COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 51, 13-19 December 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: 18 December 2015

Influenza transmission in Europe shows a clear seasonal 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

Influenza activity is low in most countries of the WHO European Region, with the majority of countries reporting no activity or sporadic influenza detections. However, two countries in Western Europe (the Netherlands and Sweden) reported regional/widespread influenza activity.

Non EU Threats

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 10 December 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

No new cases of wild poliovirus (WPV) and no cases of circulating vaccine-derived poliovirus (cVDPV) were reported last week to WHO.

The report on the September 2015 meeting of the Strategic Advisory Group of Experts on immunisation (SAGE) was published this week, confirming that the globally coordinated withdrawal of the type 2 component in oral polio vaccine (OPV), also referred to as the 'tOPV to bOPV switch', should occur in April 2016.

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

Opening date: 24 September 2012 Latest update: 17 December 2015

Since April 2012 and as of 17 December 2015, 1 642 cases of MERS, including 637 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

During the past week two new cases were reported from Saudi Arabia. The first case is a 41-year-old expatriate woman, a healthcare worker in Buraidah. A previous case was reported from Buraidah on 29 November, in a person that died as a consequence of the disease. The second case is a 48-year-old Saudi male, a primary case from Najran.

As of 17 December 2015, 1 642 cases of MERS, including 637 deaths, have been reported by local health authorities worldwide.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 17 December 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 17 December 2015, WHO had reported 28 602 cases of Ebola virus disease related to the outbreak in West Africa, including 11 300 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 underlined by the recent events of re-emergence of cases in previously Ebola-free countries.

➔Update of the week

According to WHO, no new confirmed cases were reported from Guinea and Liberia in the week leading up to 13 December.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 17 December 2015

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, 683 cases have been reported (as of 17 December 2015), including 275 deaths. No autochthonous cases have been reported outside China. Most cases are isolated, and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak.

➔Update of the week

On 11 December 2015, the National Health and Family Planning Commission (NHFPC) of China notified WHO of two additional laboratory-confirmed cases of human infection with avian influenza A (H7N9) virus. The first case is a 74-year-old male from Meizhou City, Guangdong Province, with onset date of 19 November. He purchased poultry from a market and raised poultry at home. At the time of the report, the case was in a severe condition. The second case is a 60-year-old male from Hangzhou City, Zhejiang Province, with onset date of 20 November. He has a history of slaughtering domestic poultry. At the time of report, the case was in severe condition.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 18 December 2015

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), more than 944 000 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 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

No outbreaks involving refugees were reported during the past week.

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

Opening date: 15 June 2005 Latest update: 17 December 2015

No human cases have ever been reported from Europe. The HPAI A(H5N1) virus detected in France is not related to the A (H5N1) viruses circulating in other parts of the world, but appears to have evolved from a low pathogenic avian influenza virus circulating in Europe. The current strain circulating in poultry in Europe is entirely different to the strain found in Asia which has been associated with infection in humans and high case fatality.

From 2003 through to 17 December 2015, 844 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection had been officially reported to WHO from 16 countries. Of these cases, 449 had died. Of these cases, 143 were notified in 2015 by China (5 cases), Egypt (136 cases) and Indonesia (2 cases). The last case reported to WHO occurred in Egypt in July 2015.

➔Update of the week

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

Human cases detected since the last report

China

According to the Hong Kong health authorities there has been a confirmed human case of avian influenza A(H9N2) affecting a four-year-old girl in Anhui Province. The case is a mild case with a history of visiting a wet market. In addition, three confirmed human cases of avian influenza A(H9N2), involving a two-year-old boy, a fifteen-year-old girl and a one-year-old girl were detected in Hunan Province. All are mild cases notified by the Chinese authorities on 11 December 2015.

Poultry outbreaks detected in Europe since the last report

France

As of 16 December 2015, there had been 30 outbreaks of HPAI in five departments: Dordogne (11), Landes (13 outbreaks), Haute Vienne (1), Gers (3), Pyrenes Atlantiques (2). In addition, five outbreaks of LPAI of subtypes A(H5N2) and A(H5N3) in poultry were detected in the same region. The first outbreak was detected on 24 November 2015 and reported to OIE.

The HPAI A(H5N1) virus detected in France is not related to the A(H5N1) viruses circulating in other parts of the world, but appears to have evolved from a low pathogenic avian influenza virus circulating in Europe.

Germany

In Lower Saxony, the local health authorities reported two suspected bird flu outbreaks.

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Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 18 December 2015

Zika virus (ZIKV) infections are still spreading in previously unaffected areas of the world. In 2014, indigenous circulation of ZIKV was detected in the Americas on Easter Island, Chile for the first time. Since then, ZIKV infections have spread to Brazil, Colombia, El Salvador, Guatemala, Mexico, Paraguay, Suriname, Venezuela, Honduras and Panama.

Autochthonous cases have also been reported from Cape Verde recently.

In the Pacific area, since the beginning of the year, autochthonous transmission has been reported in Samoa, Fiji, New Caledonia, Solomon Islands and Vanuatu.

Possible links between Zika virus 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 Zika virus outbreak in the north-eastern states. French Polynesia reported an increase in cases of central nervous system malformations during 2014–2015 following the Zika virus infection outbreak in September 2013 to March 2014.

Investigations of an association with Zika virus infection and Guillain–Barré syndrome (GBS) are ongoing in Brazil and French Polynesia.

➔Update of the week

No autochthonous cases of Zika virus (ZIKV) infection have been reported in EU/EEA Member States so far in 2015. One imported case was reported in the Netherlands in a traveller who returned from Suriname on 29 November 2015 after a 3-week holiday.

On 17 December 2015, local health authorities in Honduras reported two autochthonous cases of ZIKV infection, making this the 10th country with local transmission of the virus in the Americas.

In Brazil as of week 47/2015, 18 states have reported locally-acquired ZIKV cases.

In week 49/2015, six new states in Brazil reported suspected cases of microcephaly related to ZIKV infection: Espírito Santo, Mato Grosso, Minas Gerais, Pará, São Paulo and Rio Grande do Su. As of 12 December 2015, 2 401 suspected cases of microcephaly have been notified in Brazil including 29 deaths in 549 municipalities across 20 states. Of these cases, 2 165 are under investigation, 134 were confirmed and 102 were discarded.

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II. Detailed reports

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

Opening date: 2 October 2015 Latest update: 18 December 2015

Epidemiological summary

Influenza activity is low in most countries of the WHO European Region with the majority of countries reporting no activity or sporadic influenza detections. However, two countries in Western Europe (the Netherlands and Sweden) reported regional/widespread influenza activity.

The low proportion (5.9%) of sentinel specimens testing positive for influenza is in line with the low consultation rates for ILI/ARI observed in most countries of the region.
Consultation rates for ILI were approaching the epidemic thresholds for the Netherlands and Denmark.
Sporadic influenza detections of A(H1N1)pdm09, A(H3N2), and type B viruses were reported.

ECDC assessment

Influenza activity remains low which is usual for this time of the year.

Although few viruses have been subtyped (type A) or ascribed to a lineage (type B), A(H1N1)pdm09 viruses were detected more frequently than A(H3N2), and B/Victoria lineage more frequently than B/Yamagata in both sentinel and non-sentinel specimens. All characterised viruses matched the strains included in vaccines for this season, although B/Victoria vaccine strains are only included in tetravalent vaccines.

Actions

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

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 10 December 2015

Epidemiological summary

In 2015, wild poliovirus transmission has been at the lowest level ever, with fewer cases reported from fewer countries than ever before. In 2015, 66 wild poliovirus cases were reported from two countries: Pakistan (49 cases) and Afghanistan (17 cases), compared with 332 cases from nine countries during the same period in 2014.
In 2015, as of 15 December, 23 cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO, compared with 48 for the same period in 2014. The cases this year are from Madagascar (10), Laos (5), Ukraine (2), Pakistan (2 cases), Nigeria (1), Myanmar/Burma (2) and Guinea* (1).

* Previously reported as cases from Mali.

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet | Temporary Recommendations to Reduce International Spread of Poliovirus | WHO Statement on the Seventh 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

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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: 17 December 2015

Epidemiological summary

During the past week two new cases have been reported from Saudi Arabia. The first case is a 41-year-old expatriate woman, a healthcare worker in Buraidah. A previous case was reported from Buraidah on 29 November and this person has died. The second case is a 48-year-old Saudi male, a primary case from Najran.

As of 17 December, 1 642 cases of MERS, including 637 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

ECDC published the 21st update of its MERS CoV rapid risk assessment on 21 October 2015.

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Cases of MERS-CoV by country of reporting, March 2012 – 17 December 2015 (n=1 642)

Region	Country	Number of cases	Number of deaths
Middle East	Saudi Arabia	1281	550
	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	38
	China	1	0
	Thailand	1	0
Americas	United States of America	2	0
	Global	**1642**	**637**

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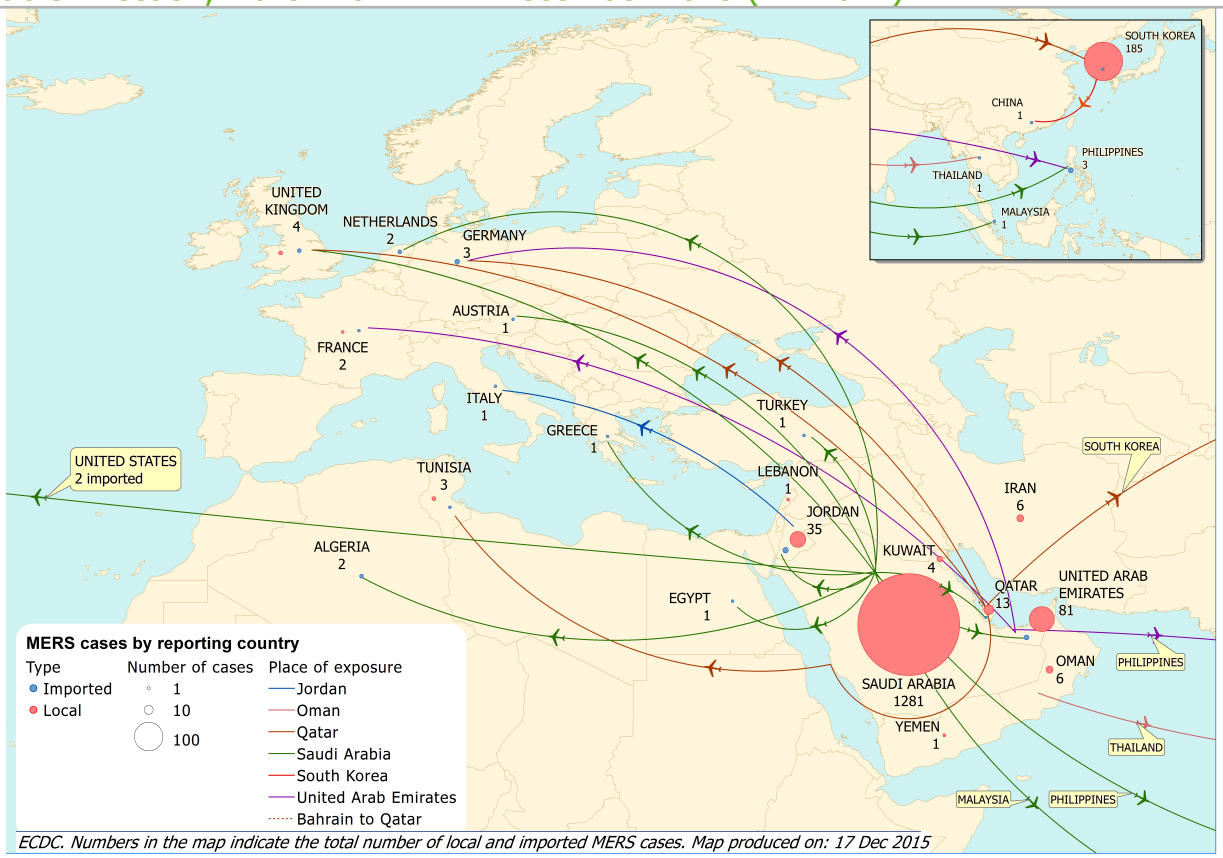
Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 17 December 2015 (n=1 642)



ECDC. Numbers in the map indicate the total number of local and imported MERS cases. Map produced on: 17 Dec 2015

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 17 December 2015

Epidemiological summary

Distribution of cases as of 17 December 2015:

Countries with ongoing Ebola virus transmission in the human population:

- **Guinea**: 3 805 cases including 3 351 confirmed, and 2 536 deaths
- **Liberia:** 10 675 cases including 3 160 confirmed, and 4 809 deaths, Liberia was declared EVD-free on 3 September 2015. However, a family cluster occurred in the week leading up to 22 November.

Countries with previously widespread and intense transmission:

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

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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
Guinea
No new cases were confirmed in Guinea during the past week. The most recent case was reported on 29 October 2015, from which a second consecutive blood sample tested negative for Ebola virus on 16 November. If no new cases are reported, Guinea will be declared Ebola free on 28 December 2015.

Liberia
No new confirmed cases were reported during the week leading up to 13 December. All contacts of the family cluster of EVD reported from Liberia in the week to 22 November have completed 21-day follow up and as of 11 December, 210 eligible recipients associated with the cluster had received the rVSV-ZEBOV Ebola vaccine. The last two cases had their second consecutive negative EVD test on 3 December and if no new cases are reported, Liberia will be declared Ebola free on 14 January 2016. Liberia was previously declared free of Ebola transmission on 3 September 2015.

Sierra Leone
On 7 November 2015, WHO declared that Sierra Leone was Ebola free and that the country had entered a 90-day period of enhanced surveillance scheduled to conclude on 5 February 2016.

Situation among healthcare workers
No new infections in healthcare workers were reported by WHO in the week leading up to 13 December.

Outside of the three most affected countries, with repatriated cases included, there have been eight cases in Mali, 20 in Nigeria, three in Spain (including two repatriated cases), three in the UK (including two repatriated cases), one in Senegal (infected in Guinea), one in Norway (repatriated), two in France (repatriated), one in the Netherlands (repatriated), one in Switzerland (repatriated), 11 in the USA (seven repatriated) and one 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 2015 data 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 nurse in the UK, unusual late complications should also be taken into account.

The recent cluster of cases in Liberia is understood to have been a result of the re-emergence of Ebola virus that had persisted in a previously infected individual. Although the probability of such re-emergence events is low, the risk of further transmission underscores the importance of implementing a comprehensive package of services for survivors that includes the testing of body fluids for the presence of EVD RNA. The governments of Liberia and Sierra Leone are now expanding a network of clinical services for survivors and both countries have implemented voluntary semen screening as well as counselling programmes for male survivors.

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Actions

As of 17 December 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.

ECDC has updated its website following the WHO declaration on Sierra Leone, which has been Ebola-free since 7 November 2015.
On 23 November 2015, ECDC published an epidemiological update.
On 16 October 2015, ECDC published the latest (13th) update of the rapid risk assessment.
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.

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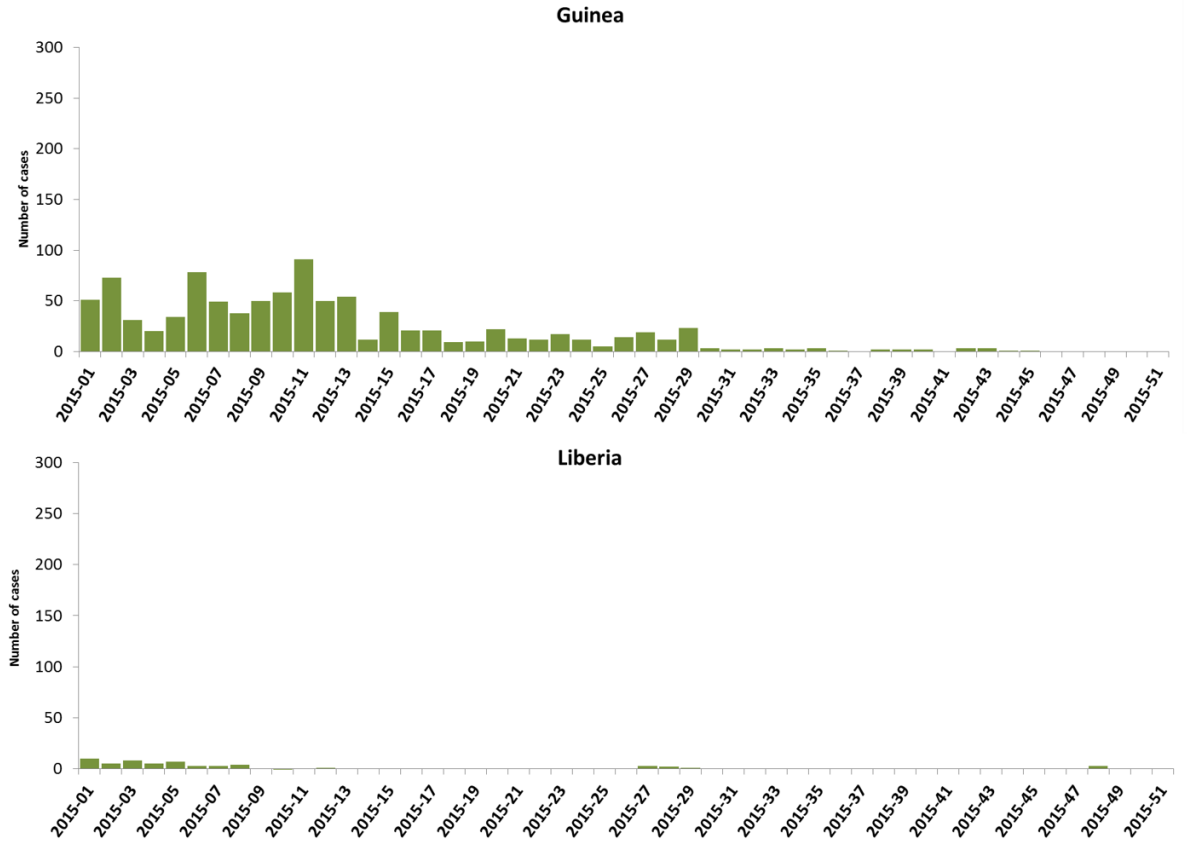
Distribution of confirmed cases of EVD by week of reporting in Guinea and Liberia (weeks 01/2015 to 51/2015)

Adapted from WHO figures; *data for week 51/2015 are incomplete



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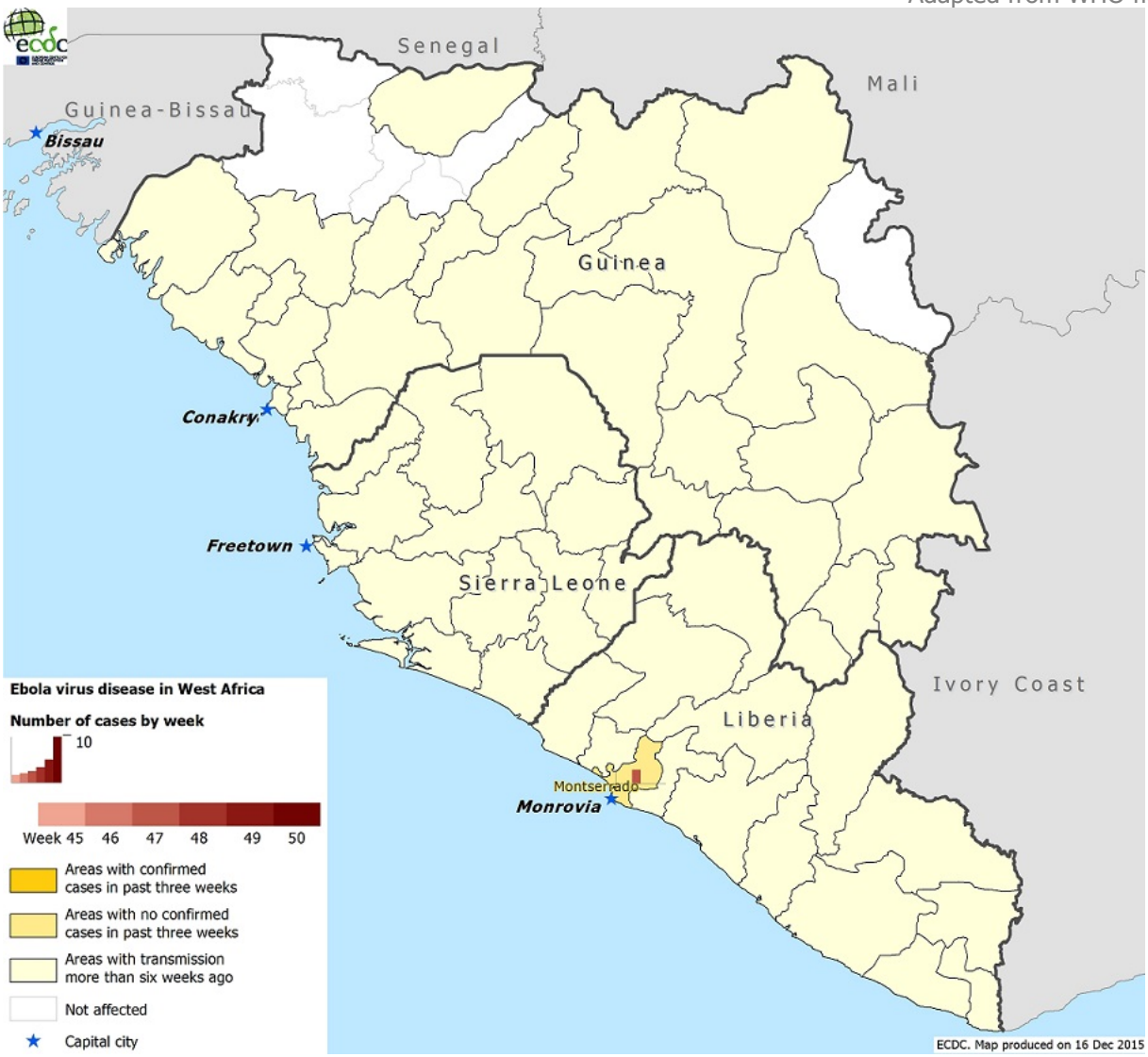
Distribution of confirmed cases of EVD by week of reporting in Guinea and Liberia (as of week 50/2015)

Adapted from WHO figures



Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 17 December 2015

Epidemiological summary

As of 17 December 2015, 683 laboratory-confirmed cases of human infection with avian influenza A(H7N9) viruses, including at least 275 deaths, have been reported. Between October and 17 December 2015, six human cases of avian influenza A(H7N9) have been recorded in China.

Cases reported in China since March 2013 have the following geographical distribution: Zhejiang (189), Guangdong (182), 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

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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.

During 2015, there have been continued avian influenza A(H7N9) virus detections in the animal population in several 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 areas that are already affected and in neighbouring areas.

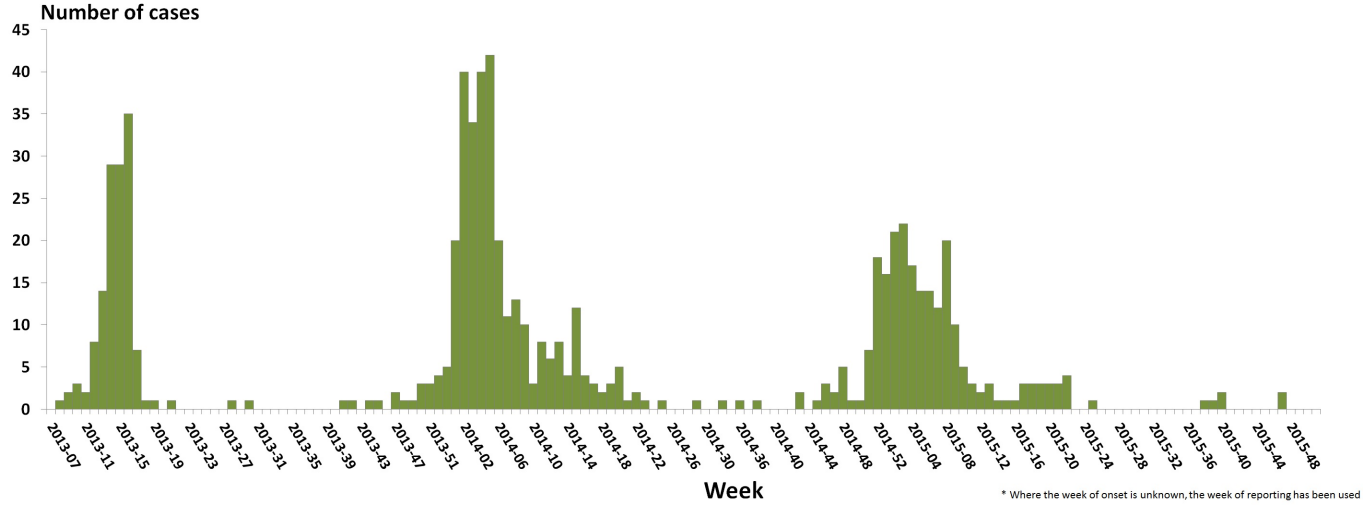
Imported cases of influenza A(H7N9) may be detected in Europe. However, the risk of the disease spreading among humans following an importation to Europe is considered to be very low. People in the EU presenting with severe respiratory infection and a history of potential exposure in the outbreak area 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, and 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 onset (n=683) from February 2013 until 17 December 2015



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Distribution of confirmed cases of A(H7N9) by week of onset (n=683) from February 2013 until 17 December 2015

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 18 December 2015

Epidemiological summary

Recent weeks have seen reports of emerging episodes of communicable diseases affecting the refugee population including shigellosis, scabies, typhoid fever, diphtheria, hepatitis A and TB. Twenty-seven cases of louse-borne relapsing fever (LBRF) in different locations along the routes followed by refugees arriving in Italy has been a matter of concern.

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 that refugees arriving in Europe contract 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 infection from diseases whose spread is facilitated by overcrowding and lower temperatures has increased. It is therefore expected that the incidence of

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respiratory and gastrointestinal conditions will increase in the coming months.

Low vaccination coverage for some diseases, along with low immunity for some diseases, may result in susceptible refugees that may develop diseases such as measles and chicken pox, given their high incidence in some regions 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 because overcrowding, limited access to clean water, and low hygiene levels are only encountered in certain reception facilities for refugees.

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:

- an 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
- 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
- an RRA 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: 17 December 2015

Epidemiological summary

Updates: No new updates from WHO on human cases of influenza A(H5N1) virus. The latest update was released on 17 July 2015. No human cases have ever been reported in Europe.

Summary: From 2003 up to 17 December 2015, 844 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection were officially reported to WHO from 16 countries. Of these cases, 449 have died.

Outbreaks in birds in November and December 2015 in Europe

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France

As of 16 December, there had been 30 outbreaks of HPAI in five departments: Dordogne (11), Landes (13 outbreaks), Haute Vienne (1), Gers (3), Pyrenes Atlantiques (2). In addition, five outbreaks of LPAI of subtypes A(H5N2) and A(H5N3) in poultry were detected in the same region.

The HPAI A(H5N1) virus detected in France is not related to the A(H5N1) viruses circulating in other parts of the world, but appears to have evolved from a low pathogenic avian influenza virus circulating in Europe.

Germany

On 7 December 2015, Germany reported an outbreak of low pathogenic avian influenza A(H5N2) in Cham, Bavaria.

On 17 December 2015, the local health authorities in Lower Saxony report two suspected bird flu outbreaks.

Italy

On 30 November 2015, Italy reported an outbreak of low pathogenic avian influenza A(H5N2) on a turkey farm in Emilia Romagna. Control measures were immediately implemented by the local authorities.

Globally

Various influenza A(H5) subtypes, such as influenza A(H5N1), A(H5N2), A(H5N3), A(H5N6), A(H5N8) and A(H5N9) continue to be detected in birds in Africa, Europe, Americas and Asia, according to reports received by the World Organization for Animal Health (OIE).

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

ECDC assessment

The current strain circulating in poultry in Europe is entirely different to the strain found in Asia which has been associated with infection in humans and high case fatality.

When avian influenza viruses circulate in poultry, sporadic infections or small clusters of human cases are possible in people exposed to infected poultry or contaminated environments, especially in households and at live bird markets in areas where the viruses are circulating. Sustained human-to-human transmission of influenza A(H5N1) virus and its highly pathogenic reassortants have never been observed.

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The risk of foodborne transmission, e.g. through the consumption of eggs or meat, is considered extremely low.

People having direct contact with diseased birds or poultry, or their carcasses (e.g. farmers, veterinarians and labourers involved in the culling and rendering) are at a potential risk of infection. Persons at risk of exposure should therefore wear personal protective equipment.

People who have been exposed to the HPAI A(H5N1) or A(H5N2) virus should be monitored for at least 10 days.

Animal and public health authorities should be prepared for a possible introduction of HPAI A(H5N1) or A(H5N2) virus into other European countries, although the risk is considered low.

Actions

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

ECDC published a risk assessment on 4 December 2015 on the poultry outbreak in France and the potential implications for humans.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 18 December 2015

Epidemiological summary

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

In May 2015, the first locally-acquired confirmed case of ZIKV infection was reported in north east Brazil and as of 7 December 2015, 18 states in Brazil had reported locally-acquired cases. Colombia reported the first locally-acquired case in October 2015 and as of 1 December, 26 of 36 municipal regions within Colombia had reported locally-acquired cases.

By 16 December 2015, countries in the Americas with confirmed locally-acquired cases were Brazil, Colombia, El Salvador, Guatemala, Mexico, Panama, Paraguay, Suriname, Honduras and Venezuela.

Outside of the Americas, cases have been confirmed in Cape Verde.

Possible links between Zika virus infection in pregnancy and microcephaly of the foetus have been under investigation in Brazil since October 2015 when the Brazilian Ministry of Health reported an unusual increase in cases of microcephaly following the Zika virus outbreak in the north-eastern states.

In French Polynesia investigations are also ongoing following the detection of 17 cases of central nervous system malformations in foetuses and infants that had occurred in pregnancies during 2014-2015 after the 2013-2014 ZIKV outbreak. None of the mothers described clinical signs of ZIKV infection during pregnancy, but four of the women tested were found positive by IgG serology assays for flavivirus, suggesting a possible asymptomatic ZIKV infection. 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.

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Web sources: ECDC Zika Factsheet | WHO DON | PAHO | Colombian MoH | Brazilian MoH | Brazilian microcephaly case definition

ECDC assessment

Further cases of Zika virus are expected to be reported in other countries, particularly in the Americas, where the mosquito vector is present.

So far, only a few travel-associated cases of ZIKV infection have been reported in the EU. With the spread of the ZIKV epidemic in the Americas, the likelihood of travel-related cases of ZIKV infection in the EU is increasing. 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* or *Aedes aegypti* are established, cannot be excluded. Vigilance during the mosquito season is thus required in areas where a potential vector is present because early detection of cases is essential when it comes to reducing 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 in pregnant women returning from areas currently experiencing Zika virus infection outbreaks, should prompt a possible investigation for Zika virus infection. In addition, blood safety authorities need to be vigilant regarding the epidemiological situation and might wish to consider the deferral of donors with relevant travel history, in line with measures defined for West Nile virus.

This is the first time that Zika virus infections during pregnancy have been suspected of causing congenital malformations. 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 linked to the Zika virus epidemic. ECDC published a second rapid risk assessment on microcephaly in Brazil on 10 December 2015.

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Number of cases of microcephaly reported in Brazil in 2015 (as of 16 december 2015)

Brazilian states	Confirmed cases of microcephaly	Cases of microcephaly under investigation
Pernambuco	29	874
Paraíba	19	322
Bahia	0	316
Alagoas	0	107
Rio Grande do Norte	35	101
Ceará	0	79
Mato Grosso	0	72
Rio de Janeiro	0	57
Maranhão	0	56
Tocantins	0	43
Piauí	0	39
Minas Gerais	0	33
Sergipe	51	33
Espírito Santo	0	14
São Paulo	0	6
Goiás	0	4
Mato Grosso do Sul	0	3
Pará	0	3
Distrito Federal	0	2
Rio Grande do Sul	0	1
Total	134	2 165

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States with laboratory-confirmed cases Zika virus disease, Brazil, 2015, as of 5 December 2015

Source: ECDC

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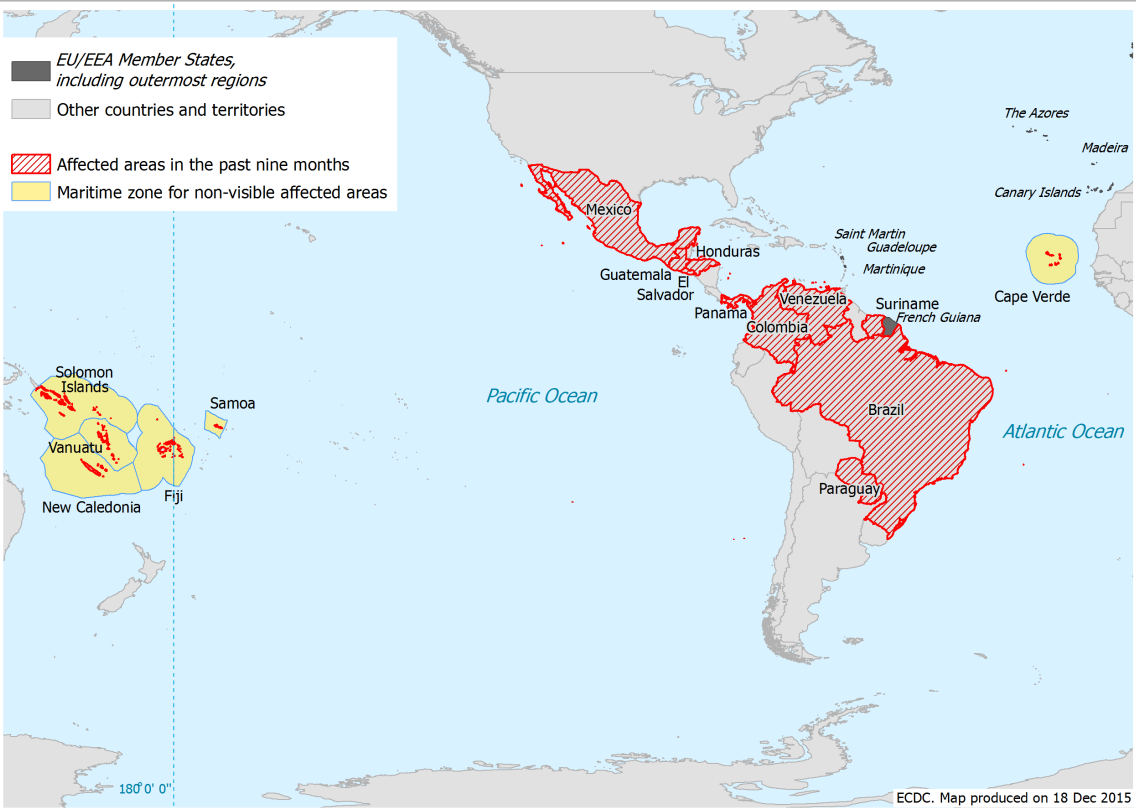
Countries with reported confirmed autochthonous cases of Zika virus infection in 2015, as of 17 December



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