COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 48, 22-28 November 2015

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Influenza - Multistate (Europe) - Monitoring 2015-2016 season

Opening date: 2 October 2015 Latest update: 26 November 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. The reporting for the season 2015-2016 has started.

➔Update of the week

In week 47, influenza activity across the WHO European Region was at low levels in most of the 44 countries that reported data.

Non EU Threats

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 26 November 2015

Zika virus infections are still spreading in previously unaffected areas of the world. Since 2014, indigenous circulation of Zika virus (ZIKV) has been detected in the Americas. In February 2014, the public health authorities of Chile confirmed the first case of autochthonous transmission of ZIKV infection on Easter Island (Chile) and reported cases until June 2014. Since then, ZIKV infections have spread to the Americas. In 2015, autochthonous cases have been reported for the first time in Brazil, Colombia, Suriname, El Salvador and Guatemala. Autochthonous cases have also been reported from Cape Verde.

Possible links between ZIKV infection in pregnancy and microcephaly of the foetus have been under investigation since October 2015 when the Brazilian Ministry of Health reported an unusual increase in cases of microcephaly after the ZIKV outbreak in the North eastern states.
Similar findings are also reported from French Polynesia that reported an increase in cases of central nervous system malformations during 2014-2015. These cases occurred during the ZIKV infection outbreak in French Polynesia (September 2013 to March 2014).

In addition, investigations are still on-going regarding a possible association with ZIKV infection and Guillain–Barré syndrome (GBS) in Brazil and French Polynesia.

➔Update of the week

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu

During the past week, the first cases of ZIKV infection have been reported in Guatemala and El Salvador. There are still ongoing outbreaks in Colombia, Brazil and the Pacific.

In November, the Brazilian Ministry of Health declared a public health emergency in relation to an unusual increase in the number of children born with microcephaly in 2015 suspecting a correlation with ZIKV infections. As of 21 November 2015, 739 suspected cases of microcephaly have been reported across nine states in Brazil. This is an increase of 340 cases since 17 November 2015, when 399 cases were reported from seven states. All these states have ongoing ZIKV infection outbreaks. According to media, ventricular dilatation is an accompanying complication detected together with microcephaly. In addition, on 25 November, according to media quoting the Flavivirus Laboratory at the Oswaldo Cruz Institute, seven cases of Guillain–Barré syndrome (GBS) have been linked to ZIKV infections in Pernambuco state.

On 24 November 2015, the health authorities of French Polynesia reported an unusual increase of at least 17 cases of central nervous system malformations in foetuses and infants during 2014-2015. The cases are reported from pregnancies that occurred during the ZIKV infection outbreak in French Polynesia (September 2013 to March 2014) at a gestational age of less than six months. Based on the temporal correlation of these cases with the ZIKV infection epidemic, health authorities of French Polynesia hypothesise that ZIKV infection may be associated with these abnormalities if mothers are infected during the first two trimesters of pregnancy.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 26 November 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). As of 25 November 2015, WHO has reported 28 601 cases of Ebola virus disease related to the outbreak in West Africa, including 11 299 deaths. The number of cases in the most affected countries peaked in autumn 2014 and has been slowly decreasing since then. Sierra Leone was declared Ebola-free by WHO on 7 November 2015. The risk of spread, regionally and globally, remains until all the countries in West Africa are declared Ebola-free. The need to maintain effective surveillance even after EVD-free status is declared is underlined by the recent events of re-emergence of cases in previously Ebola free countries.

➔Update of the week

In the week leading up to 22 November, WHO reported a family cluster of three confirmed cases of Ebola virus disease (EVD) from Liberia, a country that had been previously declared Ebola-free two times this year, in July and September.

According to WHO, no new confirmed cases were reported in Guinea during the past week.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 26 November 2015

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission of the virus has completely 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 25 November 2015, the Temporary Recommendations in relation to PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide.

➔Update of the week

In Pakistan one new wild poliovirus type 1 (WPV1) case was reported in the past week and two new WPV1 positive environmental samples. In Afghanistan one new environmental sample positive for WPV1 was reported last week. In the Lao People's Democratic Republic one new case of circulating vaccine-derived poliovirus type 1 (cVDPV1) was reported.

On 25 November 2015 WHO issued the statement of the seventh IHR Emergency Committee meeting regarding the international spread of poliovirus.

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

Opening date: 24 September 2012 Latest update: 26 November 2015

Since April 2012 and as of 26 November 2015, 1 638 cases of MERS, including 635 deaths, have been reported by health authorities worldwide. 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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Since 12 November 2015, no additional cases have been reported. During the past week Saudi Arabia reported one additional death in a previously reported case.

On 25 November 2015 according to media the South Korean man who recently suffered a MERS-CoV relapse has died. The 35-year-old man with comorbidities contracted MERS-CoV in May 2015, while he was being treated at Samsung Medical Center's emergency department in Seoul. South Korea's health ministry said the man's illness was the longest ever recorded for MERS-CoV. His death raises the country's fatality to 38. Overall, 136 cases were linked to the hospital-related outbreak.

As of 26 November 2015, 1 638 cases of MERS, including 635 deaths, have been reported by local health authorities worldwide.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 26 November 2015

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, 681 cases have been reported up until 26 November 2015, including 275 deaths. No autochthonous cases have been reported outside 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

On 24 November 2015 the local health authorities in China reported one new case in Guangdong province. This case has not yet been acknowledged by WHO and therefore not been added to the case count.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 26 November 2015

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), more than 866 000 refugees have arrived in Europe in 2015. To date, there have been reports of cases of louse-borne relapsing fever, cutaneous diphtheria, scabies, measles, shigellosis, tuberculosis and malaria among refugees. While these cases do not represent a significant disease burden for the host countries, the diseases do pose a potential threat, particularly to the health of the refugees themselves. The health conditions of the refugees may worsen with the wintery weather due to low temperatures and overcrowding in shelters.

➔Update of the week

Conditions for refugees in temporary shelters in the Balkans have worsened as temperatures have dropped. Some countries along the Balkan route have reportedly started filtering the flow of refugees by only allowing passage to those fleeing conflicts in Syria, Iraq and Afghanistan.

Cases of Influenza H1N1 were reported among refugees in Calais, France. Scabies, malaria, tuberculosis were reported among refugees in Friuli Venezia Giulia, Italy and a measles outbreak was retrospectively reported in refugees in Frankfurt am Main, Germany. Several cases of *Shigella sonnei* and *S. flexneri* infection among refugees were reported from many European countries (an ECDC risk assessment is ongoing).

WHO, UNHCR and UNICEF published a joint statement on general principles of vaccination of refugees, asylum-seekers and migrants in the WHO European Region.

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

Opening date: 15 June 2005 Latest update: 26 November 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. From 2003 through 26 November 2015, 844 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection have been officially reported to WHO from 16 countries. Of these cases, 449 have died.

➔Update of the week

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

No new human cases of A(H5N1) have been reported since 17 July 2015.

On 25 November 2015, the French authorities notified about an outbreak of highly pathogenic avian influenza of subtype A/H5N1 ongoing in a backyard holding located in the department of Dordogne. Following abnormal mortality in the holding, the virus presence was confirmed on 24 November 2015 evening by the French Agency for Food, Environmental and Occupational Health & Safety (ANSES). The virus strain is highly pathogenic for poultry. Sequencing of the strain is ongoing.
The national crisis plan was immediately activated according to EU legislation and international requirements. A protection zone of 3 km radius and a surveillance zone of 10 km radius have been established around the infected holding. Enhanced active surveillance is being carried out in poultry holdings and in wild fauna.

Background: The last A(H5N1) case detected in France was in wild swans in 2007.
In Europe, in 2015, Bulgaria has detected cases in backyard poultry in Burgas region. Bulgaria and Romania detected cases in wild pelicans by a natural park. All were highly pathogenic.

From 2003 through 26 November 2015, 844 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection have been officially reported to WHO from 16 countries, with no European countries reporting a case. Of these cases, 449 died.
Various influenza A(H5) subtypes, such as influenza A(H5N1), A(H5N2) and A(H5N6), continue to be detected in birds in Africa and Asia, according to recent reports received by the World Organization for Animal Health (OIE).

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

II. Detailed reports

Influenza - Multistate (Europe) - Monitoring 2015-2016 season

Opening date: 2 October 2015 Latest update: 26 November 2015

Epidemiological summary

In week 47, influenza activity across the WHO European Region was at low levels in most of the 44 countries that reported data. In line with this low activity, influenza viruses were detected only sporadically.

Representatives of all seasonal influenza viruses (A(H1N1)pdm09, A(H3N2) and B) were detected. To date, low numbers of viruses have been subtyped (type A) or ascribed to lineage (type B), compared with the same period during the 2014-15 season. A(H1N1)pdm09 viruses have been found in greater numbers than A(H3N2) and B/Victoria lineage in greater numbers than B/Yamagata in both sentinel and non-sentinel specimens.

ECDC assessment

As is usual for this time of year, influenza activity in the European Region is low, with few influenza viruses detected. No indication of increased mortality due to influenza has been reported through the European monitoring of excess mortality for public health action project (EuroMOMO)

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its report weekly on the Flu News Europe website.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 26 November 2015

Epidemiological summary

Europe
No autochthonous cases of ZIKV infection have been reported in EU Member States so far in 2015.

Americas
Brazil
In May 2015, the public health authorities of Brazil confirmed autochthonous transmission of ZIKV infection in the north-eastern part of the country. As of 8 October, autochthonous virus transmission had been confirmed in 14 states: Alagoas, Bahia, Ceará, Maranhão, Mato Grosso, Pará, Paraíba, Paraná, Pernambuco, Piauí, Rio de Janeiro, Rio Grande do Norte, Roraima and São Paulo. In addition, between January and July 2015, 121 cases with neurological symptoms or with Guillain-Barré were reported by states in the north-eastern part of Brazil.

In October 2015, the Brazil Ministry of Health reported an unusual increase in cases of microcephaly in the state of Pernambuco and at a lower level in other Northeast states. On 17 November 2015, the Ministry of Health of Brazil through an international health regulation (IHR) message confirmed molecular identification of ZIKV in amniotic fluid samples collected from two pregnant women from Paraiba state whose foetuses have been confirmed with microcephaly by ultrasound examinations.
On 17 November 2015, the Pan American Health Organization (PAHO) issued an epidemiological alert regarding an increase of microcephaly in the northeast of Brazil. In response to the situation, the Brazil Ministry of Health declared a national public health emergency on 11 November. As of 21 November 2015, 739 suspected cases of microcephaly have been identified in 160 municipalities across nine states of Brazil. Pernambuco state has reported the highest number of cases (487) followed by the states of Paraíba (96), Sergipe (54), Rio Grande do Norte (47), Piauí (27), Alagoas (10), Ceará (9), Bahia (8) and Goiás (1). All these states have on-going ZIKV infection outbreaks raising concerns about possible links between malformation and ZIKV infection during pregnancy.

On 25 November 2015, according to media quoting the Flavivirus Laboratory at the Oswaldo Cruz Institute, seven cases of Guillain–Barré syndrome (GBS) have been linked to ZIKV infections in Pernambuco state. The number of cases of GBS grew significantly in the north east of the country between April and June 2015, shortly after the ZIKV epidemic started. In Rio Grande do Norte, there have been 24 cases of GBS, four times more than the historical average. In Pernambuco state, 130 cases have

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

been reported, which is a significant increase compared with the last reports. There have also been increases in Maranhão (14 cases) and Paraíba (6 cases) states. Investigations are ongoing regarding a possible association with ZIKV infection.

Colombia
On 16 October, the first cases of ZIKV infections were reported in Colombia, with nine confirmed cases in the Bolívar department. On 14 November, Colombian authorities reported 212 cases for the week 45. Since the beginning of the outbreak in October to 14 November, the Ministry of Health notified 2 077 cases, including 488 confirmed cases in 26 out of 36 administrative regions.

Guatemala
On 26 November, PAHO reported one autochthonous case of ZIKV infection in Guatemala. The case is a resident of the Zacapa department and the onset of symptoms was on 11 November 2015.

El Salvador
On 24 November, the El Salvador IHR National Focal Point (NFP) notified the confirmation of three confirmed autochthonous cases of ZIKV infection.

Pacific region
French Polynesia
On 24 November 2015, the health authorities of French Polynesia reported an unusual increase of at least 17 cases of central nervous system malformations in foetuses and infants during 2014-2015. The cases are reported from pregnancies that occurred during the ZIKV infection outbreak in French Polynesia (September 2013 to March 2014) at a gestational age of less than six months. None of the pregnant women described clinical signs of ZIKV infection, but the four tested were found positive by IgG serology assays for flavivirus, suggesting a possible asymptomatic ZIKV infection. Further serological investigations are ongoing. Based on the temporal correlation of these cases with the ZIKV epidemic, the health authorities of French Polynesia hypothesise that ZIKV infection may be associated with these abnormalities if mothers are infected during the first or second trimester of pregnancy.

New Zealand
From July to September 2015, New Zealand report two imported cases from Samoa.

Web sources: ECDC Zika Factsheet | WHO DON | PAHO | Colombian MoH | New Zealand MoH |

ECDC assessment

Imported ZIKV infection cases in the EU Overseas Countries and Territories and the EU Outermost Regions, with onward autochthonous transmission in EU Members States in continental Europe during the summer season in areas where *Aedes albopictus* are established, cannot be excluded. Vigilance during the mosquito season is thus required in areas where a potential vector is present as early detection of cases is essential to reduce the risk of autochthonous transmission.

Clinicians and travel medicine clinics should be aware of the evolution of ZIKV infections in the affected areas and should include ZIKV infection in their differential diagnosis for travellers from those areas. Fever and/or macular or papular rash not attributable to dengue or chikungunya infection among travellers, especially among pregnant womens, returning from areas currently experiencing ZIKV infection outbreaks should prompt a possible investigation for ZIKV infection. In addition, blood safety authorities need to be vigilant regarding the epidemiological situation and might wish to consider deferral of donors with relevant travel history, in line with measures defined for West Nile virus.

This is the first time that ZIKV infections during pregnancy have been suspected of causing congenital malformations. The detection of Zika virus in amniotic fluid in two fetuses with microcephaly has not been previously documented. Further investigations are being conducted to confirm the link between this increase in microcephaly incidence or other neurological malformations and the Zika virus outbreaks in Brazil and French Polynesia.

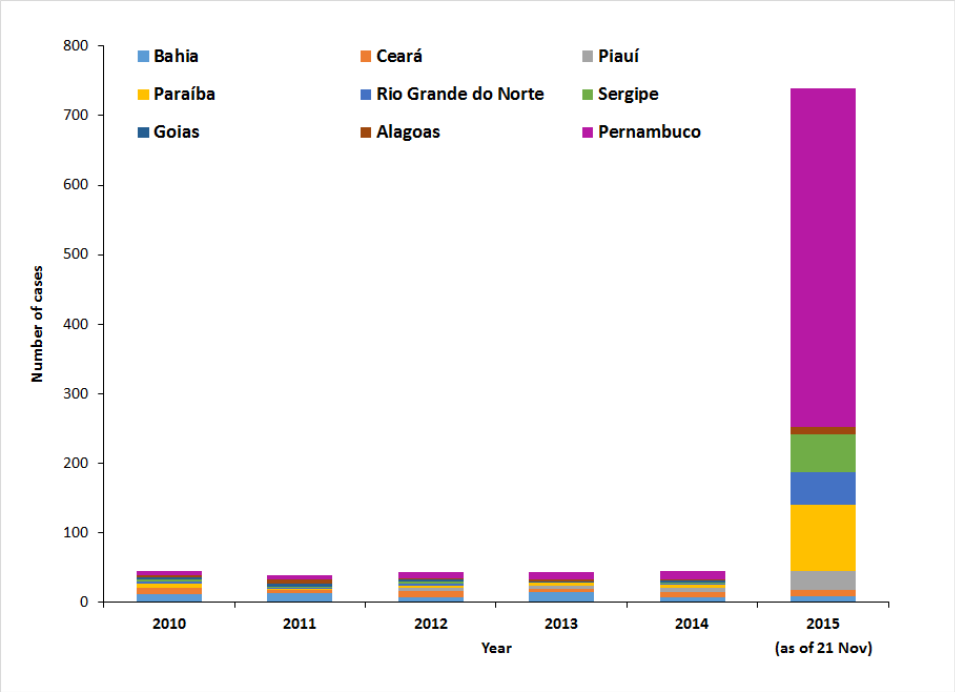
Actions

On 24 November 2015, ECDC published a rapid risk assessment on Microcephaly in Brazil potentially linked to the Zika virus epidemic.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Microcephaly cases, Brazil, 2010 - 21 November 2016

Source: ECDC



Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 26 November 2015

Epidemiological summary

Distribution of cases as of 25 November 2015:

Countries with ongoing Ebola virus transmission in the human population:

- **Guinea**: 3 804 cases including 3 351 confirmed, and 2 536 deaths
- **Liberia:** 10 675 cases including 3 160 confirmed, and 4 808 deaths, Liberia was declared EVD-free on 3 September 2015. However, a family cluster occurred in the week to 22 November.

Countries with previously widespread and intense transmission:

- **Sierra Leone**: declared Ebola-free on 7 November 2015.

Countries that have reported an initial case or localised transmission:

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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

Situation in West African countries

Guinea

No new cases were confirmed in Guinea during the past week. The most recent case was reported on 29 October, from which a second consecutive blood sample tested negative for Ebola virus on 16 November.

Liberia

The first reported case, a 15-year-old boy, tested positive for EVD on 19 November when he attended a health facility in the greater Monrovia area. He was subsequently transferred to an Ebola treatment centre and put in isolation together with five family members. The 40-year-old father and the 8-year-old brother tested positive while in isolation on 20 November. In addition, 149 contacts have been identified, including ten health workers who had close contact with the 15-year-old prior to his isolation. Investigations to establish the origin of infection are at an early stage. Liberia was previously declared free of Ebola transmission on 3 September 2015.

Situation among healthcare workers

No new infections in healthcare workers were reported by WHO in the week leading up to 22 November.

Outside of the three most affected countries, with repatriated cases included, there have been 8 cases in Mali, 20 in Nigeria, 3 in Spain (including two repatriated cases), 3 in the UK (including two repatriated cases), 1 in Senegal, 1 in Norway (repatriated), 2 in France (repatriated), 1 in the Netherlands (repatriated), 1 in Switzerland (repatriated), 11 in the USA (7 repatriated) and 1 in Italy (infected in Sierra Leone).

Epicurve: The epicurve shows the confirmed cases in Guinea and Liberia. In order to better represent the tail of the epidemic, only the data for 2015 are shown.
Map: The map shows the distribution of confirmed cases in Guinea and Liberia during the past six weeks.

Web sources: ECDC Ebola page | ECDC Ebola and Marburg fact sheet | WHO situation summary | WHO Roadmap | WHO Ebola Factsheet | CDC | Ebola response phase 3: Framework for achieving and sustaining a resilient zero | ReEBOV Antigen Rapid Test Kit | Institut Pasteur will open a lab in Conakry | Emergency Operation Centres in the three affected countries | Entry screening in US

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.

The number of confirmed cases has remained low since the end of July. The introduction of an EVD case into unaffected countries remains possible as long as cases exist in any country. With adequate preparation, however, such an introduction can be contained through a timely and effective response. Following the recent report about the previously positive EVD UK nurse, unusual late complications should also be taken into account.

Regarding the recent cluster of three new EVD cases in Liberia, ECDC is seeking additional information from WHO on the likely source of the infection. Liberia was declared free of Ebola virus transmission in the human population on 3 September. Following which, Liberia entered a 90-day period of EVD heightened surveillance. Reports of cases during heightened surveillance periods after the tail-end of outbreaks has happened before, is not unexpected and is a sign of the correct functioning of the surveillance. The identification of new EVD cases highlights the importance of maintaining surveillance of EVD cases after the tail-end of the outbreak.

Actions

As of 19 November 2015, ECDC has deployed 95 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. ECDC is reporting this threat on a weekly basis in the CDTR.

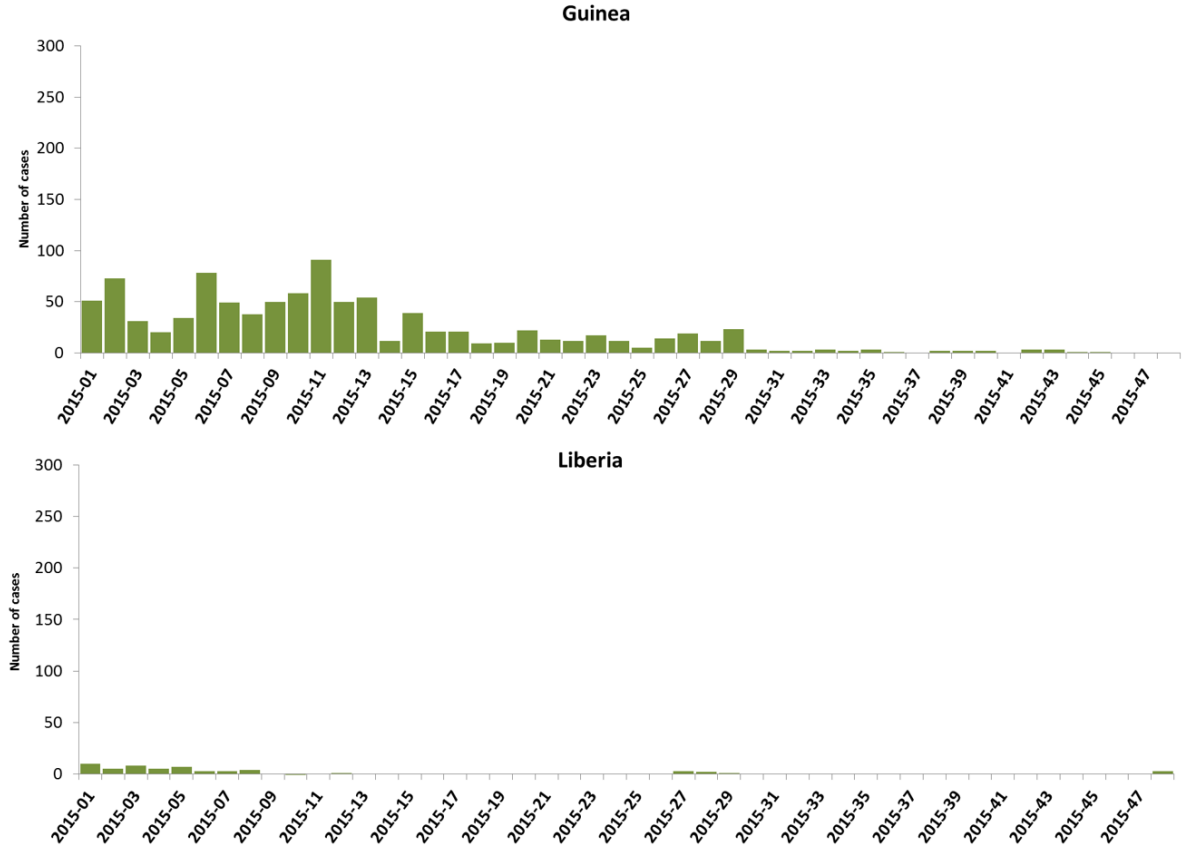
European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

ECDC has updated its website following the WHO declaration on Sierra Leone which has been Ebola-free since 7 November.
The latest (13th) update of the rapid risk assessment was published on 16 October 2015.
On 16 October 2015, ECDC published Recent development on sexual transmission of Ebola virus.
On 31 July 2015, ECDC published Positive preliminary results of an Ebola vaccine efficacy trial in Guinea.
On 22 January 2015, 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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of EVD by week of reporting in Guinea and Liberia (weeks 01/2015 to 48/2015)

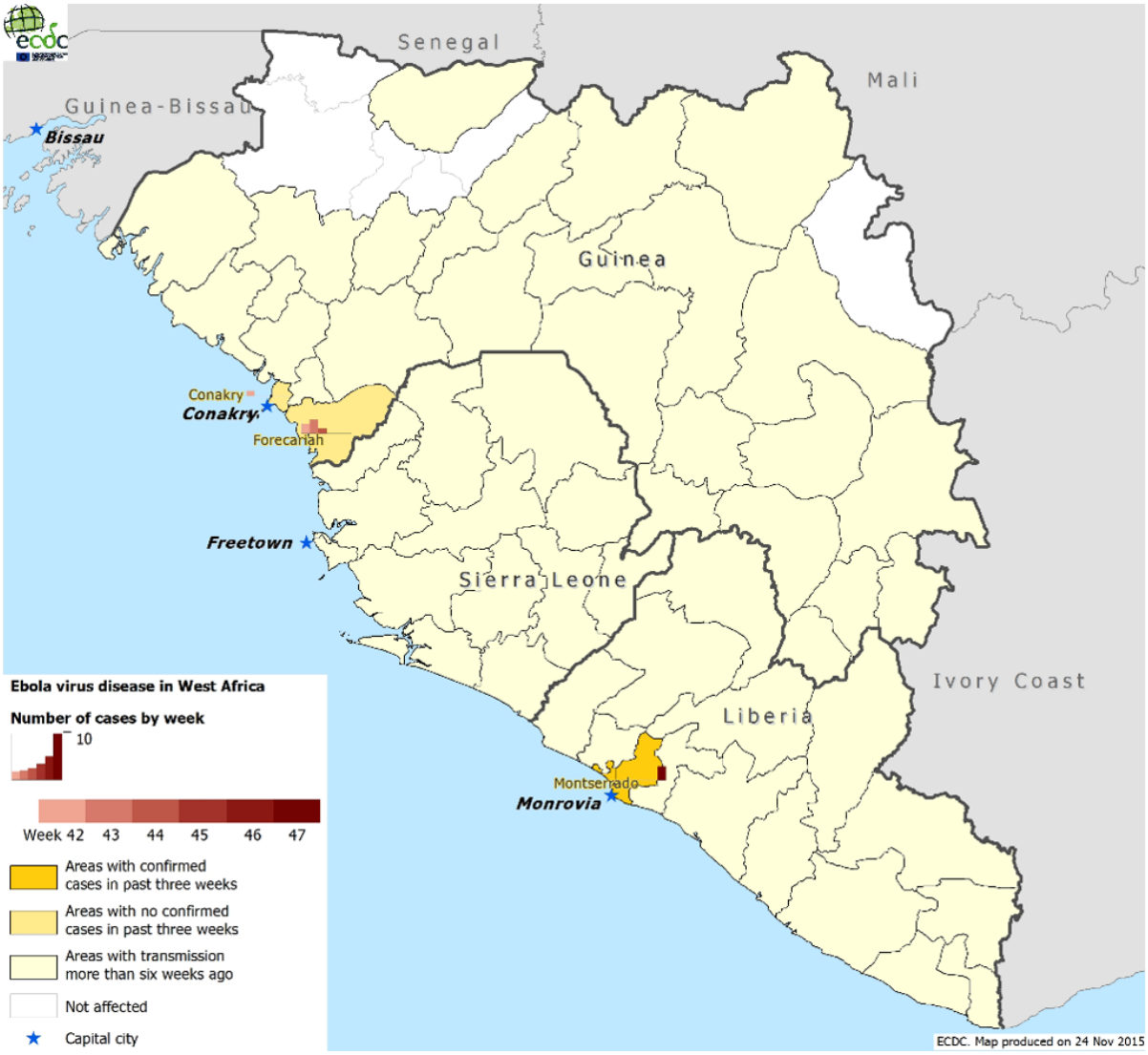
Adapted from WHO figures; *data for week 48/2015 are incomplete



European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of EVD by week of reporting in Guinea and Liberia (as of week 48/2015)

Adapted from WHO figures; *data for week 48/2015 are incomplete



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 26 November 2015

Epidemiological summary

In Pakistan one new wild poliovirus type 1 (WPV1) case was reported in the past week and two new WPV1 positive environmental samples. In Afghanistan one new environmental sample positive for WPV1 was reported last week. In the Lao People's Democratic Republic one new case of circulating vaccine-derived poliovirus type 1 (cVDPV1) was reported.

In 2015, wild poliovirus transmission is at the lowest levels ever, with fewer cases reported from fewer countries than ever before. In 2015, 57 wild poliovirus cases have been reported from two countries: Pakistan (41 cases) and Afghanistan (16 cases), compared with 305 cases from nine countries during the same period in 2014.

In 2015 so far, 20 cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO, compared with 47 for the same period in 2014. The cases this year are from Madagascar (10), Laos (4), Ukraine (2), Pakistan (2 cases), Nigeria (1), and Guinea* (1).

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

On 25 November 2015, WHO issued the statement of the seventh IHR Emergency Committee meeting regarding the international spread of poliovirus. The Committee unanimously agreed that the international spread of polio remains a PHEIC and recommended the extension of the Temporary Recommendations, as revised, for a further three months. During the current polio endgame, cVDPVs reflect serious gaps in immunity to poliovirus due to weaknesses in routine immunisation coverage in otherwise polio-free countries. Moreover, there is a particular urgency to stopping type 2 cVDPV in advance of the globally synchronized withdrawal of type 2 OPV in April 2016.

**previously reported in Mali.*

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet | Temporary Recommendations to Reduce International Spread of Poliovirus | WHO Statement on the Sixth Meeting of the International Health Regulations Emergency Committee on Polio

ECDC assessment

The last locally acquired wild-polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent wild-polio 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 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? |RRA Outbreak of circulating vaccine-derived poliovirus type 1 (cVDPV1) in Ukraine

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.

Following the detection of the cases of circulating vaccine-derived poliovirus type 1 in Ukraine, ECDC published a rapid risk assessment on its website.

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

Opening date: 24 September 2012 Latest update: 26 November 2015

Epidemiological summary

As of 26 November, 1 638 cases of MERS, including 635 deaths, have been reported by local health authorities worldwide.

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 | Saudi Arabia statement |ECDC factsheet for professionals

ECDC assessment

The MERS outbreak in the Middle East 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, the residential cluster of cases reported from Saudi Arabia is a reminder that transmission to unprotected close contacts, not only in healthcare settings, remains possible, as also documented in outbreaks in South Korea and the United Arab Emirates.

Actions

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

ECDC published the 21st update of this rapid risk assessment on 21 October 2015.

Cases of MERS-CoV by country of reporting, March 2012 – 26 November 2015 (n=1 638)

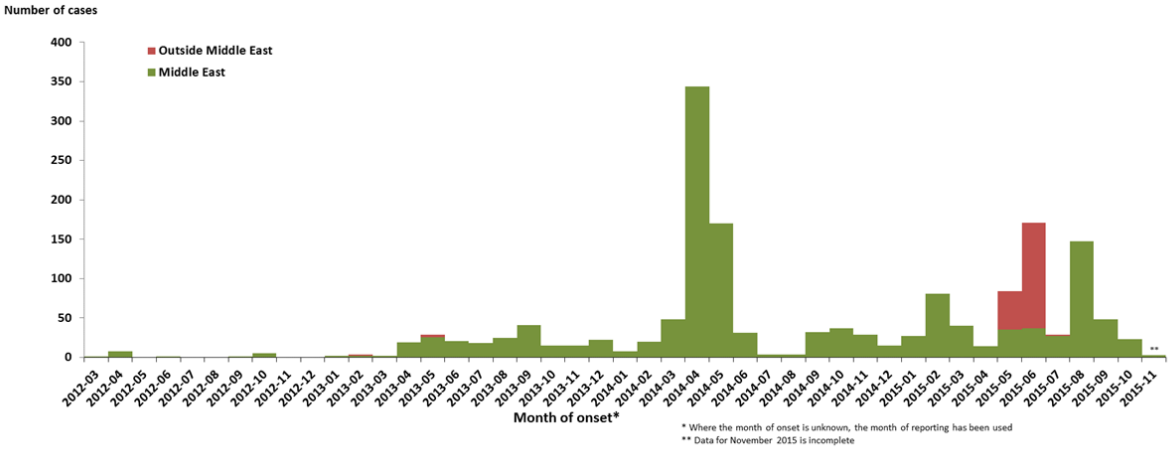
Source: ECDC

Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1277	547
	United Arab Emirates	81	11
	Qatar	13	5
	Jordan	35	14
	Oman	6	3
	Kuwait	4	2
	Egypt	1	0
	Yemen	1	1
	Lebanon	1	0
	Iran	6	2
Europe	Turkey	1	1
	UK	4	3
	Germany	3	2
	France	2	1
	Italy	1	0
	Greece	1	1
	Netherlands	2	0
	Austria	1	0
Africa	Tunisia	3	1
	Algeria	2	1
Asia	Malaysia	1	1
	Philippines	3	0
	South Korea	185	37
	China	1	0
	Thailand	1	0
Americas	United States of America	2	0
	Global	**1638**	**633**

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 26 November 2015 (n=1 638)

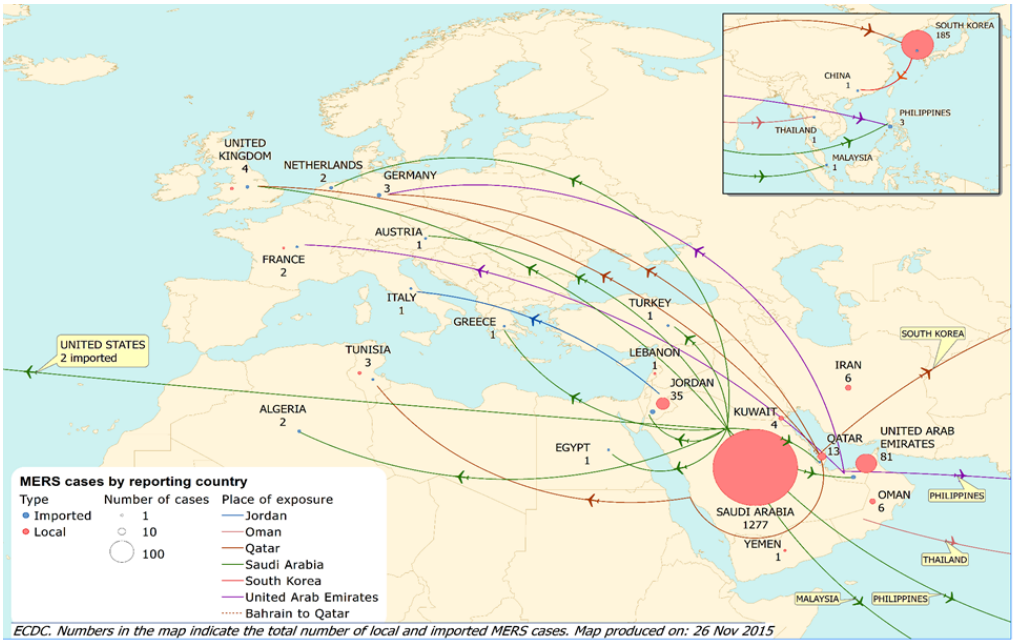
Source: ECDC



European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of MERS-CoV by place of probable infection, March 2012 – 26 November 2015 (n=1 638)

Source: ECDC



Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 26 November 2015

Epidemiological summary

As of 26 November 2015, 681 laboratory-confirmed cases of human infection with avian influenza A(H7N9) viruses, including at least 275 deaths, have been reported.

Cases reported in China since March 2013 have the following geographical distribution: Zhejiang (188), Guangdong (181), Jiangsu (78), Fujian (63), Shanghai (48), Hunan (26), Anhui (32), Hong Kong (13), Xinjiang Uygur Zizhiqu (10), Jiangxi (9), Beijing (6), Shandong (6), Guangxi (4), Henan (4), Taiwan (4), Jilin (2), Guizhou (2) and Hebei (2). Three imported cases have also been reported: one in Malaysia and two in Canada.

Web sources: Chinese CDC | WHO | WHO FAQ page | ECDC | WHO avian influence updates

ECDC assessment

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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.

During 2015, there have been continued avian influenza A(H7N9) virus detections in the animal population in multiple provinces in China, indicating that the virus persists in the poultry population. If the pattern of human cases follows the trends seen in previous years, the number of human cases may rise over the coming months. Further sporadic cases of human infection with avian influenza A(H7N9) virus are therefore expected in affected and possibly neighbouring areas.

Imported cases of influenza A(H7N9) may be detected in Europe. 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.

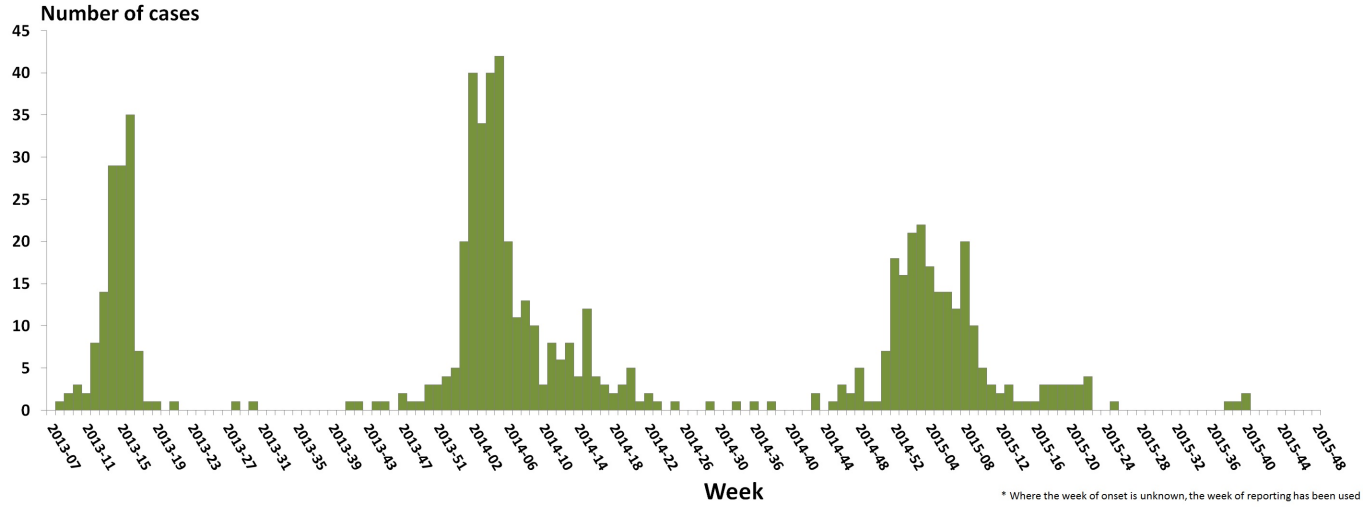
Actions

The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation, including scientific research.

ECDC 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 confirmed cases of A(H7N9) by week of reporting (weeks 07/2013 to 48/2015**)

Source: ECDC (data for week 48/2015 are incomplete)



European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

Distribution of confirmed cases of A(H7N9) by week of onset (n=681) from February 2013 until 26 November 2015

Source: ECDC

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 26 November 2015

Epidemiological summary

Several cases of *Shigella sonnei and S. flexneri* infection among refugees were reported from many European countries.

The Balkans

Media report that conditions for hundreds of migrants stopped at the borders in the Balkan region has worsened as temperatures have dropped. Some countries along the Balkan route have reportedly started filtering the flow of migrants by only allowing passage to those fleeing conflicts in Syria, Iraq and Afghanistan.

France - Influenza

According to media, since last week, a dozen of migrants are diagnosed with flu H1N1 every day at Calais.

Germany - Measles

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

German public health authorities reported a measles outbreak in a shelter for asylum seekers in Frankfurt am Main that evolved during July and August 2015. On 19 July 2015, a non vaccinated two-year-old child from Kosovo, developed exanthema and fever and was hospitalised on 22 July. The source of infection was not found. Three out of four susceptible family members developed measles. Genotype B3 ("B3-Kansas") was identified which was sporadically detected previously in Germany. The report highlights the importance of reviewing the vaccination status of asylum-seekers immediately upon arrival so that missing vaccinations can be rescheduled. It also points out that language barriers, high mobility and possibly the fear of the authorities may affect the success of vaccinations among asylum seekers.

Italy – refugee contacts with healthcare facilities

According to a report of regional health authorities in Friuli Venezia Giulia, from June to November there have been 448 cases of scabies treated, seven hospitalisations due to tuberculosis and five due to malaria. This is the result of 5 391 contacts by refugees to the healthcare facilities.

Source: UNHCR | ScienceDirect | Reuters |Media I | Media II | French MoH

ECDC assessment

Refugees are not currently a threat for Europe with respect to communicable diseases, but they are a priority group for communicable disease prevention and control efforts because they are more vulnerable. The risk to refugees arriving in Europe of contracting communicable diseases has increased because of the current overcrowding at reception facilities, and the consequent compromising of hygiene and sanitation arrangements.

While the risk of mosquito-borne diseases has been reduced as a result of the winter, the risk of diseases whose spread are facilitated by overcrowding and lower temperatures has increased as a result of the likely increased close gathering of refugees seeking shelter from the cold weather. It is therefore expected that the incidence of respiratory and gastrointestinal conditions will increase in the coming months.

Recent weeks have seen reports of emerging episodes of communicable diseases affecting the refugee population. Of concern is the emergence of 27 cases of louse-borne relapsing fever (LBRF) in different locations along the route that the refugees arriving in Italy are following. The probable transmission of LBRF among refugee communities in the EU indicates that more cases may be seen in the near future, unless appropriate hygiene measures are implemented rapidly. Reports of cases of shigellosis among refugees is also a source for concern.

Low coverage for some vaccines, along with low immunity for some diseases, may result in susceptible refugees developing diseases such as measles and chicken pox, given the high incidence of these in some areas of the EU.

WHO, UNHCR and UNICEF jointly recommend that refugees, asylum seekers and migrants should have non-discriminatory, equitable access to healthcare services, including vaccines, irrespective of their legal status. They should be provided with timely immunisation against vaccine-preventable diseases, particularly measles and polio. All countries should have effective disease surveillance and reporting systems, outbreak investigation ability and case management and response capacity.

The risk to European residents of being affected by outbreaks occurring among refugee populations remains extremely low since the hygiene levels, overcrowding and limited access to clean water responsible for their transmission are specific to the reception facilities in which they are occurring.

Actions

An ECDC expert opinion on the public health needs of irregular migrants, refugees or asylum seekers across the EU's southern and south-eastern borders was posted on the ECDC website in September 2015.

ECDC prepared:

- a RRA on the risk of communicable disease outbreaks in refugee populations in the EU/EEA.
- an updated RRA on louse-borne relapsing fever amongst migrants in the EU/EEA
- an RRA on cutaneous diphtheria among recently arrived refugees and asylum seekers in the EU

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

- an RRA on the risk of importation and spread of malaria and other vector-borne diseases associated with the arrival of migrants in the EU.

ECDC has in preparation a rapid risk assessment on Shigellosis among refugees in the EU.

ECDC, in collaboration with Member States, the European Commission and WHO, continues to closely monitor the situation to rapidly identify and assess potential communicable disease threats.

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

Opening date: 15 June 2005 Latest update: 26 November 2015

Epidemiological summary

Update: No new update from WHO on human cases of influenza A(H5N1) virus since 17 July 2015.

Summary: From 2003 through to 26 November 2015, 844 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection have been officially reported to WHO from 16 countries. Of these cases, 449 have died.

Outbreaks in birds
On 25 November 2015, the French authorities notified about an outbreak of highly pathogenic avian influenza of subtype A/H5N1 ongoing in a backyard holding located in the department of Dordogne. Following abnormal mortality in the holding, the virus presence was confirmed on 24 November 2015 evening by the French Agency for Food, Environmental and Occupational Health & Safety (ANSES). The virus strain is highly pathogenic for poultry. Sequencing of the strain is ongoing.

According to recent reports received by World Organisation for Animal Health (OIE), various influenza A(H5) subtypes, such as influenza A(H5N1), A(H5N2), A(H5N6) and A(H5N8), continue to be detected in birds in West Africa and Asia.

Web sources: ECDC Rapid Risk Assessment | Avian influenza on ECDC website |EMPRES | OIE | WHO

ECDC assessment

Most human infections of avian influenza 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) and A(H7N9) 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 the first half of 2015, this increase is not thought to be related to virus mutations but rather to more people becoming exposed to infected poultry.

Although the influenza A(H5) viruses detected in birds 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. No human infections with influenza A(H5N1) have ever been reported from Europe. The risk to people from these 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 monthly 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.

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu

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

European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu

Epidemic Intelligence duty email: support@ecdc.europa.eu