America) and three previously affected countries (Nigeria, Senegal and Spain) up to 7 December.

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

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

Opening date: 15 June 2005

Latest update: 11 December 2014

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 a [WHO](#) update on 4 December 2014, eight new human cases of influenza A(H5N1) have been reported in Egypt with onset of disease in November.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 10 December 2014

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, 458 cases have been reported including 177 deaths. No autochthonous cases have been reported from outside of China. Most cases have been unlinked, and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak. Sustained person-to-person transmission has not been documented and transmission peaked during the winter of 2013-2014. The reason for this pattern is not obvious. Since October 2013, 323 cases have been reported, the majority from previously affected provinces or in patients who visited these provinces prior to onset of illness.

→Update of the week

Since the last monthly update on 13 November 2014, three new cases were reported in China by WHO.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 11 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.

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

Opening date: 24 September 2012

Latest update: 11 December 2014

Since April 2012, 955 cases of MERS-CoV have been reported by local health authorities worldwide, including 386 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 on 4 December, two new cases have been reported from Saudi Arabia, one case each in Taif and Najran.

II. Detailed reports

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

Opening date: 9 October 2014

Latest update: 11 December 2014

Epidemiological summary

In week 49/2014:

- Twenty countries reported sporadic influenza activity and nine reported increasing trends in consultations for influenza-like illness (ILI) and/or acute respiratory infection (ARI).
- Of the 848 specimens tested from sentinel ILI and ARI patients from 35 countries, 34 (4%) from 14 countries tested positive for influenza virus. At present, the predominant influenza virus subtype circulating is A(H3N2).
- Two countries reported a total of 14 hospitalized laboratory-confirmed influenza cases admitted to intensive care units, similar to that in the previous week.
- The characterisation data in Europe show the same mismatch in most of the circulating A(H3N2) viruses to the vaccine virus as also reported from the [US CDC](#).

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.

Ebola Virus Disease Epidemic - West Africa - 2014

Opening date: 22 March 2014

Latest update: 11 December 2014

Epidemiological summary

Distribution of cases

Countries with intense transmission:

- Guinea: 2 339 cases and 1 454 deaths (as of 9 December 2014) - increase of 153 cases since 2 December,
- Liberia: 7 765 cases and 3 222 (as of 7 December 2014) - increase of 115 cases since 29 November,
- Sierra Leone: 8 014 cases and 1 857 deaths (as of 7 December 2014) -increase of 594 cases since 1 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 slightly increasing in Guinea, declining in Liberia, and still increasing in Sierra Leone. The case fatality rate across the three most affected countries in all reported cases with a recorded definitive outcome is

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76%. In hospitalised patients, the case fatality rate is 61%.

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.

In Mali, eight cases (7 confirmed and 1 probable), including six deaths (5 confirmed, 1 probable), have now been reported. The most recent cases were diagnosed in the Mali capital Bamako, and are not related to the country's first EVD case, who died in Kayes on 24 October. All identified contacts connected with the initial case have now completed 21 days follow-up. On 7 December 2014, 219 of 227 current contacts linked with the outbreak in Bamako were being monitored.

Situation among healthcare workers

As of 7 December, 639 healthcare workers have been reported to be infected with EVD, 349 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.

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.

The most recent case is a Nigerian man who works for UNMIL in Liberia. He was tested positive in Liberia before being airlifted on 6 December. The patient is now being treated in isolation in the Major Incident Hospital of the University Medical Centre in Utrecht.

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 49*/2014

* In week 45/2014, WHO carried out retrospective correction in the data resulting in reporting 299 fewer cases 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 49* 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](#) | [Medical evacuation The Netherlands](#)

ECDC assessment

This is the largest ever documented epidemic of EVD in terms of numbers and geographical 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 [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](#).

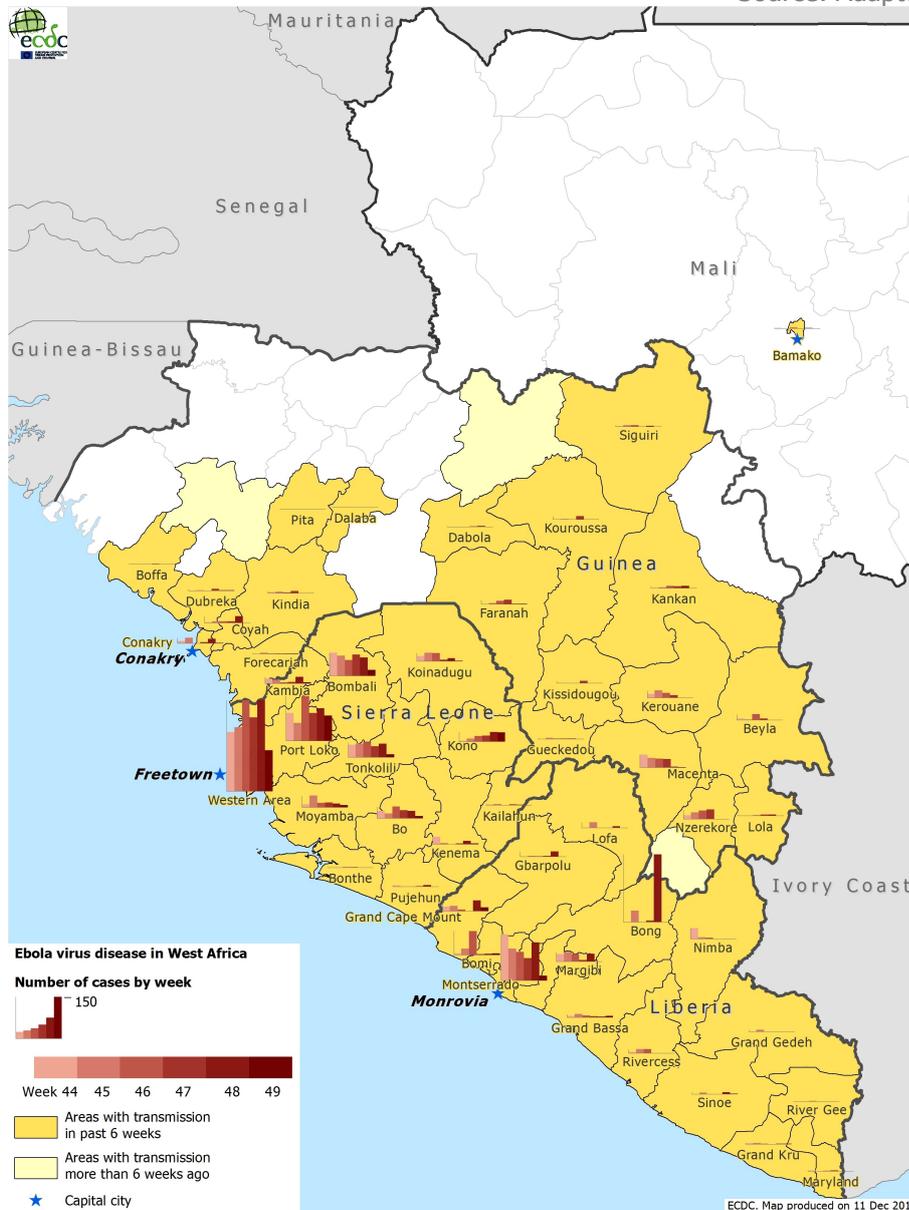
On 22 October ECDC published [Assessing and planning medical evacuation flights to Europe for patients with Ebola virus disease and people exposed to Ebola virus](#).

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](#)

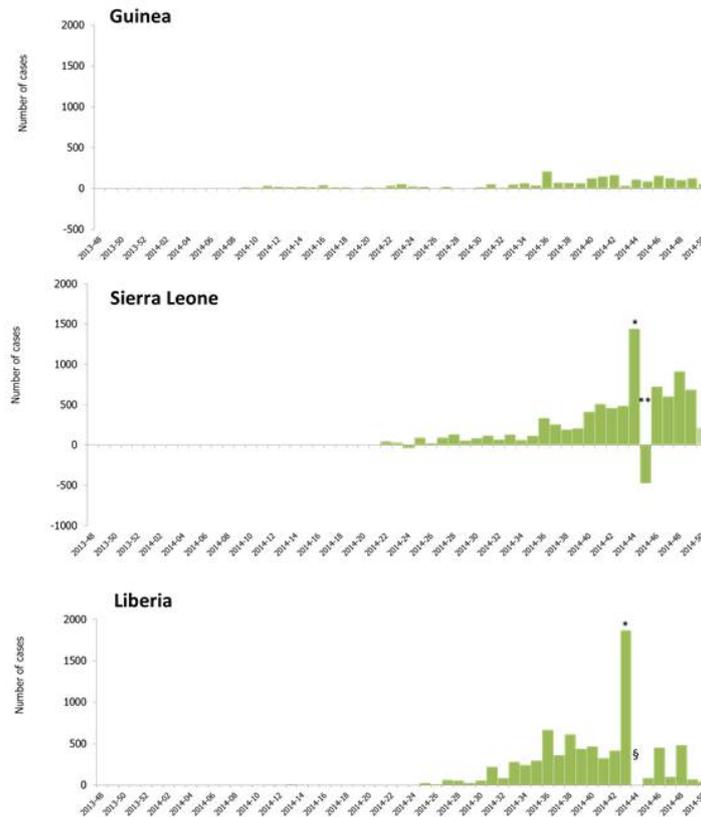
Distribution of cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia and Mali (as of week 49/2014)

Source: Adapted from national situation reports



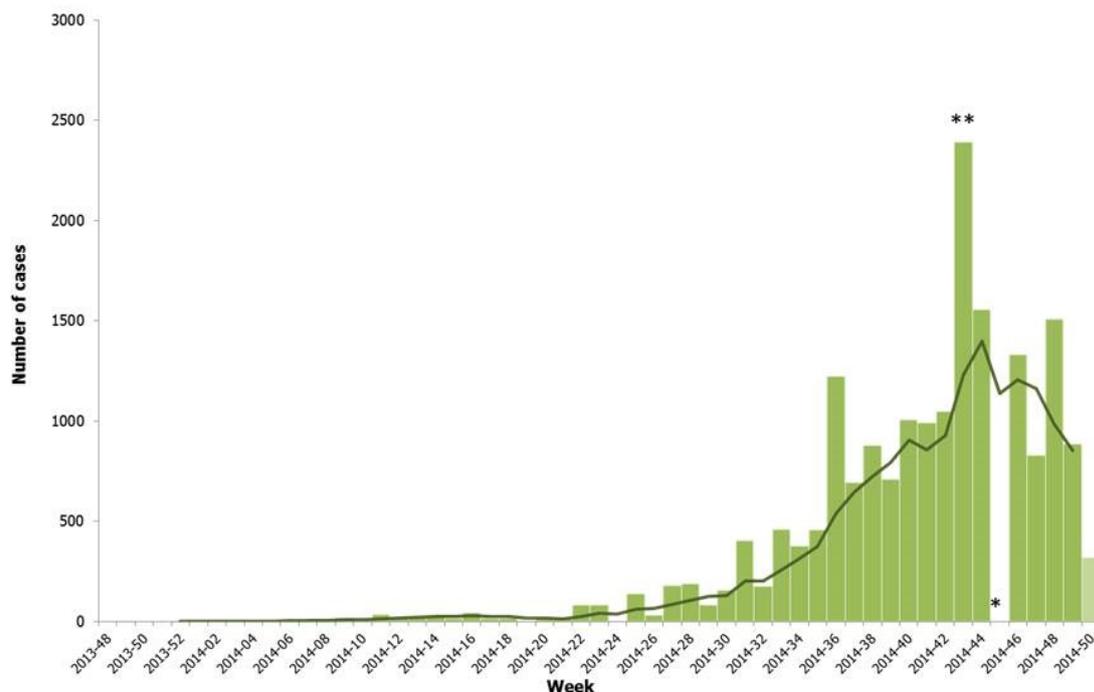
Distribution of cases of EVD by week of reporting in the three countries with widespread transmission

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 50*/2014

Source: Adapted from WHO; *Data for week 50 are incomplete



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

Opening date: 15 June 2005

Latest update: 11 December 2014

Epidemiological summary

According to a [WHO](#) update on 4 December 2014, eight new human cases of influenza A(H5N1) have been reported in Egypt with onset of disease in November. The cases were reported from Menia (6 cases), Beni Sueff (1) and Assiut (1) governorates. Two of the cases were children who have recovered and five were in adults who have died. A 30-year-old woman is currently reported to be in a critical condition. All but one of the cases had direct contact with poultry prior to the onset of disease. Preliminary laboratory investigations did not detect changes in the viruses isolated from the patients compared to isolates from cases reported previously.

From 2003 to 4 December 2014, 676 cases including 398 deaths have been reported from 16 countries to WHO.

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

ECDC assessment

The occurrence of sporadic cases or small clusters in Egypt is not unexpected as avian influenza A(H5N1) viruses are known to be circulating in poultry in the country. According to [WHO EMRO](#), Egypt has been the most affected country in the region since 2003 where the disease has remained endemic.

Hong Kong reported the world's first outbreak of bird flu among humans in 1997, when six people died. Most human infections are the result of direct contact with infected birds, and countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. There are currently no indications of a significant change in the epidemiology associated with any clade or strain of the A(H5N1) virus from a human health perspective. This assessment is based on the absence of sustained human-to-human transmission, and on the observation that there is no apparent change in the size of clusters or reports of chains of infection. However, vigilance for avian influenza in domestic poultry and wild birds in Europe remains important.

Actions

ECDC follows 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) and other human infections with avian influenza viruses in China on 26 February 2014.

WHO is now reporting H5N1 cases on a monthly basis. ECDC will continue monthly reporting in the CDTR to coincide with WHO reporting.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 10 December 2014

Epidemiological summary

Since the last monthly update on 13 November 2014, three new cases were reported by WHO. The first case is a 54-year-old female from Shihezi City, Xinjiang Uyghur Autonomous Region, who developed symptoms on 19 October. The patient died on 1 November. Exposure to live poultry is unknown. The second case is a 58-year-old female from Changzhou City, Jiangsu province, who developed symptoms on 24 October. The patient was admitted to a hospital on 28 October. She is in a critical condition. The patient has a history of exposure to a live poultry market. The third case is 45-year-old female from Changzhou City, Jiangsu province, who developed symptoms on 3 November. The patient was hospitalised on 5 November. Her current condition is mild. The patient has a history of exposure to a live poultry market.

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, human cases have continued to be reported, and as of 11 December 2014, there were 458 laboratory-confirmed cases: Zhejiang (139), Guangdong (109), Jiangsu (58), Shanghai (42), Fujian (22), Hunan (24), Anhui (18), Jiangxi (6), Henan (4), Beijing (5), Guangxi (4), Shandong (4), Hebei (1), Guizhou (1), Jilin (2), Xinjiang Uygur (4), Hong Kong (10), Taiwan (4) and one imported case in Malaysia. The second wave of the outbreak started in October 2013. Since then 320 cases have occurred. The number of reported cases has been declining since April 2014 and only sporadic cases have been reported during the past months.

Most cases have developed severe respiratory disease. One hundred and seventy-seven patients have died.

Web sources: [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [ECDC](#) | [WHO DON 29 October](#) |

ECDC assessment

This outbreak is caused by a novel reassortant avian influenza virus capable of causing severe disease in humans. Currently, the most likely scenario is that this remains a local, although geographically widespread, zoonotic outbreak, in which the virus is transmitted sporadically to humans in close contact with the animal reservoir, similar to the influenza A(H5N1) situation. It is expected that there may be further sporadic cases of human infection with the virus in affected and possibly neighbouring areas in China. Affected provinces and municipalities continue to maintain surveillance and response activities.

Imported cases of influenza A(H7N9) may be detected in Europe. However, the risk of the disease spreading among humans

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following an importation to Europe is considered to be very low. People in the EU presenting with severe respiratory infection and a history of potential exposure in the outbreak area will require careful investigation in Europe.

Actions

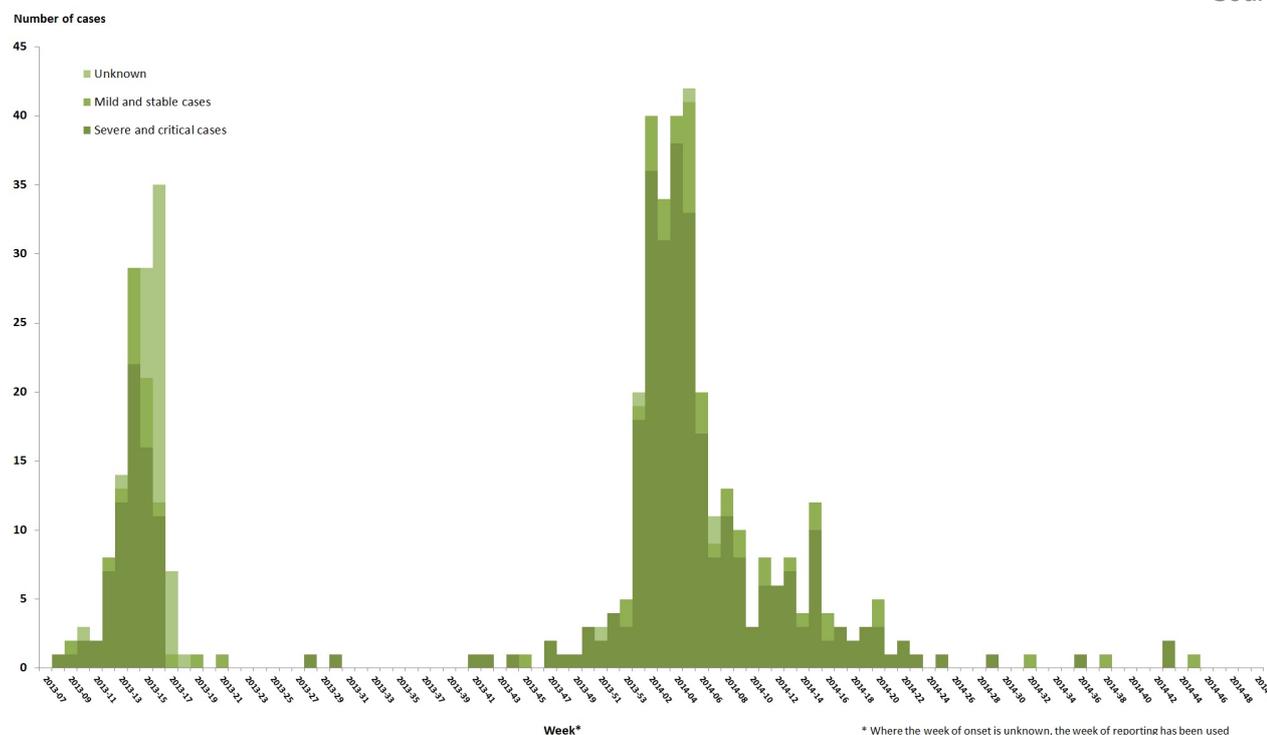
The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation, including scientific research. ECDC is monitoring developments and updates reports on a monthly basis.

ECDC published an updated [Rapid Risk Assessment](#) on 26 February 2014.

ECDC published a guidance document [Supporting diagnostic preparedness for detection of avian influenza A\(H7N9\) viruses in Europe](#) for laboratories on 24 April 2013.

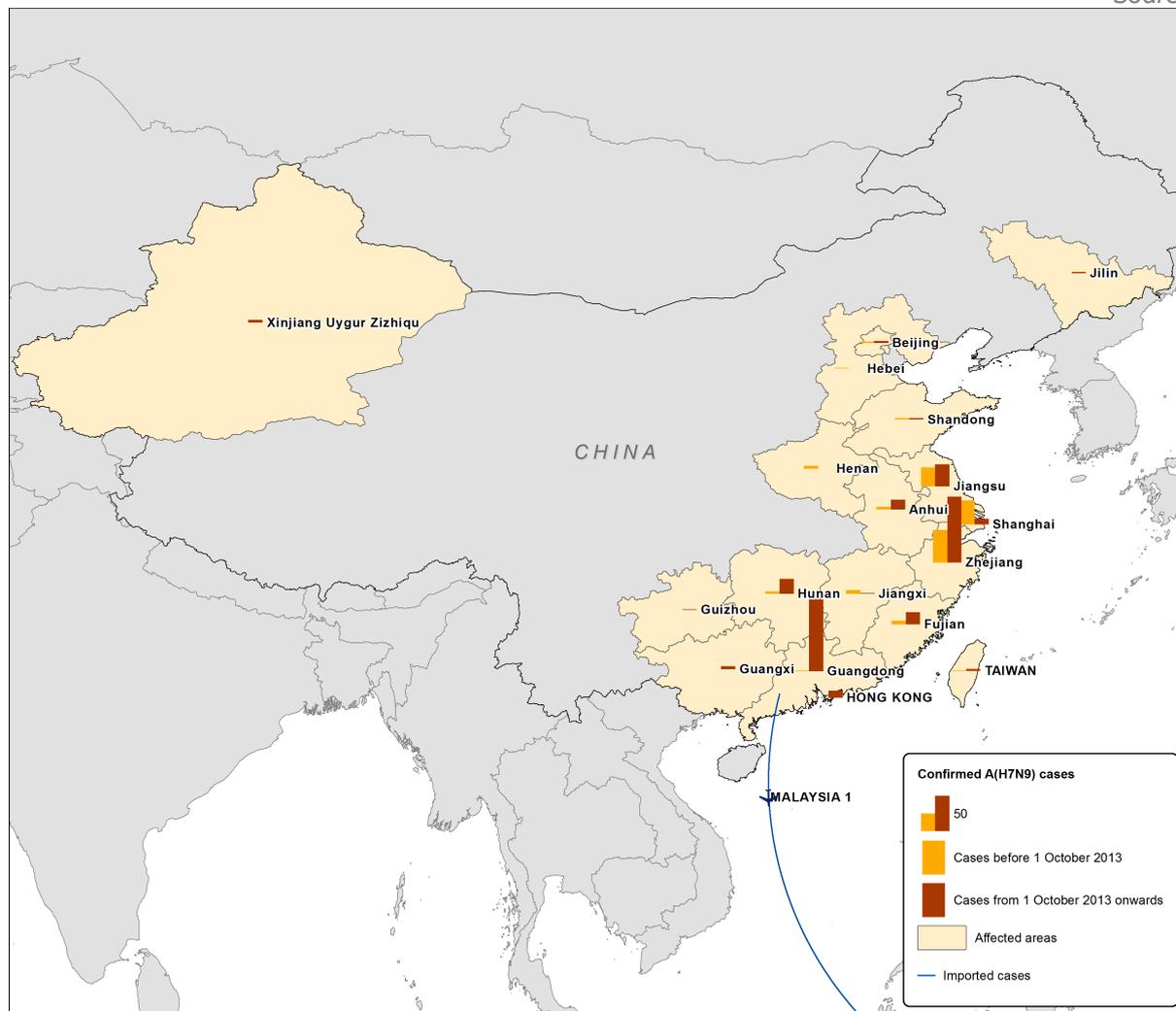
Distribution of avian influenza A(H7N9) cases by first available week*, as of 11 December 2014

Source: ECDC



Distribution of cumulative number of human cases of avian influenza A(H7N9), by province and date, China, week 14/2013 to week 50/2014

Source: ECDC



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 11 December 2014

Epidemiological summary

Worldwide in 2014, 325 cases have been reported to WHO so far, compared with 359 for the same time period in 2013. In 2014, nine countries have reported cases: Pakistan (276 cases), Afghanistan (24 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.

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#) | [Temporary](#)

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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](#) | [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: 11 December 2014

Epidemiological summary

Since April 2012 and as of 11 December 2014, 955 cases of MERS-CoV have been reported by local health authorities worldwide, including 386 deaths. The distribution is as follows:

Confirmed cases and deaths by region:

Middle East

Saudi Arabia: 819 cases/352 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

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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.

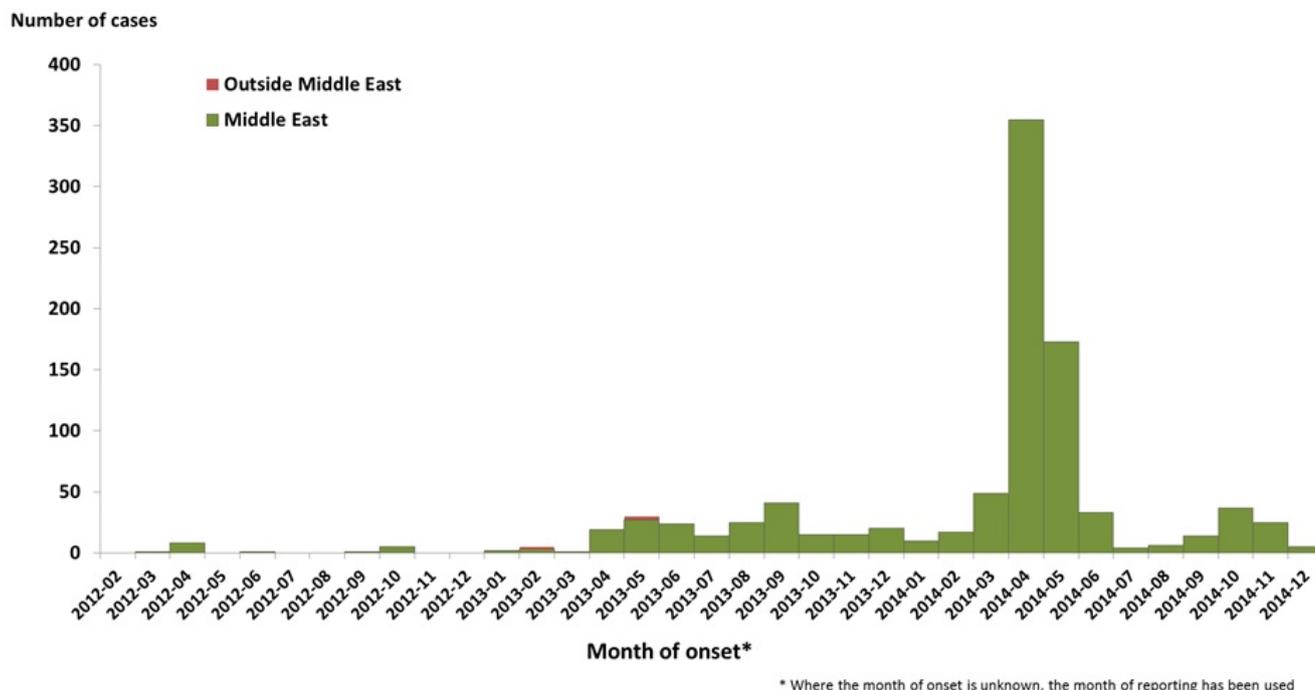
The last [rapid risk assessment](#) was updated on 16 October 2014.

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.

Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 11 December 2014 (n=955)

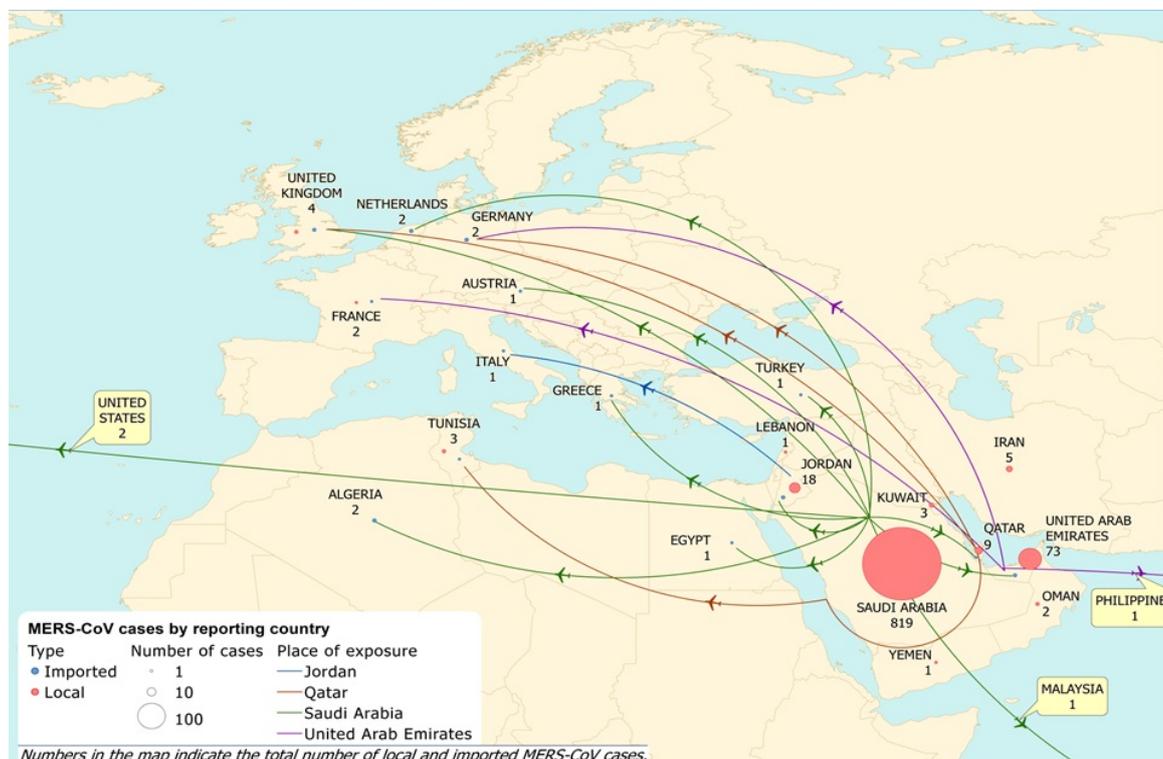
Data for December 2014 is incomplete



* 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 11 December 2014 (n=955)

Source: ECDC



Numbers in the map indicate the total number of local and imported MERS-CoV cases.

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