

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Measles cases in a company - Slovakia - 2017

Opening date: 18 December 2017

Latest update: 21 December 2017

On 8 December 2017, the [Public Health Authority](#) of the Slovak Republic reported one measles case in Slovakia with a travel history to Austria. On 13 December 2017, [media](#) reported a second measles case epidemiologically linked to the first one. Both cases work for the same company that employs 800 staff from Slovakia and an additional 25 countries.

New! Aedes aegypti – Fuerteventura, Canary Islands, Spain – 2017

Opening date: 20 December 2017

Latest update: 21 December 2017

On 20 December 2017, authorities of the Canary Islands acknowledged the detection of *Aedes aegypti* mosquitoes in Fuerteventura, Spain. According to media quoting the Institute of Tropical Diseases and Public Health of the Canary Islands, adults and larvae of *Aedes aegypti* have been found in the city of Puerto del Rosario. The same source mentions that no eggs of *Aedes aegypti* have been identified so far.

Salmonella Agona associated with infant formula milk - France - 2017

Opening date: 12 December 2017

In December 2017, the French authorities reported 35 *Salmonella* Agona cases among infants. In most of the cases, consumption of infant milk formula could be confirmed. The information available on RASFF as of 21 December indicates that the implicated products have been distributed in a large number of countries worldwide, including some EU/EFTA countries. No deaths have been reported.

Based on epidemiological and microbiological investigations, one case in an infant in Greece and one in Spain are most probably associated with this outbreak as well.

→ Update of the week

Since the previous CDTR report, published on 16 December, eight new cases of *Salmonella* Agona linked to the current outbreak have been reported.

Influenza – Multistate (Europe) – Monitoring season 2017/2018

Opening date: 11 October 2017

Latest update: 21 December 2017

Influenza transmission in Europe shows a seasonal pattern, with peak activity during the winter months.

→Update of the week

Update of the week 2017-50 (11 to 17 December 2017): The weekly update will be published on 21 December on [Flu News Europe](#).

ECDC published an update of the [Rapid Risk Assessment of seasonal influenza, EU/EEA, 2017–2018](#) on 20 December 2017.

Non EU Threats

Chikungunya, dengue and Zika – Multistate (World) – Monitoring global outbreaks

Opening date: 27 January 2017

Latest update: 21 December 2017

Chikungunya, dengue and Zika virus infections are vector-borne diseases that affect 50 to 100 million people each year. In the past decade, all three diseases have been reported across an increasing number of countries. Chikungunya virus infection has been reported in Asia and Africa, and since 2013/2014, in the Caribbean, the Americas and the Pacific. Dengue fever is present in Asia, the Pacific, the Caribbean, the Americas and Africa. Zika virus circulation is reported in Asia, the Pacific, the Caribbean, the Americas and Africa. In 2017, as of 20 December, no autochthonous dengue or Zika cases related to vector-borne transmission were detected in EU/EEA Member States. During 2017, France and Italy reported autochthonous chikungunya cases.

→Update of the week

Monthly summary:

This month, the significant events for dengue, chikungunya and Zika are:

Dengue, Africa

Between 2 October and 26 November 2017, [Sudan](#) reported 90 suspected dengue cases including two deaths (CFR: 2.2%). The highest number of cases (80 suspected cases) was reported in Kassala state in the eastern part of the country.

Zika: Since the last Zika update on 1 December 2017, the changes in the Zika map are:

Americas: Honduras, Panama, Puerto Rico and Venezuela changed to 'areas with virus transmission following previous virus circulation (WHO Cat. 2)'.
In the United States, Hidalgo County (Texas) has been added as 'areas with virus transmission following virus new/re introduction (WHO cat. 1)' following the detection of a locally-acquired case on 12 December 2017.

Australia and the Pacific: Marshall Islands changed to 'areas with interrupted transmission (WHO cat. 3)'.

II. Detailed reports

New! Measles cases in a company - Slovakia - 2017

Opening date: 18 December 2017

Latest update: 21 December 2017

Epidemiological summary

The Public Health Authority of the Slovak Republic reported one measles case in Slovakia with a travel history to Austria on 8 December 2017. According to media reports, a second measles case with an epidemiological link to the first one was confirmed on 13 December.

First case: On 8 December 2017, Slovakia reported a case of measles in a 39-year-old man living in Bratislava, Slovakia. He was hospitalised on 5 December 2017 with a rash. Prior to onset of illness, the patient travelled to Austria.

Second case: On 13 December 2017, Slovakian media reported a second case of measles in a 35-year-old man living in Bratislava, Slovakia. The case was hospitalised.

According to media, both cases work for the same company that employs more than 800 staff from Slovakia and an additional 25 countries.

Sources: [Public Health Authority of the Slovak Republic](#) | [media](#) | [media](#)

ECDC assessment

Measles outbreaks continue to occur in a number of EU/EEA countries. According to a previous [ECDC risk assessment](#), there is a risk of spread and sustained transmission in areas with susceptible populations. Vaccination with at least two doses remains the most effective measure. The progress towards elimination of measles in the WHO European Region is assessed by the European Regional Verification Commission for Measles and Rubella Elimination (RVC). Member States of the WHO European Region are making steady progress towards the elimination of measles.

Actions

ECDC is monitoring this outbreak through epidemic intelligence.

New! Aedes aegypti – Fuerteventura, Canary Islands, Spain – 2017

Opening date: 20 December 2017

Latest update: 21 December 2017

Epidemiological summary

On 20 December 2017, authorities of the Canary Islands acknowledged the detection of *Aedes aegypti* mosquitoes on Fuerteventura, Spain. According to media quoting the Institute of Tropical Diseases and Public Health of the Canary Islands, adults and larvae of *Aedes aegypti* have been found in the city of Puerto del Rosario. The same source mentions that no eggs of *Aedes aegypti* have been identified so far.

The authorities have implemented a task force to evaluate the extent to which *Aedes aegypti* has been introduced and to implement control measures.

Source: [media](#) | [Authorities of the Canary Islands](#)

ECDC link: [VectorNet/ECDC Aedes aegypti map](#)

ECDC assessment

This investigation reports the presence of *Aedes aegypti* on Fuerteventura Island (Canary Islands, Spain) for the first time and indicates its recent introduction within a limited area. According to the VectorNet criteria, at present this recent detection does not classify *A. aegypti* as having become established in the Canary Islands. Entomological field investigations are needed to further assess the extent of the areas with vector presence and the associated risk of vector-borne diseases.

Salmonella Agona associated with infant formula milk - France - 2017

Opening date: 12 December 2017

Epidemiological summary

On 2 December 2017, France reported 20 *Salmonella* Agona cases among infants under six months, most of whom had consumed different brands of infant milk formula.

As of 20 December, Santé publique France had reported 35 cases among infants. For most of these cases, consumption of infant milk formula could be confirmed. In all, 16 of the cases have been hospitalised. All of them were later discharged. No fatalities were reported. The first cases were reported in April 2017. The consumption of five different brands of infant formula were implicated as the vehicle of infection in this outbreak.

According to French Ministry of Health, the implicated products from Lactalis company ([list of products](#)) were voluntarily recalled from the market in December 2017. The products currently implicated have been distributed to a large number of countries worldwide, including some EU/EFTA countries.

According to the Institut Pasteur, the outbreak strain displays atypical biochemical characteristics and, contrary to the largest part of *Salmonella* populations, this strain did not produce H₂S and gas after 18 hours incubation on Kligler-Hajna media. This particular trait was found in all 35 cases associated with the outbreak in France.

The same uncommon characteristic was identified also in one *Salmonella* isolate from an infant reported by Greece and one reported by Spain. The two infants fell ill in October 2017, and both had consumed one of the infant formulas flagged by the French investigations.

A previous outbreak of *Salmonella* Agona occurred in France in 2004 and 2005 and was associated with consumption of infant milk formula from the same producer.

TESSy background

Salmonella Agona is the 10th most common *Salmonella* serotype in the EU/EEA. In 2012-2016, it was reported by 26 EU/EEA countries with 400-581 cases annually. The United Kingdom, Germany and France accounted for the highest proportion of confirmed cases (30%, 16% and 14%, respectively) in this period. Cases were most frequent among adults in the age group 25-44 years (23%), and children under five years (22%). No major differences were observed in gender distribution overall. Travel information was available for 76% of the cases and of these, 65% were reported as domestic cases.

Sources: [Media](#) | [SANTÉ France](#) | [RASFF](#)

ECDC assessment

This outbreak of *Salmonella* Agona primarily affects infants and is associated with different brands of infant milk formula produced in one factory in France. The products have been distributed to a large number of countries around the world, including countries in the EU. Biochemical tests, and ultimately whole genome sequencing (WGS) analysis, will confirm whether cases of *Salmonella* Agona in infants are linked to the outbreak. The investigation is still ongoing.

Actions

ECDC is monitoring the event in EPIS-FWD and is actively engaged in communication with those EU/EEA countries possibly affected. ECDC is offering whole genome sequencing services to countries who do not have the capacity or possibility to conduct timely analysis, with the comparison of sequences being carried out by the Institut Pasteur in France.

Influenza – Multistate (Europe) – Monitoring season 2017/2018

Opening date: 11 October 2017

Latest update: 21 December 2017

Epidemiological summary

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 on the [ECDC](#) website and on the [World Health Organization's Regional Office for Europe](#) website.

Chikungunya, dengue and Zika – Multistate (World) – Monitoring global outbreaks

Opening date: 27 January 2017

Latest update: 21 December 2017

Epidemiological summary

Detailed information:

Europe

Chikungunya: In 2017, as of 20 November, [France](#) has reported two clusters including 15 confirmed and two probable chikungunya cases. As of 10 November, [Italy](#) has reported 238 confirmed and 190 probable cases. These are two distinct events. There is epidemiological and microbiological evidence highlighting the fact that the clusters in France and in Italy are not related.

Dengue: In 2017, as of 22 December, no autochthonous dengue cases had been detected in EU/EEA Member States.

Zika: No mosquito-borne Zika virus transmission was reported in EU/EEA Member States in 2016 and 2017. In 2017, as of 11 December, 14 countries (Austria, Belgium, the Czech Republic, Denmark, Finland, France, Greece, Ireland, Italy, the Netherlands, Norway, Spain, Sweden and the United Kingdom) have reported 169 travel-associated Zika virus infections through The European Surveillance System (TESSy). In 2017, as of 11 December, eight EU/EEA Member States had reported 21 Zika cases among pregnant women.

Americas and the Caribbean

Chikungunya: In 2017, as of 8 December, PAHO has reported almost 185 000 suspected and confirmed chikungunya cases in the Americas and the Caribbean region. This represents an increase of 2 000 cases since the last report in the CDTR for the period 26 November to 2 December 2017. Brazil represents 93% of the 185 000 cases reported in the Americas since the beginning of the year. In 2016, [PAHO](#) reported more than 442 000 cases during the same time period.

Dengue: In 2017, as of 15 December, [PAHO](#) has reported more than 770 000 suspected and confirmed dengue cases, including 346 deaths. This is an increase of 288 000 cases and 93 deaths since the last report in the CDTR dated 26 November to 2 December 2017. Most cases are reported by Brazil (459 252), Mexico (86 897), Peru (74 160) and Nicaragua (62 717). In 2016, as of 12 December, PAHO had reported over 2.2 million confirmed and probable cases, including 947 deaths in the Americas and the Caribbean region during the same time period.

Zika: On 12 December 2017, [Texas](#) reported three cases of Zika virus infection in Hidalgo County. Of these, one appears to be the result of vector-borne transmission.

In 2017, as of 3 December, [Mexico](#) reported 2 952 cases of Zika virus infection compared to 6 906 cases reported in the same time period in 2016. The most affected states are Tamaulipas, Nayarit and San Luis Potosí, reporting 610, 491 and 448 cases, respectively. During the same time period in 2016, these states reported 69, 38 and 26 cases, respectively.

The Department of Health in [Australia](#) reported one case of Zika virus infection in a returning traveller from Cuba during the surveillance period from 18 November to 2 December 2017.

Asia

Chikungunya: Chikungunya fever cases have been reported from Pakistan and India.

Since the end of 2016 and as of 8 December 2017, [Pakistan](#) had reported more than 8 000 suspected and confirmed cases of chikungunya from all four provinces of the country. More than half of the cases are from Karachi city in Sindh province. In 2017, as of 17 December, [India](#) has reported over 61 000 suspected chikungunya cases, compared with 64 057 suspected cases during the entire year 2016 and 27 553 in 2015. Among the 61 000 cases, 13 000 have been reported between 12 November and 17 December 2017.

Dengue: In 2017, the most affected countries in Asia are Sri Lanka, Vietnam and India. India, Sri Lanka, Laos, Vietnam and China have reported more dengue cases than in 2016 during the same time period, while Malaysia, Cambodia and Singapore have reported less cases. Currently, most of the reporting countries are showing a declining trend.

In 2017, as of 14 December, [Sri Lanka](#) has reported around 178 000 suspected dengue cases, including [395 deaths](#). This is an increase of 8 000 cases since the previous report on 1 December. The highest numbers of dengue cases, 10 699 cases, were reported during week 2017-29 (17 to 23 July). In 2016, Sri Lanka reported 55 000 cases for the entire year. All four virus types of dengue have been detected in Sri Lanka. The [current outbreak](#) is predominantly due to DENV-2, which is not the usual type circulating in Sri Lanka.

In 2017, as of 24 November, [Laos](#) had reported over 10 000 cases, including 14 deaths. A declining trend has been observed since the beginning of September. In 2016, as of 2 December, 5 373 cases had been reported.

In 2017, as of 26 November, [Vietnam](#) had reported more than 173 000 dengue cases, including 30 deaths. This is an increase of 13 000 cases since the previous report on 1 December. There has been a consistent downward trend over the past three months. In 2016, as of 30 November, 110 854 cases including 42 deaths had been reported including 42 deaths.

In 2017, as of 11 December, [Thailand](#) has reported more than 29 000 dengue cases, including two deaths. This is an increase of more than 2 000 cases since the previous report on 1 December.

In 2017, as of 17 December, [India](#) has reported more than 155 000 dengue cases, including 226 deaths, compared with 129 166 cases, including 245 deaths, during the entire year of 2016. Among the 155 000 cases, 26 000 were reported between 12 November and 17 December 2017.

In October 2017, [China](#) reported 1 645 cases of dengue. The number of reported cases was lower than the previous month and follows historical trends.

In 2017, as of 28 November, [Cambodia](#) has reported 3 056 suspected dengue cases, which is an increase of 172 cases since the previous report on 1 December. The reported number of cases in 2017 is lower than during the same time period in 2014–2016. In 2017, as of 17 December, [Malaysia](#) has reported more than 81 000 dengue cases, which is an increase of 3 000 cases since the previous report on 1 December. In 2016, Malaysia reported around 100 000 cases during the whole year.

In 2017, as of 18 November, [Singapore](#) had reported 2 520 dengue cases, which is an increase of 174 cases since the previous report on 1 December. The reported number of cases in 2017 is lower than during the same time period in 2013–2016.

Between July and 10 December 2017, [Pakistan](#) reported more than 125 000 suspected dengue cases, including 69 deaths. This is an increase of 11 000 suspected cases compared to the previous report on 1 December.

Since late September and as of the end of November 2017, [Nepal](#) had reported over 300 cases in Jhapa district. Similar case numbers have also been reported in Mahottari and Rautahat districts. Health authorities are conducting public awareness campaigns to limit the outbreak.

Zika: According to media, [Thailand](#) reported one case of Zika virus infection in a pregnant woman on 7 December 2017.

Australia and the Pacific

Chikungunya: No outbreaks detected.

Dengue: In 2017, as of 30 November, [Australia](#) had reported 939 laboratory-confirmed dengue cases in 2017, which is an increase of 23 cases since the previous report on 1 December. The reported number of cases in 2017 is lower than during the same time period in 2012–2016. The number of cases refers to both imported and non-imported cases. In Australia, non-imported cases occur only in Queensland.

Between 6 and 19 November 2017, [French Polynesia](#) reported 25 dengue cases, 14 of which were confirmed as DENV-1 infection.

In 2017, as of 13 December, [New Caledonia](#) has reported 4 421 dengue cases. The circulating serotypes are DENV-1, DENV-2 and DENV-3. The weekly number of cases is decreasing.

In 2017, as of 12 December, according to media, [Palau](#) has reported at least 490 dengue cases, including at least five deaths. This is an increase of 18 cases since the previous report on 1 December. Since 10 November no new cases have been reported. In 2016, 53 cases were recorded.

In 2017, as of 5 December, [Wallis and Futuna](#) have reported 10 confirmed dengue cases, five of which had DENV-1.

In 2017, as of 3 December, [Samoa](#) has reported 1 522 cases, including four deaths. Samoa has confirmed a DENV-2 outbreak, detected in October 2017.

Zika: No outbreaks detected.

Africa

Chikungunya: No outbreaks detected.

Dengue: Between 28 September and 10 December 2017, [Senegal](#) reported 783 dengue cases, 137 of which are confirmed. This is an increase of 59 cases since the previous report on 1 December. DENV-1 is the circulating serotype. A total of 93% of the cases were reported from the Louga Region. As of 10 December 2017, no severe cases and no deaths had been reported. In 2017, as of 26 November, [Ivory Coast](#) had reported 1 419 suspected dengue cases, 322 of which are confirmed. This is an increase of 138 suspected cases since the previous report on 1 December. Two deaths have been reported. Three of the four dengue virus subtypes have been identified: DENV-2 (181 cases), DENV-3 (78 cases) and DENV-1 (13 cases). Most of the cases (95%) occurred in Abidjan.

Between mid-December 2015 and 28 November 2017, [the Seychelles](#) reported 4 233 suspected dengue cases. DENV-2 is predominant. The outbreak peaked in week 2016-24 (13 to 19 June). The number of cases has been decreasing since week 2017-23 (5 to 11 June). Cases have been reported from all regions of the three main islands (Mahé, Praslin and La Digue). In 2017, as of 26 November, [Burkina Faso](#) had reported 13 135 suspected cases, including 28 deaths (CFR: 0.2%). This is an increase of 1 048 suspected cases since the previous report on 1 December. DENV-1, DENV-2 and DENV-3 are circulating. The majority of the cases (61%) were reported in the central region. On 28 September 2017, the Ministry of Health formally declared an outbreak.

In 2017, as of 19 November, [Mali](#) has reported 418 cases of dengue fever (33 confirmed), representing an increase of 73 cases since the previous report on 1 December.

Between 2 October and 26 November 2017, [Sudan](#) has reported 90 suspected dengue cases including two deaths (CFR:2.2%). The highest number of cases (80 suspected cases) was reported in Kassala state. Cases were also reported across the states of Khartoum, East Darfur, West Darfur, South Kordofan and Red Sea.

In 2017, as of 13 December, [Mauritania](#) has reported 37 confirmed dengue cases. On 30 November 2017, Mauritania officially notified WHO of three cases of dengue fever, including one haemorrhagic case (DENV-2) with history of DENV-1 in 2016.

In 2017, as of 12 December, [La Reunion](#) has reported 86 cases. This is an increase of 11 cases since the previous report on 27 October 2017.

Zika: According to the [WHO African Region](#) bulletin as of 1 December 2017, health authorities in Angola reported an increase in the number of microcephaly cases in Luanda Province. As of 29 November 2017, 42 cases of microcephaly had been reported from Luanda Province (39), Zaire Province (1), Moxico Province (1) and Benguela Province (1). Fifteen samples had been collected and tested negative for Zika virus by polymerase chain reaction (PCR), however, the association with Zika virus infection has not been ruled out.

ECDC assessment

Chikungunya: In France and Italy, the report of a cluster of autochthonous chikungunya cases in areas of Europe where *Aedes albopictus* is established was not unexpected during the summer months, when environmental conditions were favourable for mosquitoes. The risk of new clusters of local transmission emerging in the EU is currently considered low for chikungunya and dengue. As these diseases are endemic in large areas of the intertropical zone, repeated introductions do occur through viraemic travellers returning from these areas, and weather conditions are currently suitable for *Aedes albopictus* activity in areas where it is established. Outbreaks are still ongoing in the Americas and in Asia.

Dengue: Dengue is widespread in tropical and subtropical regions.

Zika: Despite the decrease in intensity of Zika virus transmission after the 2016 wave, cases are still being reported in the Americas and Asia where the vectors, *Aedes* mosquitoes, are widely distributed. As neither treatment nor vaccines are available, prevention is based on personal protection measures. Pregnant women should consider postponing non-essential travel to Zika-affected areas.

Europe is vulnerable to the autochthonous transmission of arboviruses. The risk of 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 case is possible during the summer season in the EU/EEA. Continued vigilance is needed to detect imported cases in tourists returning to the EU/EEA from affected regions.

Actions

ECDC monitors these threats through epidemic intelligence and reports on a monthly basis. ECDC published the tenth update of its [rapid risk assessment](#) on Zika virus disease epidemic on 5 April 2017. ECDC published a [rapid risk assessment](#) on chikungunya in France on 23 August 2017 and the first [update](#) of the rapid risk assessment on chikungunya in Italy on 9 October 2017.

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