COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 17, 24-30 April 2016

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: 29 April 2016

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

In week 16/2016, influenza activity continued to decrease in the WHO European Region. Most countries (92%) reported low intensity, with associated lower numbers of specimens being collected and fewer testing positive for influenza virus (22%) than in the previous week (35%). As is often seen late in the northern hemisphere's influenza season, a shift towards circulation of type B influenza virus has occurred. Type B accounted for 75% of influenza virus detections from sentinel sources and 17–20% of hospitalised severe cases. Fewer cases of severe disease were reported than in previous weeks, although numbers varied between countries. Cases occurred mainly in people under the age of 65, and the great majority of those testing positive for influenza virus were infected by A(H1N1)pdm09 viruses.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 29 April 2016

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease which often passes unnoticed. The main reason for immunising against rubella is the high risk of congenital malformations associated with rubella infection during pregnancy. All EU Member States recommend vaccination against rubella with at least two doses of vaccine for both boys and girls. The vaccine is given at the same intervals as the measles vaccine as part of the MMR vaccine. No new outbreaks have been detected in the EU since June 2015.

➔Update of the week

No new outbreaks have been detected since the last monthly update.

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Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 29 April 2016

Measles, a highly transmissible vaccine-preventable disease, is still endemic in some EU countries where vaccination uptake remains below the level required to interrupt the transmission cycle. Elimination of measles requires consistent vaccination uptake above 95% with two doses of measles vaccine in all population groups, strong surveillance and effective outbreak control measures. In 2014, 16 EU/EEA countries were above the measles vaccination coverage target of 95% for the first dose, and six countries for the second dose. Fourteen countries have coverage rates of <95% for the first dose and 20 countries for the second dose.

➔Update of the week

On 26 April 2016, Public Health England (PHE) posted a press release regarding a measles outbreak in London.

The outbreak in Romania is still ongoing.

Non EU Threats

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 29 April 2016

As of 22 April 2016, 49 countries and territories have reported autochthonous cases of Zika virus infection during the past nine months. On 1 February 2016 WHO declared that Zika virus infection and the clusters of microcephaly cases and other neurological disorders constitute a public health emergency of international concern (PHEIC). There is now a scientific consensus that Zika virus is a cause of microcephaly and Guillain-Barré syndrome. Considering the growing body of evidence of adverse pregnancy outcomes associated with Zika virus infection, ECDC recommends that pregnant women postpone non-essential travel to Zika-affected areas.

➔Update of the week

Since last week:

The Canadian health authorities reported the first sexual transmission of Zika in Canada. On 28 April Saint-Barthélemy reported a first locally acquired case.

Update on the observed increase of congenital Zika syndrome and other neurological complications

Microcephaly and other foetal malformations potentially associated with Zika virus infection or suggestive of congenital infection have been reported in Brazil (1 198 cases), Cape Verde (two cases), Colombia (seven cases), French Polynesia (eight cases), Martinique (three cases), Marshall Islands (one case), Panama (five cases) and United States of America (2).
In the context of Zika virus circulation, 13 countries or territories have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

Vectors

The Pan American Health Organization (PAHO) bulletin from 21 April reports the detection of the Zika virus in *Aedes albopictus* in Mexico by RT-PCR as part of the entomological surveillance.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 29 April 2016

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 1 March 2016, the Temporary Recommendations in relation to the PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide.

➔Update of the week

During the past week, WHO reported one new wild poliovirus type 1 (WPV1) case in Afghanistan. There were no cVDPV cases reported.

The globally synchronised switch from the trivalent (tOPV) to bivalent (bOPV) oral polio vaccine started on 17 April 2016.

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Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 29 April 2016

The largest ever epidemic of Ebola virus disease (EVD) affected West Africa from December 2013 to January 2016, 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 28 April 2016, WHO has reported 28 616 cases of Ebola virus disease related to the outbreak in West Africa, including 11 310 deaths. Sierra Leone was declared Ebola-free by WHO on 7 November 2015, Guinea on 29 December 2015 and Liberia on 14 January 2016. On 29 March 2016, WHO declared the end of the PHEIC and advised that all temporary recommendations previously adopted should now be terminated. However, since the end of February 2016 up to 10 April, there have been ten cases reported in Guinea and three in Liberia.

➔Update of the week

<?xml:namespace prefix = "o" />There have been no new cases reported since 10 April.

Outbreak of yellow fever - Africa - 2016

Opening date: 17 March 2016 Latest update: 29 April 2016

There is an ongoing outbreak of yellow fever in Angola that started in December 2015 in the municipality of Viana, Luanda province, and then spread to six highly populated provinces of Angola. A mass immunisation campaign is taking place. The neighbouring Democratic Republic of Congo also reports cases of yellow fever. Two clusters of yellow fever have been reported in Uganda in Masaka and Rukungiri districts. These clusters do not seem to be linked to the outbreak in Angola.

➔Update of the week

Angola

As of 26 April, 2 023 suspected cases and 258 deaths were reported in Angola, of which 653 were laboratory-confirmed cases (70% were from Luanda province). In the week to 24 April, 115 new suspect cases, eight new deaths and 36 new confirmed yellow fever cases were reported. Yellow fever cases in people who travelled from Angola have been reported in three countries: China (11 cases), Democratic Republic of Congo (16 cases with 3 in Kinshasa) and Kenya (two cases).

Democratic Republic of Congo (DRC)

A yellow fever outbreak was officially declared by the national government of DRC on 23 April 2016.

Uganda

As of 27 April, 39 suspect cases of yellow fever cases have been reported in seven districts.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 29 April 2016

Europe is experiencing its largest influx of refugees since the Second World War. According to the UN Refugee Agency (UNHCR), more than one million refugees arrived in Europe in 2015 and around 150 000 in 2016. To date, there have been reports of cases of acute respiratory tract infections, louse-borne relapsing fever, cutaneous diphtheria, scabies, measles, meningococcal meningitis, shigellosis, typhoid fever, hepatitis A, 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.

➔Update of the week

No new events of epidemiological relevance have been reported during the past week.

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II. Detailed reports

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

Opening date: 2 October 2015 Latest update: 29 April 2016

Epidemiological summary

This season, influenza A(H1N1)pdm09 viruses have predominated in most countries in the Region, although type B has dominated since week 9/2016 in specimens from primary care surveillance. Influenza activity, based on laboratory-confirmed mild and severe cases in sentinel and non-sentinel sources, peaked in weeks 5–7/2016. The countries first affected were in general located in the eastern part of the Region.
Data from the 17 countries or regions reporting to the European monitoring of excess mortality for public health action project (EuroMOMO) suggested a pattern of excess all-cause mortality among those aged 15–64 years between the end of 2015 and week 14/2016. This may have been associated with influenza as well as other factors. The level of excess all-cause mortality was similar to the 2012–2013 winter season and slightly lower than that of the 2014–2015 winter season.

ECDC assessment

Most of the viruses antigenically and/or genetically characterised so far have been similar to those recommended for inclusion in the trivalent or quadrivalent vaccines for this season in the northern hemisphere. There are no indications among the majority of currently circulating seasonal influenza viruses of reduced susceptibility to neuraminidase inhibitors oseltamivir or zanamivir. Recommendations on the composition of the seasonal influenza vaccines for the 2016–2017 season in the northern hemisphere call for replacement of the A(H3N2) component with a more recent virus and inclusion of a B/Victoria-lineage virus in trivalent vaccines.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its report weekly on the Flu News Europe website. Risk assessments for the season are available from the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe websites.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 29 April 2016

Epidemiological summary

No new outbreaks have been detected in the EU since June 2015.

Web sources: ECDC measles and rubella monitoring | ECDC rubella factsheet | WHO epidemiological brief summary tables | WHO epidemiological briefs |Progress report on measles and rubella elimination |European Regional Verification Commission for Measles and Rubella Elimination (RVC) (2016)

ECDC assessment

The WHO has targeted the elimination of measles and rubella in the 53 Member States of the WHO European Region. Elimination is defined as the absence of endemic cases in a defined geographical area for a period of at least 12 months, in the presence of a well-performing surveillance system. Regional elimination can be declared after 36 or more months of the absence of endemic measles or rubella in all Member States. Although progress has been made towards elimination, this goal has not yet been achieved.

According to a meeting report by the European Regional Verification Commission for Measles and Rubella Elimination (RVC), endemic rubella transmission was interrupted in 32 WHO Europe member states in the period 2012-2014. The RVC declared that

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20 member states eliminated rubella during this period.

Actions

ECDC closely monitors rubella transmission in Europe by analysing the cases reported to the European Surveillance System and through its epidemic intelligence activities on a monthly basis. Twenty-four EU and two EEA countries contribute to the enhanced rubella surveillance. The purpose of the enhanced rubella monitoring is to provide regular and timely updates on the rubella situation in Europe in support of effective disease control, increased public awareness and the achievement of the 2015 rubella and congenital rubella elimination target.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 29 April 2016

Epidemiological summary

EU Member States

Romania - update

As of 28 April 2016, the number of measles cases reached 129 (58 were laboratory confirmed and 71 were epi-linked confirmed). Of these, 104 cases were unvaccinated. This outbreak is affecting communities who live on the border between Bistrita Nasaud and Cluj districts. Some families regularly travel abroad, (e.g. Italy) and they migrate between these two districts as well. Response activities are ongoing.

The UK

There has been over 60 cases of measles reported in the last two months with 48 of the cases aged 15 or older. PHE is calling on parents and young adults to consider the MMR vaccine.

Rest of the world
The Americas

USA

Local health authorities report an outbreak in Tennessee with two confirmed and three probable cases in the Memphis area. Molecular testing indicates the two confirmed cases are linked but the source has yet to be identified. Investigations to identify additional cases and a potential epidemiological link are ongoing.

Oceania

New Zealand

There is an outbreak in Waikato that started at the end of March with eight confirmed and five suspected cases. More cases expected to emerge over the coming weeks as one person was infected at the Tainui Kapa Haka Regional festival attended by 5000 people on 16 April 2016.

Africa

Several countries have reported high number of measles cases and deaths in Africa in 2016.

The countries affected as of 28 March are: Chad (5 832, 79 deaths), Liberia (1 341 cases, 34 deaths), Nigeria (3 804 cases, 26 deaths), Benin (85 cases, 0 deaths), Burkina Faso (1 258 cases, 10 deaths), Central African Republic (31 cases, 0 deaths) Côte d'Ivoire (491 cases, 3 deaths), Cameroon (1 338 cases, 6 deaths), DR Congo (3 976 cases, 13 deaths), Guinea (1,013 cases, 2 deaths), Mauritania (863 cases, 9 deaths), Mali (774 cases, 1 death), Niger (352 cases, 1 death), Senegal (560 cases, 0 deaths), Sierra Leone (351 cases, 1 deaths) and Togo (295 cases, 0 deaths)

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Web sources: ECDC measles and rubella monitoring | ECDC/Euronews documentary | MedISys Measles page | EUVAC-net ECDC | ECDC measles factsheet|4th Meeting of the European Regional Verification Commission for Measles and Rubella Elimination (RVC) (2016)

ECDC assessment

Measles is targeted for elimination in Europe. Elimination is defined as the absence of endemic cases in a defined geographical area for a period of at least 12 months, in the presence of a well-performing surveillance system. Regional elimination can be declared after 36 or more months of the absence of endemic measles or rubella in all Member States.

Although progress has been made towards elimination, this goal has not yet been achieved. At the fourth meeting of the Regional Verification Commission for measles and rubella in October 2015, as of the end of 2014, endemic measles transmission was interrupted in 32 Member States. Based on its conclusions for the period 2012-2014, the RVC could for the first time verify interruption over a 36-month period, and thereby declare that 21 Member States eliminated measles.

Actions

ECDC monitors measles transmission and outbreaks in EU and neighbouring countries in Europe on a monthly basis through enhanced surveillance and epidemic intelligence activities.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 29 April 2016

Epidemiological summary

WHO situation report

According to the WHO situation report 28 April 2016 ,'Although a decline in cases of Zika infection has been reported in some countries, or in some parts of countries, vigilance needs to remain high. At this stage, based on the evidence available, WHO does not see an overall decline in the outbreak'.

Brazil

According to the Brazilian health authorities, in 2016, as of 2 April there have been 91 387 probable cases of Zika virus in Brazil (incidence rate 44.7 cases / 100,000 inhabitants.) distributed in 1 359 municipalities. Of these, 31 616 were confirmed.

Between October 2015 and as of 23 April 2016, Brazil reported 7 228 suspected cases of microcephaly from 1 359 municipalities in all states and in the Federal District. Of these cases, 1 198 are reported as confirmed cases of microcephaly with 194 having laboratory confirmation of Zika virus infection. Of the remaining cases, 2 320 were investigated and discarded as they did not fit the case definition, while 3 710 cases are still under investigation.
Among the 7 228 suspected cases of microcephaly, 251 intrauterine or neonatal deaths were reported. Of these, 54 cases were investigated and confirmed (microcephaly and/or central nervous system malformations).

Congenital zika syndrome and GBS

As of 28 April 2016, microcephaly and other foetal malformations potentially associated with Zika virus infection or suggestive of congenital infection have been reported in seven countries (Brazil, Cape Verde, Colombia, French Polynesia, Martinique, Marshall Islands and Panama). Two additional cases, each linked to a stay in Brazil, were detected in Slovenia and the United States of America. One more case was reported in a returning traveller from the affected countries in the United States of America. In the context of Zika virus circulation, 13 countries and territories worldwide have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

Imported cases to Europe

As of 28 April 2016, ECDC has recorded 452 imported cases in 17 EU/EEA countries. Twenty-three of the imported cases are pregnant women. In addition, one confirmed case was published following the diagnosis in a Slovenian hospital. The number of imported cases reported is not based on a systematic reporting surveillance systems hence cannot be considered exhaustive. As of 28 April 2016, sixteen cases of non-vector-borne transmission of Zika virus, probably through sexual transmission have been reported by nine countries: Argentina (1), Chile (1), France (1), Italy (1), New Zealand (1), Portugal (in the Autonomous Region of Madeira) (1), Peru (1), Canada (1) and the United States of America (8).

EU's Outermost Regions and Territories

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Martinique: As of 28 April 2016, 20 980 suspected cases have been reported, an increase of 1 600 since last week. Since the beginning of the outbreak to 28 April 2016, two microcephaly cases and one additional congenital abnormality have been reported with confirmed Zika virus infection. Additionally, 14 cases with neurological complications have been detected in Zika virus confirmed cases.

French Guiana: As of 28 April 2016, 4 860 suspected cases have been reported, an increase of 300 since last week. Three cases with neurological complications have been identified since the beginning of the outbreak.

Guadeloupe: As of 28 April 2016, 2 099 suspected and 412 laboratory-confirmed cases have been reported, an increase of 418 suspected and 72 laboratory-confirmed cases since last week. One case with neurological complications has been reported since the beginning of the outbreak.

St Martin: As of 28 April 2016, 212 suspected and 61 laboratory-confirmed cases have been reported, an increase of 29 suspected and 7 laboratory-confirmed cases since last week. One case with neurological complications was reported, however this can not directly been attributed to Zika.

St Barthélemy: As of 28 April 2016, one case has been confirmed.

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

ECDC assessment

Based on a growing body of research, there is scientific consensus that Zika virus is a cause of microcephaly and GBS. Several studies have documented steps in the chain of an intrauterine infection; from symptomatic Zika-like infection in a pregnant mother residing in a Zika-affected area, to detection of microcephaly with brain calcifications in the foetus, and detection of Zika virus either in the amniotic fluid, in the cerebrospinal fluid of the newborn, or in the central nervous system of an aborted foetus or a dead newborn.

The magnitude of the risk that Zika virus infection during pregnancy will result in malformations in the foetus is under investigation, but remains unknown at present.

Considering the growing body of evidence of adverse pregnancy outcomes associated with Zika virus infection, ECDC recommends that pregnant women postpone non-essential travel to Zika-affected areas. In addition, in order to protect pregnant women, male travellers returning from affected areas should consider using a condom with a pregnant partner until the end of pregnancy, or for six months with partners at risk of getting pregnant. This precautionary advice is based on limited evidence and will be revised as more information becomes available.

The spread of the Zika virus epidemic in the Americas is likely to continue as the vectors (*Aedes aegypti* and *Aedes albopictus* mosquitoes) are widely distributed there.

With the spread of the Zika virus, the likelihood of travel-related cases in the EU is increasing. As neither treatment nor vaccines are available, prevention is based on personal protection measures similar to those that are applied against dengue and chikungunya infections.

Actions

ECDC publishes an epidemiological update every Friday and maps with information on countries or territories which have reported confirmed autochthonous cases of Zika virus infection.

ECDC published an update of the rapid risk assessment on 11 April 2016 and has updated the ECDC Zika page with Frequently Asked Questions.

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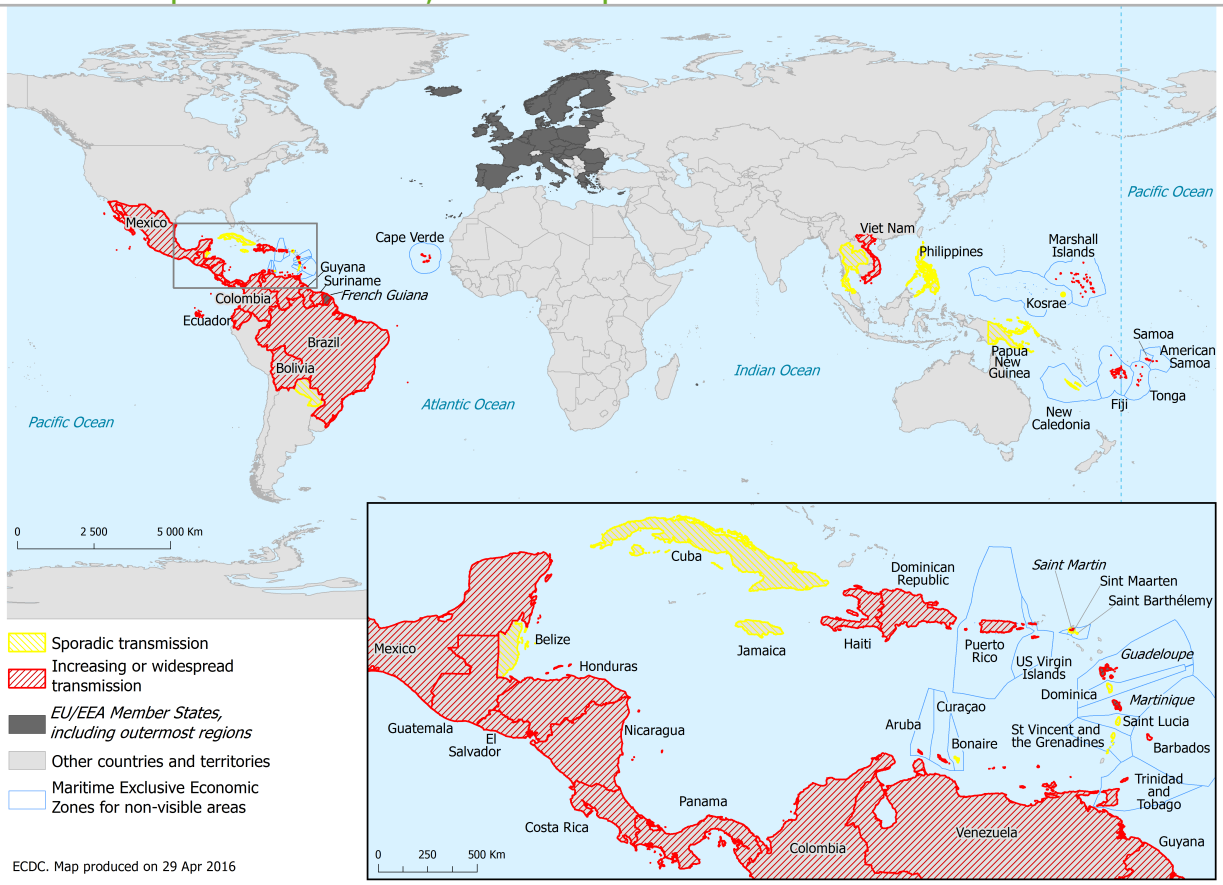
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months, as of 29 April 2016



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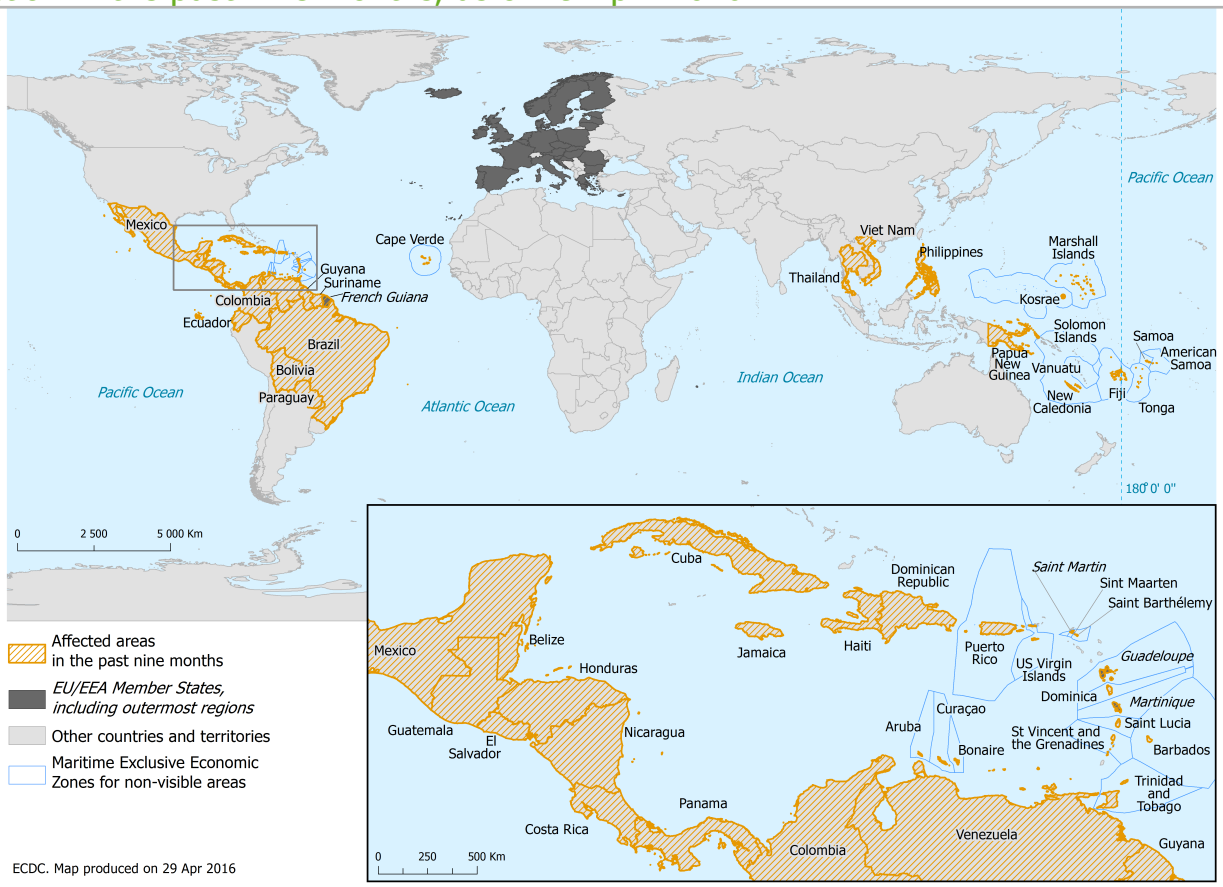
Countries and territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months, as of 29 April 2016



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 29 April 2016

Epidemiological summary

In 2016, twelve cases of wild poliovirus type 1 (WPV1) have been reported, compared with 23 cases for the same period in 2015. The cases were detected in Pakistan (eight cases) and in Afghanistan (four cases).

As of 20 April 2016, three cases of circulating vaccine-derived poliovirus (cVDPV) have been reported to WHO in 2016, all from Laos. There was one cVDPV case during the same period in 2015.

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

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polio outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases.

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.

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 29 April 2016

Epidemiological summary

Between the end of February 2016 and 10 April, there have been seven confirmed and three probable cases of EVD in N'Zerekore, Guinea. Of these cases, eight have died. On 10 April, WHO reported three cases in Liberia linked to the Guinean cluster. Of these, one was fatal. Investigations suggest that the recent flare up in Guinea is linked to an EVD survivor and not to a new introduction from the animal population.

Official WHO figures as of 24 April 2016:

- **Guinea**: 3 804 cases including 2 536 deaths. The country was declared EVD-free on 29 December 2015. However, between the end of February and 10 April 2016, seven confirmed and three probable sporadic cases have been reported by WHO;
- **Liberia:** 10 666 cases, including 4 806 deaths. Liberia was declared EVD-free on 14 January 2016. However, between the end of March and 10 April 2016, three confirmed cases have been reported by WHO;
- **Sierra Leone**: 14 122 cases, including 3 955 deaths. The country was declared EVD-free on 7 November 2015. However, two epidemiologically linked sporadic cases were reported on 14 and 20 January 2016.

Seven countries have reported an initial case or localised transmission: Nigeria, Senegal, the USA, Spain, Mali, the UK and Italy.

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 | media Liberia | WHO | media

ECDC assessment

The detection of new sporadic cases and small clusters of cases in Guinea and Liberia is not unexpected and highlights the importance of maintaining heightened surveillance and early detection of cases during the coming months as the risk of additional small outbreaks remains. Sporadic cases have been identified previously and are likely to be the result of the virus persisting in survivors even after recovery.

In Guinea, following the recent cases, the vaccination of contacts has started while the preparation of the vaccination campaign in Liberia is on-going.

Actions

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An epi-update was published on 23 March 2016.

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.

Outbreak of yellow fever - Africa - 2016

Opening date: 17 March 2016 Latest update: 29 April 2016

Epidemiological summary

Angola
Since the initial cases were detected in Luanda province, Angola, there has been a rapid increase in the number of suspected cases recorded since mid-January 2016. Local transmission is no longer restricted to Luanda province. Close to six million people in Luanda have benefited from a large-scale vaccination campaign since the beginning of February using vaccines made available from the yellow fever vaccine emergency stockpile made available through the International Coordinating Group (ICG) for Vaccine Provision, with support from Gavi, the UN Central Emergency Response Fund (CERF) and a vaccine donation from Brazil. Approximately 10 million doses of the vaccine are now available.

Democratic Republic of Congo (DRC)
As of 26 April, 37 yellow fever cases (16 confirmed and 21 probable) were reported in DRC. All 16 confirmed cases previously travelled to Angola. The results for the 21 probable cases are pending. In addition, at least two probable cases of locally-acquired yellow fever infection have been reported in Kinshasa and in Matadi (Kongo central province).

Uganda
On 9 April 2016, Uganda notified WHO of yellow fever cases in the south-western district of Masaka. On 21 April, one yellow fever case was confirmed in the eastern district of Rukungiri. As of 27 April, 39 suspect cases of yellow fever cases have been reported in seven districts. Six cases have been laboratory confirmed (five in Masaka and one in Rukungiri). Based on available information, the clusters of yellow fever in Uganda do not seem to be epidemiologically linked to Angola.

Web sources: ECDC factsheet / WHO yellow fever page | MoH |WHO AFRO |WHO SitRep 28 April 2016

ECDC assessment

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WHO estimates that 508 million people are living in 31 African countries at risk for transmission of yellow fever. Therefore, the large outbreak of yellow fever in Angola is of concern with regards to the risk of introduction of the virus through viraemic travellers to countries at risk of transmission, especially in neighbouring countries. Yellow fever in an urban setting is considered as a public health emergency that may result in a large number of cases. Vaccination is the single most important measure for preventing yellow fever. The outbreak in Angola is not yet controlled and is currently expanding to additional provinces challenging the ongoing mass vaccination campaign. The control of the outbreak in Angola is needed in order to prevent further spread in the region and beyond. Concerns exist that if yellow fever should spread to other countries in Africa and Asia there would be a need to further prioritise vaccine supplies, which would interrupt routine immunisation programmes in some countries.

Proof of vaccination is required for all travellers aged 1 year and above entering Angola. WHO recommends vaccination for all travellers older than 9 months of age in areas where there is evidence of persistent or periodic yellow fever virus transmission. European citizens travelling to or residing in Angola should be vaccinated against yellow fever as per their national health authorities' recommendations. Vaccine should be administered at least 10 days before travelling.

The competent vector for yellow fever, the *Aedes aegypti* mosquito, is not present in the continental EU but is present in the island of Madeira, an autonomous region of Portugal where the weather conditions are not currently suitable for mosquito activity.

Actions

ECDC published a rapid risk assessment on 25 March 2016 and and an epidemiological update on 1 April.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 29 April 2016

Epidemiological summary

There have been reports of emerging episodes of communicable diseases affecting the refugee population, including acute respiratory tract infections, louse-borne relapsing fever, cutaneous diphtheria, scabies, measles, meningococcal meningitis, shigellosis, typhoid fever, hepatitis A, tuberculosis and malaria.

ECDC assessment

Refugees are currently not a threat to Europe with respect to communicable diseases, but they are a priority group for communicable disease prevention and control efforts as they are more vulnerable. The risk that refugees arriving in Europe will contract communicable diseases has increased because of the current overcrowding at reception facilities. The risk of infectious diseases varies with the seasons, particularly for respiratory, gastrointestinal and mosquito-borne diseases. The risk of infectious diseases in refugees increases with overcrowding and lack of access to water and sanitation. Low vaccination coverage for some diseases, along with low immunity for others, may result in susceptible refugees developing 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 poor hygiene levels are mostly encountered in certain reception facilities for refugees.

Actions

Following the request of the Greek authorities an ECDC senior expert has been in the field to review the risk assessment for communicable diseases on the basis of the current situation, supported the revision of the protocol for Point of Care public health surveillance for refugees, and advised on response procedures and priority settings. Two EPIET fellows were deployed to Greece on 13 April 2016 for one month to support communicable disease surveillance and response operations.

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 published on the ECDC website in September 2015.

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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.

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

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