COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 14, 3-9 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: 8 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 13/2016, despite decreasing trends being reported by 27 countries influenza was reported as widespread, largely in the south-western part of the Region. The proportion of sentinel specimens testing positive for influenza virus remained high at 43% and 16 countries still reported positivity rates of more than 30%. Of the positive specimens, 33% (compared with 46% for week 12/2016) contained type A viruses, with A(H1N1)pdm09 viruses accounting for 84% of those subtyped. Proportion of B viruses among the positive sentinel specimens was 67%. Most influenza B viruses were not ascribed to a lineage, but of those that were, 94% were B/Victoria lineage

Haemolytic uraemic syndrome (HUS) cases in young children – Romania

Opening date: 16 February 2016 Latest update: 8 April 2016

Twenty five cases were identified as associated with an outbreak of Shiga toxin-producing *Escherichia coli* (STEC) O26 in Romania (24) and in Italy (1). Of these 25 cases, 19 were hospitalised for haemolytic uraemic syndrome (HUS), and three of the cases died. Investigations suggest a persistent common source outbreak, possibly associated with different vehicles of infection and possibly multiple strains contaminating the same or multiple sources.

➔Update of the week

No new update during the past week.

Non EU Threats

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Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 7 April 2016

Since the beginning of 2014, autochthonous Zika cases have been reported in the Pacific region. In addition, autochthonous transmission of Zika virus has been reported in Brazil since April 2015. As of 7 April 2016, 48 countries and territories have reported autochthonous cases of Zika virus infection during the past nine months. 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 following the Zika virus outbreak in the north-eastern states. French Polynesia reported an increase in cases of central nervous system malformations during an outbreak of Zika virus in 2014–2015. Since 1 February 2016, Zika virus infection and the clusters of microcephaly cases and other neurological disorders constitute a PHEIC. 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:

• **Saint Lucia:** On 7 April, the Ministry of Health confirmed the first two autochthonous cases of Zika virus infection.

• **Fiji:** The Pacific Public Health Surveillance Network has reported 15 Zika virus cases since the end of 2015.

• **Colombia**: Between week 40 2015 and as of the 26 March 2016, there have been 2 603 confirmed and 58 790 clinically suspected Zika virus cases in Colombia. Since week 5, the number of reported Zika virus cases in the country has been declining, according to the Ministry of Health.

• **Vietnam:** On 5 April, the Ministry of Health reported two confirmed autochthonous cases of Zika virus infection, one case in Khánh Hòa Province with disease onset on 26 March and one case in Ho Chi Minh City with disease onset on 29 March.

Publication
On 5 April, *the Lancet* published an article about a case of a 32-year-old male whose Zika virus infection was identified in January in the Toulouse University Hospital (France). He presented with clinical symptoms typical of an arbovirus infection two days after returning to France from Brazil and French Guyana. He completely recovered in a few days and further blood, urine, and semen samples were collected 2 weeks after diagnosis. The viral load in the semen was roughly 100 000 times that of his blood or urine more than 2 weeks after symptom onset. The explanation for this difference is unknown and needs further investigation.

Update on the observed increase of congenital Zika syndrome and other neurological complications
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, according to WHO.

So far only French Polynesia, Brazil and Colombia have reported an increase in Zika congenital syndrome.

Brazil
Between 22 October 2015 and 2 April 2016, 6 906 cases of microcephaly and/or central nervous system (CNS) malformations were reported by Brazil. This contrasts with the period from 2001 to 2014, when an average of 163 microcephaly cases were recorded nationally per year. Of the 6 906 cases of microcephaly and/or CNS malformations reported in Brazil, investigations have been concluded for 2 860 cases, and 1 046 were suggestive of congenital infection. Microcephaly and/or CNS malformation cases have been detected in 21 out of 27 states in Brazil, but the reported increase is concentrated in the northeast region, according to WHO.

Among the 6 906 cases of microcephaly and/or CNS malformation reported in Brazil, 227 child deaths occurred after birth or during pregnancy (including miscarriage or stillbirth); 51 of these had microcephaly and/or CNS malformation suggestive of congenital infection, 148 remain under investigation and 28 were discarded.

Colombia
On 30 March, Colombia reported 50 live births with microcephaly between 4 January and 20 March 2016. This number represents an increase compared with the historical annual average expected (140 cases per year). Of the 50 cases registered, 18 were discarded.

So far, seven of the remaining 32 cases presented Zika virus positive results by real-time PCR, according to WHO.

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Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 8 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 25 November 2015, the Temporary Recommendations in relation to the PHEIC were extended for another three months. WHO recently declared wild poliovirus type 2 eradicated worldwide. The type 2 component of the oral polio vaccine is no longer needed and there are plans for a globally synchronised switch in April 2016 from the trivalent to bivalent oral polio vaccine which no longer contains type 2.

➔Update of the week

During the past week, WHO reported no new wild poliovirus type 1 (WPV1) cases and no new circulating vaccine-derived poliovirus (cVDPV) cases.

The third Outbreak Response Assessment in Madagascar found that the surveillance system is not yet strong enough to conclude that polio transmission has been interrupted. Thirty-nine high-risk districts have been identified to receive focused attention.

Outbreak of yellow fever - Angola - 2016

Opening date: 17 March 2016 Latest update: 8 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 other provinces of Angola. As of 30 March 2016, the Ministry of Health in Angola has reported 1 794 cases, including 198 deaths. Of these cases, 483 were laboratory-confirmed.

➔Update of the week

As of 4 April, imported cases of yellow fever have been reported in China (10), Kenya (2), the Democratic Republic of Congo (12) and Mauritania (1).

Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 8 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 30 March 2016, WHO has reported 28 610 cases of Ebola virus disease related to the outbreak in West Africa, including 11 308 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 15 January 2016, WHO reported a new sporadic case in Sierra Leone, and on 20 January, a second case, epidemiologically linked to the previous one. On 17 March 2016, WHO declared the end of the recent sporadic transmission of Ebola virus disease in Sierra Leone, 42 days after the last person confirmed to have Ebola virus disease in the country tested negative for the second time.

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 and as of 7 April 2016, six new confirmed and three probable cases of EVD have been reported in the prefectures of N'Zérékoré and Macenta in Guinea. According to WHO, initial tests suggest the newly reported cases are all part of a known transmission chain and not a new introduction from the animal population. On 1 April, WHO confirmed a new case of EVD in Liberia. Between 5 and 7 April, WHO reported two additional confirmed cases in Liberia, both are children of the initial above mentioned case in Liberia. this bring the number of recently reported cases from Liberia to three.

➔Update of the week

Following the ninth meeting of the Emergency Committee convened by the WHO Director-General under the IHR 2005 regarding the EVD outbreak in West Africa, the Committee declared that the situation no longer constitutes a Public Health Emergency of International Concern (PHEIC) and the temporary recommendations adopted should now be terminated.

Between 2 and 7 April, WHO confirmed two additional cases in Liberia who are relatives of the first Liberian case, reported last week, bringing the total number of cases to three.

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Influenza A(H5N1) and other strains of avian flu - Non EU/EEA countries

Opening date: 15 June 2005 Latest update: 7 April 2016

Highly pathogenic avian influenza viruses A(H5) of Asian origin are highly infectious for several bird species, including poultry. The human infections with influenza A(H5) viruses have been caused by influenza A(H5N1) virus in several non EU/EEA countries and by influenza A(H5N6) virus in China. Other avian influenza subtypes, including H7N7 and H9N2, have infected people sporadically. Many of these infections have been mild or even subclinical in humans, but some have been severe and have resulted in deaths.

ECDC is following the development of these viruses and is monitoring infections in humans.

➔Update of the week

No new human cases of A(H5N1) have been reported by WHO since 20 January 2016.

According to CIDRAP quoting the United Nations Food and Agriculture Organization (FAO) EMPRES (Global Animal Disease Information System) database, two more human A(H5N1) avian flu infections have been detected in Egypt, bringing the number of cases reported since 7 March 2016 to three.

According to WHO one additional laboratory-confirmed case of human infection with avian influenza A(H5N6) virus was detected in a 40-year-old female who lives in Huizhou City, Guangdong Province. She developed fever and cough on 20 February and was admitted to a local hospital on 22 February and is now in critical condition.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 7 April 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.

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013 Latest update: 7 April 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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 7 April 2016

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 7 April 2016, 752 cases have been reported to WHO, including at least 294 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

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During the past month, thirty new confirmed cases and eleven deaths have been reported to WHO.

On 18 March 2016, the National Health and Family Planning Commission (NHFPC) of China notified WHO of 29 additional laboratory-confirmed cases of human infection with avian influenza A(H7N9) virus, including 11 deaths.

Onset dates range from 17 January to 19 February. Cases range in age from 21 to 78 years, with a median age of 57 years. Of these 29 cases, 22 (76%) are male. The majority (24 cases, 83%) reported exposure to live poultry, slaughtered poultry, or live poultry markets; the exposure history of 5 cases is unknown or with no clear exposure to poultry. Cases were reported from 6 provinces and municipalities: Zhejiang (7), Hunan (7), Jiangsu (6), Guangdong (4), Fujian (3) and Shanghai (2).

Three clusters were reported:

The first cluster consists of two 35-year-old males (twin brothers) from Jiangsu Province, the onset dates are respectively 19 January and 1 February. Both have no clear known history of exposure to poultry.
The second cluster consists of a 29-year-old male from Zhejiang Province and a 56-year-old female (son and mother) from Fujian Province. The onset dates are 4 February and 15 February, respectively. Both have history of exposure to live poultry markets.
The third cluster consists of a 21-year-old female and a 26-year-old male (sister and brother) both from Jiangsu Province, the onset dates are 14 February and 19 February, respectively. The brother reported exposure to live poultry. The sister took care of her brother and has no known history of exposure to poultry.

On 18 March 2016, the Department of Health, Hong Kong Special Administrative Region notified WHO of a confirmed case of human infection with avian influenza A(H7N9) virus.
The patient is an 81-year-old woman with underlying illnesses, travelled to Kaiping, Guangdong Province on 5 March. She developed symptoms on 10 March and, between 14 and 16 March, was admitted to a hospital in Kaiping. Upon return to Hong Kong, on 17 March, the patient visited a hospital and was subsequently admitted for management of pneumonia. She tested positive for avian influenza A(H7N9) virus and was transferred to a different hospital for further management. Currently, she is in a stable condition.The patient visited a wet market in Kaiping in China.

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II. Detailed reports

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

Opening date: 2 October 2015 Latest update: 8 April 2016

Epidemiological summary

Influenza was still widespread in countries in the western part of the Region, but the majority of countries (88%) reported decreasing or stable trends.
While the proportion of sentinel specimens testing positive for influenza virus remained high, at 43% in week 13/2016, the total number of sentinel influenza virus detections has been decreasing since week 8/2016.
There is a shift towards influenza virus type B circulation; this is most prominent in sentinel sources, where 67% of detections were influenza virus type B. The proportion of influenza virus type B detections in hospitalised cases ranged between 14% and 22%, indicating that influenza virus type A was most often detected in severe cases.
The number of cases of severe disease was lower than in previous weeks but varied between countries. Most severe cases were associated with A(H1N1)pdm09 infection and were in people aged 15–64 years

Data from the 16 countries or regions reporting to the European monitoring of excess mortality for public health action project (EuroMOMO) suggest a pattern of excess all-cause mortality among those aged 15–64 years since the end of 2015. However, mortality among elderly people is within expected levels this 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.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its report weekly on the Flu News Europe website. Season risk assessments are available from ECDC and WHO.

Haemolytic uraemic syndrome (HUS) cases in young children – Romania

Opening date: 16 February 2016 Latest update: 8 April 2016

Epidemiological summary

The Romanian Ministry of Health reported an outbreak of HUS associated with STEC infection involving 24 individuals, of whom 22 are children aged 5 to 38 months and two are adults. Nineteen cases have been hospitalised for HUS, of whom three died.
Following initial environmental investigations, *E. coli* O26 was identified in soft cheese samples produced by a local company that sells traditional dairy items in Arges district. The factory has been closed and the product is no longer available on the market.
The cheese is reported to also have been distributed to Germany while cheese products from the same company have been exported to Belgium, Italy and Spain. An additional case was reported in Italy.

Web sources: Ministry of Health Romania ; Ministry of Health Italy

ECDC assessment

This is an outbreak of STEC O26 confirmed through serology. The epidemiological investigation suggests a single source. The microbiological information confirmed that 12 of 20 cases in Romania and Italy were positive for O26; however, it was inconclusive in identifying one single outbreak strain. The onset of symptoms in the cases were distributed over an eight-week period, suggesting a persistent common source outbreak, possibly associated with different vehicles of infection and possibly multiple strains contaminating the same or multiple source(s).

Actions

A joint rapid outbreak assessment with the European Food Safety Authority (EFSA) has been published.

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Zika - Multistate (world) - Monitoring global outbreaks

Opening date: 16 November 2015 Latest update: 7 April 2016

Epidemiological summary

As of 7 April 2016, ECDC has recorded 359 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.

Several of the EU's Outermost Regions and Territories continue to report autochthonous transmission:

Martinique: As of 7 April 2016, 16 650 suspected cases have been reported, an increase of 1 260 during the past week.

French Guiana: As of 7 April 2016, 3 620 suspected and 355 laboratory-confirmed cases have been reported, an increase of 430 suspected and 37 laboratory-confirmed cases during the past week.

Guadeloupe: As of 7 April 2016, 1 090 suspected and 191 laboratory-confirmed cases have been reported, an increase of 180 suspected and 52 laboratory-confirmed cases during the past week.

Saint Martin: As of 7 April 2016, 160 suspected and 42 laboratory-confirmed cases have been reported, this is an increase of three suspected and six laboratory-confirmed cases during the past week.

As of 7 April 2016, thirteen cases of non-vector-borne transmission of Zika virus, probably through sexual transmission have been reported by seven countries: Argentina (1), Chile (1), France (1), Italy (1), New Zealand (1), Portugal (in the Autonomous Region of Madeira) (1) and the United States of America (7).

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

ECDC assessment

There is growing evidence that transplacental infections with Zika virus can cause severe central nervous system damage and microcephaly. 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. However, a causal link between intrauterine Zika virus infection and adverse pregnancy outcomes has not yet been absolutely confirmed.

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 9 March 2016 and has updated the ECDC Zika page with Frequently

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Asked Questions.

Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months and past two months, as of 8 April 2016

ECDC

	Affected in the past 2 months	Affected in the past 9 months
American Samoa	Increasing or widespread	Yes
Aruba	Sporadic transmission	Yes
Barbados	Increasing or widespread	Yes
Bolivia	Increasing or widespread	Yes
Brazil	Increasing or widespread	Yes
Bonaire	Sporadic transmission	Yes
Cape Verde	Increasing or widespread	Yes
Colombia	Increasing or widespread	Yes
Cuba	Sporadic transmission	Yes
Costa Rica	Increasing or widespread	Yes
Curaçao	Increasing or widespread	Yes
Dominica	Sporadic transmission	Yes
Dominican Republic	Increasing or widespread	Yes
Ecuador	Increasing or widespread	Yes
El Salvador	Increasing or widespread	Yes
Fiji	Increasing or widespread	Yes
French Guiana	Increasing or widespread	Yes
Guadeloupe	Increasing or widespread	Yes
Guatemala	Increasing or widespread	Yes
Guyana	Increasing or widespread	Yes
Haiti	Increasing or widespread	Yes
Honduras	Increasing or widespread	Yes
Jamaica	Sporadic transmission	Yes
Kosrae	Sporadic transmission	Yes
Marshall Islands	Increasing or widespread	Yes
Martinique	Increasing or widespread	Yes
Mexico	Increasing or widespread	Yes
New Caledonia	Sporadic transmission	Yes
Nicaragua	Increasing or widespread	Yes
Panama	Increasing or widespread	Yes
Papua New Guinea	Sporadic transmission	Yes
Paraguay	Increasing or widespread	Yes
Philippines	Sporadic transmission	Yes
Puerto Rico	Increasing or widespread	Yes
Saint Lucia	Sporadic transmission	Yes
Saint Martin	Increasing or widespread	Yes
Saint Vincent and the Grenadines	Sporadic transmission	Yes
Samoa	Increasing or widespread	Yes
Sint Maarten	Sporadic transmission	Yes
Solomon Islands	No	Yes
Suriname	Increasing or widespread	Yes
Thailand	No	Yes
Tonga	Increasing or widespread	Yes
Trinidad and Tobago	Increasing or widespread	Yes
Vanuatu	No	Yes
Venezuela	Increasing or widespread	Yes
Viet Nam	Increasing or widespread	Yes
US Virgin Islands	Increasing or widespread	Yes

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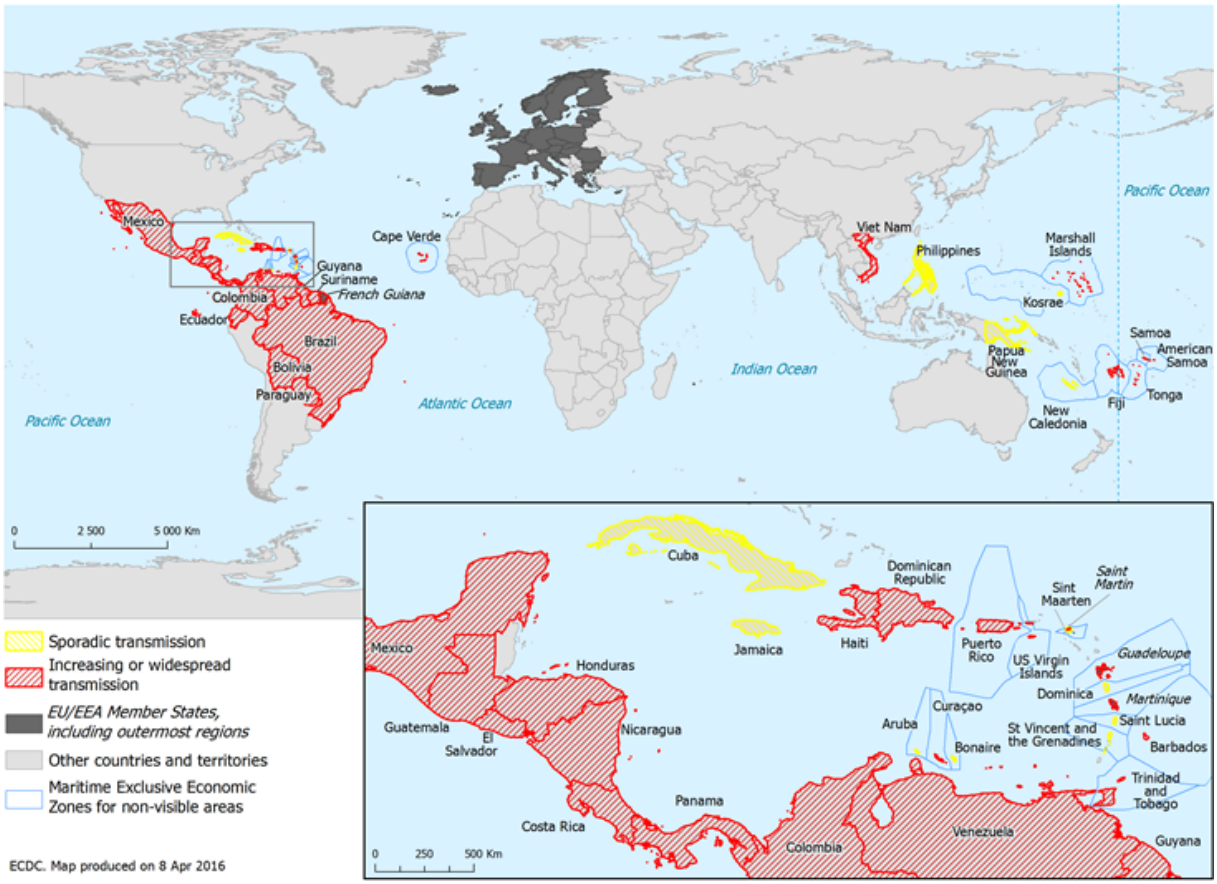
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past two months, as of 8 April 2016

ECDC



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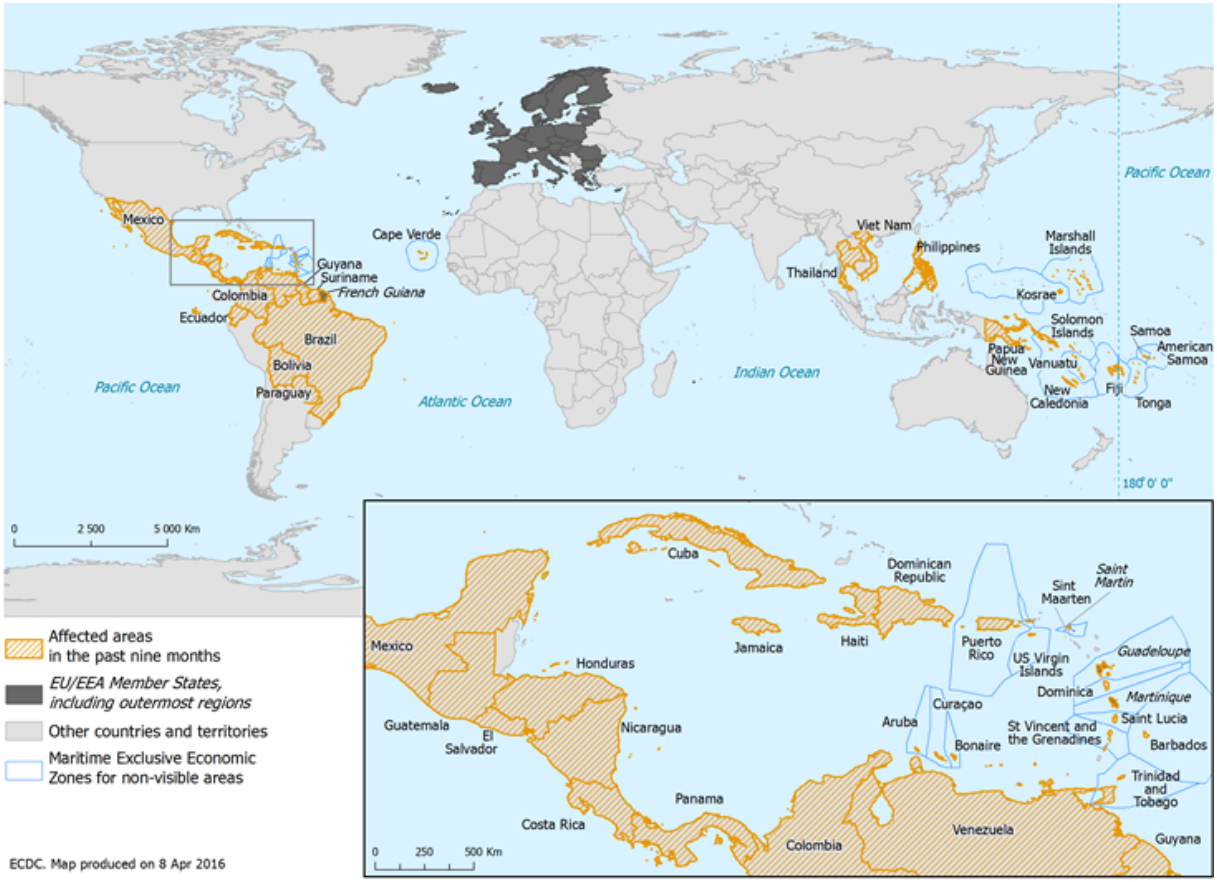
Countries or territories with reported confirmed autochthonous cases of Zika virus infection in the past nine months, as of 8 April 2016

ECDC



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

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

Epidemiological summary

In 2016, nine cases of wild poliovirus type 1 (WPV1) have been reported, compared with 22 cases for the same period in 2015. The cases were detected in Pakistan (seven cases) and in Afghanistan (two cases).

As of 7 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

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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.

Outbreak of yellow fever - Angola - 2016

Opening date: 17 March 2016 Latest update: 8 April 2016

Epidemiological summary

Since the initial cases were detected in Luanda province, 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. As of 30 March, 16 of 18 provinces across the country have reported suspected cases.

A mass vaccination campaign has been ongoing since February aiming to immunise 6.7 million people in Luanda province. According to a WHO situation report, as of 14 March 2016 administrative data indicate a vaccination coverage of 80% for the whole province of Luanda.

Web sources: ECDC factsheet / WHO yellow fever page |WHO DON | Media 1 | MoH

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. Therefore, additional cases in unvaccinated populations related to this urban outbreak should be expected, until a sufficient proportion of the susceptible population is immunised. 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.

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 continental Europe 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.

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Ebola Virus Disease Epidemic - West Africa - 2014 - 2016

Opening date: 22 March 2014 Latest update: 8 April 2016

Epidemiological summary

Official WHO figures from 30 March:

- **Liberia:** 10 675 cases, including 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 2015. On 1 April 2016, one new case of EVD was reported by WHO (not included in the overall figures as of 30 March).
- **Sierra Leone**: 14 124 cases, including 3 956 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.
- **Guinea**: 3 804 cases including 2 536 deaths. The country was declared EVD-free on 29 December 2015. However, since the end of February and as of 30 March 2016, six confirmed and three probable sporadic cases have been reported by WHO.

Guinea
According to the latest situation report published by WHO on 30 March, all six confirmed cases of EVD in Guinea are epidemiologically linked to a chain of three probable cases in the sub-prefecture of Koropara. All three probable cases died between 27 February and 15 March and were not buried safely. Additionally, five out of the six confirmed cases have died. Viral sequencing data indicate that virus present in the blood of one of the confirmed cases is closely related to virus that circulated in south-eastern Guinea in November 2014.

In total, 1 033 contacts linked to the cluster have been identified so far, 171 of whom are considered to be high risk. All but 10 contacts have been traced. Additional cases are likely because of the large number of contacts. Vaccination teams began vaccination of contacts and contacts of contacts on 22 March. One suspected case reported on 30 March is currently under observation in an Ebola treatment centre.

Liberia
On 1 April, WHO confirmed a new case of EVD in Liberia in a 30-year-old woman who died on 31 March while being transferred to a hospital in the capital Monrovia. Investigation showed that this case was coming from Guinea where her husband died recently. According to WHO, her 5-year-old child was confirmed positive for EVD on 5 April. Media reported that another son, a 2-year-old, was confirmed for EVD on 7 April. WHO reports that more than 100 contacts of the confirmed cases have been identified in Liberia and placed under voluntary medical observation.

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

ECDC assessment

The detection of new sporadic 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 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.

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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.

Influenza A(H5N1) and other strains of avian flu - Non EU/EEA countries

Opening date: 15 June 2005 Latest update: 7 April 2016

Epidemiological summary

From 2003 to 7 April 2016, 847 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection have been reported from 16 countries. Of these cases, 449 have died.

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

ECDC assessment

The identification of sporadic cases in Egypt is not unexpected as avian influenza A(H5N1) viruses are known to be circulating in poultry in the country.

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. The viruses remain poorly adapted to humans and transmission from birds to humans is infrequent. Only limited clusters of human cases have been reported since the first human epidemics of A(H5N1). No sustained human-to-human transmission has been observed. The risk of foodborne transmission, e.g. through the consumption of eggs or meat, is considered extremely low.

Actions

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

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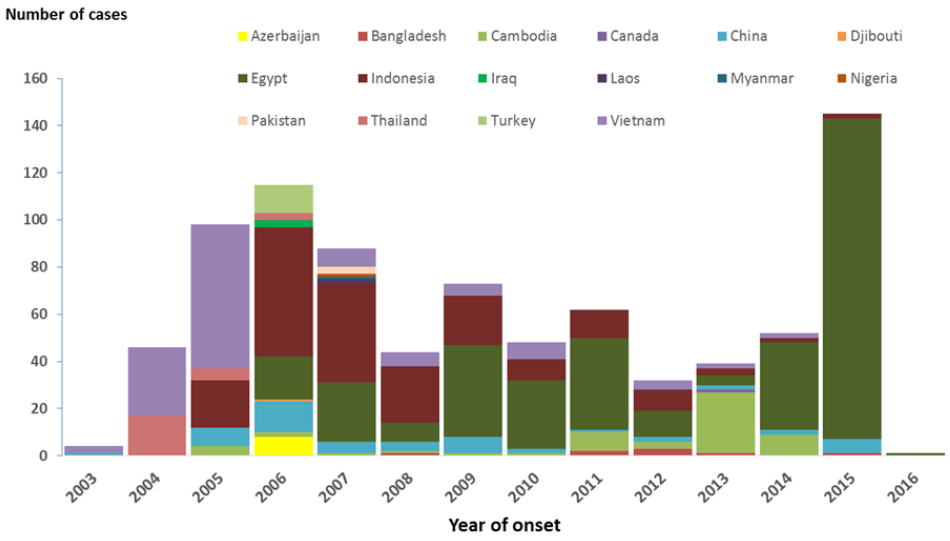
Distribution of confirmed cases of influenza A(H5N1) by country of reporting

Adapted from WHO figures



Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 7 April 2016

Epidemiological summary

Europe

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

Asia

Since the beginning of the year and as of 28 March, **Thailand** has reported 13 411 cases and eight deaths across all 77 provinces. Areas reporting the highest morbidity so far this year are Bangkok, Rayong, Samutsakorn, Nakornpathom and Phuket, according to media. In neighboring **Malaysia**, 35 586 dengue cases and 85 deaths were reported during the same period. The provinces reporting the highest number of cases include Selangor (18 482), Johor (5 125) and WP Kuala Lumpur (2 227). In **Singapore**, between 27 March and 2 April 2016, 377 dengue cases were reported, an increase from the previous two weeks and higher than the number of cases reported for the same period in each of the last three years (2011-2015), according to the National Environmental Agency (NEA).

As of 25 March 2016, 237 cases of dengue fever, including one death, have been reported in **Lao PDR** so far this year. From 12 to 25 March 2016, 30 new dengue cases were recorded, which follows the same seasonal trend from 2011-2015.

In **Pakistan**, increased dengue activity was reported in Sindh province during the past month, particularly in Karachi. In total, 325 cases have been reported in Sindh province since the start of the year.

In the **Philippines**, media report that the first public immunisation program for a dengue fever vaccine has been launched. The government of the Philippines is spending $76 million to administer free vaccines through the public health system and in public school settings. Dengvaxia, a three-dose vaccine developed by Sanofi Pasteur, obtained its first license in Mexico in December 2015 for use in individuals aged 9 to 45 years. The vaccine is still awaiting regulatory reviews in Europe and dozens of non-European countries, as well as prequalification by the WHO.

Americas

In South America, **Brazil** reported 495 266 probable cases of dengue during the first nine weeks of 2016, according to the latest epidemiological bulletin published by the Ministry of Health. Of the total cases, around 56.6% are in the Southeast, 18.6% in the Northeast, 12.7% in the Midwest, 7.5% in the South and 4.6% in the North.

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The number of reported dengue cases in **Argentina** is 2.6 times higher in the first 11 weeks of this year compared with the same time period in 2009, when the largest outbreak of dengue fever in the country was documented. Between 3 January and 19 March 2016, 18 297 probable and confirmed cases of dengue fever have been recorded in 15 provinces. Ongoing dengue outbreaks with sustained transmission are reported in Buenos Aires, Córdoba, Corrientes, Chaco, Formosa, Misiones, Salta and Santa Fe, according to media quoting the Ministry of Health.

In **Uruguay**, as of 10 March, a month after the first confirmed autochthonous case, 570 suspected and 17 confirmed cases of dengue fever have been recorded nationally, according to media. The majority of these cases have occurred in Montevideo.

In Chile, there is an ongoing dengue outbreak on **Easter Island** with 27 cases reported to date, according to media.

Caribbean
US Virgin Islands has reported seven confirmed dengue cases so far this year.

Pacific islands and Australia
There is an ongoing DENV-1 outbreak in **French Polynesia** with 33 confirmed cases and three hospitalisations reported for the week ending 27 March 2016. However, the weekly number of cases is decreasing. There are decreasing or ongoing outbreaks of DENV-1 in **New Caledonia** and DENV-3 in **American Samoa** and **Solomon Islands**, according to the Pacific Public Health Surveillance Network (PACNET). There is a dengue outbreak in Port Moresby in **Papua New Guinea**, according to media.

As of 6 April, 263 cases of dengue fever have been laboratory confirmed on **Hawaii Island**, according to the Department of Health. Of the confirmed cases, 237 are Hawaii Island residents and 26 are visitors. In addition, 217 were adults and 46 children. Onset of illness ranged between 11 September 2015 and 17 March 2016.

In **Australia**, as of 31 March 2016, 532 laboratory-confirmed dengue cases have been reported nationally which is in line with the seasonal trend (2011-2015). There are currently ongoing dengue outbreaks in Queensland (Townesville, Charters Towers, Torres and Cairns), according to Queensland Health.

Africa
No data available.

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

Chikungunya- Multistate (world) - Monitoring global outbreaks

Opening date: 9 December 2013 Latest update: 7 April 2016

Epidemiological summary

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

Americas
The Pan-American Health Organization (PAHO) has reported 36 596 suspected and 1 600 confirmed chikunguyna cases since the beginning of the year and up to 1 April 2016. Among these cases, two fatalities have been reported. Colombia represents the most affected country with 9 929 cases followed by Honduras who reported 6 602 cases.

In March 2016, Japan reported a case of chikungunya in a traveller from Cuba, according to a ProMED report.

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Pacific region
One imported case with travel history to Fiji was reported by the New Zealand ESR (Institute of Environmental Science and Research Ltd), according to the Pacific Public Health Surveillance Network (PPHS).

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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 7 April 2016

Epidemiological summary

The human cases of influenza A(H7N9) reported by China since March 2013 have the following geographical distribution: Zhejiang (215), Guangdong (191), Jiangsu (91), Fujian (69), Shanghai (52), Hunan (34), Anhui (32), Hong Kong (15), Xinjiang Uygur Zizhiqu (10), Jiangxi (10), Beijing (6), Shandong (6), Guangxi (4), Henan (4), Taiwan (4), Jilin (2), Guizhou (2), Hubei (1) and Hebei (1). Three imported cases have also been reported: one in Malaysia and two in Canada.

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

ECDC assessment

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.

In the past 12 months, there have been continued avian influenza A(H7N9) virus detections in the animal population in several provinces of 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.

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.

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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 four periods of reporting (weeks 07/2013 to 14/2016)

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