

This weekly bulletin provides updates on threats monitored by ECDC.

## I. Executive summary

### EU Threats

#### Fatal case of anthrax following animal exposure – Bulgaria

Opening date: 22 July 2015

Latest update: 23 July 2015

On 21 July 2015, the Bulgarian Ministry of Health reported a fatal case of *B. anthracis* infection in a man who slaughtered an infected cow.

→Update of the week

ECDC and EFSA published a joint updated Rapid Outbreak Assessment on 7 August 2015.

No new human cases were reported during the past week.

#### Cutaneous diphtheria - cases reported in the EU

Opening date: 20 July 2015

Latest update: 23 July 2015

Three countries (Denmark, Germany and Sweden) reported seven cases of toxigenic cutaneous diphtheria and two cases of non-toxicogenic cutaneous diphtheria among refugees in 2015, while 13 other EU Member States reported no notifications of cases of cutaneous diphtheria among refugees in 2015.

→Update of the week

ECDC published a [rapid risk assessment](#) on 31 July 2015.

#### West Nile virus - Multistate (Europe) - Monitoring season 2015

Opening date: 2 June 2015

Latest update: 6 August 2015

West Nile fever (WNF) is a mosquito-borne disease which causes severe neurological symptoms in a small proportion of infected people. During the June-to-November transmission season, ECDC monitors the situation in EU Member States and neighbouring countries in order to inform blood safety authorities of WNF-affected areas and identify significant changes in the epidemiology of the disease.

→Update of the week

During the past week, three new cases of West Nile fever in humans were reported by Italy, detected in asymptomatic blood donors from Lombardia (Cremona province) and Emilia Romagna (Reggio Emilia province), and in one neuroinvasive case in Emilia Romagna (Parma province). Romania reported its first neuroinvasive case of the season, in Dolj County.

Israel reported one new case diagnosed in July in the Central District.

## Monitoring environmental suitability of *Vibrio* growth in the Baltic Sea – Summer 2015

Opening date: 6 July 2015

Latest update: 6 August 2015

ECDC has developed a model to map the environmental suitability for *Vibrio* growth in the Baltic Sea ([ECDC E3 Geoportal](#)).

→Update of the week

As of 4 August, the environmental conditions for *Vibrio* growth for the next five days are considered suitable at a very low level in the southern part of the Baltic Sea, particularly around Kiel, Szczecin, Gdansk, and Riga.

## Non EU Threats

### Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 6 August 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 2 August 2015, [WHO](#) has reported 27 898 cases of Ebola virus disease related to the outbreak in West Africa, including 11 296 deaths.

According to the latest [WHO situation report](#) published on 5 August 2015, two confirmed cases of EVD were reported in the week up to 2 August: one in Guinea and one in Sierra Leone. Liberia has reported no new cases.

This is the lowest weekly total reported since March 2014.

ECDC published a [Public Health Development](#) on positive preliminary results of an Ebola vaccine efficacy trial in Guinea.

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

Opening date: 24 September 2012

Latest update: 6 August 2015

Since April 2012 and as of 6 August 2015, 1 408 cases of MERS have been reported by local health authorities worldwide, including 547 deaths. 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

ECDC published an updated [rapid risk assessment](#) on 31 July 2015.

South Korea has not reported any new cases since 4 July. The number of cases remains at 186, including one case who travelled to China; the number of deaths remains at 36.

Since 30 July 2015, Saudi Arabia has reported seven new cases and four deaths of previously reported cases. Of the seven cases, six occurred in Riyadh and one in Najran. Three of the cases were reported to have been contacts of previously reported cases. Six of the cases were male, one was female. The mean age of the cases was 53 years, ranging from 31 to 86 years.

On 6 August 2015, the [Ministry of Health](#) of Saudi Arabia released details on a family cluster (four family members) on their website.

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

Opening date: 8 September 2005

Latest update: 6 August 2015

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until all transmission of the virus stopped and the world becomes 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 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

During the past week, no new case of wild poliovirus type 1 (WPV1) has been reported by WHO. One new case of vaccine-derived poliovirus (cVDPV) was reported from Madagascar.

This week, the emergency committee of the International Health Regulations (IHR) is meeting for the sixth time to assess whether the international spread of polio continues to constitute a Public Health Emergency of International Concern (PHEIC).

## Influenza A(H5N1) and other strains of avian flu - Multistate (world) - Monitoring globally

Opening date: 15 June 2005

Latest update: 6 August 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 [WHO](#), as of 17 July 2015, there have been 136 cases and 39 deaths in Egypt, five cases and one death in China, and two cases and two deaths in Indonesia due to A(H5N1) in 2015.

## II. Detailed reports

### Fatal case of anthrax following animal exposure – Bulgaria

Opening date: 22 July 2015

Latest update: 23 July 2015

#### Epidemiological summary

On 21 July, Bulgaria reported a fatal case of *B. anthracis* in a 53-year-old breeder of sheep and cows who died on 17 July in Varna after having slaughtered a sick cow. Further investigations revealed that a meat-processing plant used contaminated meat from the sick animal to prepare sausages. Prosecutors closed the plant and confiscated all products, both those on the premises and those already in the market. The individuals who had traded or consumed the possibly contaminated meat were identified, tested, prescribed antibiotic prophylaxis and are under medical observation. Currently, no human cases of anthrax other than in the 53-year-old male have been reported associated with this event.

#### ECDC assessment

A human case of *B. anthracis* infection in an individual in contact with a sick cow in an anthrax enzootic area of Bulgaria is not an unexpected event.

Although distribution of contaminated and possibly contaminated meat to food outlets and food-processing plants occurred, the official recall of implicated food has significantly reduced the risk of cases with gastro-intestinal anthrax. Currently no cases other than the initial one have been reported and considering that most cases have onset of illness within seven days of exposure, it seems unlikely that new cases associated with this event will arise, taking into account the recall of contaminated products. Bulgarian authorities implemented control measures minimising the risk of further spread of the infection. Exposure to the infected animal or its meat occurred only at a local level, and international distribution of possibly contaminated meat has not been reported. Thus it is considered that the risk of spreading the infection to other EU/EEA countries represented by this event is negligible.

#### Actions

ECDC published a joint update Rapid Outbreak Assessment with EFSA on 7 August 2015.

### Cutaneous diphtheria - cases reported in the EU

Opening date: 20 July 2015

Latest update: 23 July 2015

#### Epidemiological summary

On 16 July 2015, Denmark reported one case of toxigenic cutaneous diphtheria in an asylum seeker from Eritrea through the Early Warning and Response System (EWRS). The patient, who reported having been vaccinated against diphtheria during childhood, arrived in Denmark on 20 June 2015 while presenting with a traumatic leg wound received in Libya two months earlier. Sampling and biopsy of the wound showed growth of haemolytic *Streptococci* group A and *Staphylococcus aureus*. *Corynebacterium diphtheriae* was detected by Matrix Assisted Laser Desorption/Ionization Time of Flight Mass Spectrometry (MALDI-TOF MS) and was confirmed by PCR. On 6 July, PCR was positive for the toxin gene and on 8 July Elek's test confirmed the diagnosis of toxin-producing cutaneous diphtheria.

At the same time, Sweden reported two confirmed cases (MALDI-TOF MS and PCR) of cutaneous diphtheria caused by toxigenic *C. diphtheriae* in asylum seekers from Eritrea. Sweden has also diagnosed two cases of non-toxigenic cutaneous diphtheria in asylum seekers from Eritrea and Ethiopia.

As of 27 July, Germany has reported four cases of cutaneous diphtheria associated with asylum seekers in 2015. All infections were caused by toxigenic *C. diphtheriae* (three by biotype *mitis*, one unknown biotype). One was in a refugee from Libya, one in a refugee from Ethiopia, one in a refugee from Eritrea, and one in a patient from Syria (unknown refugee status). In addition, two cutaneous cases caused by *C. diphtheriae* were associated with asylum seekers or foreign visitors and reported to TESSy in 2014. The first case was a refugee from Somalia, the second case was a child from Angola who stayed for medical care in Germany.

#### ECDC assessment

There is currently no indication that the cases of cutaneous diphtheria among refugees and asylum seekers reported by Denmark,

Germany and Sweden in 2015 represent a significant outbreak of diphtheria among refugees in Europe. However, notifications through the health system are unlikely to be a sensitive mechanism for detecting outbreaks of cutaneous diphtheria among refugees as they may have more limited access to healthcare services than other population groups.

Cutaneous diphtheria is a potential risk factor for transmission of diphtheria. Most refugees who arrive in Europe are from endemic countries and have travelled under conditions that increase the risk of acquiring cutaneous diphtheria, and many of them continue to be exposed to over-crowding and poor hygiene once they have arrived in the EU. This may increase the risk of diphtheria.

European travellers may become infected and develop cutaneous diphtheria while travelling or working in endemic countries. ECDC data show that most of the travellers who were diagnosed with cutaneous diphtheria on their return had not received booster vaccinations or had unknown vaccination status.

Limitations in the capacity to confirm toxigenic infections may delay diagnosis, treatment and public health interventions in some EU Member States. Enhanced surveillance, molecular typing and whole genome sequencing of patient isolates have the potential to improve the understanding and monitoring of transmission patterns of cutaneous diphtheria.

## Actions

ECDC published a [rapid risk assessment](#) on 31 July 2015.

## West Nile virus - Multistate (Europe) - Monitoring season 2015

Opening date: 2 June 2015

Latest update: 6 August 2015

### Epidemiological summary

Since the beginning of the 2015 transmission season and as of 6 August, six human cases of West Nile fever (WNF) have been reported in the EU Member States. Three cases have been detected in the neighbouring countries (Israel).

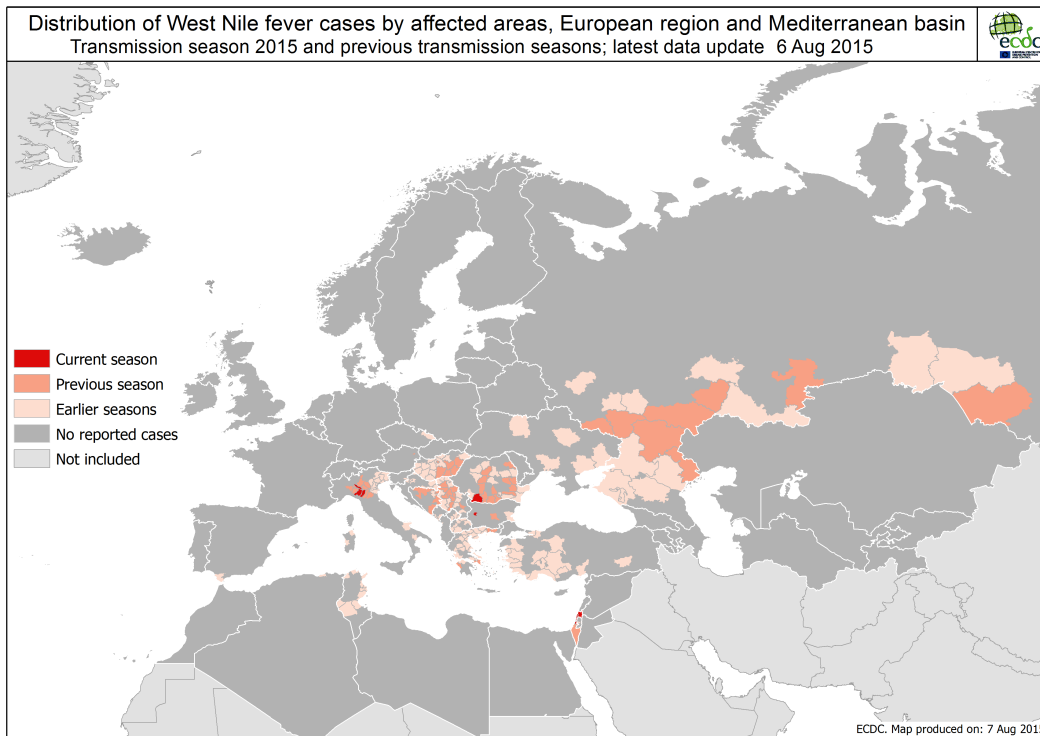
**Web sources:** [ECDC West Nile fever](#) | [ECDC West Nile fever risk assessment tool](#) | [ECDC West Nile fever maps](#) | [WHO fact sheet](#)

### ECDC assessment

WNF in humans is a notifiable disease in the EU. The implementation of control measures is considered important for ensuring blood safety by the national health authorities when human cases of WNF fever occur. According to the [EU Blood Directive](#), efforts should be made to defer blood donations from affected areas with ongoing virus transmission unless donations are tested using individual nucleic acid amplification testing (NAAT).

## Actions

ECDC produces weekly WNF maps during the transmission season (June to November) to inform blood safety authorities of WNF affected areas.



## Monitoring environmental suitability of *Vibrio* growth in the Baltic Sea – Summer 2015

Opening date: 6 July 2015

Latest update: 6 August 2015

### Epidemiological summary

In late June 2015, the *Vibrio* suitability tool on the ECDC [E3 Geoportal](#) helped ECDC to ascertain favourable environmental factors for *Vibrio* growth.

On 3 July 2015, ECDC launched an Urgent Inquiry (UI) in EPIS-FWD after detecting elevated sea surface temperatures (according to the National Oceanic and Atmospheric Administration, [NOAA](#)) in the Baltic Sea (as of 2 July 2015).

### ECDC assessment

Elevated sea surface temperatures in marine environments with low salt content provide ideal environmental growth conditions for certain *Vibrio* species. These conditions can be found during the summer months in estuaries and enclosed water bodies with moderate salinity. In contrast, open ocean environments do not offer appropriate growth conditions for these bacteria due to the high salt content, low temperatures, and limited nutrient content. These *Vibrio* species can cause vibriosis infections, particularly *V. parahaemolyticus*, *V. vulnificus* and non-toxicogenic *V. cholerae*.

Vibriosis in humans caused by these species in the Baltic region have occurred in the past during hot summer months, particularly when the sea surface temperature has been elevated. The most common clinical manifestations are gastroenteritis (with nausea, vomiting, and diarrhoea), wound infections (exposure of a cut, wound, or abrasion to contaminated seawater), primary septicæmia, and otitis externa (swimmer's ear). Risk factors for illness include consumption of shellfish, particularly raw oysters, and contact with natural bodies of water, especially marine or estuarine waters.

### Actions

ECDC launched an UI in EPIS-FWD to inform the FWD network about the elevated surface water temperatures measured in the Baltic Sea, which create a favourable environment for the growth of *Vibrio* bacteria. ECDC will monitor this threat on a weekly basis during the summer of 2015 and report on increased environmental suitability for growth of *Vibrio* bacteria.

The *Vibrio* suitability tool is available on the [ECDC E3 Geoportal](#). Please note that this model has been calibrated to the Baltic region in northern Europe and might not be compatible with other regional settings prior to validation.

## Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014

Latest update: 6 August 2015

### Epidemiological summary

Distribution of cases as of 2 August 2015:

Countries with intense transmission:

- **Guinea:** 3 784 cases of which 3 327 are confirmed and 2 522 deaths.
- **Sierra Leone:** 13 406 cases of which 8 695 are confirmed and 3 951 deaths.
- **Liberia:** 10 666 cases as of 9 May 2015, when Liberia was declared Ebola-free. Since then, as of 2 August, 6 cases and 2 deaths have been reported.

Countries that have reported an initial case or localised transmission:

- Nigeria, Senegal, the USA, Spain, Mali, the UK and Italy.

#### Situation in West African countries

In **Guinea**, WHO reported one new confirmed case (reported in Conakry) in the week up to 2 August, compared with four during the previous week. This case is a contact who was lost to follow-up and that could have generated a large number of high-risk contacts. According to WHO, after being lost to follow-up the case travelled south from Conakry through Forecariah and into Kambia, Sierra Leone, where she consulted a traditional healer, before returning to Ratoma via Forecariah.

An interim analysis of the 'Ebola ça suffit!' ring vaccination trial in Guinea suggests that the investigational rVSV-ZEBOV Ebola vaccine protects people exposed to EVD with 100% effectiveness. The trial will continue in Guinea, with all rings around confirmed cases receiving immediate vaccination. ECDC has published a [Public Health Development](#) on the recent article in Lancet regarding the Ebola vaccine.

In **Sierra Leone**, WHO reported one new confirmed case (reported in Tonkolili) in the week up to 2 August, compared with three during the previous week. This case is a family member who provided care to the case reported in Tonkolili last week who generated over 600 contacts. WHO reported that over 40 contacts are considered to be at high risk of infection.

In **Liberia**, no new cases were reported from Liberia in the week up to 2 August. All contacts have now completed their 21-day follow-up period. The last case was discharged after testing negative for EVD for a second time on 23 July. If no new cases will occur, Liberia could be declared free of Ebola on 3 September.

#### Situation among healthcare workers

No new healthcare worker infections were reported during the week up to 2 August. Since the start of the outbreak, 880 confirmed healthcare worker infections have been reported from Guinea, Liberia, and Sierra Leone; 512 deaths were reported.

Outside of the three most affected countries, 2 Ebola-infected healthcare workers were reported in Mali, 11 in Nigeria, 1 in Spain (infected while caring for an evacuated EVD patient), 2 in the UK (both infected in Sierra Leone), 6 in the USA (2 infected in Sierra Leone, 2 in Liberia, and 2 infected while caring for a confirmed case in Texas) and 1 in Italy (infected in Sierra Leone).

#### Medical evacuations and repatriations from EVD-affected countries

Since the beginning of the epidemic and as of 7 August 2015, 65 individuals were evacuated or repatriated worldwide from the EVD-affected countries. Of these, 38 individuals were 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), the Netherlands (1) and Switzerland (1). Twenty-five asymptomatic persons were repatriated to Europe as a result of exposure to Ebola in West Africa: UK (13), Denmark (4), Sweden (3), the Netherlands (2), Germany (1), Spain (1) and Switzerland (1). Twenty-seven persons were evacuated to the United States.

No new medical evacuations have taken place since 18 March 2015.

#### Other news

The UN Secretary-General Ban Ki-moon on Friday 31 July [announced](#) the official end of the UN Mission for Ebola Emergency Response (UNMEER). WHO is now spearheading the Ebola response operations.

#### Images

- Epicurve 1: the epicurve shows the confirmed cases in the three most affected countries. In order to better represent the tail of the epidemic, only the data for 2015 are shown.

7/17

- Epicurve 2: the epicurve shows the confirmed cases in Guinea, Sierra Leone and Liberia. In order to better represent the tail of the epidemic, only the data for 2015 are shown.
- 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](#) | [ECDC Public Health Development on the Ebola vaccine](#) | [Statement on the end of the UNMEER mission](#)

## 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 remains 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 week up to 2 August registered the lowest weekly number of reported cases since March 2014. The decline in the number of cases is due to the strengthened capacity for contact tracing that allows a better understanding and control of active chains of transmission. Maintaining those resources in the next months will be critical, as a significant risk of further transmission remains. According to WHO, almost 2000 contacts remain under observation in Guinea and Sierra Leone, and despite the efforts a small number of contacts in both countries could not be traced or was lost to follow-up. In addition, recent high-risk transmission events in Guinea and Sierra Leone are very likely to result in further cases in the coming weeks. The introduction of an EVD case into unaffected countries remains a risk as long as cases exist in any country. With adequate preparation, however, such an introduction can be contained through a timely and effective response.

## Actions

As of 6 August 2015, ECDC has deployed 90 experts (on a rotating basis) 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](mailto:alice.friaux@ecdc.europa.eu) with copy to [support@ecdc.europa.eu](mailto:support@ecdc.europa.eu).

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

The latest (12th) update of the [rapid risk assessment](#) was published on 1 July 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](#).

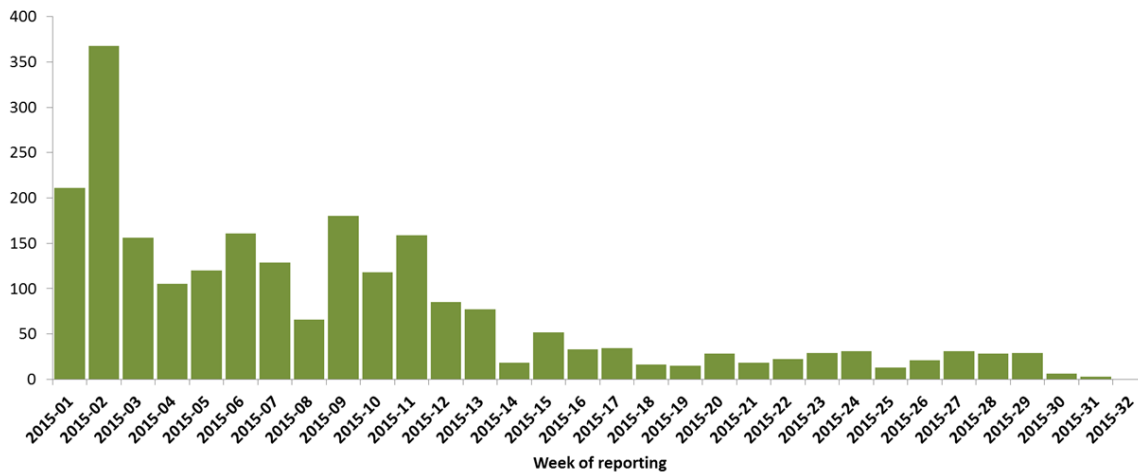
On 22 September 2014, ECDC published [assessment and planning for medical evacuation by air to the EU of patients with Ebola virus disease and people exposed to Ebola virus](#).

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



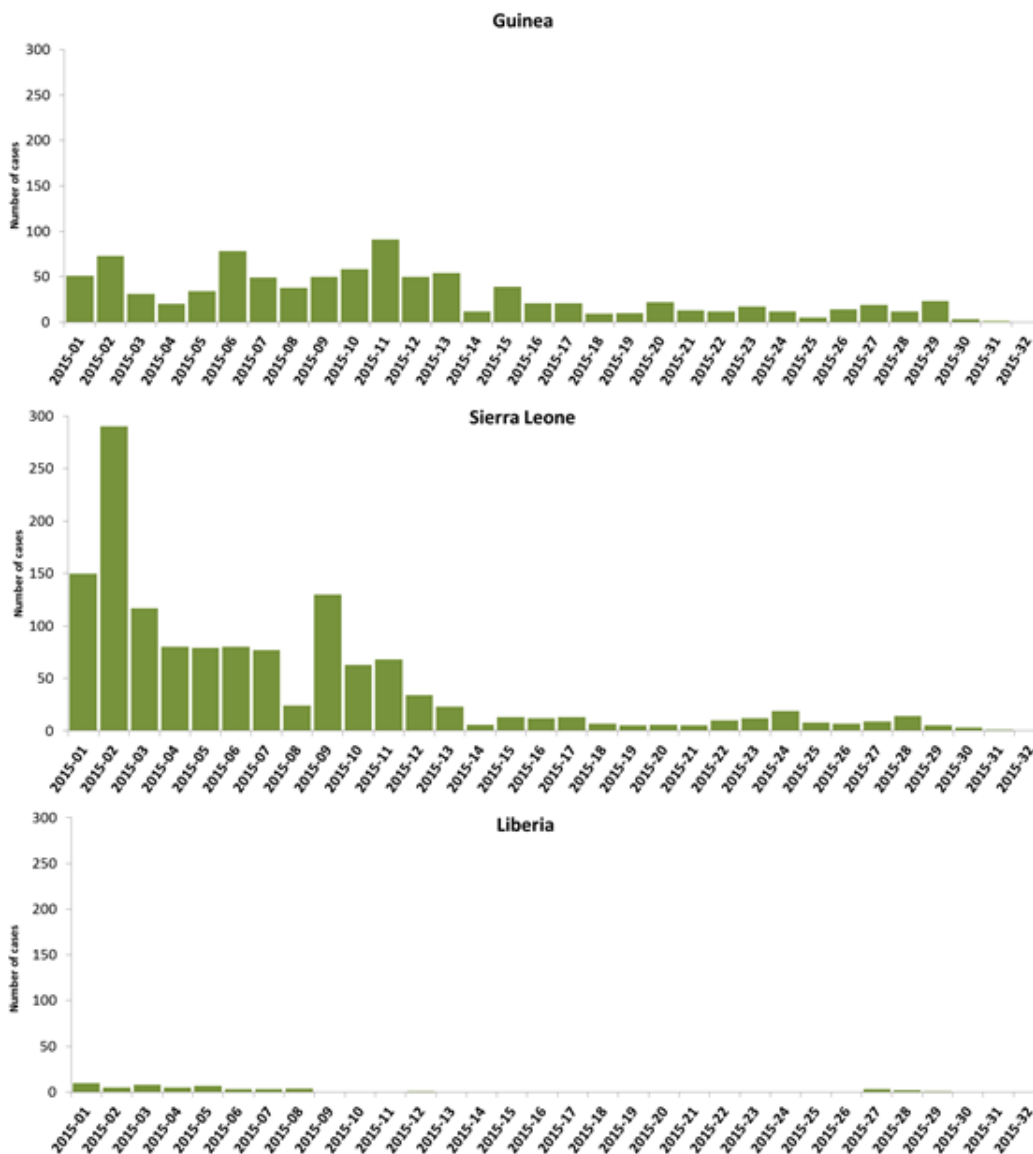
## Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (weeks 01/2015 to 32/2015)

Adapted from WHO figures; \*data for week 32/2015 are incomplete



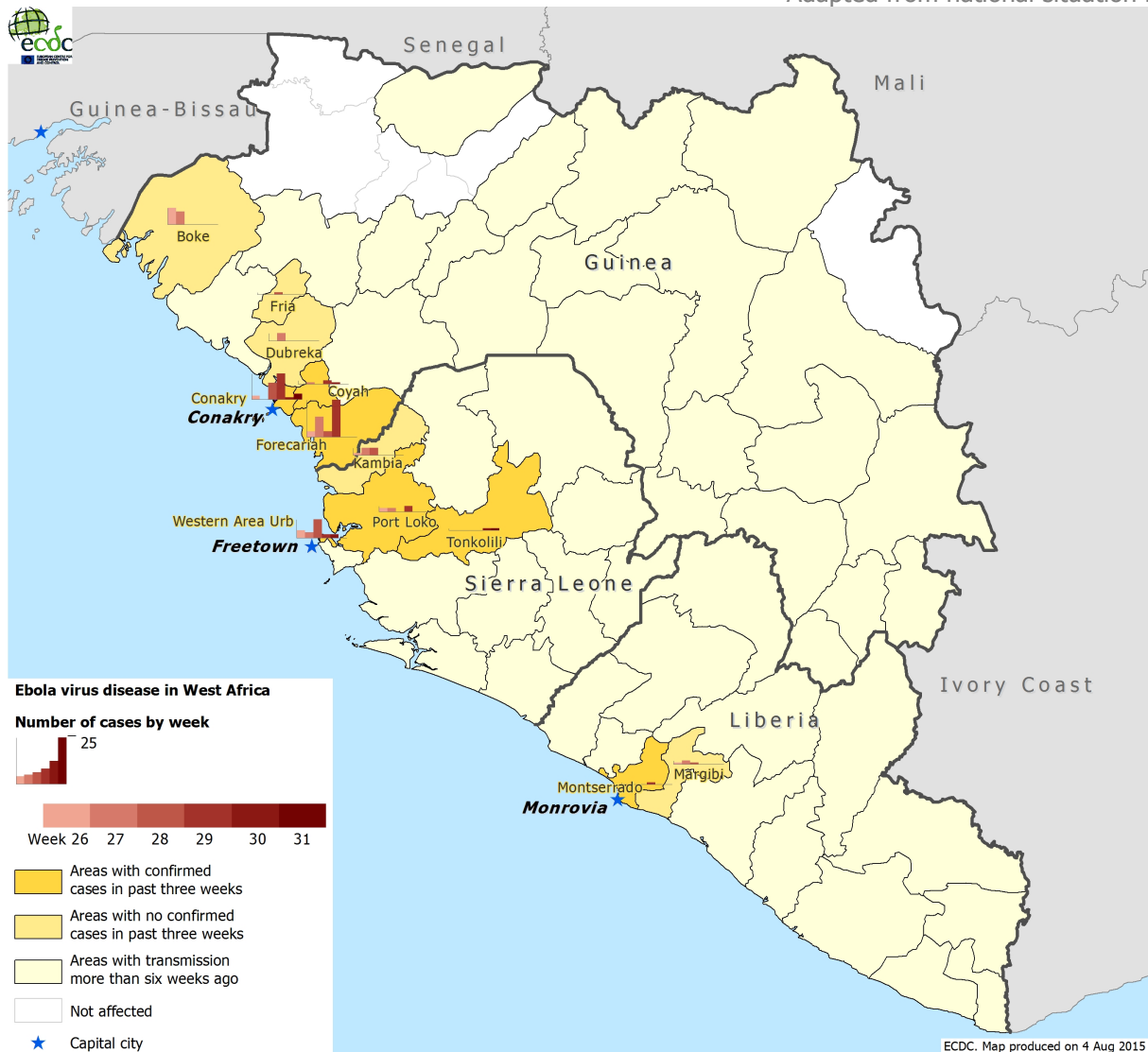
Distribution of confirmed cases of EVD by week of reporting in Guinea and Sierra Leone (weeks 01/2015 to 32/2015)

Adapted from WHO figures; \*data for week 32/2015 are incomplete



## Distribution of confirmed cases of EVD by week of reporting in Guinea and Sierra Leone (as of week 30/2015)

Adapted from national situation reports



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

Opening date: 24 September 2012

Latest update: 6 August 2015

### Epidemiological summary

The last case from South Korea was reported on 4 July 2015. Although the outbreak can be considered to have ended when no new cases are detected for a period of 28 days (two times the maximum 14-day incubation period) after the last case being treated has tested negative two times (with a minimum of 24 hours between the two tests) or the case has died. South Korean local health authorities have called the transmission *de facto* over.

Between April 2012 and 6 August 2015, 1 408 cases of MERS (including 547 deaths) were reported by local health authorities worldwide.

The distribution is as follows:

Confirmed cases and deaths by region:

**Middle East**

Saudi Arabia: 1 064 cases/471 deaths  
United Arab Emirates: 81 cases/11 deaths  
Qatar: 13 cases/5 deaths  
Jordan: 19 cases/6 deaths  
Oman: 6 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/2 deaths  
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: 3 cases/0 deaths  
South Korea: 185 cases/36 deaths  
China: 1 case/0 deaths  
Thailand: 1 case/ 0 deaths

**Americas**

United States: 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**

According to ECDC experts, the MERS outbreak poses a low risk to the EU. Efforts to contain the nosocomial clusters in the affected countries are vital to prevent wider transmission. Although sustained human-to-human community transmission is unlikely, secondary transmission to unprotected close contacts, especially in healthcare settings, remains possible, as documented in South Korea.

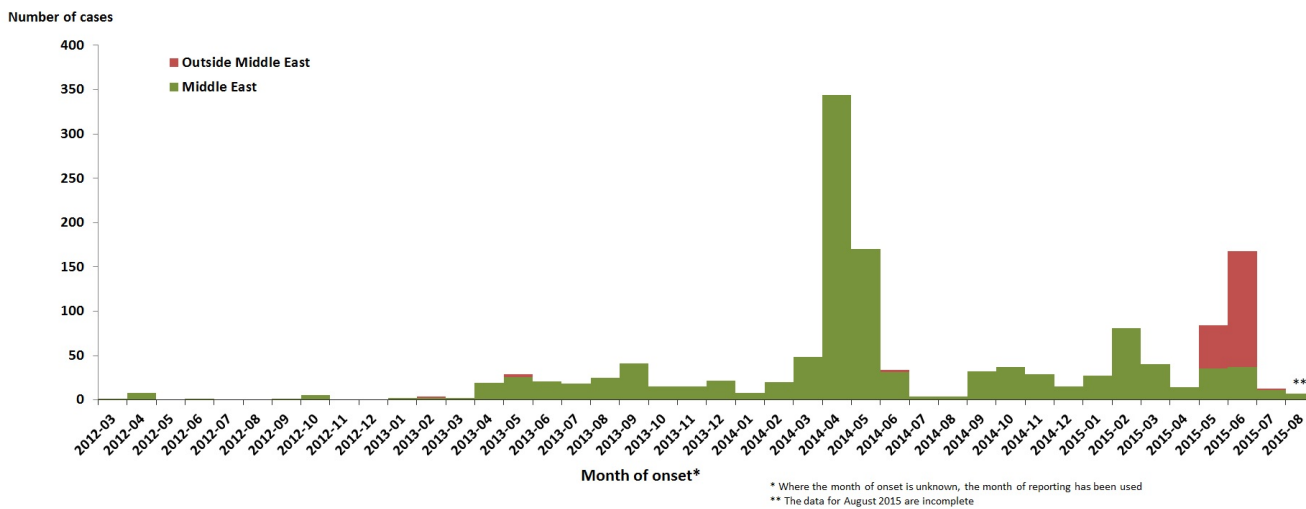
Countries should [advise travellers](#) returning from all countries affected by MERS to seek medical attention if they develop a respiratory illness with fever and cough during the two weeks after their return and to disclose their recent travel history to the healthcare provider. The travellers, especially those with pre-existing medical conditions, should be reminded of the importance of good hand and food hygiene, and to avoid contact with sick people. In addition, travellers to the Arabian Peninsula should avoid close contact with camels, visiting farms and consuming unpasteurised camel milk, urine or improperly cooked meat.

**Actions**

ECDC published a [rapid risk assessment](#) on 31 July 2015.

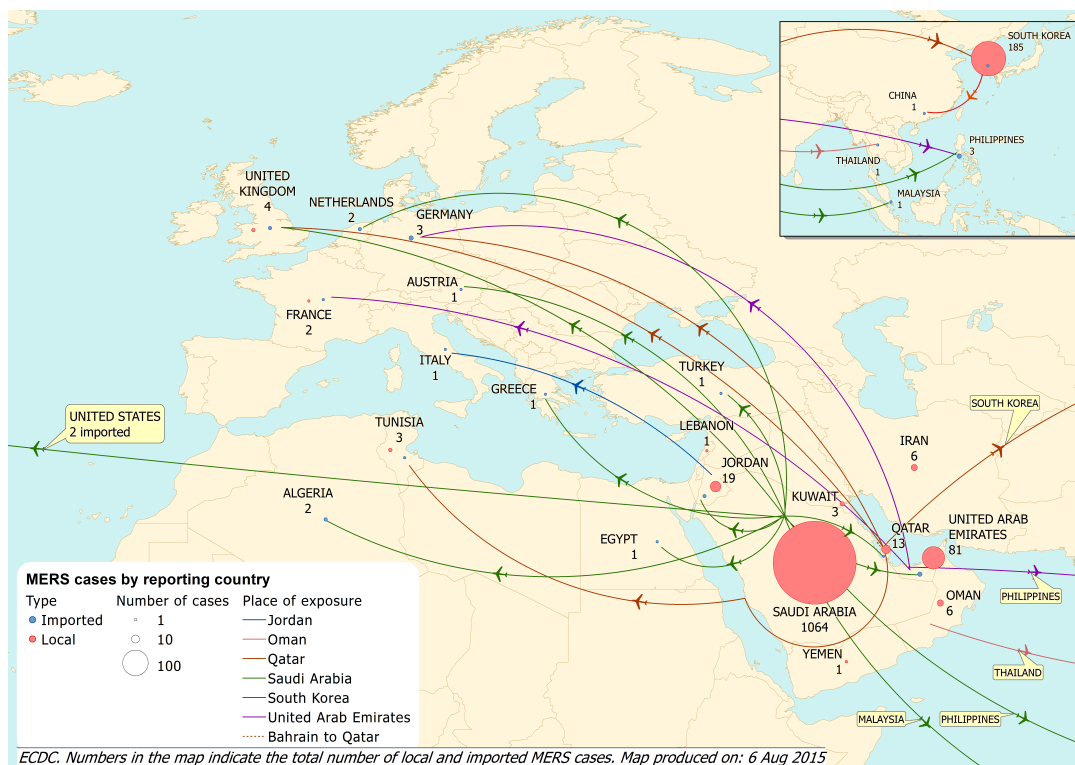
Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 6 August 2015 (n=1 408)

Source: ECDC



Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 6 August 2015 (n=1 408)

Source: ECDC



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 6 August 2015

## Epidemiological summary

Worldwide in 2015, 34 wild poliovirus type 1 (WPV1) cases have been reported to WHO so far, compared with 134 for the same period in 2014. Since the beginning of the year, two countries have reported cases: Pakistan (28 cases) and Afghanistan (6 cases).

In 2015, ten cases (nine in Madagascar and one in Nigeria) of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO so far, compared with 31 for the same period in 2014. The cases in Madagascar are genetically linked to a case reported in September 2014, indicating prolonged and widespread circulation of the virus.

**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) and other strains of avian flu - Multistate (world) - Monitoring globally

Opening date: 15 June 2005

Latest update: 6 August 2015

## Epidemiological summary

### Human cases of avian flu

According to WHO, as of 17 July 2015, there have been 136 cases and 39 deaths in Egypt, five cases and one death in China, and two cases and two deaths in Indonesia due to A(H5N1) in 2015.

Since 2003, there have been 844 human cases of A(H5N1) reported from 16 countries. Of these, 449 have died.

According to the last [WHO](#) update on 23 June and as of 17 July, there were two new fatal laboratory-confirmed human cases of avian influenza A(H5N1) virus infections in Egypt. The first case was a 40-year-old male from Sohag governorate, who had onset of illness on 14 June and passed away on 22 June 2015. He was exposed to poultry. The second case was a five-and-a-half-year-old male from Aswan governorate, with illness onset on 16 June who passed away on 27 June 2015. This case also had a history of exposure to poultry.

### Outbreaks detected in poultry

According to the latest update from the World Organization for Animal Health (OIE) on 13 July and as of 6 August 2015, there have been several outbreaks of H5N1 avian influenza in chicken farms and backyard flocks in Nigeria, Ghana and Vietnam. China's Animal Disease Control Centre reported that 415 bar-headed geese and brown-headed gulls in Tibet and 300 black-necked

grebes in Inner Mongolia died from H5N1 infections. Both outbreaks began on May 11. The one in Tibet involved birds on Galongcuo Bird Island, and the one in Inner Mongolia occurred in the Shuangheer Wetland Nature Reserve. Furthermore, H5N1 was detected in 2 000 dead black-headed gulls near Qinghai Lake in China.

An H5N6 outbreak has been reported in village birds in Vietnam. H3N2 and H5N2 outbreaks were reported from commercial poultry farms in Taiwan.

South Korea reported 110 outbreaks of H5N8 avian flu affecting more than 3 million poultry; the dates for these outbreaks range from 26 September 2014 to 10 June 2015.

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

## ECDC assessment

Most human infections of A(H5N1) are the result of direct contact with infected birds or contaminated environments, and countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. Therefore, additional human cases are not unexpected. 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. However, vigilance for avian influenza in domestic poultry and wild birds in Europe remains important.

Although an increased number of animal-to-human infections was reported by Egypt during 2015, this increase is not thought to be related to virus mutations but rather to more people becoming exposed to infected poultry.

Various influenza A(H5) and A(H7) subtypes, such as influenza A(H5N1), A(H5N2), A(H5N3), A(H5N6), A(H5N8) and A(H7N3), have recently been detected in birds in West Africa, Asia, Europe, and North America, according to the World Organisation of Animal Health (OIE). Although these influenza viruses might have the potential to cause disease in humans, to date, there have been no reported human infections with these viruses with the exception of human infections with influenza A(H5N1) and A(H5N6) viruses. The risk to people from these infections in wild birds, backyard flocks and commercial poultry is considered to be low.

A highly pathogenic influenza virus A(H5N9) detected in poultry in live-bird markets in China in 2013 is a novel reassortant of avian influenza viruses H5N1, H7N9 and H9N2, all of which have already been transmitted to humans and caused moderate to severe disease. So far, no human cases infected with this new avian influenza variant have been detected. The potential of this virus for transmission to humans is considered to be very 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.

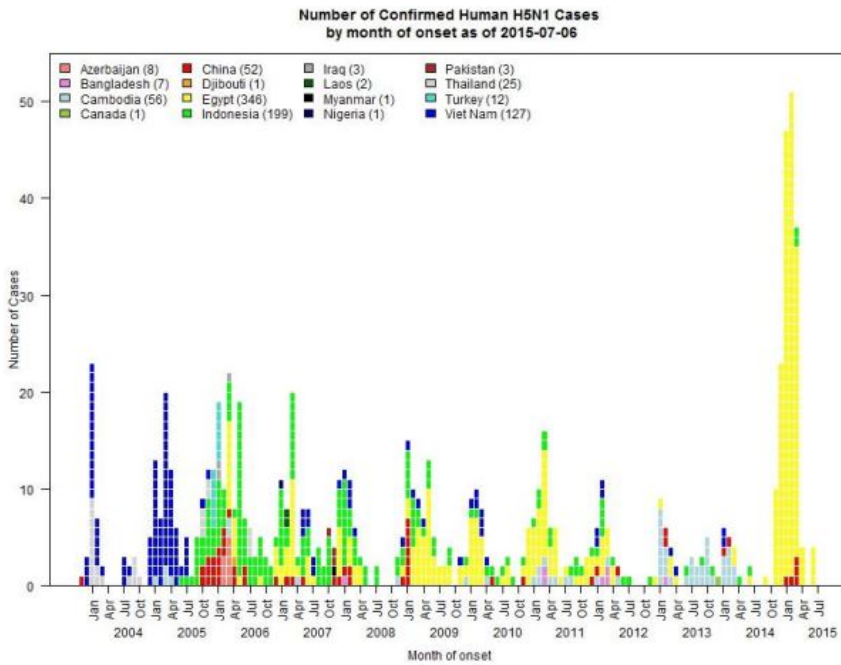
ECDC published a [Rapid Risk Assessment](#) covering A(H5N1) in Egypt on 13 March 2015.

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

Number of confirmed human H5N1 cases by month of onset as of 6 July 2015

WHO

Figure 1: Epidemiological curve of avian influenza A(H5N1) cases in humans by reporting country and month of onset.





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