COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 9, 26 February-4 March 2017

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Measles – Romania – 2016/2017

Opening date: 7 November 2016 Latest update: 3 March 2017

Measles, a highly transmissible vaccine-preventable disease, is still endemic in some EU countries where vaccination uptake remains below the level required to interrupt the transmission cycle. Since early 2016, there has been a nationwide measles epidemic affecting Romania. Between 1 January 2016 and 24 February 2017, the country reported 3 109 cases of measles, including 16 fatalities.

➔Update of the week

Between 17 and 24 February 2017, 38 cases of measles were recorded in Romania.

Hepatitis A outbreaks in the EU/EEA mostly affecting MSM – 2016/2017

Opening date: 12 December 2016 Latest update: 3 March 2017

Since February 2016, 287 confirmed hepatitis A cases infected with three distinct strains of sub-genotype IA virus have been reported by 13 EU countries: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. Most cases are reported among adult men who have sex with men (MSM), with only nine women affected. The main prevention measure in the context of the current outbreaks is the recommendation of hepatitis A vaccination for MSM. The ECDC guidance document 'HIV and STI prevention among men who have sex with men' encourages Member States to offer and promote vaccination of MSM against hepatitis A. In addition, information on vaccine availability should be included in health promotion programmes that target MSM (e.g. information at MSM sex venues). ECDC published an update of its rapid risk assessment on 23 February 2017.

➔Update of the week

Since February 2016, 287 confirmed hepatitis A cases infected with three distinct strains of sub-genotype IA virus have been reported by 13 EU countries. Since the publication of ECDC's first rapid risk assessment on 19 December 2016, an additional 263 additional cases and a further outbreak strain have been reported, and an additional eight countries are now involved. The majority of cases are adult men who have sex with men (MSM); only nine cases are reported among women. ECDC published an update of its rapid risk assessment on 23 February 2017.

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Influenza – Multistate (Europe) – Monitoring 2016/2017 season

Opening date: 13 October 2016 Latest update: 3 March 2017

Influenza transmission in Europe shows a seasonal pattern, with peak activity during winter months. ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the Flu News Europe website.

➔Update of the week

During week 8/2017, influenza activity across the region decreased but remained above the levels observed during the out-of-season period.

Non EU Threats

Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006 Latest update: 3 March 2017

Cholera outbreaks are reported from several countries in Africa, Asia and the Americas.

➔Update of the week

In the Americas, Haiti experienced a decreasing number of cases in February 2017. In the Dominican Republic, two confirmed and seven suspected cases have been reported for 2017.
In Africa, outbreaks continue in Angola, Burundi and South Sudan. In Somalia, a decreasing trend in mortality has been observed. Tanzania has not recorded any cases over the past weeks. In Mozambique, a number of cases were detected in an area which had not seen cases for years.

In Asia, the outbreak in Yemen is on the decline. Bangladesh is reporting many cases of acute watery diarrhoea in an area with a high influx of refugees from Myanmar.

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013 Latest update: 3 March 2017

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 3 March 2017, 1 258 cases have been reported to WHO, including at least 404 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. Four hundred and sixty cases were reported since week 40/2016, representing a significant increase compared to previous seasons.

➔Update of the week

Between 23 February and 3 March 2017, 35 additional human cases and seven deaths due to influenza A(H7N9) were reported from China.

On 27 February 2017, WHO published information on the results of genetic sequencing on virus isolates from two previously reported cases of human infection with avian influenza A(H7N9) virus from Guangdong province. Changes at the cleavage site of the HA gene suggestive of high pathogenicity to poultry were confirmed.

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

Opening date: 15 June 2005 Latest update: 3 March 2017

Highly pathogenic avian influenza viruses A(H5) of Asian origin are highly infectious for several bird species, including poultry. 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

According to the Food and Agriculture Organization (FAO), two human cases of avian influenza A(H5N1), including one death, have been reported in Egypt in February 2017. The last human case before these was reported in July 2016 in Egypt.

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Yellow fever – Brazil – 2016/2017

Opening date: 16 January 2017 Latest update: 3 March 2017

Yellow fever is a mosquito-borne viral infection present in some tropical areas of Africa and South America.

In South America, there are two transmission cycles of yellow fever:
- A sylvatic cycle, involving transmission of the virus between *Haemagogus* or *Sabethes* mosquitoes and non-human primates. The virus is transmitted by mosquitoes from non-human primates to humans when humans are visiting or working in the forest.
- An urban cycle, involving transmission of the virus between *Aedes aegypti* mosquitoes and humans. The virus is usually introduced in an urban area by a viraemic human who was infected in the forest.

Brazil has been experiencing an outbreak of yellow fever since December 2016. The outbreak was notified on 6 January 2017.

➔Update of the week

Epidemic in humans: Between 22 and 24 February 2017, 25 additional cases of yellow fever were reported in Brazil. This includes one suspected case recorded in Goiás. This state previously reported two suspected cases in late January, but these two suspected cases were quickly discarded. All other new cases were recorded in Minas Gerais and Espírito Santo.

Epizootics in non-human primates: Suspected and confirmed epizootics of yellow fever in non-human primates continue to be reported across the country. On 22 and 23 February 2017, two epizootics of yellow fever were confirmed in Pará, a state that had not reported circulation of yellow fever since 2015: one epizootic was recorded in Rurópolis (rural area) and the other in Curió Utinga (part of Belém urban area).

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II. Detailed reports

Measles – Romania – 2016/2017

Opening date: 7 November 2016 Latest update: 3 March 2017

Epidemiological summary

Between 1 January 2016 and 24 February 2017, 3 109 cases of measles, including 16 fatalities, were reported in Romania. All cases are either laboratory confirmed or have an epidemiological link to a laboratory-confirmed case. Infants and young children are the most affected population. Thirty-six of the 42 districts report cases, with Caras Severin (in the western part of Romania, on the border to Serbia) being the most affected district (726 cases). Vaccination activities are ongoing.

Sources: MoH Romania

ECDC assessment

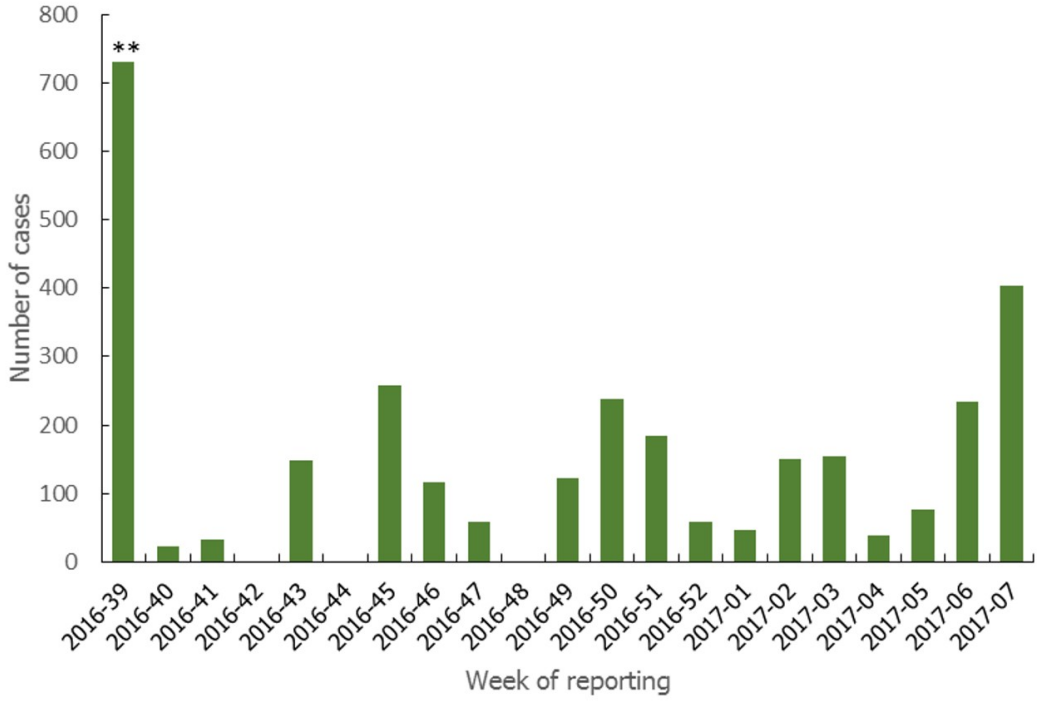
Although progress has been made towards elimination of measles in the EU, it has not yet been achieved, as exemplified by the worrying situation currently reported in Romania. Seeding events in other EU/EEA Member States have occurred and are expected to continue. These outbreaks are a reminder that measles is still circulating due to low vaccination coverage across the general population and among healthcare workers.

Actions

ECDC is preparing a rapid risk assessment following a request from the European Commission.

Distribution of measles cases, by week of reporting, week 39-2016 to 07-2017, Romania

Romanian National Institute of Public Health



*** Cumulative number of cases in 2016 until week 39, first date of NIPH updates (no weekly data available)*

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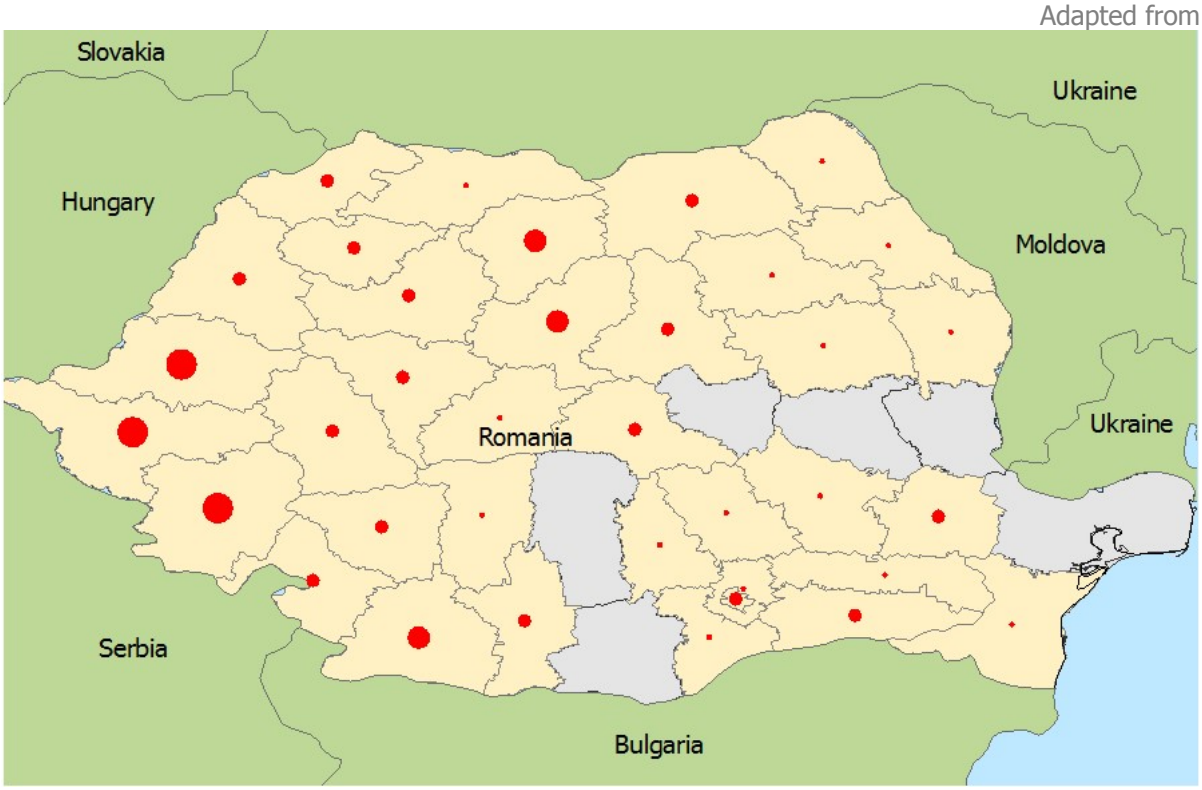
Distribution of measles cases, by region, from week 39-2016 to 07-2017, Romania

Adapted from national data



Hepatitis A outbreaks in the EU/EEA mostly affecting MSM – 2016/2017

Opening date: 12 December 2016 Latest update: 3 March 2017

Epidemiological summary

Since February 2016 and as of 22 February 2017, Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, the Netherlands, Portugal, Spain, Sweden and the United Kingdom reported 287 hepatitis A cases related to three concurrent clusters. The distribution of cases by genetic sequence, country of report and month is presented in Figure 1.

Event 1, cluster VRD_521_2016, was reported though the Epidemic Intelligence Information System for Food- and Waterborne diseases and zoonoses (EPIS-FWD) on 6 December 2016 by the United Kingdom. As of 22 February 2017, ten EU Member States have reported 190 cases: Spain (70 cases, preliminary data), Italy (41), the United Kingdom (30 cases), Germany (17), France (14 cases), Portugal (9), Finland (3), Ireland (3), the Netherlands (2) and Sweden (1 case). Seventy-seven (94%) of 82 documented cases are male, and 33 of 41 documented cases identify themselves as MSM.

Event 2, cluster RIVM-HAV16-090, was reported through the Early Warning and Response System (EWRS) on 14 October 2016 by the Netherlands. The first two Dutch cases reported visiting the EuroPride festival in Amsterdam between 23 July and 7 August 2016. Nine EU Member States have reported 70 cases: the United Kingdom (31), the Netherlands (10), Germany (8), Austria (5), Belgium (5), France (5), Sweden (3), Italy (2) and Spain (1). Sixty-six of 67 documented cases are male, and 44 of 49 documented cases identify themselves as MSM.

Event 3, cluster V16-25801, was reported through EPIS-FWD on 11 January 2017 by Germany. Seven EU Member States have reported 27 cases: Germany (18), the United Kingdom (3), Italy (2) and Austria (1), Denmark (1), the Netherlands (1) and Spain (1). Nineteen of 20 documented cases are male, and five identify themselves as MSM.

Two countries, Portugal and Belgium, notified through the Early Warning and Response System about additional cases among MSM and/or men, for which the information on genetic sequence is not yet available and which are under investigation.

ECDC assessment

The main prevention measure in the context of the current outbreaks is hepatitis A vaccination of MSM. The ECDC guidance document 'HIV and STI prevention among men who have sex with men' encourages Member States to offer and promote

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vaccination of MSM against hepatitis A. Information on vaccine availability should be included in health promotion programmes targeting MSM, particularly at sex venues.
Where hepatitis A vaccination is not universally offered to MSM or uptake is low, the following groups could be prioritised for vaccination:

• MSM travelling to destinations reporting outbreaks of hepatitis A among MSM
• MSM living in areas of ongoing outbreaks
• MSM at risk of severe outcomes from hepatitis A infection, for example those with hepatitis B and/or hepatitis C virus infection, and those who inject drugs.

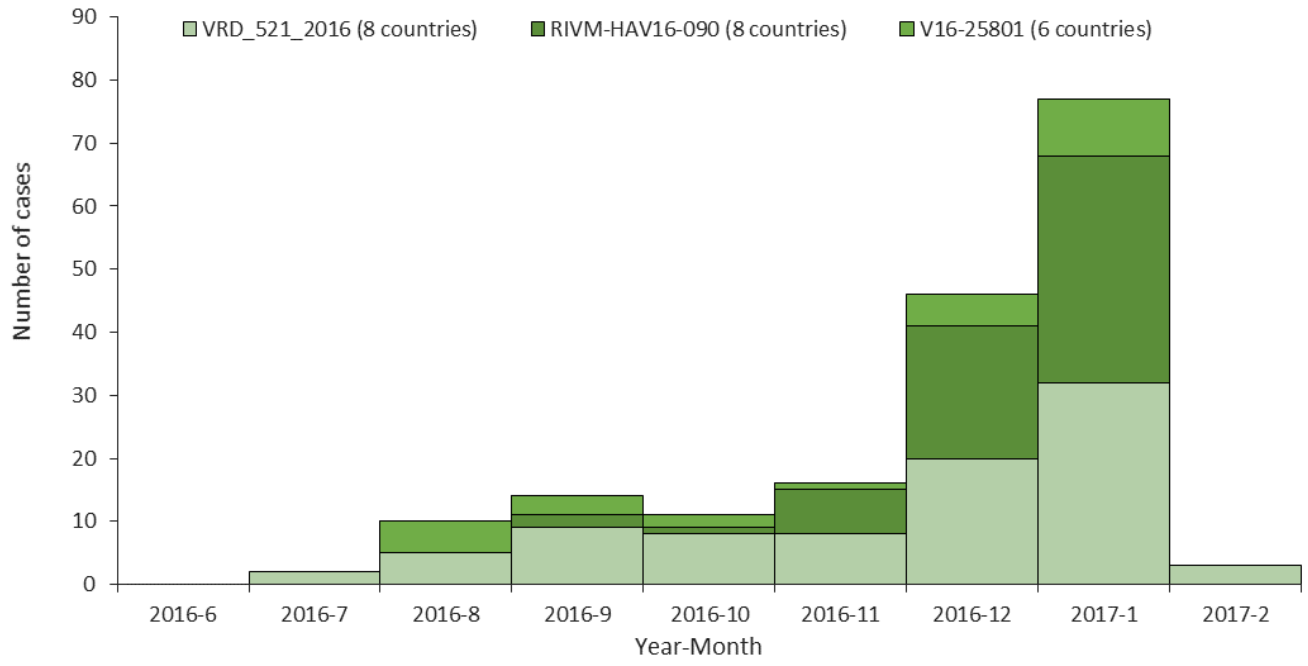
To improve monitoring, Member States are encouraged to share microbiological and epidemiological details of new cases as well as questionnaires used during outbreak investigations through the Epidemic Intelligence Information System for Food- and Waterborne Diseases and Zoonoses (EPIS-FWD).

Actions

ECDC published an updated rapid risk assessment on this threat on 23 February.

Distribution of hepatitis A cases by month of report and genetic sequence, June 2016–February 2017, EU/EEA (n=179)

ECDC RRA



Influenza – Multistate (Europe) – Monitoring 2016/2017 season

Opening date: 13 October 2016 Latest update: 3 March 2017

Epidemiological summary

Week 8/2017 (20–26 February 2017)

Influenza activity across the region, while decreasing, remained above levels observed during the out-of-season period.
Widespread influenza activity was reported by 13 countries.
During the previous week, the proportion of influenza virus detections among sentinel surveillance specimens decreased to 33%

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from 38%.
The great majority of detected and subtyped influenza viruses were A(H3N2). The proportion of type B viruses increased, which is commonly seen in the second half of an influenza season; their numbers remained low.
The number of reported hospitalised laboratory-confirmed influenza cases, primarily in people aged 65 years or older, continued to decrease.
In the majority of the 19 reporting countries, excess all-cause mortality has increased substantially in people aged 15–64 years; it has also increased markedly in people aged 65 years or older.

Season overview
Influenza activity started early (week 46/2016), which is the earliest week on record that the overall influenza-positivity rate in sentinel specimens reached 10% since the emergence of A(H1N1)pdm09 viruses in 2009/10. Since week 40/2016, influenza A viruses have predominated, accounting for 96% of all sentinel detections. The great majority (99%) of subtyped influenza A viruses from sentinel sites are A(H3N2).

Confirmed cases of influenza virus type A infection reported from hospitals have predominantly been in adults aged over 65 years. In the majority of the 19 reporting countries, excess all-cause mortality has increased substantially in people aged 15–64 years, and markedly so in people aged 65 years or older. This is commonly seen when the predominant viruses circulating are A(H3N2). Two-thirds of the A(H3N2) viruses genetically characterised belong to a recently emerged genetic subclade (3C.2a1). However, those that have been antigenically characterised are similar to the clade 3C.2a vaccine virus.

Recent vaccine effectiveness estimates for all age groups against A(H3N2) illness indicate a 42% effectiveness in Canada, 43% in the US and 38% in Europe (38%). The WHO recommendations for the composition of the 2017/2018 northern hemisphere vaccine, published 2 March 2017, call for the replacement of the A(H1N1)pdm09 component.

ECDC assessment

The progression of the season confirms the conclusions of ECDC's latest risk assessment published on 25 January 2017. Severe outcomes are expected in the elderly because of the large circulation of A(H3N2), which could result in some healthcare systems experiencing additional pressure.

Actions

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

Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006 Latest update: 3 March 2017

Epidemiological summary

Americas
In Haiti, 1 897 cholera cases were reported during the first five weeks of the year, including 28 deaths (case fatality rate (CFR): 1.5%). During these five weeks, the number of reported cases was lower than during the same period in 2015 and 2016. The CFR for hospitalised cases has remained around 1% since 2011. In the departments of Grand Anse and Sud, areas affected by hurricane Matthew on 4 October 2016, a low number of suspected cholera cases was reported; this represents a declining trend since the peak of the outbreak at the end of October 2016.
In the Dominican Republic, seven suspected cholera cases and two confirmed cases were reported in the two first weeks of 2017, including one death.
In 2016, the Dominican Republic (1 159), Ecuador (1), Haiti (41 421) and Mexico (1) reported suspected and confirmed cases.

Africa
In Angola, since mid-December 2016 and as of 23 February 2017, 252 cases of cholera including 11 deaths have been reported in three of the 18 provinces: Cabinda (73 cases and 3 deaths), Zaire (174 cases and 8 deaths) and Luanda (5 cases and zero deaths). This is an increase of 100 cases and one death since the last monthly report.

In Burundi, a cholera outbreak started on 30 December 2016 in the Province of Cibitoke. As of 30 January 2017, 169 cases were reported, 105 of which were children.

In Mozambique, as of 16 February 2017, 216 suspected cases of cholera have been detected from four sites: Maputo city, Matola

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city (neighbouring Maputo), and Namialo and Monapo districts, both located in Nampula province in the north of the country. The current outbreak in Maputo is the first outbreak in the city in the past three years.

In Somalia, 4 026 suspected cases of cholera have been reported since the beginning of the year, including 57 deaths (CFR=1.4%). In the past week, 913 new suspected cases of cholera were reported, including 10 deaths. There has been a decrease in fatalities compared with the previous week, indicating an improvement in patient care and overall response activities in the country.

In South Sudan, a resurgence of cholera cases has been reported since the beginning of 2017. Active transmission is currently ongoing in five counties; Rubkona (Unity), Mayendit (Unity), Awerial (Lakes), Bor (Jonglei) and Juba (Central Equatoria). As of 10 Feb 2017, 4 935 cholera cases, including 97 deaths (CFR=1.97 %) have been reported since 18 June 2016. The current outbreak has lasted nearly 8 months, compared to 4 months for the 2015 outbreak and 7 months for the 2014 outbreak. Nonetheless, the case fatality for the 2016/2017 outbreak is lower than in 2014 and 2015, indicating that cholera awareness and response activities have had some impact.

In Tanzania, there has been a noticeable decline in cases for January and February 2017, when 20 cases were reported. In the week leading to 19 February, no new suspected cholera cases were reported. This is the first zero case report since the current outbreak started in August 2015.

Asia
In Yemen, since the start of the outbreak in October 2016, 20 583 cases, including 103 deaths (CFR=0.5%), have been reported. More than one third of the cases were children under the age of five. The trend of suspected cholera cases has been declining over the past few weeks as prevention measures take hold across the country. In 2016, the cumulative number of suspected cholera cases was 15 843, including 531 associated deaths, with a CFR of 0.6%.

In Bangladesh, the number of cases of acute watery diarrhoea is increasing in Kutupalong camp and Balaukhati settlement in Cox's Bazar region, where there has been a recent influx of Rohingya refugees from Myanmar. An increasing number of cases were reported by humanitarian partners, raising concerns about a potential outbreak of cholera.

According to media reports, an outbreak of cholera in the Philippines was responsible for nearly 200 cases in Cebu and Bohol.

Source: Cholera platform | Haitian MoH | media

ECDC assessment

European travellers should seek information on how to prevent cholera infection prior to visiting affected areas.

Actions

ECDC continues to monitor cholera outbreaks globally through its epidemic intelligence activities in order to identify significant changes in epidemiology. Reports are published on a monthly basis.

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013 Latest update: 3 March 2017

Epidemiological summary

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 3 March 2017, 1 258 cases have been reported to WHO, including at least 404 deaths. The A(H7N9) outbreak shows a seasonal pattern. Cases reported between weeks 41 and 40 in the subsequent year are considered to belong to one epidemic wave. The first wave in spring 2013 (weeks 7/2013–40/2013) included 135 cases; 320 cases were reported during the second wave (weeks 41/2013–40/2014), 224 cases were reported during the third wave (weeks 41/2014–40/2015), and 119 were reported in wave four (weeks 41/2015–40/2016). A fifth wave started in October 2016 (week 41/2016), with 460 cases as of 3 March 2017.

The 1 258 cases have been reported from Zhejiang (298), Guangdong (247), Jiangsu (233), Fujian (98), Anhui (88), Hunan (63), Shanghai (55), Jiangxi (41), Hubei (24), Hong Kong (20), Shandong (14), Henan (11), Beijing (11), Xinjiang (10), Sichuan (8), Guizhou (8), Guangxi (6), Taiwan (5), Hebei (4), Liaoning (3), Macau (2), Yunnan (2), Tianjin (2), Jilin (2).

Three imported cases have been reported: one in Malaysia and two in Canada.

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Web sources: Chinese CDC | WHO |WHO FAQ page | ECDC | Hong Kong CHP

ECDC assessment

This is the fifth northern hemisphere winter season with human cases due to A(H7N9) infections. During this wave, the number of human cases is already higher than during the whole last wave in 2015–2016, with a significantly higher number than in the same period of the two previous epidemic seasons. A steep increase of human cases has been reported since the beginning of December 2016 from China. The mode of transmission does not seem to have changed during this season. The majority of recently reported human cases are associated with exposure to infected live poultry or contaminated environments, including markets where live poultry are sold. The age distribution of the reported cases is comparable with previous waves. Influenza A (H7N9) viruses continue to be detected in poultry and environments where poultry are present in the areas where human cases are occurring. However, more human cases are detected in rural areas. The upsurge of human cases is most likely due to a higher environmental contamination related to live bird markets.

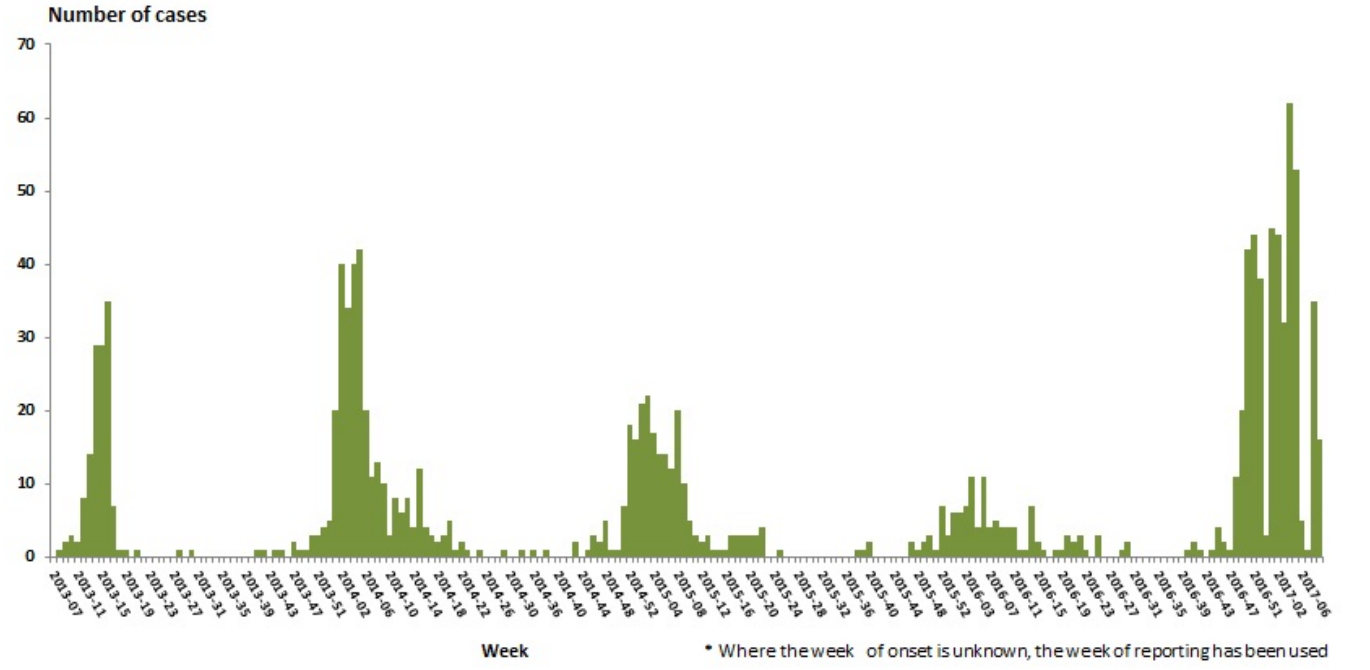
EU citizens living or visiting influenza A(H7N9)-affected areas in China are advised to avoid live bird markets or backyard farms as well as contact with live poultry or their droppings. Food should be only consumed if properly cooked. Since environmental contamination leads to a higher risk of exposure to A(H7N9), it is also possible that travel-related cases could be detected in Europe. The recent upsurge of human cases due to a higher risk of exposure indicates the possibility of sporadic cases being imported to Europe. However, the risk of the disease spreading in Europe through humans is considered low, as the virus does not appear to transmit easily from person-to-person.

The ECDC risk assessment and the options for response have not changed since the last rapid risk assessment in January 2017. However, these new developments need to be monitored and assessed. ECDC will continue to follow the epidemiological and scientific developments related to avian influenza A(H7N9) virus and will continue to work with public health and veterinary experts in the EU/EEA Member States, WHO and other international partners.

Actions

ECDC published an updated Rapid Risk Assessment on 27 January 2017 and a Public Health Development on 24 February 2017. ECDC is preparing an updated risk assessment.

Distribution of confirmed cases of A(H7N9) by first available month, February 2013 to 24 February 2017



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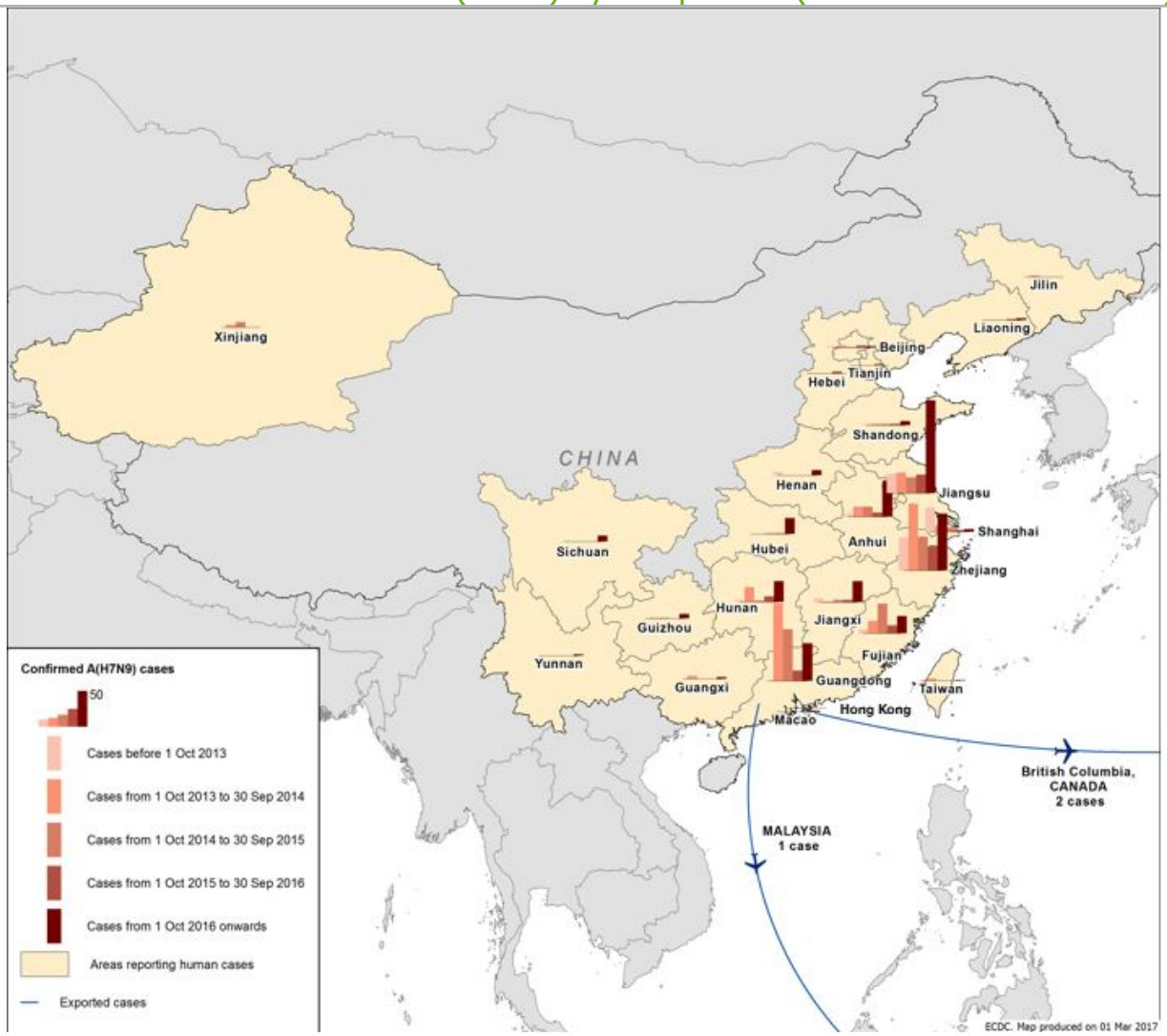
Distribution of confirmed cases of A(H7N9) by five periods (weeks 7-2013 to 9-2017)



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

Opening date: 15 June 2005 Latest update: 3 March 2017

Epidemiological summary

Influenza A(H5N1): Since 2003 and as of 28 February 2017, 858 laboratory-confirmed cases of human infection with avian influenza A(H5N1) virus, including 453 deaths, have been reported from 16 countries. The latest case was reported in February 2017 by Egypt.

Influenza A(H5N6): Since 2014 and as of 14 February 2017, 16 laboratory-confirmed cases of human infection with avian influenza A(H5N6) virus, including six deaths, have been reported globally. All cases occurred in mainland China. The latest case was reported on 1 December 2016.

Sources: ECDC rapid risk assessment | ECDC webpage | EMPRES | OIE | WHO

ECDC assessment

When avian influenza viruses circulate in poultry, sporadic infections or small clusters of human cases are possible in people

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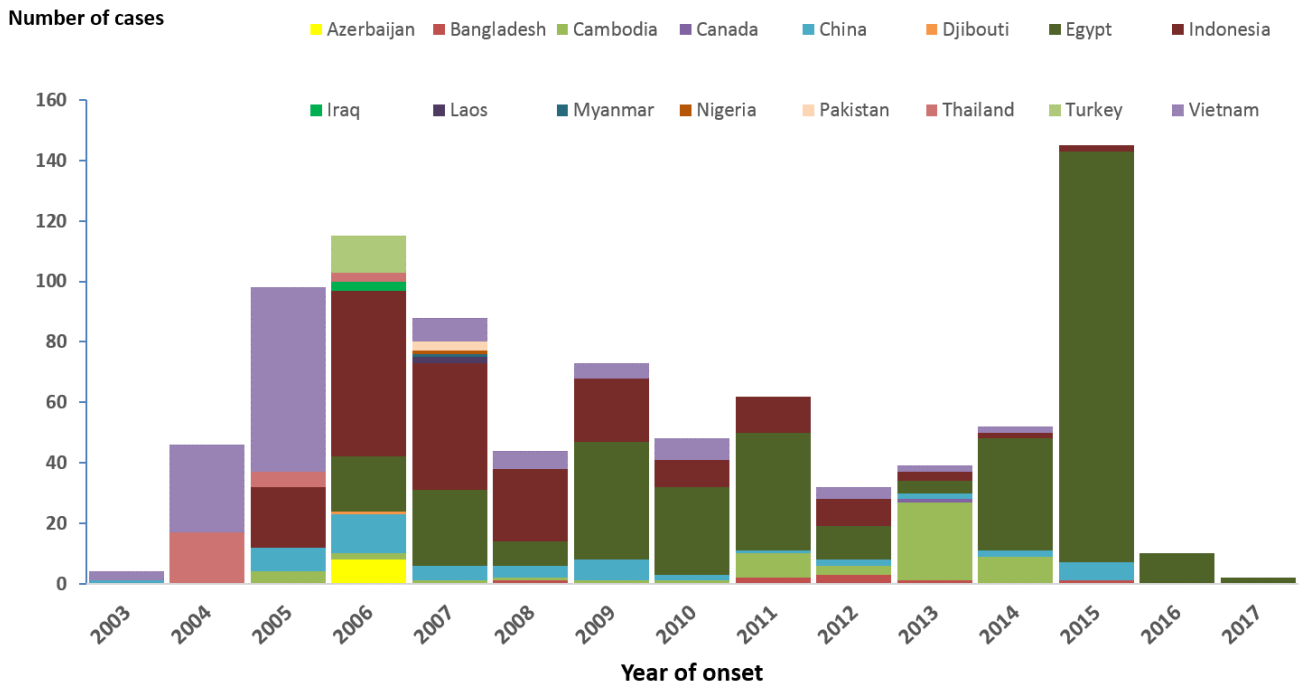
exposed to infected poultry or contaminated environments, especially in households and at live bird markets. The viruses remain poorly adapted to humans, and transmission from birds to humans is infrequent. Only limited clusters of human cases have been reported since the first human epidemic of A(H5N1). 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 to be 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.

Distribution of confirmed human cases of A(H5N1) by country of reporting, 2003–2017, as of 28 February 2017



Yellow fever – Brazil – 2016/2017

Opening date: 16 January 2017 Latest update: 3 March 2017

Epidemiological summary

On 6 January 2017, Brazil reported an outbreak of yellow fever. The index case had onset of symptoms on 18 December 2016. The first laboratory confirmation was notified on 19 January 2017.

As of 24 February 2017, Brazil has reported 1 242 cases (916 suspected and 326 confirmed), including 214 deaths (105 suspected and 109 confirmed), in seven states. The case-fatality rate is 17.2% for all cases and 33.4% for confirmed cases.

States reporting suspected and confirmed autochthonous cases:
- Minas Gerais has reported 1 029 cases (760 suspected and 269 confirmed), including 181 deaths (89 suspected and 92 confirmed).
- Espírito Santo has reported 185 cases (132 suspected and 53 confirmed), including 26 deaths (12 suspected and 14 confirmed).
- São Paulo has reported 10 cases (six suspected and four confirmed), including four deaths (one suspected and three confirmed).

States reporting suspected autochthonous cases:
- Bahia has reported nine suspected cases, including one fatal case.
- Tocantins has reported two suspected cases, including one fatal case.

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- Rio Grande do Norte has reported one suspected case (fatal).
- Goiás has reported one suspected case (not fatal).

In addition, investigations are ongoing to determine the probable infection site of five further suspected cases.

The Ministry of Health of Brazil has launched mass vaccination campaigns in addition to routine vaccination activities. As of 22 February 2017, 14.35 million extra doses of yellow fever vaccine have been sent to five states: Minas Gerais (6.5 million), São Paulo (3.25 million), Espírito Santo (2.65 million), Rio de Janeiro (1.05 million) and Bahia (900 000).

Sources: Brazil MoH

ECDC assessment

The ongoing outbreak should be carefully monitored, as the establishment of an urban cycle of yellow fever would have the potential to quickly affect a large number of people.

EU/EEA citizens who travel to, or live in, areas where there is evidence of yellow fever virus transmission should check their vaccination status and get medical advice about getting vaccinated against yellow fever.

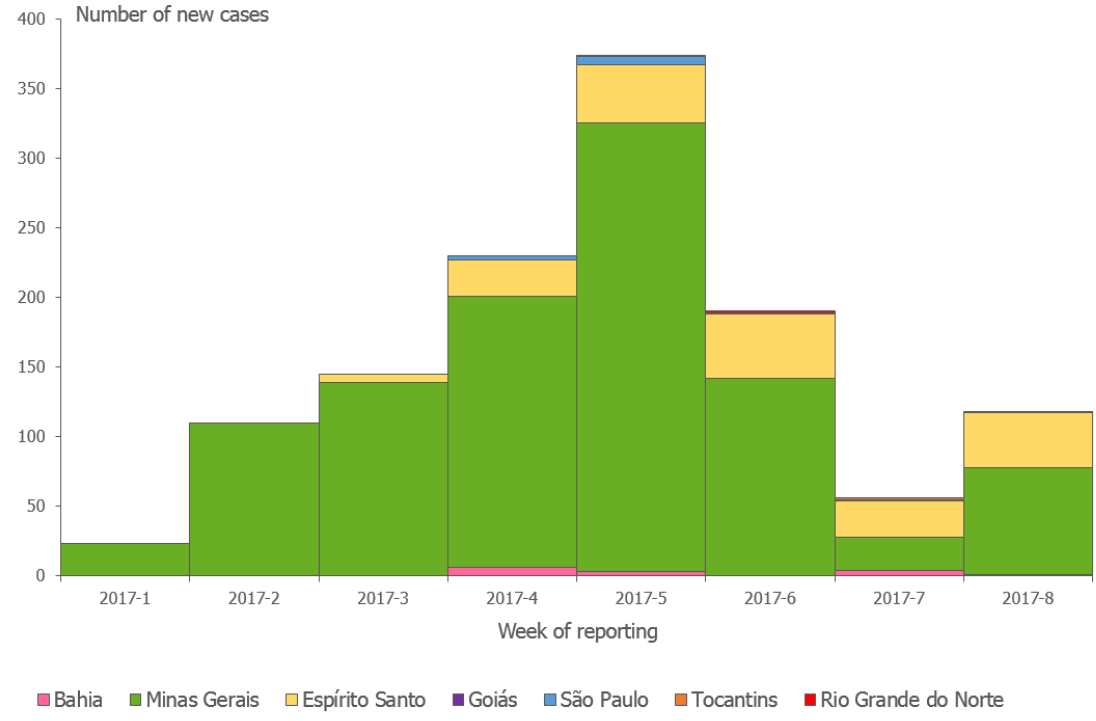
In Europe, *Aedes aegypti*, the primary vector of yellow fever in urban settings, is present in Madeira. Recent studies have shown that *Aedes albopictus* can potentially transmit the yellow fever virus.

However, the risk of the virus being introduced into local competent vector populations in the EU through viraemic travellers from Brazil is considered to be very low, as the current weather conditions in Europe are not favourable for vector activity.

Actions

ECDC closely monitors this event in collaboration with the World Health Organization. ECDC published a rapid risk assessment on 26 January 2017, and is producing epidemiological updates and a map for travel advice.

Distribution of suspected and confirmed human cases of yellow fever by week, Brazil, 2017, as of 24 February



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

Distribution of human cases of yellow fever by state, Brazil, 2017, as of 24 February

	All cases	Suspected cases	Confirmed cases
Minas Gerais	1 029	760	269
Espírito Santo	185	132	53
São Paulo	10	6	4
Bahia	9	9	0
Tocantins	2	2	0
Rio Grande do Norte	1	1	0
Goiás	1	1	0
Under investigation	5	5	0
Total	**1 242**	**916**	**326**

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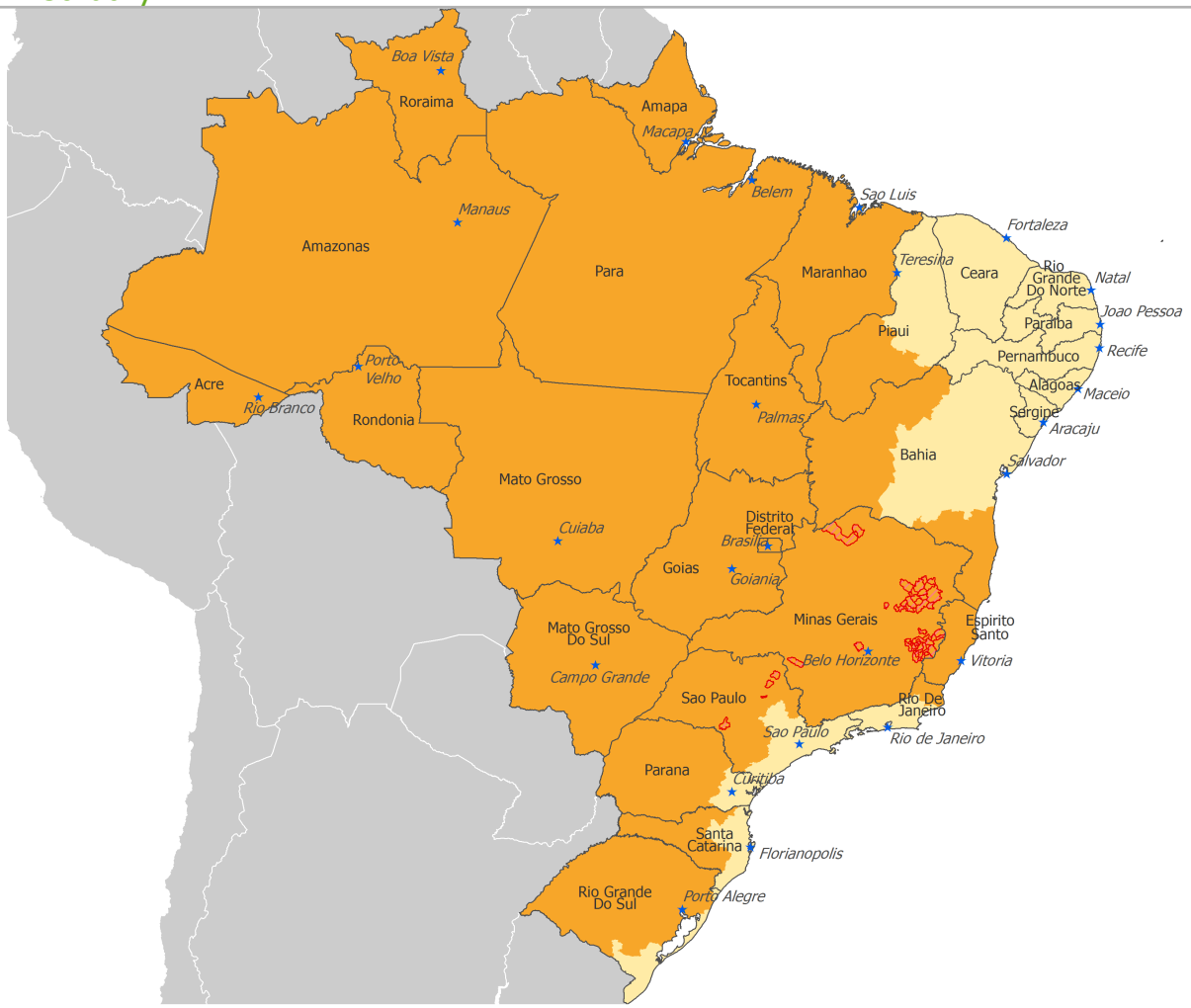
Distribution of confirmed human cases of locally-acquired yellow fever, Brazil, 2017, as of 24 February



Confirmed cases of locally-acquired yellow fever, as of 24 February 2017

Municipalities with confirmed locally-acquired cases since 6 January 2017

Area at risk for yellow fever transmission

Area considered at no risk for yellow fever transmission

Federal state ★ *State capital city*

ECDC. Map produced on: 03 Mar 2017
ECDC map maker: https://emma.ecdc.europa.eu

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

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