COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 18, 1-7 May 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

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 17/2016, influenza activity continued to decrease in the WHO European Region. Most countries (92%) reported low intensity, with lower numbers of specimens being collected and fewer testing positive for influenza virus (14%) than in the previous week (22%). As is often seen late in the northern hemisphere's influenza season, a shift towards circulation of type B influenza virus has occurred, accounting for 85% in sentinel sources and 76 % in non-sentinel sources in week 17/2016. Fewer cases of severe disease were reported than in previous weeks, although numbers varied between countries and most severe cases were associated with A(H1N1)pdm09 infection in people aged 15-64 years.

Non EU Threats

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 5 May 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.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 5 May 2016

As of 5 May 2016, 51 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:

Paraguay

As of epidemiological week 15, the Paraguay Ministry of Health has reported seven confirmed and 102 cases of Zika virus infection.

Dominica

The Pan American Health Organization (PAHO) reported 43 suspected and 18 confirmed cases of Zika virus infection between the first confirmation of Zika virus in Dominica on 15 March 2016 and 28 April 2016.

Peru

As of 2 May, the Peruvian Ministry of Health reports nine cases of Zika imported from Venezuela, Colombia, Brazil and Ecuador. In addition, four autochthonous cases have been reported, including one case of sexual transmission in the capital Lima.

Grenada

The Trinidad-based Caribbean Public Health Agency (CAPHA) reported the first autochthonous Zika case in Grenada.

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 (1 271 cases), Cape Verde (2 cases), Colombia (7 cases), French Polynesia (8 cases), Martinique (3 cases), Marshall Islands (1 case), Panama (5 cases) and United States of America (2 cases). 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.

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013 Latest update: 5 May 2016

Chikungunya virus infections are reported from increasingly wider areas of the world. An outbreak of chikungunya virus infection started in the Caribbean in December 2013, later spreading to the Americas and the Pacific region. In 2015, there remained ongoing outbreaks in these regions (especially in the Pacific region), but at a lower level compared with the same period last year. So far this year, no autochthonous cases of chikungunya virus infection have been detected in Europe. Introduction of the disease in Europe in areas where there is a competent vector is possible.

➔Update of the week

Ongoing outbreaks are reported in the Caribbean, the Americas and the Pacific region.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 5 May 2016

Dengue fever is one of the most prevalent vector-borne diseases in the world. It affects an estimated 50 to 100 million people each year, mainly in the tropical regions of the world. The identification of sporadic autochthonous cases in non-endemic areas in recent years has already highlighted the risk of locally-acquired cases occurring in EU countries where the competent vectors are present.

➔Update of the week

There are several ongoing outbreaks of dengue fever across the globe.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

Outbreak of yellow fever - Africa - 2016

Opening date: 17 March 2016 Latest update: 5 May 2016

An outbreak of yellow fever in Angola started in December 2015 in the municipality of Viana, Luanda province and spread to 16 provinces of Angola. A mass immunisation campaign is taking place. The neighbouring Democratic Republic of Congo (DRC) reports imported cases of yellow fever and on 2 May the first confirmed autochthonous transmission in Kinshasa, the capital. Media reported one imported case in Namibia. An outbreak of yellow fever not linked to the outbreak in Angola has been reported in several districts in Uganda.

➔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

On 2 May, WHO issued an update on the yellow fever outbreak in Uganda. Between 26 March and 18 April, health authorities reported 30 yellow fever cases, including seven deaths. Among them, six cases and two deaths were laboratory-confirmed.

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.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 5 May 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 Pakistan. 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.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

II. Detailed reports

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

Opening date: 2 October 2015

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 05–07/2016. The countries first affected were in general located in the eastern part of the Region. Data from the 18 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 that of 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.

Public health risks - Multistate - Refugee movements

Opening date: 4 November 2015 Latest update: 5 May 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.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

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.

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.

Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 5 May 2016

Epidemiological summary

WHO situation report

According to WHO, '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 30 April 2016, Brazil reported more that 7 343 suspected cases of microcephaly from all states and in the Federal District. Of these cases, 1 271 are reported as confirmed cases of microcephaly, 203 of which had laboratory confirmed presence of Zika virus infection. Of the remaining cases, 2 492 were investigated and discarded as they did not fit the case definition, while 3 580 cases are under investigation.
Among the 7 343 suspected cases of microcephaly, 267 intrauterine or neonatal deaths were reported. Of these, 57 cases were investigated and confirmed (microcephaly and/or central nervous system malformations).

Colombia

Since the start of the epidemic in Columbia in epidemiological week 40 of 2015, as of week 16 of 2016, 75 187 cases (3 752 lab-confirmed, 71 435 suspected) of Zika virus infection were reported in Colombia. Between weeks 1 and 16, Colombia reported 44 cases of microcephaly. Of these, 4 have been confirmed as associated with Zika virus infection, 20 cases were discarded and 26

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
Link to ECDC CDTR web page – including related PowerPoint© slides

cases were under investigation.

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 5 May 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 5 May 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

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. Guadeloupe has declared Zika as an outbreak on 29 April 2016.

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.

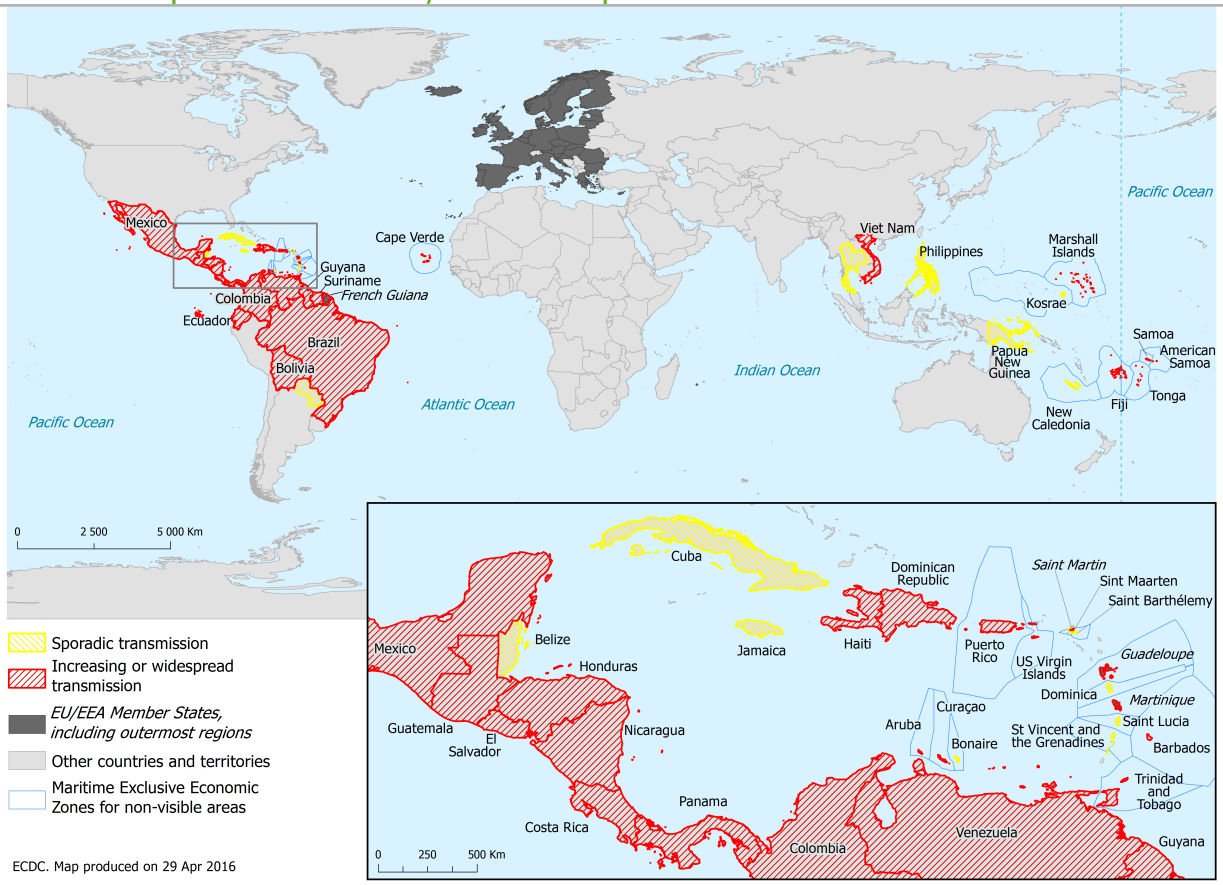
European Centre for Disease Prevention and Control (ECDC)
Postal address: ECDC 171 83 Stockholm, Sweden
Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu
Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

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.

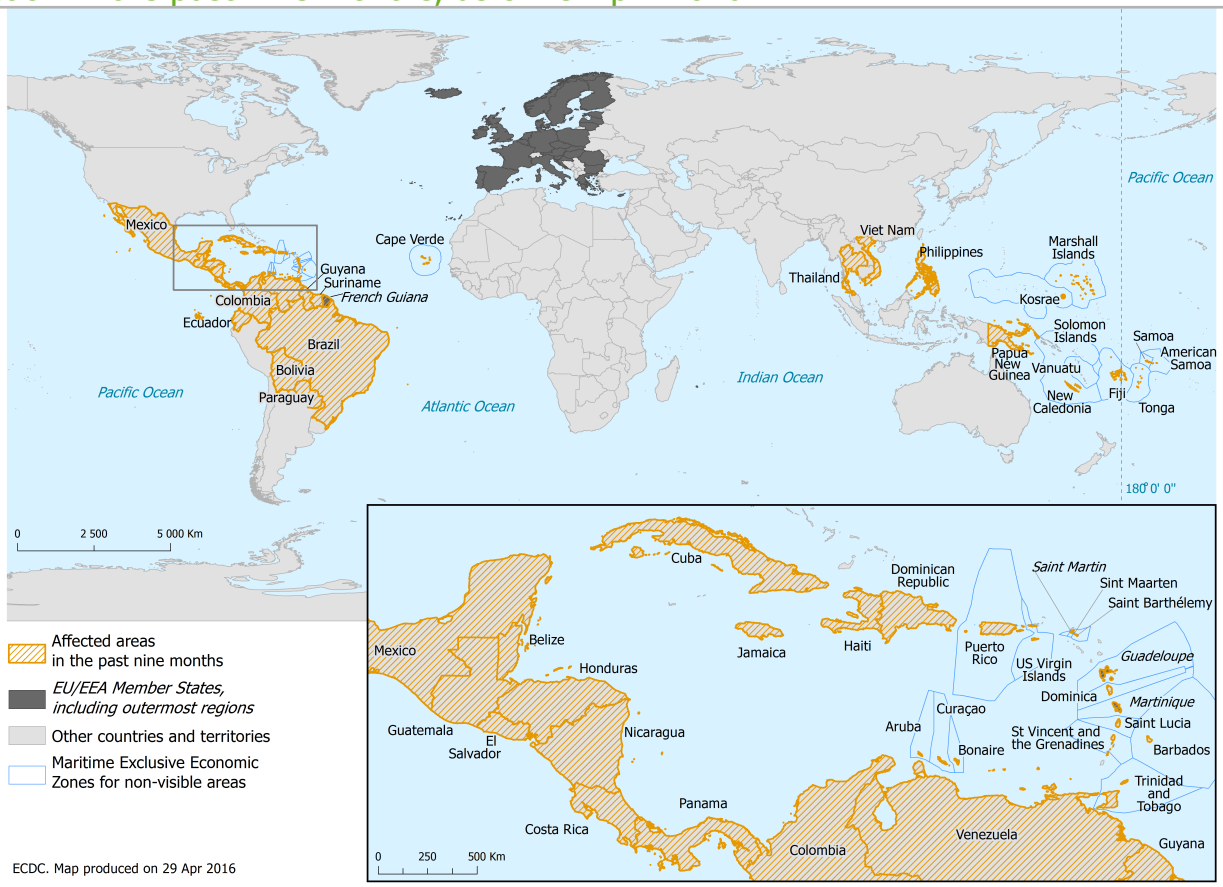
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months, as of 29 April 2016



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
Link to ECDC CDTR web page – including related PowerPoint© slides

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



Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013 Latest update: 5 May 2016

Epidemiological summary

Europe

No autochthonous cases of chikungunya virus infection have been reported in EU Member States so far in 2016.

Americas

Since the beginning of the year and as of 29 April 2016, the Pan American Health Organization (PAHO) has reported 74 204 suspected cases and 8 319 confirmed cases, including 12 fatalities, in the Americas and Caribbean. This is an increase of 37 608 suspected cases and 6 719 confirmed cases since the last update on 6 April when 36 596 suspected and 1 600 confirmed cases were reported.

The most affected countries are Brazil (32 858 cases), Colombia (12 379), Honduras (7 978), Bolivia (5 887) and El Salvador (4 483). Compared with the same time-period last year PAHO has reported more than 200 000 cases of chikungunya virus infection across the Americas and Caribbean region.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

In the USA, media quoting local health authorities report the first locally-acquired probable case of chikungunya virus infection in Texas. This case initially visited a healthcare facility in November 2015 and was tested in January 2016. However, it was not reported to the health department until April 2016. The investigation has since determined that the case was acquired locally.

Pacific
One imported case with travel history to Fiji was reported by New Zealand ESR (Institute of Environmental Science and Research Ltd) between 16 and 22 April. From 20 February to 22 April 2016, there have been eight imported cases with travel history to Fiji reported by New Zealand ESR, according to PACNET.

Web sources: PAHO update| ECDC Chikungunya | WHO Factsheet | Medisys page |

ECDC assessment

Outbreaks are still ongoing in the Caribbean, Americas and Pacific but at a lower level compared with the same period last year, especially in the Pacific region. Continued vigilance is needed to detect imported cases of chikungunya in tourists returning to the EU from these regions.

Europe is vulnerable to the autochthonous transmission of chikungunya virus. The risk for onward transmission in Europe is linked to importation of the virus by viraemic patients in areas with competent vectors (*Aedes albopictus* in mainland Europe, primarily around the Mediterranean, and *Aedes aegypti* on Madeira). Autochthonous transmission from an imported viraemic chikungunya case is possible during the summer season in the EU.

Actions

ECDC published an epidemiological update on 16 September regarding the false positive case of chikungunya in Valencia province, Spain. Despite the fact that autochthonous transmission has not been confirmed in Spain, the conclusions of ECDC's rapid risk assessment published on 24 August remain valid.

ECDC monitors the global chikungunya situation on a monthly basis.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 5 May 2016

Epidemiological summary

Europe
No autochthonous dengue cases have been reported so far in 2016.

French overseas department and region
Increased circulation of dengue virus has been detected on the island of **Réunion**. Around 100 locally-acquired dengue cases have been notified since the end of 2015, according to media quoting local health authorities.

Asia
In **Pakistan**, Sindh province has reported high dengue activity during the past month with the majority of cases recorded in Karachi. Since the start of the year and as of 21 April, 430 cases have been reported in Sindh province. In **India**, Pune and Maharastra states report increased dengue and chikungunya activity with water storage sites cited as contributing factors for vector breeding.

The number of dengue fever infections has risen more than 80% in Ho Chi Minh City in **Vietnam** during the first quarter of 2016 compared to the same time period last year. As of 26 April, Kuala Lumpur in **Malaysia** has registered nearly 43 000 cases so far in 2016, which is around 5 000 more cases compared with the same time period in 2015. In **Singapore**, the number of weekly reported dengue cases still remains high for this time of year with 232 dengue cases reported in the week ending 23 April. There have been four dengue related deaths so far this year, the same number as the whole of 2015, according to the National Environmental Agency (NEA).

Caribbean
In **Dominican Republic**, between January and March 2016, 231 cases of dengue fever were registered. The most affected localities are La Canela, Hato del Yaque and Santiago de los Caballeros.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

Americas
Since the beginning of the year and as 29 April 2016, the Pan American Health Organization (PAHO) has reported nearly 1.3 million probable and confirmed cases of dengue fever in the Americas and Caribbean region. Among these cases, 342 fatalities have been reported. The most affected countries are **Brazil** (908 759 cases), **Colombia** (112 2038) and **Argentina** (85 453).

In Chile, there is an ongoing dengue outbreak on **Easter Island** with 28 confirmed cases reported to date, according to media.

On 27 April, the dengue outbreak in **Hawaii** was declared over after no outbreak-related dengue cases were reported with disease onset in the last 30 days, according to a statement from the Hawaii State Department of Health. Two hundred and sixty-four cases were reported as part of this outbreak.

Pacific region and Australia
There are ongoing or decreasing outbreaks of DENV-1 in **French Polynesia** and **New Caledonia**, according to PACNET.

In **Australia**, as of 30 April 2016, 802 laboratory-confirmed dengue cases have been recorded nationally, which is in line with the seasonal trend (2011-2015), according to WPRO. There are currently increasing DENV-2 outbreaks in Pallarenda, Charters Towers, Torres Strait, and a DENV-4 outbreak in Cairns, according to Queensland Health. According to the media, for the first time *Aedes albopictus* has been identified as having transmitted locally-acquired cases of dengue fever in Torres Strait. To date, 19 cases have been reported as part of this outbreak.

Africa
No data available.

WHO
On 16 April, the WHO Strategic Advisory Group of Experts (SAGE) on immunisation recommended that the Dengvaxia vaccine be considered for use in geographic settings with high endemicity.

Web sources: ECDC Dengue | Healthmap Dengue | MedISys | ProMed Asia and Pacific | ProMed Americas | WPRO |

ECDC assessment
Introduction and autochthonous transmission of dengue fever in Europe is possible where and when competent vectors are present. This underlines the importance of surveillance and vector control in European countries that have competent vectors.

Actions
ECDC has published a technical report on the climatic suitability for dengue transmission in continental Europe and guidance for the surveillance of invasive mosquitoes.

ECDC monitors the dengue situation worldwide on a monthly basis.

Outbreak of yellow fever - Africa - 2016
Opening date: 17 March 2016 Latest update: 5 May 2016

Epidemiological summary

Angola
Since mid-January when the initial cases were detected in Luanda province, Angola, the number of suspected cases increased rapidly. Local transmission is no longer restricted to Luanda province. As of 28 April, the Angolan Ministry of Health reported 2 143 suspected cases of yellow fever, of which 661 are confirmed, and 277 deaths. Of the confirmed cases, 438 (66.3%) are from Luanda. Confirmed cases have been reported in 16 of Angola's 18 provinces. Close to six million people in Luanda have benefited from a large-scale vaccination campaign since the beginning of February using vaccines 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)
On 2 May, the Ministry of Health issued an update on the yellow fever outbreak. Between the beginning of January 2016 and 2

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
Link to ECDC CDTR web page – including related PowerPoint© slides

May 2016, 459 cases have been reported by health authorities, including 45 deaths. These cases are reported from 89 health zones across the country.
Among these 459 cases, 39 have been confirmed by the Pasteur Institute in Dakar, of which 37 had a recent travel history to Angola: 31 were reported in Kongo Central province and six were reported in Kinshasa, the capital of DRC. One case without travel history has been confirmed in Kinshasa and authorities are reporting six additional suspected cases around this confirmed autochthonous case. One probable autochthonous case is under investigation in Kongo Central province.
A response plan, involving the Ministry of Health, WHO and NGOs has been developed. This plan includes a vaccination campaign of eight health zones and at least two districts in Kinshasa and the six districts of Kongo Central.

Namibia
On 29 April, media quoting the Ministry of Health reported one confirmed case of yellow fever. In addition, according to another media source, a suspected case of yellow fever was reported last week at the Engela district hospital in the Ohangwena region. The patient had travelled to Lubango in Angola and was immediately transferred to the Oshakati Hospital but was discharged on 27 April.

Uganda
On 2 May, WHO issued an update on the yellow fever outbreak in Uganda. Between 26 March and 18 April, health authorities reported 30 yellow fever cases, including seven deaths. Among them, six cases and two deaths were laboratory-confirmed. The 30 cases are reported in the districts of Masaka, Rukungiri, Ntungamo, Bukumansimbi, Kalungu, Lyantonde, and Rakai. None of the cases has recent travel history to Angola.

Web sources: ECDC factsheet / WHO yellow fever page | MoH |WHO AFRO |WHO SitRep 28 April 2016 | WHO-Uganda | MoH Uganda | media Uganda | WHO-DRC | WHO-WER | MoH-DRC | media namibia

ECDC assessment

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.

In DRC, the confirmation of an autochthonous transmission in the capital is also a great concern as this city is highly populated and located a few kilometres away from the highly populated city of Brazzaville, capital of the Republic of Congo.

Proof of vaccination is required for all travellers aged 1 year and above entering Angola and DRC. 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.

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.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

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

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.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

On 10 September 2014, ECDC published an EU case definition.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 5 May 2016

Epidemiological summary

In 2016, thirteen 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 (nine cases) and in Afghanistan (four cases).

As of 3 May 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 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.

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
Link to ECDC CDTR web page – including related PowerPoint© slides

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
Link to ECDC CDTR web page – including related PowerPoint© slides