

This weekly bulletin provides updates on threats monitored by ECDC.

NEWS

World Tuberculosis Day 2018

New data released on 19th March 2018 by the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe show that the decreasing trend in new tuberculosis (TB) cases, observed since 2007, continues at a rate of around 4% annually in EU/EEA. The rate of the decrease needs to at least double to reach the Sustainable Development Goals target of ending the epidemic of TB by 2030.

In the EU/EEA, the rate of notified multidrug-resistant (MDR TB) cases has remained unchanged since 2012, at 0.3 per 100 000 population. However, the proportion of extensively drug-resistant (XDR-TB) cases among MDR-TB cases increased from 13.9% to 20.6% during the same period, which could be attributed to better capacity for detection. Such capacity is being further developed by ECDC through a pilot project launched in 2017 on the use of whole genome sequencing (WGS) technology to improve the detection and investigation of *Mycobacterium tuberculosis* in the EU/EEA. The project will establish common standards for WGS in investigating MDR-TB bacteria strains and tracing outbreaks and build capacity. It will also enable all EU/EEA countries without WGS capacity to utilise the technology by linking them to institutes with robust experience in WGS.

To mark World Tuberculosis Day 2018, on 24 March, ECDC has released a series of materials. They range from the latest surveillance data for the EU/EEA region in the annual joint report with WHO/Europe and related presentations, peer-reviewed publications, online resources on individual country and other organisational activities to an infographic on how ECDC is utilising WGS to detect *M. tuberculosis* outbreaks.

I. Executive summary

EU Threats

New! Reassortant influenza A virus – Netherlands – 2018

Opening date: 21 March 2018

Latest update: 23 March 2018

On 20 March 2018, the Netherlands reported a case of H1pdm09N2 2/6 reassortant influenza virus infection. It was detected in a routine sentinel influenza surveillance for influenza-like illness. The virus genome consists of 6 gene segments of a seasonal influenza A(H3N2) virus and 2 gene segments of a seasonal A(H1N1)pdm09 virus.

→Update of the week

On 20 March 2018, the Netherlands reported a case of H1pdm09N2 2/6 reassortant influenza virus infection. It was detected in a routine sentinel influenza surveillance for influenza-like illness. The virus genome consists of 6 gene segments of a seasonal influenza A(H3N2) virus and 2 gene segments of a seasonal A(H1N1)pdm09 virus.

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

Opening date: 11 October 2017

Latest update: 23 March 2018

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

→Update of the week

During week 11 in 2018 (12-18 March 2018), influenza viruses continue to circulate widely in the Region with some eastern European countries only recently reporting an increased activity. This indicates a late start of the season with increased circulation of influenza type A viruses detected.

Dengue – France, La Réunion – 2018

Opening date: 13 March 2018

Latest update: 23 March 2018

Since the beginning of 2018, La Réunion has seen a significant increase in dengue cases.

→Update of the week

Since the previous CDTR and as of 20 March 2018, authorities reported 241 dengue cases in La Réunion. Among the cases, 110 were reported between 12 and 18 March 2018.

Listeria monocytogenes clusters - Europe - 2018

Opening date: 21 February 2018

Latest update: 23 March 2018

On 3 November 2017, Finland posted an urgent inquiry on the Epidemic Intelligence Information System for food- and waterborne diseases (EPIS-FWD), describing a cluster of *L. monocytogenes* PCR serogroup IVb, MLST ST6, confirmed by whole genome sequencing (WGS) (in-house cgMLST scheme), with 13 cases detected in different parts of Finland between January 2016 and September 2017. As of 6 March 2018, this outbreak has been associated with 32 cases identified between December 2015 and February 2018. Since the ECDC rapid risk assessment published on 6 December 2017, new confirmed cases were reported in Denmark (2), Finland (2), Sweden (1) and the United Kingdom (2). A previously reported case from Finland was excluded because it did not meet the criteria used by the European outbreak case definition.

→Update of the week

There have been no new cases during the past week.

Measles - Portugal - 2018

Opening date: 16 March 2018

Latest update: 23 March 2018

Since 9 March 2018, Portugal is experiencing an outbreak of measles in the northern region of the country. The majority of the cases are related to the Hospital San Antonio in Porto. Among the confirmed cases the majority are healthcare professionals. As an outbreak response, Portuguese authorities launched active case finding and contact tracing, and initiated a vaccination campaign and awareness campaign among patients and healthcare professionals.

→Update of the week

Between 9 and 22 March 2018, Portugal has reported 66 confirmed measles cases. This is an increase of 45 cases since the CDTR published last week. Among the confirmed cases, 58 (88%) are healthcare professionals, mostly from the San Antonio hospital in Porto, north of Portugal.

Non EU Threats

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 23 March 2018

[Yellow fever](#) is a mosquito-borne viral infection which occurs in some tropical areas of Africa and South America.

Brazil experienced a major outbreak of yellow fever in 2016–2017. An upsurge of confirmed cases has been reported since December 2017.

→Update of the week

Since the previous CDTR on 16 March 2018 and as of 20 March, [Brazil](#) has reported 178 cases and 40 deaths. The cases occurred in São Paulo (75), Rio de Janeiro (65) and Minas Gerais (38) states.

During the same time period, [Brazil](#) has reported confirmed epizootics in non-human primates in Minas Gerais (12) and São Paulo State (1).

Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 23 March 2018

Several countries in Africa, Asia and the Americas are reporting cholera outbreaks. Currently, major outbreaks are reported in Yemen, the Democratic Republic of Congo (DRC), Uganda, Kenya, Tanzania, Zambia, Mozambique, Malawi and Angola.

→Update of the week

Since the previous CDTR update of 23 February 2018, Burundi, Chad and Namibia have declared the end of their cholera outbreaks. However, during the same period South Africa and Uganda reported new cholera outbreaks. The countries which have had the most cases during the past month are: Yemen with 17 788 cases and eight deaths, DR Congo with 2 688 cases and 85 deaths, Uganda with 1 695 cases and 36 deaths, Kenya with 1 277 cases and Zambia with 1 241 cases and 19 deaths. Despite the decreasing trend in Yemen, the situation is a matter of concern, as the number of cases have passed one million since the beginning of the outbreak in 2016.

The outbreak in Haiti shows a decreasing trend with 281 cases and seven deaths reported since the CDTR report of 23 February 2018.

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

Opening date: 27 January 2017

Latest update: 23 March 2018

Chikungunya and dengue are vector-borne diseases that affect 50 to 100 million people each year. In the past decade, an increasing number of countries have detected cases of dengue and chikungunya. Chikungunya virus infection has been circulating in Asia, Africa, the Caribbean, the Americas and the Pacific since 2013/2014. Dengue fever is present in Asia, the Pacific, the Caribbean, the Americas and Africa. During 2017, France and Italy reported autochthonous chikungunya cases. In 2018, no autochthonous dengue or chikungunya cases were detected in EU/EEA Member States.

→Update of the week

Monthly summary:

Chikungunya: No new outbreaks have been detected this month.

Dengue: Recent outbreaks have been detected in La Reunion (see specific threat report), Tanzania and some Pacific islands. Cases continue to be reported in Central and South America as well as in Asia, although the trend shows a decrease compared to 2017.

II. Detailed reports

New! Reassortant influenza A virus – Netherlands – 2018

Opening date: 21 March 2018

Latest update: 23 March 2018

Epidemiological summary

On 20 March 2018, the Netherlands posted an EWRS reporting a case of H1pdm09N2 2/6 reassortant influenza virus infection. It was detected in a routine sentinel influenza surveillance for influenza-like illness. The virus genome consists of 6 gene segments of a seasonal influenza A(H3N2) virus (PB1, PB2, PA, NP, NA, M) and 2 gene segments of a seasonal A(H1N1)pdm09 virus (HA, NS). Reassortant H1N2 seasonal influenza viruses have been found before.

The case is a 19-month-child who had influenza-like illness since 2 March. Symptoms included malaise, sore throat, coughing, shortness of breath, rhinorrhea and diarrhea. No travel abroad was reported. The patient was not vaccinated against influenza, did not use influenza antivirals or any other medication, and had no underlying disease. The laboratory confirmation was received on 18 March. The patient has recovered.

Contact investigation revealed that the parents had symptoms of (predominantly) gastrointestinal infection in the two weeks preceding onset of disease in the index. Contact investigation, enhanced laboratory monitoring and subsequent typing of influenza samples in this city have been implemented.

ECDC assessment

This sporadic case of an reassortant virus between the currently circulating influenza A(H1N1pdm09) and A(H3N2) viruses is an illustration of the constant evolution of influenza viruses in order to evade host immune defences and increase survival chances of the virus. Such events have been reported before for the seasonal H1N1 recombination with seasonal H3N2 and between H1N1pdm09 and H3N2. Based on genomic and phylogenetic characteristics of the virus, no major differences in transmissibility, or pathogenicity are expected as compared to the currently circulating viruses. Although there is no evidence of other such cases from the Netherlands or elsewhere, given the nature of influenza sentinel surveillance, it is probable that there has been or is some limited transmission occurring of this virus in Europe. All National influenza centres (NICs) in EU/EEA Member States have the capacity to subtype neuraminidase in influenza viruses, however varying strategies to decide on which specimens to subtype are likely to be used, and therefore the likelihood of detecting this virus will differ by Member States.

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

Opening date: 11 October 2017

Latest update: 23 March 2018

Epidemiological summary

Week 11 in 2018 (12-18 March 2018), influenza viruses continue to circulate widely in the Region, with some eastern European countries that have only recently reported increased activity, experiencing a late start to the season with increased circulation of influenza type A viruses. [Countries](#), which experienced a cold spell may suffer more severe seasons.

Similar to the previous week, 44% of the individuals, sampled in the primary healthcare settings, tested positive for influenza viruses, despite the peak rate for the Region occurring in week 5 in 2018.

Both influenza virus types A and B were co-circulating with the majority being type B viruses. Of the type B viruses, B/Yamagata continues to be the dominant lineage.

Similar proportions of influenza type A and B viruses were reported in patients admitted to intensive care units (ICU), with the majority of severe cases reported this season being due to influenza type B and occurring in persons above the age of 15 years.

A seasonal reassortant A(H1N2) influenza virus consisting of HA and NS genes of human seasonal A(H1N1)pdm09 influenza virus and M, NA, NP, PA, PB1 and PB2 genes of human seasonal A(H3N2) influenza virus was detected in the Netherlands (see specific threat report). As the reassortant virus genome contains a mixture of genes from currently circulating seasonal influenza viruses, no increase in virulence is expected. There is no evidence for extensive spread of this A(H1N2) influenza virus, but laboratories should be vigilant.

Mortality from all causes based on data pooled from 17 EU countries and regions that reported to [euroMOMO](#) has increased significantly over the past months, notably in the elderly. While mortality remains elevated in some countries, it is declining in others.

Source: [Flu News Europe](#)

ECDC assessment

Influenza activity continues to be reported in Europe, putting pressure on healthcare systems and creating significant media attention. Excess winter mortality is being reported from several countries, especially following A(H3N2) circulation. Vaccination programmes targeting the elderly, people with chronic diseases, and healthcare workers should be continued and intensified in countries that have not yet seen a seasonal peak. Antiviral treatment with neuraminidase inhibitors should be advised for people at high risk of complications from influenza, such as people with underlying chronic respiratory or cardiovascular diseases, and for people with severe or rapidly progressive symptoms. Antiviral prophylaxis should be considered during the early phases of outbreaks in closed settings such as nursing homes. Interpersonal distancing measures are also likely to provide protection for infants, the elderly and the frail.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the [Flu News Europe website](#). ECDC's risk assessment for the 2017-2018 season is available on [ECDC website](#). Recommendations on the composition of the 2017-2018 influenza virus vaccine are available on [WHO website](#).

Dengue – France, La Réunion – 2018

Opening date: 13 March 2018

Latest update: 23 March 2018

Epidemiological summary

In 2018 and as of 20 March, authorities have reported 434 cases on the island. Among the cases, 110 were reported between 12 and 18 March 2018. Two third of these cases are reported in the area of Saint Paul. The most prevalent serotype is DENV-2.

According to French authorities for blood safety, blood collection was interrupted in the Saint Paul municipality as a preventive measure.

On 27 February 2018, authorities decided to raise the level of the emergency plan [ORSEC](#) to B2. This plan includes:

- Intensification of vector control;
- Reinforcement of communication to the public and healthcare workers;
- Preparation to mobilise additional resources.

Sources: [ARS](#)

ECDC assessment

The persistence of the dengue transmission during the austral winter was of concern as it could have led to a higher dengue virus circulation ahead of the usual season of dengue transmission in La Reunion (February to June). The current outbreak is a significant event as the number of cases already exceed the yearly number of cases reported since 2010. Further transmission is expected as the weather conditions will be favourable for the vector population in the coming months. A response strategy is currently implemented including reinforced vector control, enhanced surveillance, blood safety measures and social mobilisation. For Europe, the introduction via viraemic traveller is possible but considering that the weather conditions are currently not favourable to mosquito activity in continental EU, the risk of local transmission in the EU/EEA is considered very low.

Actions

ECDC reports monthly dengue outbreaks detected through epidemic intelligence in the CDTR.

Listeria monocytogenes clusters - Europe - 2018

Opening date: 21 February 2018

Latest update: 23 March 2018

Epidemiological summary

On 3 November 2017, Finland posted an urgent inquiry on EPIS-FWD, describing a cluster of *L. monocytogenes* PCR serogroup IVb, MLST ST6, confirmed by WGS (in-house cgMLST scheme), with 13 cases detected in different parts of Finland between January 2016 and September 2017.

As of 29 November 2017, nine EU/EEA countries had replied to the urgent inquiry. Four countries reported cases that could be linked microbiologically to the Finnish cluster based on the WGS data using either cgMLST [6,7] or SNP analysis (in-house pipelines).

As of 6 March 2018, this outbreak has been associated with 32 cases identified between December 2015 and February 2018. New confirmed cases were reported in Denmark (2), Finland (2), Sweden (1) and the United Kingdom (2). A previously reported case from Finland was excluded because it did not meet the criteria used by the [European outbreak case definition](#).

ECDC assessment

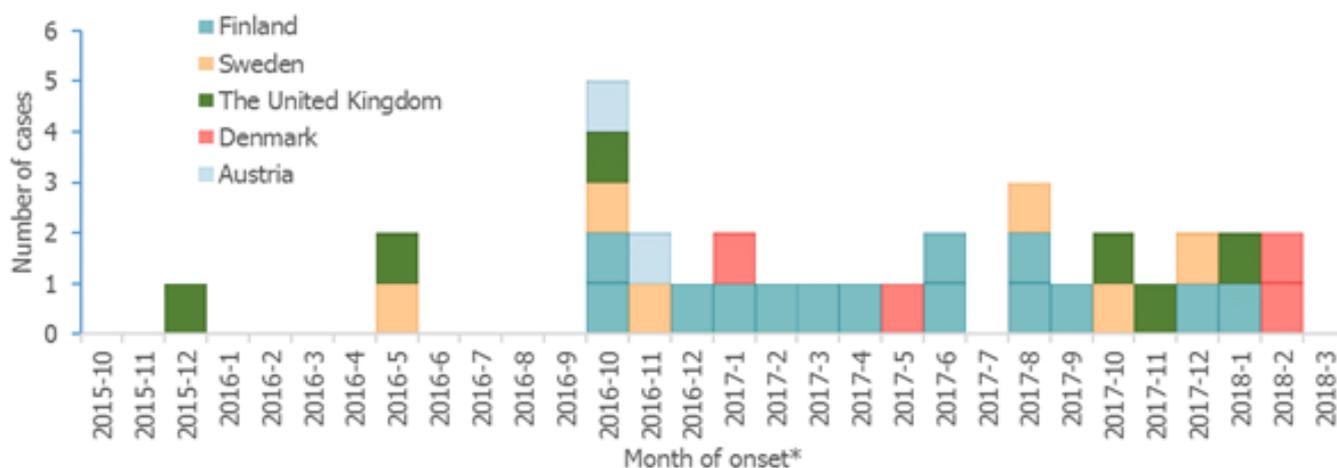
The close relation between isolates in five different countries is suggestive of a multi-country common-source outbreak. Investigations are ongoing to identify the vehicle of infection and the source of contamination.

Actions

ECDC and EFSA published a [joint outbreak assessment](#) to inform on the investigations in humans and food on 22 March 2018.

Listeria monocytogenes PCR serogroup IVb, MLST 6; confirmed outbreak cases by month of symptom onset, European Union, 2015–2018 (n=32)

ECDC



Measles - Portugal - 2018

Opening date: 16 March 2018

Latest update: 23 March 2018

Epidemiological summary

On 14 March 2018, Portugal reported two measles cases in unvaccinated adults with disease onset in February and March 2018. One of the cases has travelled from France. Since 6 November 2017 France is experiencing an outbreak of measles with 1 077 cases, including one death, reported as of 21 March 2018.

As of 22 March 2018 and since the beginning of the outbreak on 9 March 2018, Portuguese authorities reported 66 confirmed measles cases. Additional 37 cases are awaiting laboratory results. Among the confirmed cases, all are adults and 58 (88%) healthcare professionals, mainly from the Hospital Santo António in Porto. Almost all cases are from the Northern region where the outbreak started, and one case is from the Central region with a link to the Northern region.

According to [media](#), quoting the Ministry of Health, measles cases have also been reported in the hospitals of Gaia (6), São João (1), Matosinhos (1) and [Braga](#) (1).

There is active case finding, contact tracing and an ongoing awareness campaign among patients and healthcare professionals, along with a vaccination campaign.

ECDC links: [ECDC Monthly measles and rubella monitoring reports](#) | [Rapid risk assessment: Risk of measles transmission in the EU/EEA](#)

Sources: [Portugal DGS](#) | [Media](#) | [SANTE PUBLIQUE FRANCE](#) |

ECDC assessment

There are several ongoing measles outbreaks in Europe. Vaccination remains the most effective measure against infection. This outbreak underlines the need to improve vaccination and sensitisation among the general population and healthcare workers.

Actions

ECDC is closely monitoring the measles situation in Portugal and is in contact with the healthcare authorities. A rapid risk assessment - [Risk of measles transmission in the EU/EEA](#) has been published on ECDC website on 22 March 2018. ECDC monitors measles situation in EU/EEA countries and reports on a monthly basis.

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 23 March 2018

Epidemiological summary

Between July 2017 and week 2018-11, the Ministry of Health in Brazil reported 1 098 confirmed human cases of yellow fever, including 340 deaths. The cases occurred in Minas Gerais (453), São Paulo (451), Rio de Janeiro (188), Espírito Santo (5) and Distrito Federal (1).

During the same time period, the Ministry of Health reported 630 confirmed epizootics in non-human primates. Of those, 503 were reported in São Paulo State, 93 in Minas Gerais, 30 in Rio de Janeiro State, two in Tocantins and one each in Mato Grosso and Espírito Santo.

Cases among returning travellers

Since the beginning of 2018, unvaccinated travellers from France (1), the Netherlands (1), Romania (1), Switzerland (1) and the United Kingdom (German traveller) (1) have contracted yellow fever in Brazil.

Vaccination recommendations

WHO determined that, in addition to the areas listed in previous updates, the entire state of São Paulo should now be considered at risk for yellow fever transmission. Consequently, vaccination against yellow fever is recommended for international travellers visiting any area in the state of São Paulo.

The [MoH Brazil](#) announced a progressive extension of the standard vaccination recommendations to the entire Brazil. It will be expanded gradually up to 2019.

Sources: [MoH](#) | [WHO](#)

ECDC assessment

The detection of yellow fever confirmed cases around major cities such as São Paulo and Rio de Janeiro is of concern. Authorities are conducting vaccination campaigns. In this context, European citizens travelling to areas at risk should seek medical advice prior travel and receive the yellow fever vaccine at least 10 days prior to travelling. They should also follow measures to avoid mosquito bites and be aware of yellow fever signs and symptoms.

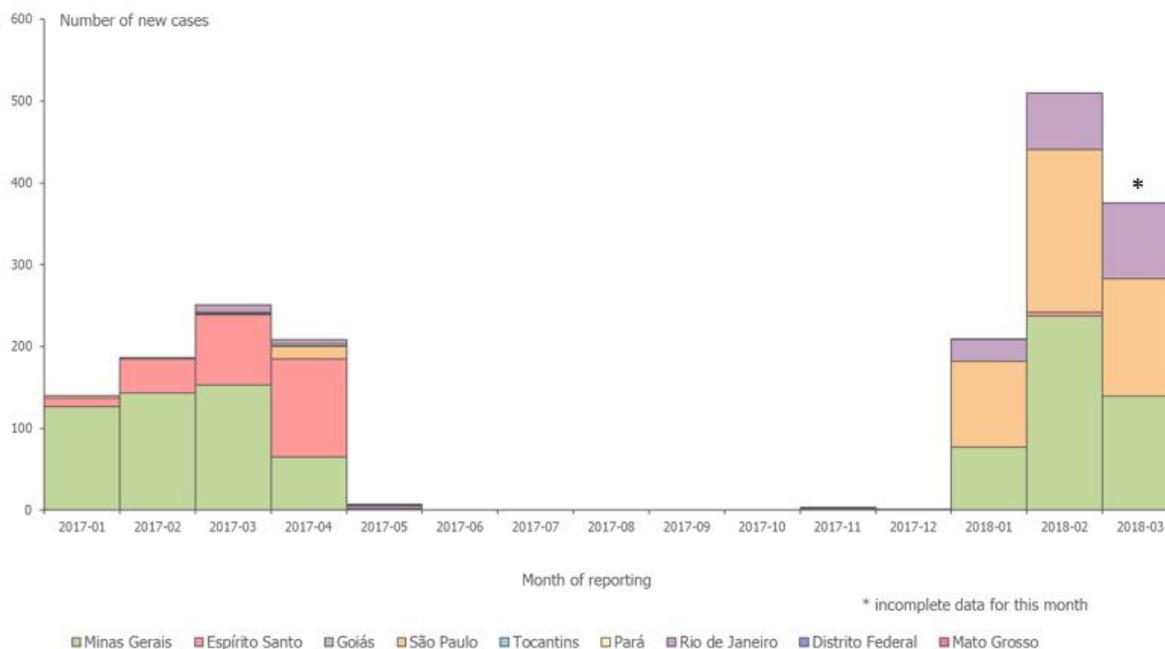
In Europe, *Aedes aegypti*, the primary vector of yellow fever in urban settings, has been established in Madeira, Portugal, since 2005. Presence of *Aedes aegypti* was first reported in 2017 in Fuerteventura, Canary Islands, Spain. The probability of local yellow fever transmission in the EU/EEA following introduction by a viraemic traveller is currently considered very low as weather conditions during the winter season in continental EU/EEA are not favourable to vector activity.

Actions

ECDC published updates of its rapid risk assessment 'Outbreak of yellow fever in Brazil' on [13 April 2017](#) and [18 January 2018](#). On 16 March 2018, ECDC published the third update of the RRA on its [website](#).

Distribution of confirmed human cases of yellow fever by month, Brazil, January 2017 - 20 March 2018

ECDC



Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 23 March 2018

Epidemiological summary

Americas

Dominican Republic: In 2018 and as of 3 March, the Dominican Republic reported six cholera cases. During the same period on 2017, the Dominican Republic reported 48 cholera cases.

Haiti: In 2018 and as of 10 March, Haiti reported 773 cholera cases, including eight deaths (CFR: 1%) in all ten departments. This represents an increase by 281 cases and seven deaths since the previous update of 23 February 2018. In 2016, Haiti reported 41 421 cholera cases including 447 deaths (CFR:1%). From 2010 to 3 February 2018, Haiti has reported 816 773 suspected cholera cases including 9 783 deaths (CFR: 1.2%).

Africa

Angola: As of 11 March 2018, 822 cases and 15 deaths (CFR: 1.8%) were reported. This represents an increase of 265 cases and four deaths, since the previous CDTR report of 23 February 2018. Cases are from Uige and Cabinda provinces.

Burundi: On February 2018, WHO notified the end of the cholera outbreak in Burundi. As of 31 December 2018, Burundi reported a cumulative number of 171 cholera cases and no deaths. Seven districts reported suspected cases.

Chad: On March 2018, WHO notified the end of the cholera outbreak in Chad. Since the beginning of the outbreak on 14 August 2017, Chad reported 1 250 suspected cholera cases, including 81 deaths (CFR: 6.5%).

DR Congo: Since January 2017 and as of 4 March 2018, DR Congo reported 60 492 suspected cholera cases, including 1 288 deaths (CFR: 2.1%) since January 2017. This represents an increase of 2 688 cases and 85 deaths since the previous CDTR report on 23 February 2018. Cases are being reported by the provinces of South Kivu, North Kivu, Tanganyika and Kinshasa.

Ethiopia: Since January 2017 and as of 21 February 2018, Ethiopia reported 48 912 cases of acute watery diarrhoea (AWD), including 880 deaths (CFR: 1.8%). This represents an increase of 18 cases since the previous CDTR update of 23 February 2018. The outbreak epicurve is showing a downward trend.

Kenya: As of 26 February 2018 and since the beginning of the outbreak in January 2017, Kenya has reported 5 555 cholera cases. Only in 2018, 29 deaths were reported related to this outbreak. This represents an increase of 1 277 cholera cases since the previous report of 23 February 2018.

Malawi: In 2018, as of 5 March, Malawi is reporting 759 cases and 23 deaths (CFR: 3%). This represents an increase by 451 cases and 19 deaths since the previous CDTR update of 23 February 2018.

Mozambique: In 2018, as of 15 March, WHO reported 2 147 cases and five deaths in the ongoing cholera outbreak in the country. This represents an increase of 550 cases and four deaths since the previous CDTR update on 23 February 2018. According to WHO, the outbreak is confined to Nampula and Cabo Delgado province.

Namibia: On 2 March 2018, Namibia declared the end of the ongoing cholera outbreak. On 28 January 2018, a schoolboy hospitalised in Windhoek tested positive for cholera. No more cases were reported up to date.

Nigeria: In 2018 and as of 4 February, Nigeria has reported 172 suspected cholera cases, including 13 deaths (CFR: 7.6%). In 2017, Nigeria reported 4 221 suspected cholera cases including 107 deaths. Additionally, as of 8 March 2018, 608 cases including three deaths were reported in Borno State. The Borno State Government declared the end of the cholera outbreak on 21 December 2017, the confirmation of this information supposes the re-emerging of a cholera outbreak in Borno State.

South Africa: On 15 February 2018, the South African National Institute of Communicable Diseases confirmed a cholera case in the bordering district of KwaZulu-Natal province. The case had no travel history. Up to date, no more cholera cases have been reported.

Sudan: According to media, as of 5 March 2018, 77 suspected cholera cases including one death were reported in central Darfur region, in Sudan.

Tanzania: In 2018 and as of 11 March, Tanzania reported 1 440 cholera cases including 27 deaths (CFR: 1.9%). The last case reported in Zanzibar was on 11 July 2017.

Uganda: On 15 February 2018, a new cholera outbreak was declared in Uganda mainly among displaced population from DRC in refugee settlements in Hoima district. As of 15 March 2018, 1 695 suspected cholera cases including 36 deaths were reported (CFR: 2.1%). Transmission is mainly localised in new refugee settlements and fishing villages along Lake Albert.

Zambia: Since 4 October 2017 and as of 15 February 2018, Zambia reports 4 876 cholera cases including 97 deaths (CFR:2%). This represents an increase of 1 241 cases and 19 deaths since the previous CDTR update on 23 February 2018. The outbreak has spread from Lusaka City to other regions in the country. However, Lusaka city is accounting for the majority of the cases.

Zimbabwe: In 2018, as of 13 March, 111 suspected cholera cases including four deaths (CFR:3.6%) were reported. The majority of the cases are in Chegutu Municipality, southwest of Harare. This represents an increase of 10 cases since the update on 23 February 2018.

Asia

Yemen: Since the beginning of the outbreak in October 2016 and as of 18 March 2018, Yemen has reported 1 080 878 suspected

cholera cases and 2 266 deaths (CFR: 0.2%). This represents an increase by 17 788 cases and eight deaths since the previous update on 23 February 2018. Some of the most affected governorates are Amanat Al Asima, Al Hudaydah, Hajjah, Amran and Dhamar.

ECDC assessment

There has been an unusual increase in the number of cholera cases in the Horn of Africa and in the Gulf of Aden in recent years. More recently, cholera outbreaks have been notified in DR Congo and in the southern part of Africa (Zimbabwe, Zambia, Mozambique and Angola). Despite the number of cholera outbreaks reported worldwide, very few cases are reported each year among returning EU/EEA travellers.

According to the World Health Organization, vaccination should be considered for travellers at higher risk, such as emergency/relief workers who are likely to be directly exposed. Vaccination is generally not recommended for other travellers.

Travellers to cholera-endemic areas should seek advice from travel health clinics to assess their personal risk and apply precautionary sanitary and hygiene measures to prevent infection. These can include drinking bottled water or water treated with chlorine, carefully washing fruit and vegetables with bottled or chlorinated water before consumption, regularly washing their hands with soap, eating thoroughly cooked food, and avoiding consumption of raw seafood products.

Actions

ECDC monitors cholera outbreaks globally through its epidemic intelligence activities in order to identify significant changes in epidemiology and to inform public health authorities. Reports are published on a monthly basis.

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

Opening date: 27 January 2017

Latest update: 23 March 2018

Epidemiological summary

Europe

Chikungunya: no autochthonous chikungunya cases have been reported in 2018 from continental EU/EEA countries.

Dengue: no autochthonous dengue cases have been reported in 2018 from continental EU/EEA countries.

Americas and the Caribbean

Chikungunya

Brazil: In 2018 and as of 17 February, Brazil reported 7 400 probable cases of chikungunya, of which 4 100 are confirmed. Mato Grosso is the most affected region in the country. The epicurves show a decreasing trend for 2018 compared with previous years.

Dengue

In 2018 and as of 4 March 2018, the Pan American Health Organization ([PAHO](#)) reports more than 54 000 suspected and confirmed dengue cases in the whole region. This is an increase of 35 000 cases since the last update of 21 February. Brazil accounts for 60% of the cases (32 000), followed by Nicaragua (7 000), Colombia (5 000), Mexico (2700) and Peru (2 400). Cases in Brazil show a 50% decrease compared to the same time period in 2017.

Asia

Chikungunya

Bangladesh: according to a [media](#) report on 1 March, 15 102 cases of chikungunya were detected in Bangladesh between April and September 2017. This is an increase of over 12 300 cases since the previous report on Bangladesh in the CDTR.

Pakistan, as of 11 March, reported 111 chikungunya cases in 2018. According to the WHO Regional Office for the Eastern Mediterranean (WHO EMRO), 8 498 cases have been detected in Pakistan since 2016.

Thailand reports 11 cases from two provinces in the south of the country as of 8 March 2018.

Dengue

Cambodia reports 132 suspected dengue cases in 2018, as of 20 February 2018. The number of cases follows a trend similar to

2017.

[Lao PDR](#) has notified WHO of 18 dengue cases in 2018 as of 28 February. Dengue is currently below epidemic level and alert level, with low activity, in line with the seasonal trend.

Malaysia, Philippines, Sri Lanka, Singapore and Vietnam report a decreasing trend compared with 2017.

[Malaysia](#) reports 12 508 cases as of 18 March, which is lower than the cases reported for the same time period in 2017.

[Philippines](#) report 10 980 dengue cases as of 10 February, which is 41% lower compared with the same period last year.

The Ministry of Health of [Sri Lanka](#) reports 12 750 cases of dengue, as of 11 March 2018, compared with 32 000 cases reported during the same time period in 2017.

[Singapore](#) reports 503 cases, as of 11 March. The trend is slightly lower than in 2017.

[Thailand](#) reports 2 501 cases, as of 10 March.

[Vietnam](#) reports 8 667 cases as of 18 February 2018. Compared with the same period in 2017, the cumulative number of cases decreased by 36%.

Africa

Chikungunya

[Kenya](#), as of 26 February 2018, reported 841 cases including 36 confirmed chikungunya cases. Of these, 782 cases including 32 confirmed were from Mombasa county and 59 cases including four confirmed cases were reported from Lamu county. This is an increase of 388 cases since the CDTR published of 23 February.

Dengue

[Tanzania](#), according to media quoting the Ministry of Health is reporting an outbreak of dengue. On 18 March 2018, national authorities had detected 11 cases in Dar es Salaam.

[WHO](#) reports cases in Burkina Faso and Mauritania. [Burkina Faso](#) has detected 267 cases as of 18 January, mostly in the central region, notably in Ouagadougou.

[Mauritania](#) reports 165 confirmed cases as of 10 February 2018. The majority of the cases are of serotype DENV-2.

Australia and the Pacific

Chikungunya: no outbreaks detected.

Dengue

[Australia](#) reports 159 cases in 2018, as of 2 March 2018. The number of cases is lower than the ones reported during the same period in previous years (2013-2017)

[New Caledonia](#) reports 133 dengue cases in 2018 as of 22 February, according to WHO. The majority of the cases are of serotype DENV-2.

According to the Pacific Public Health Surveillance Network, [Vanuatu](#) reports 329 suspected cases in 2018, as of 20 March 2018.

According to the Ministry of Health report from 28 January, [Samoa](#) has registered approximately 545 cases of dengue since the beginning of the year.

According to media quoting health authorities, [Fiji](#) is experiencing an outbreak of dengue fever in the Northern part of the archipelago since the beginning of the year. There have been 1 854 reported cases in 2018 as of 8 March 2018. In March 2017, Fiji reported only 155 cases.

Media report 70 dengue cases in [Tonga](#) since the beginning of the year as of 15 March.

ECDC assessment

As these diseases are endemic in large areas of the intertropical zone, introduction in areas with competent vectors via viraemic travellers is possible. However, the risk of local transmission in the EU/EEA is currently considered very low since the weather

conditions are not favourable to mosquito activity. Continued vigilance is needed to detect imported cases in tourists returning from affected regions.

Actions

ECDC monitors these threats through epidemic intelligence and reports on a monthly basis. 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.