

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Influenza - Multistate (Europe) - Monitoring 2016-2017 season

Opening date: 13 October 2016

Latest update: 17 February 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 6/2017, influenza activity remained elevated across the region, with 24 of 43 countries reporting increased activity.

An updated risk assessment on seasonal influenza in EU/EEA countries was published by [ECDC](#) on 25 January 2017.

Non EU Threats

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 17 February 2017

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 16 February 2017, 918 cases have been reported to WHO, including at least 359 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

According to the weekly bulletin issued by [Hong Kong](#), between 5 and 11 February, China reported 53 new human cases of avian influenza A(H7N9) in Zhejiang (12 cases), Jiangsu (10 cases), Anhui (6 cases), Fujian (5 cases), Guangdong (4 cases), Hubei (4 cases), Henan (3 cases), Jiangxi (3 cases), Sichuan (3 cases), Beijing (1 case), Shanghai (1 case) and Yunnan (1 case). Since March 2013 and as of 13 February 2017, 1 160 human cases of avian influenza A(H7N9) have been reported globally.

These cases have not yet been acknowledged by WHO and do not appear in the summary.

Yellow fever - Brazil - 2016-2017

Opening date: 16 January 2017

Latest update: 17 February 2017

Yellow fever is a viral infection that is present in some tropical areas of Africa and South America. The virus is transmitted by mosquitoes, which also act as an important reservoir. 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:

Since the beginning of the outbreak in December 2016, six states have reported autochthonous transmission of yellow fever: Minas Gerais, Espírito Santo and São Paulo are reporting confirmed cases, while Bahia, Tocantins and Rio Grande do Norte are reporting suspected cases.

As of 16 February 2017, 1 105 cases (including 254 confirmed cases) have been reported in Brazil. This represents an increase of 67 cases (including 34 confirmed cases) since the last CDTR. The most-affected state remains Minas Gerais, with 938 cases (including 216 confirmed cases) reported.

Epizootics in non-human primates:

Between 1 December 2016 and 15 February 2017, 639 epizootics in non-human primates (including 342 confirmed cases) were reported in Brazil.

Cases in Bolivia:

On 14 February 2017, Bolivian authorities reported a confirmed case of yellow fever in a Danish tourist in Caranavi. This case is not related to the current outbreak in Brazil. In addition, according to media reports, a policeman who worked in Chapare and visited family in El Alto died on 12 February 2017, with yellow fever as the suspected cause of death. As of 16 February, this has not been confirmed by the Bolivian authorities.

In Bolivia, the last human case was reported in February 2013 in Cochabamba, while the last epizootic was reported in December 2015 in Monteagudo.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 17 February 2017

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) by the World Health Organization (WHO) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 7 February 2017, the IHR [Emergency Committee](#) agreed that the international spread of poliovirus remains a PHEIC and recommended that the temporary recommendations should be extended for a further three months.

→Update of the week

During the twelfth meeting of the Emergency Committee under the International Health Regulations (2015) regarding the international spread of poliovirus, which took place on 7 February 2017, the Russian Federation provided information to [WHO](#) about the detection of VDPV in two children from the Chechen Republic. WHO will continue to work with the Russian Federation to confirm the classification of the viruses.

During the past week, there has been one new environmental sample positive for wild poliovirus type 1 (WPV1) reported from Balochistan, Pakistan.

II. Detailed reports

Influenza - Multistate (Europe) - Monitoring 2016-2017 season

Opening date: 13 October 2016

Latest update: 17 February 2017

Epidemiological summary

Week 6/2017 (6-12 February 2017)

Influenza activity remained elevated across the region, with 24 of 43 countries reporting medium to very high intensity and 22 reporting widespread influenza activity. The proportion of influenza virus detections among sentinel surveillance specimens decreased slightly to 42% from 45% in the previous week. The great majority of influenza viruses detected were type A (92%) and, of those subtyped, 99% were A(H3N2). The number of new hospitalised laboratory-confirmed influenza cases reported, primarily in people aged 65 years or older, continued to decrease. Recent estimates of vaccine effectiveness against A(H3N2) from Canada (42%), the US (43%) and from Europe (38%) were higher than earlier estimates from Sweden (24%) and Finland (26%).

A [risk assessment](#) on seasonal influenza in EU/EEA countries was published by ECDC on 24 December 2016 and was [updated](#) on 25 January 2017. The above description is in line with the findings of these assessments.

ECDC assessment

This season, influenza viruses, mainly A(H3N2), began circulating early in the EU/EEA. It is too early to predict the intensity in primary care and the severity in secondary care, but if A(H3N2) continues to predominate, there is a risk that people over 65 years of age will be the most severely affected, possibly increasing pressure on healthcare systems.

An updated risk assessment on seasonal influenza in EU/EEA countries was published by [ECDC](#) on 25 January 2017.

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.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 17 February 2017

Epidemiological summary

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 16 February 2017, 918 cases have been reported to WHO, including at least 359 deaths.

The A(H7N9) outbreak shows a seasonal pattern peaking in the winter months, with only sporadic cases during the summer. 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; 319 cases were reported during the second wave (weeks 41/2013–40/2014), 223 cases were reported during the third wave (weeks 41/2014–40/2015), and 121 were reported in wave four (weeks 41/2015–40/2016). A fifth wave started in October 2016 (week 41/2016), with 120 cases as of 24 January 2017.

According to the health [authorities in Hong Kong](#), the 1 160 human cases of influenza A(H7N9) reported since March 2013 have the following geographical distribution: Zhejiang (284), Guangdong (235), Jiangsu (219), Fujian (92), Anhui (75), Shanghai (56), Hunan (55), Jiangxi (36), Shandong (12), Xinjiang (10), Beijing (10), Guizhou (6), Hebei (4), Henan (8), Guangxi (4), Hubei (12), Jilin (2), Tianjin (2), Liaoning (3), Sichuan (4), Yunnan (1), Hong Kong (20), Macau (2) and Taiwan (5).

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

According to the [Chinese health department](#), there have been:

- two cases, one death in October 2016;
- six cases, no deaths in November 2016;
- 106 cases, 20 deaths in December 2016; and

- 192 cases and 79 deaths in January 2017.
This adds up to 306 cases and 100 deaths for the fifth peak until the end of January.

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 2015–16, with a significantly higher number than in the last two waves during the same time period. A steep increase of human cases has been reported since the beginning of December 2016 from China; the epidemiology, however, 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 of the infected humans 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.

At present, the most immediate threat to EU citizens is to those living or visiting influenza A(H7N9)-affected areas in China. It is advisable 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, especially after Chinese New Year (28 January). The recent upsurge of human cases due to a higher risk of exposure indicates the possibility of sporadic cases getting imported to Europe. However, the risk of the disease spreading in Europe through humans is still considered low, as the virus does not appear to transmit easily from human-to-human. Also, current investigations do not support sustained human-to-human transmission.

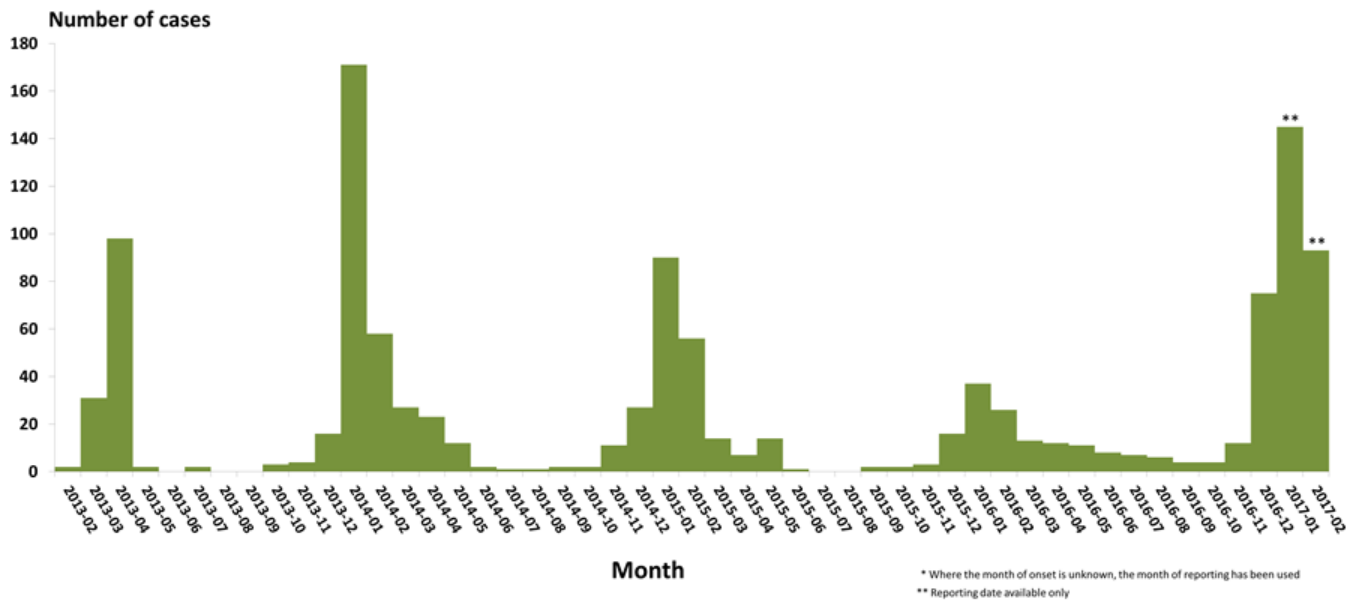
Actions

ECDC published a guidance document entitled [Supporting diagnostic preparedness for detection of avian influenza A\(H7N9\) viruses in Europe](#) for laboratories on 24 April 2013.

ECDC published an updated [Rapid Risk Assessment](#) on 27 January 2017.

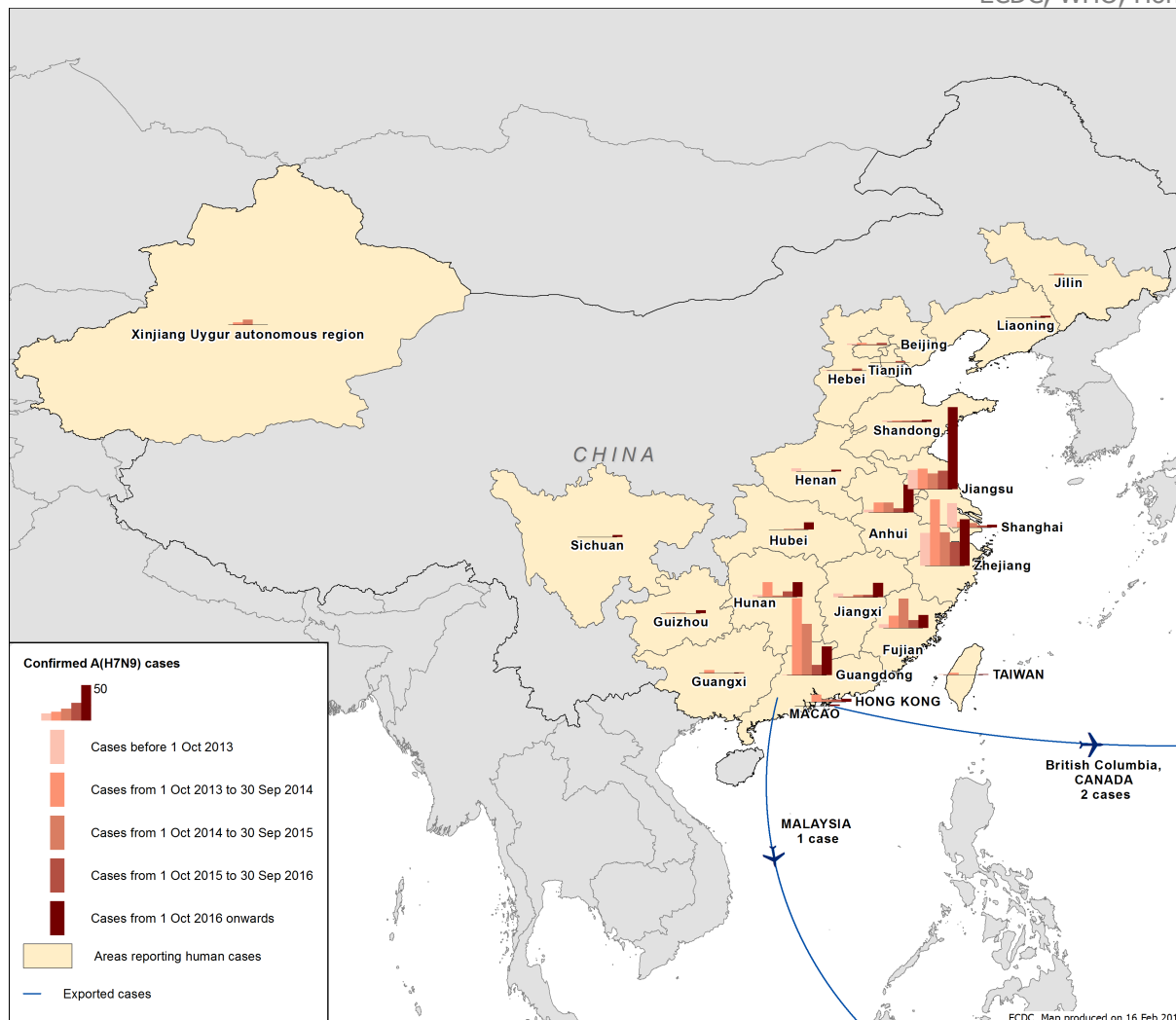
Epidemic curve of human infection with H7N9 virus in China by week, February 2013 until 16 February 2017

ECDC,WHO, Hong Kong



Distribution of confirmed cases of A(H7N9) by five periods(weeks 07/2013 to 7/2017)

ECDC, WHO, Hong Kong



Yellow fever - Brazil - 2016-2017

Opening date: 16 January 2017

Latest update: 17 February 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 16 February 2017, Brazil has reported 1 105 cases (851 suspected and 254 confirmed), including 193 deaths (105 suspected and 88 confirmed) in six states. The case fatality rate is 17.5% among all cases and 34.6% among confirmed cases.

States reporting suspected and confirmed cases:

- Minas Gerais has reported 938 cases (722 suspected and 216 confirmed), including 169 deaths (93 suspected and 76 confirmed).
- Espírito Santo has reported 135 cases (101 suspected and 34 confirmed), including 17 deaths (eight suspected and nine confirmed).
- São Paulo has reported 10 cases (six suspected and four confirmed), including four deaths (one suspected and three confirmed).

6/11

confirmed).

States reporting suspected cases:

- Bahia has reported 13 suspected cases, including one fatal.
- Tocantins has reported three suspected cases, including one fatal.
- Rio Grande do Norte has reported one suspected case, 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 15 February 2017, 12.5 million extra doses of yellow fever vaccine have been sent to five states: Minas Gerais (5.5 million), São Paulo (2.75 million), Espírito Santo (2.5 million), Bahia (900 000) and Rio de Janeiro (850 000).

On 14 February 2017, the World Health Organization [emphasised](#) the importance of travellers following its recommendations, particularly in view of the upcoming Rio Carnival. As of 16 February 2017, no locally-acquired confirmed or suspected cases of yellow fever have been reported in Rio de Janeiro (state) since the beginning of the outbreak.

Sources: [Brazil MoH for the epidemic](#) | [Brazil MoH for epizootics](#) | [Minas Gerais MoH](#) | [Espírito Santo MoH](#)

ECDC assessment

The risk of yellow fever transmission in the EU/EEA is currently very low as it depends on the virus being introduced by viraemic travellers to an area with an established, competent and active mosquito vector population.

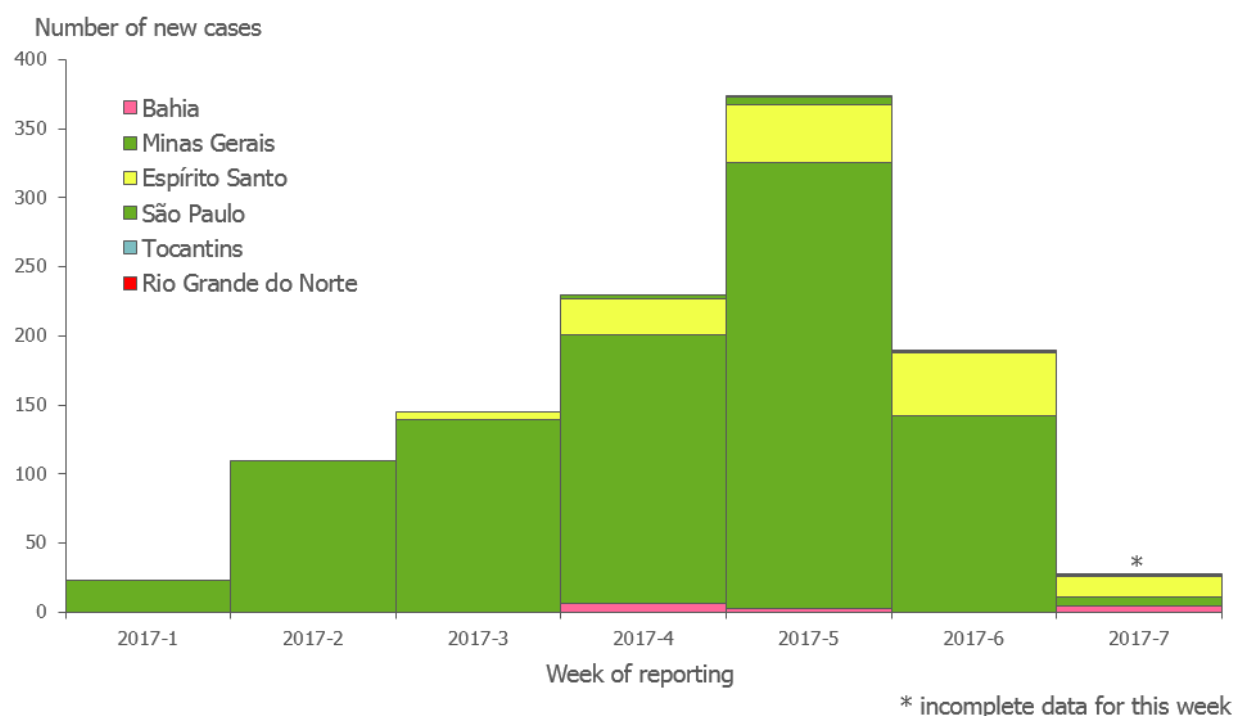
In 2016 and 2017, Brazilian authorities have only reported sylvatic cases. This outbreak should be carefully monitored because the establishment of an urban yellow fever cycle would have the potential to quickly affect a large number of people.

EU/EEA Member States should consider a range of response options. EU/EEA citizens who travel to, or live in, areas where there is evidence of yellow fever virus transmission, particularly in the states of Brazil reporting confirmed local transmission, should take into account the risk of yellow fever, check their vaccination status, and get medical advice about getting vaccinated against yellow fever.

Actions

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

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



Distribution of human cases of yellow fever by state, Brazil, 2017






	All cases	Suspected cases	Confirmed cases
Minas Gerais	938	722	216
Espírito Santo	135	101	34
São Paulo	10	6	4
Bahia	13	13	0
Tocantins	3	3	0
Rio Grande do Norte	1	1	0
Under investigation	5	5	0
Total	1 105	851	254

Distribution of confirmed human cases of locally-acquired yellow fever, Brazil, 2017, as of 16 February 2017

ECDC



Confirmed cases of locally-acquired yellow fever, as of 16 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: 17 Feb 2017
ECDC map maker: <https://emma.ecdc.europa.eu>

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 17 February 2017

Epidemiological summary

In 2017, Afghanistan reported one case of WPV1. Two countries reported environmental WPV1 positive samples: Afghanistan (one sample) and Pakistan (two samples).

Web sources: [Polio eradication: weekly update](#) | [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.

9/11

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 reintroduced 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.

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