

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: 14 May 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

In week 19, influenza activity continued to decrease in most reporting countries. The proportion of influenza-virus-positive specimens from sentinel sources decreased from 14% for week 18/2015 to 9% for week 19. This is the first time since week 51/2014 that the positivity rate has been below the threshold of 10%.

Salmonella Enteritidis - Riga Cup, Latvia - April 2015

Opening date: 20 April 2015

Latest update: 7 May 2015

A multinational outbreak of *Salmonella* Enteritidis was affecting the participants of the ice hockey tournament 'Riga Cup 2015'. The outbreak is reported to have affected more than two hundred participants. The source of the outbreak has not yet been identified.

→Update of the week

As of 13 May 2015, 87 confirmed and 150 suspected cases from 35 teams from seven different countries: Finland (16), Sweden (9), Norway (3), the UK (3), Lithuania (2), Estonia (1) and Hungary (1).

Non EU Threats

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 14 May 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 6 May 2015, the Temporary Recommendations in relation to PHEIC were extended for another three months.

→Update of the week

In the past week, no new cases of poliovirus type 1 (WPV1) were reported.

[WHO](#) has published a semi-annual status report covering the period from July to December 2014. The Global Polio Eradication Initiative has prepared a status [report](#) for the ministries of health around world, who will gather next week in Geneva for the annual World Health Assembly.

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

Opening date: 15 June 2005

Latest update: 7 May 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

Since the last update on 8 May, no new additional human cases of influenza A(H5N1) have been reported in Egypt or elsewhere in the world.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 13 May 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 14 May 2015, [WHO](#) reported 26 755 cases of Ebola virus disease related to the outbreak in West Africa, including 11 072 deaths.

According to the WHO Ebola Situation report, nine new confirmed cases of EVD were reported in the week up to 13 May from Guinea (seven cases) and Sierra Leone (two cases). This is the lowest weekly number of cases so far in 2015. The cases were reported in Forecariah and Dubreka (Guinea), and Moa Warf (Sierra Leone). This is the lowest number of districts to report a confirmed case since May 2014.

Liberia was declared Ebola-free on 9 May 2015 by WHO, 42 days after the burial of the last confirmed case on 28 March.

On 12 May, Italy reported an EVD case in a healthcare worker returning from Sierra Leone.

ECDC published an updated [rapid risk assessment](#) on 11 May 2015.

Invasive infection by *Mycobacterium chimaera* 2014 -2015 - Multistate Europe

Opening date: 9 April 2015

Latest update: 7 May 2015

Since 2011, cases of invasive cardiovascular infection caused by *Mycobacterium chimaera* in patients having previously undergone cardiac surgery in Switzerland, the Netherlands and Germany have been reported by the relevant authorities. Aerosolisation of water from the heater-cooler units for extracorporeal circulation in the operating room is considered the most plausible route of infection.

→Update of the week

No new cases reported in the previous week.

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

Opening date: 24 September 2012

Latest update: 23 April 2015

Since April 2012 and as of 13 May 2015, 1 142 cases of MERS-CoV have been reported by local health authorities worldwide, including 465 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 on 23 April, Saudi Arabia has reported 15 additional cases of MERS-CoV infection and three deaths in previously reported cases.

Iran reported one case on 8 May 2015 to [WHO](#). The patient was a 61-year-old male from Kahnooj city, who developed symptoms on 18 March and was admitted to hospital in Kahnooj city on 26 March. The patient was transferred to another hospital in Kerman city on 28 March. He had no comorbidities. On 13 March, the patient had contact with two individuals with influenza-like illness (ILI) who returned from Umrah on 10 March. He has no history of contact with other known risk factors in the 14 days prior to onset of symptoms. The patient was discharged from hospital on 27 April.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 14 May 2015

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, 651 cases have been reported, including 225 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.

→Update of the week

Since the last update on 15 May 2015 WHO notified of six laboratory-confirmed cases of human infection with avian influenza A (H7N9) virus, including two deaths.

Onset dates ranged from 26 March to 12 April 2015. Cases ranged in age from 3 to 67 years with a mean age of 36 years. Of these six cases, four (67%) were male. Four cases (67%) reported exposure to poultry and two cases (33%) had unknown exposure. No clusters were reported. Cases were reported from five provinces and municipalities: Anhui (1), Fujian (1), Jiangsu (1), Shanghai (1), and Zhejiang (2).

II. Detailed reports

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

Opening date: 9 October 2014

Latest update: 14 May 2015

Epidemiological summary

Low intensity of influenza activity was reported by 40 countries.

Influenza A(H1N1)pdm09, A(H3N2) and type B viruses continued to circulate in the WHO European Region, but type B viruses accounted for 67% of sentinel detections in week 19/2015.

Excess all-cause mortality among people aged 65 years and above, concomitant with increased influenza activity and the predominance of A(H3N2) viruses, had been observed in most countries participating in the European project monitoring excess mortality for public health action (EuroMOMO), but has now abated (see the [EuroMOMO](#) website).

Antigenic drift in a proportion of A(H3N2) viruses was observed in the 2014–2015 influenza season, so the northern hemisphere vaccine did not provide broad protection against A(H3N2) viruses. Despite some antigenic drift among B/Yamagata viruses, the A(H1N1)pdm09 and B/Yamagata components in the vaccine are likely to protect against circulating viruses.

Of all the influenza viruses screened for reduced susceptibility to neuraminidase inhibitors, only five A(H3N2) viruses and one A(H1N1)pdm09 virus have shown genetic or phenotypic evidence of reduced susceptibility.

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

ECDC assessment

Influenza activity continued to decrease in most of the reporting countries.

Actions

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

Salmonella Enteritidis - Riga Cup, Latvia - April 2015

Opening date: 20 April 2015

Latest update: 7 May 2015

Epidemiological summary

A multinational outbreak of *Salmonella* Enteritidis was affecting participants of the ice hockey Riga Cup 2015 (5 000 participants). So far, the outbreak is reported to have affected more than two hundred participants from Finland, Norway, the UK, Sweden, Hungary, Lithuania and Estonia. The source of the outbreak has not yet been identified.

The Latvian food safety authorities and public health authorities are conducting epidemiological and environmental investigations. Samples collected from the environment and the personnel cafeterias in the arenas where the tournament took place have all been negative. Public health authorities in Finland and Sweden are interviewing cases to identify possible exposures.

ECDC assessment

Considering that all cases reported were participating in the junior hockey cup in Riga, that the cases are clustered in time, and that the serotype is *S. Enteritidis* PT1, susceptible to all antibiotics and with a specific rare MLVA pattern, this outbreak can be considered a persistent point source outbreak with a common exposure. The Riga Cup took place from 27 March to 27 April 2015. Although the Riga Cup tournament has ended, other tournaments are continuing until the end of May at the same venues and as the source(s) of infection has/have still not been identified, the occurrence of new cases is possible.

Actions

ECDC has published a [Rapid Risk Assessment](#). ECDC has deployed an expert and an EPIET fellow to Riga during the last week to assist in the outbreak investigation in Latvia. All participating teams have been contacted via e-mail. A questionnaire was developed to be distributed to the affected teams. Cohort studies are ongoing in three countries.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 14 May 2015

Epidemiological summary

Worldwide in 2015, 23 wild poliovirus type 1 (WPV1) cases have been reported to WHO so far, compared with 77 for the same period in 2014. Since the beginning of the year, two countries have reported cases: Pakistan (22 cases) and Afghanistan (one case).

No circulating vaccine-derived poliovirus (cVDPV) cases have been 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 of wild poliovirus being re-introduced to the EU/EEA. The highest risk of large poliomyelitis outbreaks occurs in areas with clusters of unvaccinated populations and in people living in poor sanitary conditions, or a combination of both.

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

Actions

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

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

Opening date: 15 June 2005

Latest update: 7 May 2015

Epidemiological summary

Egypt

In Egypt, as of 13 May 2015, the Ministry of Health and Population has reported 140 human cases of influenza A(H5N1), including 39 deaths in 2015. Since 2006, Egypt has reported 342 human cases, according to WHO/FAO.

Non-human cases of avian flu

Israel: OIE reported A(H5N1) outbreak in a turkey farm

USA: Outbreaks both in poultry and wild birds of A(H5N2) continue to be reported. Thirty-two outbreaks were detected in the past week in Iowa, Minnesota, Wisconsin, Nebraska and Kentucky. Evidence of the A(H5N2) avian influenza virus has been found

in air samples collected in and near infected Minnesota poultry barns by researchers of the University of Minnesota. It is not yet known whether the virus was viable or not, and those analyses are in progress. Sixteen states are currently affected by outbreaks of avian flu and more than 32 million birds have either died or will be killed to contain the virus' spread.

Burkina Faso, Taiwan, Mexico and Turkey reported different strains of both LPAI and HPAI in wild birds and poultry during the past week.

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

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. 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.

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 have been restricted to transmission in Egypt and neighbouring countries for several years. The emergence of a novel cluster within this clade was recently reported in [Eurosurveillance](#), which might explain the increase in poultry infections and/or human cases. The risk to people from these HPAI H5 infections in wild birds, backyard flocks and commercial poultry is considered to be low.

Actions

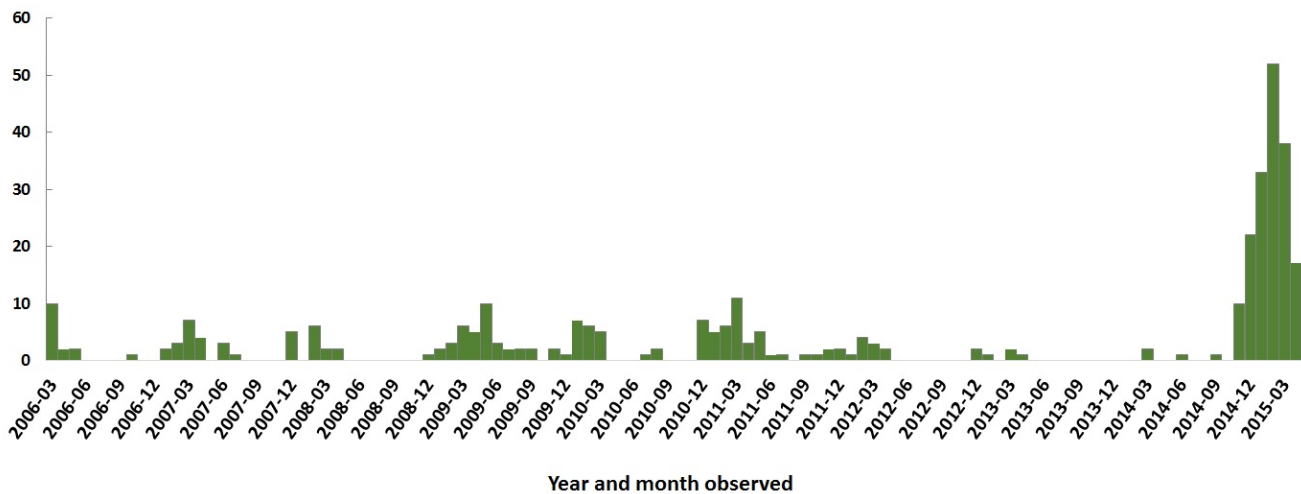
ECDC monitors the worldwide A(H5N1) situation through epidemic intelligence activities on a weekly basis in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of a changing risk for A(H5N1) to humans on a regular basis.

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

ECDC published an [epidemiological update](#) about A(H5N1) in Egypt on 10 April 2015.

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

Source: FAO and WHO



Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 13 May 2015

Epidemiological summary

Distribution of cases as of 14 May 2015:

Countries with intense transmission

- Guinea: 3 615 cases, of which 3 187 are confirmed, and 2 399 deaths
- Sierra Leone: 12 536 cases, of which 8 597 are confirmed, and 3 904 deaths

Liberia was declared Ebola free on 9 May 2015 by [WHO](#), as 42 days had passed since the last case was buried.

On 12 May 2015 the health authorities in Italy reported an EVD case in a volunteer health worker who returned to Italy from Sierra Leone on 7 May. The patient developed symptoms on 10 May and was hospitalised the day after. After he was confirmed with EVD on 12 May he was securely transferred to the National Institute for Infectious Diseases in Rome. Due to the onset of symptoms being after 72 hours after he took the last flight, contact tracing is deemed not to be necessary.

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

- Mali, Nigeria, Senegal, Spain, the United States and the United Kingdom have been declared free of EVD after several cases related to the current epidemic in West Africa.
- On 12 May 2015 the national health authorities in [Italy](#) reported a confirmed case of EVD in a returning volunteer health worker from Sierra Leone.

Situation in West African countries

In **Guinea**, according to WHO, the seven new confirmed cases (compared to the nine of the previous week) were reported from the prefecture of Forecariah (6) and Dubreka (1). Four cases were identified post mortem. Of the seven cases only one was a

7/17

registered contact of a previous cases. WHO reports that during the week up to 10 May 2015, 23 unsafe burials took place. The case in Dureka was identified post mortem and has no apparent epidemiological link to a previous case.

According to WHO, those indicators suggest that tracking transmission chains is still challenging, and there remains a possibility of an increase in case incidence and/or geographical spread in coming weeks. The absence of an apparent epidemiological link in Dureka is of particular concern. The preliminary reports from the prefecture since 10 May indicate that the case has resulted in at least three additional confirmed cases.

In **Sierra Leone**, according to WHO, the two new confirmed cases (compared to nine reported in the previous week) both occurred in Moa Warf area of the East 1 Chiefdom of the capital Freetown. The cases are a mother and her 10-year-old daughter, who have an epidemiological link to a known case and were under quarantine at the time of symptom onset. Following treatment, the mother has twice tested negative for EVD.

Situation among healthcare workers

According to WHO for the fourth consecutive week no new infections in health workers have been reported in the countries with widespread and intense transmission. Overall, 868 cases and 507 deaths have been recorded among health workers in Guinea (187 cases and 94 deaths), Sierra Leone (303 cases and 221 deaths) and Liberia (378 cases and 192 deaths).

Outside of the three most affected countries, two Ebola-infected healthcare workers 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), six in the USA (two infected in Sierra Leone, two in Liberia, and two infected while caring for a confirmed case in Texas) and one in Italy (infected in Sierra Leone).

Medical evacuations and repatriations from EVD-affected countries

Since the beginning of the epidemic and as of 14 May 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.

In **Italy**, the Ministry of Health acknowledged a case of EVD in a healthcare worker (nurse), employed by the NGO Emergency from 15 February to 6 May 2015 in Sierra Leone.

The nurse returned to Italy on 7 May 2015. At the arrival at the Fiumicino airport, the person had a normal body temperature and no symptoms. The symptom onset with fever started on 10 May 2015. The patient self-isolated at home and was transported on 11 May to the hospital of Sassari (Sardinia) with containment precautions. The biological samples were tested positive for EVD on 12 May. On 13 May, the case was transferred to the INMI in Rome. Taking into account that the onset of symptoms occurred 72 hours after the last flight, contact tracing of the international travellers of the flights is not considered necessary.

Images

- *Epicurve 1 and 2*: the epicurves show the confirmed cases in the three most affected countries.
- *Map*: this map is based on country situation reports and shows only confirmed cases of EVD in the past six weeks.

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

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 WHO, the number of cases has stayed stable during the past three weeks in Guinea and Sierra Leone. In both countries, less than half of all new confirmed cases are identified among known Ebola contacts, and people continue to be diagnosed with Ebola post mortem.

Actions

As of 14 May 2015, ECDC has deployed 64 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, additional experts are already confirmed for deployment to Guinea over the next few months.

ECDC is looking for additional French-speaking experts with field epidemiology experience from EU Member States to join the ECDC-coordinated contingent in response to the Ebola outbreak in Guinea. For further information, please contact Alice Friaux at alice.friaux@ecdc.europa.eu with copy to support@ecdc.europa.eu.

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

The latest (11th) update of the [rapid risk assessment](#) was published on 11 May 2015.

On 22 January 2014, ECDC published [Infection prevention and control measures for Ebola virus disease. Management of healthcare workers returning from Ebola-affected areas](#).

On 4 December 2014, EFSA and ECDC published a [Scientific report assessing Risk related to household pets in contact with Ebola cases in humans](#).

On 29 October 2014, ECDC published a training tool on the [safe use of PPE and options for preparing for gatherings in the EU](#).

On 23 October 2014, ECDC published [Public health management of persons having had contact with Ebola virus disease cases in the EU](#).

On 22 October 2014, ECDC published [Assessing and planning medical evacuation flights to Europe for patients with Ebola virus disease and people exposed to Ebola virus](#).

On 13 October 2014, ECDC published [Infection prevention and control measures for Ebola virus disease: Entry and exit screening measures](#).

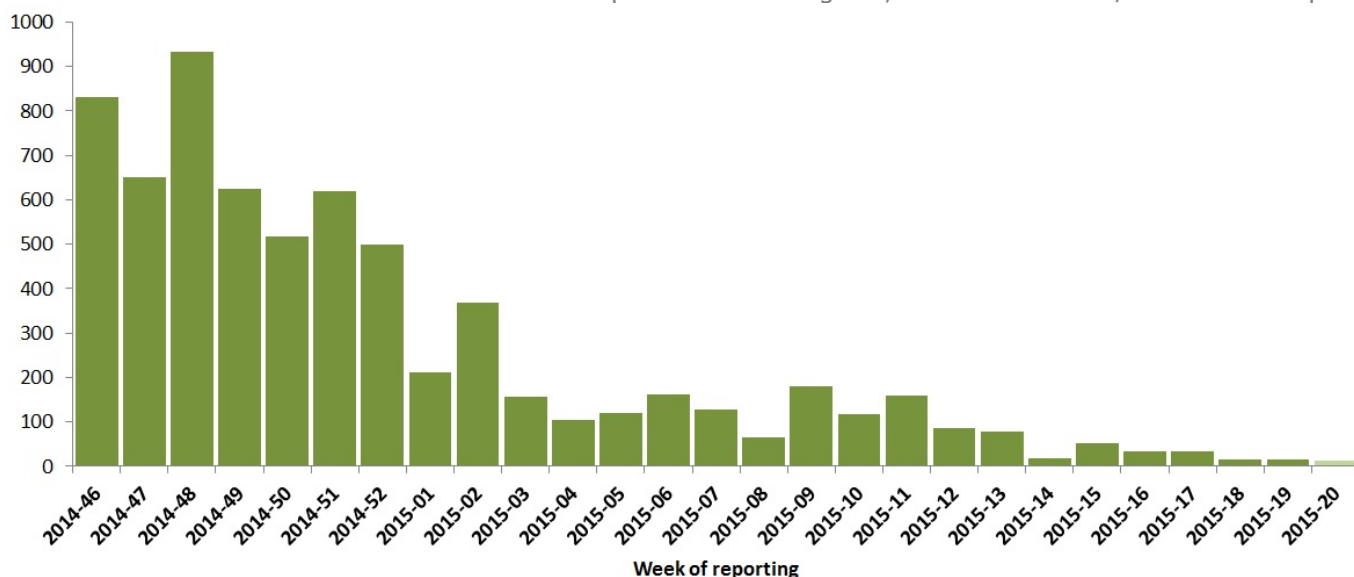
On 6 October 2014, ECDC published [risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU](#).

On 22 September 2014, ECDC published [assessment and planning for medical evacuation by air to the EU of patients with Ebola virus disease and people exposed to Ebola virus](#).

On 10 September 2014, ECDC published an [EU case definition](#).

Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (weeks 46/2014 to 20/2015)

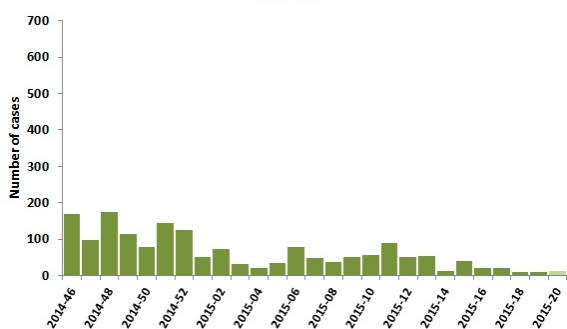
Adapted from WHO figures; *data for week 20/2015 are incomplete



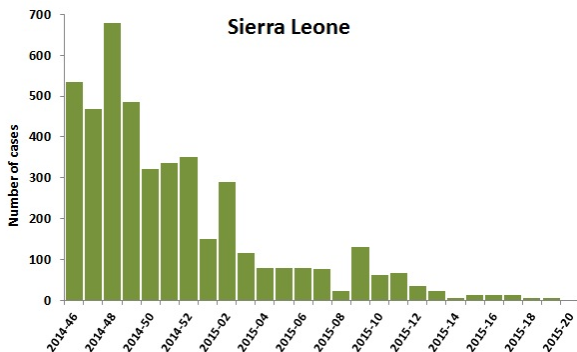
Distribution of confirmed cases of EVD by week of reporting in Guinea and Sierra Leone (weeks 46/2014 to 20/2015)

Adapted from WHO figures; *data for week 20/2015 are incomplete

Guinea

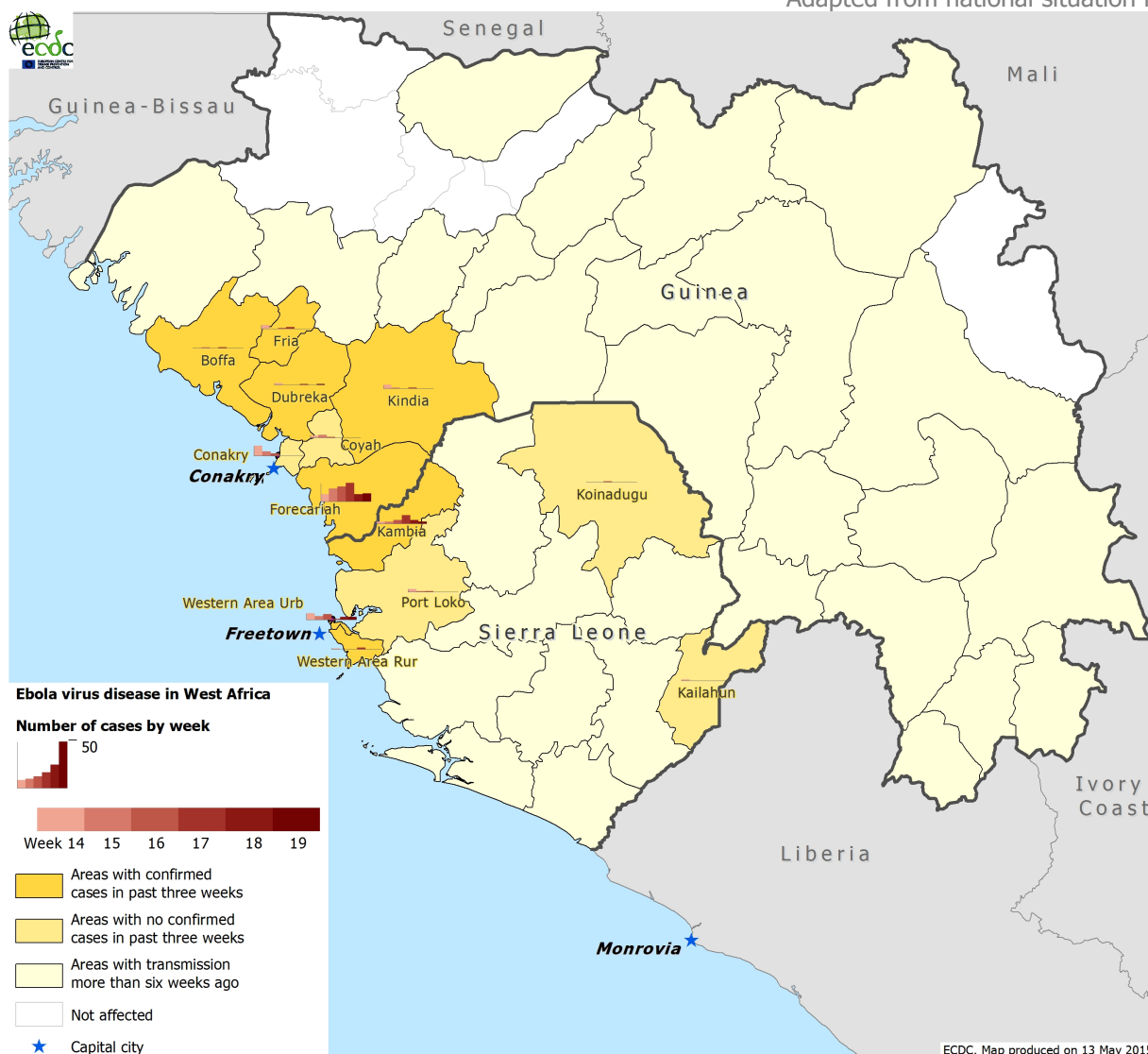


Sierra Leone



Distribution of confirmed cases of EVD by week of reporting in Guinea and Sierra Leone (as of week 19/2015)

Adapted from national situation reports



Invasive infection by *Mycobacterium chimaera* 2014 -2015 - Multistate Europe

Opening date: 9 April 2015

Latest update: 7 May 2015

Epidemiological summary

Since 2011, cases of invasive cardiovascular infection caused by *M. chimaera* in patients having previously undergone cardiac surgery in Switzerland, the Netherlands and Germany have been reported by the relevant authorities. Switzerland has reported six *M. chimaera* infections: three cases of endocarditis, one bloodstream infection and two vascular graft infections. Two of the six had fatal outcomes related to the infection. The clinical manifestations included osteomyelitis and involvement of multiple organs such as the eye and spleen. The Netherlands reported one fatal *M. chimaera* infection in a patient following cardiac surgery. A case has also been reported in Germany. Investigation in Switzerland included microbiological examination of environmental samples that identified *M. chimaera* contamination in heater-cooler units used during cardiac operations, including water samples from the units. Air sampling cultures became positive for *M. chimaera* when units were running but not if they were turned off. Some strains from air and water samples showed matching Random Amplified Polymorphic DNA (RAPD)-PCR patterns. This suggests *M. chimaera*-contaminated heater-cooler units as a potential source of infection. Heater-cooler units are used to regulate the temperature of the blood during extracorporeal circulation and use filtered tap water as a heat exchanger.

11/17

Web sources: [ECDC rapid risk assessment](#) | [Netherlands authorities](#) | [Swiss authorities](#) | [Clinical Infectious Diseases Journal](#)

ECDC assessment

ECDC is gathering information in collaboration with affected countries to evaluate the public health risk of cardiovascular-surgery-associated invasive infections with *M. chimaera* potentially linked to heater-cooler units, and will update its risk assessment as new evidence is obtained. Healthcare providers involved in caring for patients who have undergone open-heart surgery or other surgery involving cardiopulmonary bypass, such as lung transplant, should be vigilant for cases of endocarditis or other cardiovascular, deep-surgical-site or disseminated infection of unidentified origin. They should also consider testing specifically for slow-growing non-tuberculous mycobacteria such as *M. chimaera*. Regulatory bodies in charge of licensing and agencies monitoring the safety of such devices should be aware of the potential association of invasive cardiovascular infections caused by *M. chimaera* with heater-cooler units and relevant information should be disseminated to all centres performing cardiac surgery.

Actions

ECDC published a [Rapid Risk Assessment](#) on 30 April 2015.

The protocol for case finding, laboratory diagnosis and environmental testing was shared with the investigators for review and the topic will also be part of the agenda at the European reference laboratory network for tuberculosis (ERLTB-Net) meeting.

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

Opening date: 24 September 2012

Latest update: 23 April 2015

Epidemiological summary

Since April 2012 and as of 13 May 2015, 1 142 cases of MERS-CoV have been reported by local health authorities worldwide, including 465 deaths.

The distribution is as follows:

Confirmed cases and deaths by region:

Middle East

Saudi Arabia: 996 cases/428 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: 6 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 a 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

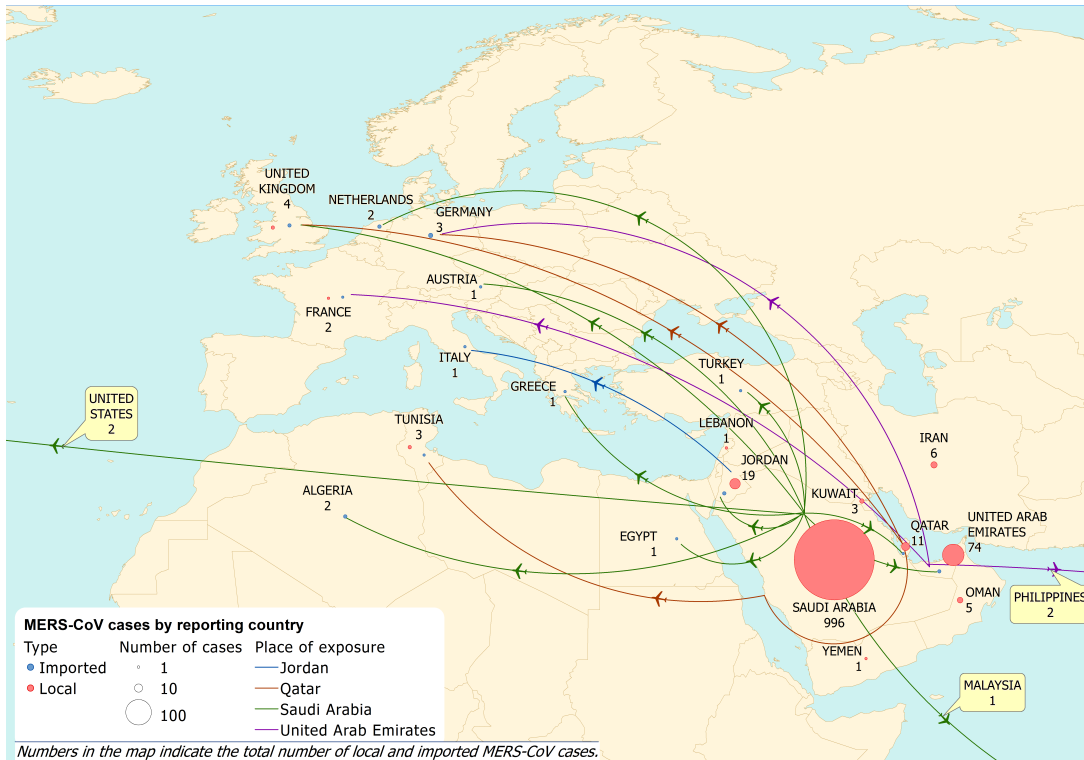
The last [rapid risk assessment](#) was updated on 9 March 2015.

ECDC published a [factsheet for health professionals regarding MERS-CoV](#) on 20 August 2014.

From week 18 onwards, ECDC will monitor the situation on a monthly basis.

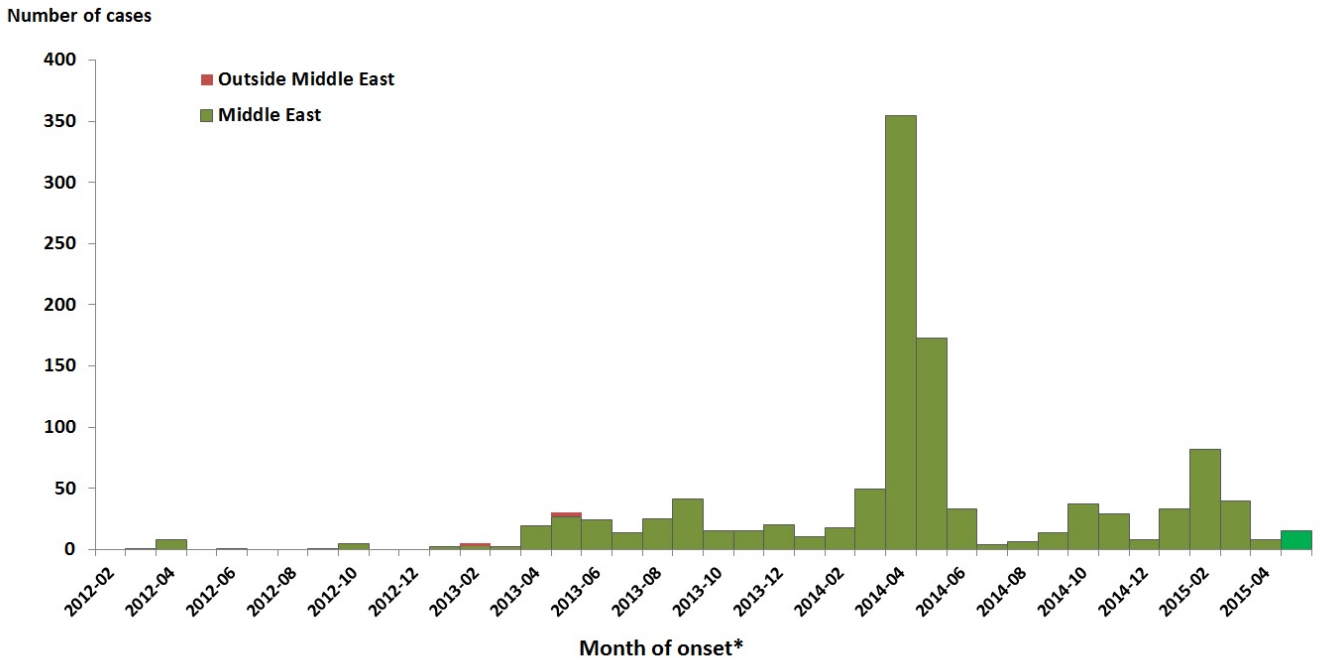
Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 13 May 2015 (n=1 142)

Source: ECDC



Distribution of confirmed cases of MERS-CoV by first available date, and probable place of infection, March 2012 – 13 May 2015

Source: ECDC



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

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 14 May 2015

Epidemiological summary

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 13 May 2015, there were 657 laboratory-confirmed cases: Zhejiang (179), Guangdong (181), Jiangsu (74), Fujian (62), Shanghai (47), Hunan (26), Anhui (26), Hong Kong (13), Xinjiang Uygur Zizhiqu (10), Jiangxi (8), Beijing (5), Shandong (6), Guangxi (4), Henan (4), Taiwan (4), Jilin (2), Guizhou (2) and Hebei (1), one imported case in Malaysia and two imported cases in Canada.

Most cases have developed severe respiratory disease.

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

ECDC assessment

This outbreak is caused by a novel reassortant avian influenza virus capable of causing severe disease in humans. This is a 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, as indicated by the recent importation of two travel-related cases to Canada. However, the risk of the disease spreading among humans 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.

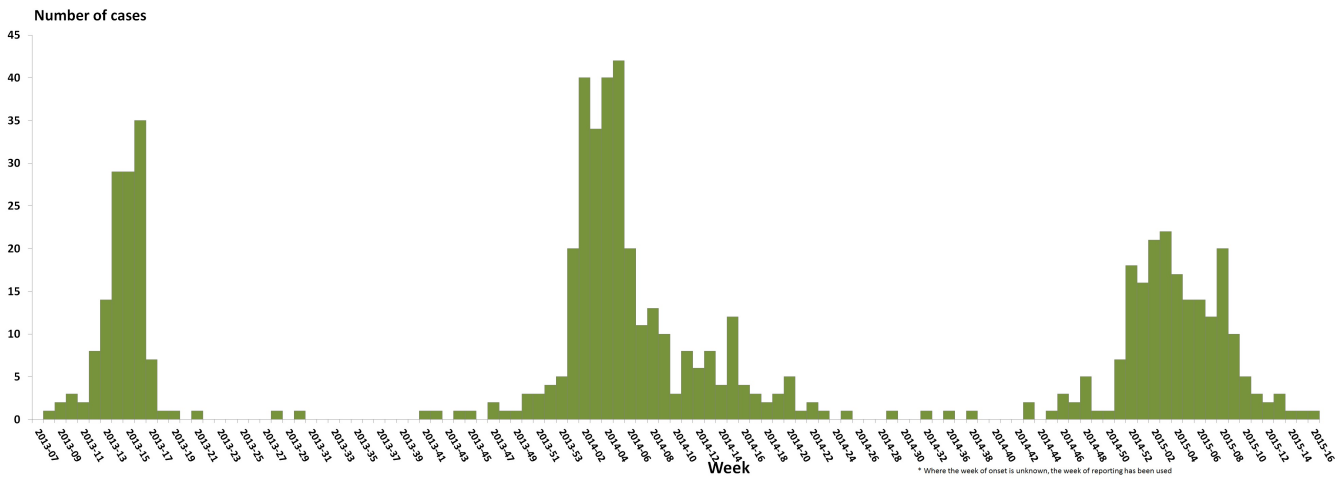
Actions

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 3 February 2015.

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 14 May 2015 (n=657)

Source: WHO



Distribution of cumulative number of human cases of avian influenza A(H7N9), by province and date, China, week 14/2013 to week 16/2015 (n=657)

Source: ECDC



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