



COMMUNICABLE DISEASE THREATS REPORT

# CDTR Week 18, 28 April-4 May 2019

#### All users

This weekly bulletin provides updates on threats monitored by ECDC.

## **I. Executive summary** EU Threats

#### **New!** Anthrax – Hungary – 2019

Opening date: 29 April 2019

Latest update: 3 May 2019

In April 2019, the Hungarian authorities have reported two outbreaks of anthrax in two bordering counties of Bács-Kiskun and Békés. As of 26 April 2019, four cases of cutaneous anthrax (of which one was confirmed) and 30 exposed individuals who received antiobiotic treatment were reported.

#### New! Shiga-toxigenic Escherichia coli O26 - France - 2019

Opening date: 2 May 2019

Latest update: 3 May 2019

On 30 March 2019, French authorities reported an outbreak of Shiga-toxigenic *Escherichia coli* (STEC) O26 with paediatric haemolytic uremic syndrome (HUS) cases and linked to the consumption of raw cow's milk cheeses (Saint-Félicien and Saint Marcellin).

 $\rightarrow$ Update of the week

On 30 March 2019, French authorities reported 13 paediatric cases of STEC O26 with HUS. These cases have been reported since 21 March 2019 in several regions of the country.

According to preliminary results of the investigations, several of these cases consumed Saint-Félicien and Saint-Marcellin cheeses before date of onset. Among these, three cases reported consuming cheeses manufactured by the same producer. As a precautionary measure, a recall was initiated on 27 April 2019.

#### Dengue – France, Réunion – 2019

Opening date: 13 March 2018

Latest update: 3 May 2019

Since the beginning of 2018, an outbreak of unusual magnitude has affected the French overseas department of Réunion. In 2018, Réunion reported a total of 6 770 cases. Circulation has not been interrupted during the austral winter and the number of cases has started increasing again since the beginning of 2019.

→Update of the week

From 15–21 April 2019, <u>Réunion</u> reported 1 116 confirmed and approximately 3 000 suspected cases of dengue.

## Influenza – Multistate (Europe) – Monitoring season 2018 – 2019

Opening date: 8 October 2018

Latest update: 3 May 2019

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

 $\rightarrow$ Update of the week

#### Week 17, 2019 (23-28 April 2019):

All countries reporting influenza-like illness (ILI) or acute respiratory infection (ARI) thresholds reported activity at baseline levels, indicating that the influenza season is coming to an end.

Few countries reported influenza detections and the number of detections was low. Specimens collected from individuals presenting with ILI or ARI to sentinel primary healthcare sites yielded an influenza virus positivity rate of 16%. This rate was mainly driven by a high proportion of positive samples in one country.

Of the subset of specimens from patients with severe acute respiratory infection (SARI) collected in week 17 of 2019 that were tested for influenza viruses, 3.5% were positive and all viruses detected were type A.

Pooled data from 23 Member States and areas reporting to the <u>EuroMOMO</u> project indicated that all-cause mortality remained at levels expected for this time of year.

## Non EU Threats

#### **New!** Rabies – Thailand – 2019

Opening date: 30 April 2019

Latest update: 3 May 2019

Human cases of rabies have been reported in Thailand, with about 10 cases per year reported in the past decade. In recent years, an increase of rabies cases among animals has been reported. Travellers are advised to avoid contact with wild and domestic animals. If bitten or scratched, the person should immediately seek medical help.

## Ebola virus disease - tenth outbreak - Democratic Republic of the Congo - 2018-2019

Opening date: 1 August 2018

Latest update: 3 May 2019

On 1 August 2018, the Ministry of Health of the Democratic Republic of the Congo declared the 10th outbreak of Ebola virus disease in the country. The outbreak affects North Kivu and Ituri Provinces in the northeast of the country close to the border with Uganda. On 12 April 2019, the <u>International Health Regulations Emergency Committee</u> concluded that the epidemic does not at this stage constitute a public health emergency of international concern.

#### →Update of the week

Since the previous CDTR, the <u>Ministry of Health</u> of the Democratic Republic of the Congo has reported 137 additional cases, including 104 deaths. All cases reported during this period are confirmed. Among the new reported cases in the past week, four are healthcare workers.

#### Middle East respiratory syndrome coronavirus (MERS-CoV) – Multistate

Opening date: 24 September 2012 Latest update: 3 May 2019

Since the disease was first identified in Saudi Arabia in April 2012, more than 2 400 Middle East respiratory syndrome coronavirus (MERS-CoV) cases have been detected in 27 countries. In Europe, eight countries have reported confirmed cases, all with direct or indirect connections to the Middle East. The majority of MERS-CoV cases continue to be reported from the Middle East. The source of the virus remains unknown, but the pattern of transmission and virological studies point toward dromedary camels in the Middle East as a reservoir from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission is amplified among household contacts and in healthcare settings.

#### →Update of the week

As of 29 April 2019, <u>Saudi Arabia</u> has reported an increase of 16 cases and 7 deaths since the previous CDTR published on 5 April 2019. So far, 11 of 13 regions in Saudi Arabia have reported 133 cases in 2019 and of these, two regions (Mecca and Medina) reported cases in the last 7 days.

## Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 3 May 2019

Several countries in Africa, Asia and the Americas have reported <u>cholera</u> outbreaks. Major ongoing outbreaks are reported in the Democratic Republic of the Congo, Haiti and Yemen.

→Update of the week

Since the last update on 5 April 2019, new cholera cases have been reported worldwide. The countries reporting the majority of new cases since the previous update are Yemen with 114 568 cases and 238 deaths, Mozambique with 5 168 cases and 7 deaths and the Democratic Republic of the Congo with 2 728 cases and 68 deaths.

Additionally, WHO has closed the event for acute watery diarrhoea (AWD) in Ethiopia during this period.

## **II. Detailed reports**

## New! Anthrax – Hungary – 2019

Opening date: 29 April 2019

Latest update: 3 May 2019

## Epidemiological summary

The first two probable cases were reported from Bács-Kiskun County in week 12 of 2019 (18–24 March 2019). They developed symptoms on 11 March and 14 March 2019 and laboratory tests (culture and molecular testing) were negative for anthrax for both cases. According to the weekly report, prior to the development of symptoms, the cases were feeding lambs from bottles at the farm where animal deaths were reported at the end of February 2019. Veterinary investigation of the animal samples did not confirm anthrax at the time.

Another two cases were reported in week 15 of 2019 (8–14 April 2019) in a couple running a cattle farm in Békés County. The third case developed symptoms on 5 April 2019 and was laboratory-confirmed (culture, molecular testing) and the fourth probable case developed symptoms on 7 April 2019 with negative laboratory tests. The two cases developed symptoms after they slaughtered cattle and processed the meat of the infected animal. During the investigation, a further 30 exposed individuals were identified and prophylactically treated with antibiotics for seven days. In addition, the World Organisation for Animal Health reported four suspected and one confirmed cattle case of anthrax in Békés County on 16 April 2019.

TESSy background: From 2013–2017, Hungary reported no previous cases of anthrax. In the EU/EEA, 23 cases were reported, with 1 to 6 cases per year. Almost 75% of these 23 cases were reported by Romania (13) and Bulgaria (4).

Sources: National Public Health and Medical Officer Service of Hungary | Media 1 | Media 2 | OiE

#### ECDC assessment

The affected counties in Hungary border Serbia and Romania. *Bacillus anthracis* infection in an individual in contact with sick animals is not an unexpected event. It seems unlikely that new cases associated with these events will arise taking into account that individuals who were exposed to contaminated products have already been identified and received treatment with antibiotics. Hungarian authorities have implemented control measures minimising the risk of further spread of the infection. Exposure to the infected animal or its meat occurred only at a local level and international distribution of possibly contaminated meat has not been reported. The risk of spreading the infection to other EU/EEA countries represented by this event is therefore considered negligible.

#### Actions

ECDC is monitoring this event through epidemic intelligence activities. A joint ECDC and EFSA update of a <u>rapid outbreak</u> <u>assessment</u> on an event related to a fatal case of *B. anthracis* infection in Bulgaria was published on 7 August 2015.

## New! Shiga-toxigenic Escherichia coli O26 - France - 2019

Opening date: 2 May 2019

Latest update: 3 May 2019

## Epidemiological summary

On 30 March 2019, French authorities reported 13 paediatric cases of STEC O26 with HUS. These cases have been reported since 21 March 2019 in several regions of the country. Public health authorities have undertaken investigations to identify the source of contamination and to prevent further cases.

According to preliminary results of the investigations, several of these cases consumed Saint-Félicien and Saint-Marcellin cheeses before date of onset. Among these, three cases reported consuming cheeses manufactured by the same producer. As a precautionary measure, a recall was initiated on 27 April 2019. In addition, according to the <u>Rapid Alert System for Food and</u> <u>Feed</u>, these cheeses have been distributed to 27 countries and regions worldwide: Austria, Belgium, Canada, the Czech Republic, Côte d'Ivoire, Denmark, Germany, Hungary, Ireland, Italy, Lithuania, Malaysia, the Netherlands, New Zealand, the Philippines, Poland, Portugal, Qatar, Saint-Barthélemy, Singapore, South Africa, Spain, Sweden, Switzerland, Ukraine, the United Arab Emirates and the United Kingdom. Public health authorities and media from some of these countries have mentioned the recall of these French cheeses in relation to this outbreak.

Epidemiological, microbiological and food traceability investigations are ongoing to determine the source of infection of the various cases by *Escherichia coli* type O26. Santé publique France and the National Reference Center for *E. coli, Shigella* and *Salmonella* at the Institut Pasteur are continuing the enhanced surveillance of HUS to detect possible new cases.

Sources: France Ministry of Health | RASFF | Food Safety News | Ireland Food Safety Authority | Media | Canadian Food Inspection Agency | New Zealand Ministry for Primary Industries

#### ECDC assessment

No other country has so far reported cases with similar strain characteristics or cases linked to the vehicle of infection implicated by the French investigations. The product is known to have been sold in other EU/EEA countries and worldwide. Recalls and information to consumers have been issued in France and other affected countries.

#### Actions

ECDC will monitor this event through epidemic intelligence.

## Dengue – France, Réunion – 2019

Opening date: 13 March 2018

Latest update: 3 May 2019

## Epidemiological summary

According to <u>regional authorities</u> as of 21 April 2019, Réunion has detected more than 7 700 confirmed and 22 000 suspected cases of dengue since the beginning of the year. Of these, 271 have been hospitalised and four died. Réunion reported 2 154 cases for the same period in 2018. The cases are widespread on the island.

According to <u>Santé publique France</u>, the main circulating serotype is DENV-2. However, 14 autochthonous cases were serotyped DENV-1 in the area of Petite-Île.

#### ECDC assessment

A sharp increase of dengue cases has been observed in Réunion since the beginning of 2019 and will likely continue in the coming weeks. The co-circulation of DENV-1 together with DENV-2 may increase the intensity of the outbreak since the population is not immune to the DENV-1 serotype. This may also increase the number of haemorrhagic fever cases.

The risk for onward transmission of dengue fever in Europe is linked to importation of the virus by viraemic travellers into receptive areas with established and active competent vectors (i.e. *Aedes albopictus* in mainland Europe, mainly around the Mediterranean Sea, and *Aedes aegypti* on the island of Madeira).

Environmental conditions for the growth of mosquito populations are currently improving in Europe, but they are still unfavourable for virus multiplication in the vector. The likelihood of sustained autochthonous dengue virus transmission in continental Europe associated with introduction by a returning traveller therefore remains low.

#### Actions

ECDC monitors this outbreak through epidemic intelligence on a weekly basis and published a rapid risk assessment, '<u>Dengue</u> outbreak in Réunion, France – First update', on 5 July 2018.

## Distribution of dengue cases by week of onset, Réunion, week 16-2017 to week 16-2019

Source: Santé publique France, Cire Océan Indien



## Geographical distribution of dengue cases in Réunion, week 15 & 16-2019



Source: Santé publique France, Cire Océan Indien

#### Influenza – Multistate (Europe) – Monitoring season 2018 – 2019

Opening date: 8 October 2018

Latest update: 3 May 2019

## Epidemiological summary

#### 2018-2019 season overview:

Influenza activity in the European Region based on sentinel sampling reached a positivity rate of 10% in week 49 of 2018, exceeded 50% between weeks 3–7 of 2019, peaked in week 5 of 2019 and was still above the 10% threshold by week 17 of 2019.

Both influenza A virus subtypes have circulated, with co-circulation in some countries, while others reported dominance of either A(H1N1)pdm09 or A(H3N2) viruses.

Among hospitalised influenza virus-infected patients admitted to ICU wards, 99% were infected with type A viruses and of those subtyped, 67% were A(H1N1)pdm09. Among influenza virus-infected patients admitted to other wards, 99% were infected with type A viruses, with 55% of those subtyped being A(H1N1)pdm09.

Of the patient specimens from SARI surveillance that tested positive for influenza virus, 99% were type A viruses, with 80% of those subtyped being A(H1N1)pdm09.

A recent summary of regional activity from October 2018–February 2019 was published in Eurosurveillance.

Current influenza vaccines tend to work better against influenza A(H1N1)pdm09 and influenza B viruses than influenza A(H3N2) viruses, according to <u>Flu News Europe</u>.

WHO has published <u>recommendations</u> for the composition of influenza vaccines to be used in the 2019–2020 northern hemisphere season. The recommendation was that both type B lineage viruses remain unchanged, while the A(H1N1)pdm09 and A(H3N2) viruses were updated.

The vast majority of circulating viruses in the European Region were susceptible to neuraminidase inhibitors supporting use of antiviral treatment according to national guidelines.

Source: Flu News Europe | EuroMOMO

#### ECDC assessment

Influenza activity has decreased across countries. Influenza A(H3N2) and A(H1N1)pdm09 continue to co-circulate in Europe, but on a lower level. Influenza vaccine coverage among the elderly, chronic disease risk groups and healthcare workers was suboptimal in most EU Member States, according to the <u>VENICE report</u>. Vaccine effectiveness was moderate and all-cause excess mortality has returned to normal levels for the time of the season.

#### Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the <u>Flu News Europe</u> website.

Recommendations on the composition of the 2018–2019 and 2019–2020 influenza virus vaccines are available from WHO.

#### **New!** Rabies – Thailand – 2019

Opening date: 30 April 2019

Latest update: 3 May 2019

## Epidemiological summary

On 27 April 2019, Thai authorities reported a human death from rabies, the first case in 2019. A stray dog bit a 32-year-old male from Surin Province in November 2018. The case did not seek medical help and did not receive rabies vaccinations. The case later developed fever and experienced confusion and difficulty to swallow and tested positive for rabies.

Rabies is an endemic disease in Thailand and dogs are considered the main reservoirs. Around 10 human rabies cases have been reported every year since 2008 in Thailand and in 2018, 17 people died of rabies. According to media reports quoting authorities, the number of confirmed rabies cases in animals in Thailand has increased since 2014. In 2019 and as of 23 April 2019, Thailand reported 281 outbreaks of rabies in animals in 45 of 76 provinces. In 2018, 54 provinces reported rabies cases among animals. About 1 million European passengers travel to Thailand per year, according to the International Air Transportation Association.

In the EU/EEA, up to four human cases of rabies have been reported annually in the past decade, mainly imported cases in recent years. More information about rabies in Europe is available from <u>ECDC</u>.

Sources: Thailand Ministry of Public Health | Ministry of Agriculture and Cooperatives | media 1 | media 2 | ECDC

#### ECDC assessment

Rabies can be found in dogs, bats and other mammals in Thailand, but it is not considered a major risk to most travellers. The risk for EU travellers is very low if basic preventive measures are followed such as avoiding contact with wild and domestic animals, including pets. In addition, at-risk groups for animal bites, such as travellers or professionals planning activities in remote areas, should be provided with an individual risk assessment.

If a person has been bitten or scratched by dog, cat, bat or other mammal, he or she is advised to seek medical help immediately. Timely prophylaxis in the event of exposure to a potentially infected animal is of utmost importance and knowledge of the epidemiological situation is vital to decide on appropriate post-exposure measures. Treatment consists of local wound care, vaccination and passive immunisation with immunoglobulin if indicated. To be effective, treatment has to be administered as soon as possible after exposure.

#### Actions

ECDC monitors the rabies situation through epidemic intelligence.

#### Ebola virus disease - tenth outbreak - Democratic Republic of the Congo - 2018 -2019

Opening date: 1 August 2018

Latest update: 3 May 2019

#### Epidemiological summary

Since the beginning of the outbreak a year ago and as of 1 May 2019, there have been 1 510 Ebola virus disease cases (1 444 confirmed, 66 probable), including 994 deaths (928 confirmed, 66 probable), according to the Ministry of Health of the Democratic Republic of the Congo.

As of 1 May 2019, 94 healthcare workers have been infected, 33 of whom have died.

Twenty-one health zones in two provinces have reported confirmed or probable Ebola virus disease cases: Beni, Biena, Butembo, Kalunguta, Katwa, Kayna, Kyondo, Lubero, Mabalako, Manguredjipa, Masereka, Mutwanga, Musienene, Oicha and Vuhovi health zones in North Kivu Province and Bunia, Nyankunde, Komanda, Mandima, Rwampara and Tchomia health zones in Ituri Province.

Source: Ministry of Health of the Democratic Republic of the Congo | WHO | WHO Regional Office for Africa

#### ECDC assessment

**ECDC assessment:** Response measures remain challenging in affected areas because of the prolonged humanitarian crisis, unstable security situation and resistance among the population. The fact that the outbreak is ongoing in areas with cross-border population flow with Rwanda, South Sudan and Uganda remains of particular concern.

A substantial proportion of cases continue to be among individuals not previously identified as contacts, highlighting the need to maintain enhanced surveillance in order to identify chains of transmission.

The overall risk of introduction and further spread of Ebola virus disease within the EU/EEA is very low. However, the risk can only be eliminated by stopping transmission at the local level.

**WHO assessment:** As of 25 April 2019, the <u>WHO assessment</u> is that the risk of spread is low at the global level, but remains very high at national and regional levels.

#### Actions

ECDC published an epidemiological update on 3 April 2019 and the fourth update of a rapid risk assessment on 16 April 2019.

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## Geographical distribution of confirmed and probable cases of Ebola virus disease, North Kivu and Ituri Provinces, Democratic Republic of the Congo, as of 1 May 2019



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Distribution of confirmed and probable cases of Ebola Virus Disease and health zones reporting cases, North Kivu and Ituri, Democratic Republic of the Congo, as of 1 May 2019



\* This week is incomplete

## Middle East respiratory syndrome coronavirus (MERS-CoV) – Multistate

Opening date: 24 September 2012

Latest update: 3 May 2019

## Epidemiological summary

In 2019 and as of 29 April 2019, 146 MERS-CoV cases have been reported in Saudi Arabia (133) and Oman (13), including 34 deaths in Saudi Arabia (30) and Oman (4). In Saudi Arabia, 58 cases were primary (29 of whom reported contact with camels), 35 were healthcare-acquired, 26 were household contacts and 14 were unspecified secondary cases. In 2019, 92% of the 133 cases in Saudi Arabia were reported in the municipalities of Wadi Aldwasir (55) and Riyadh (22) and Alkharj (15). In the last 7 days, all cases in Saudi Arabia were reported in Medina.

Since April 2012 and as of 29 April 2019, 2 443 cases of MERS-CoV, including 883 deaths, have been reported by health authorities worldwide.

Sources: ECDC MERS-CoV page | WHO MERS-CoV | ECDC factsheet for professionals | Saudi Arabia Ministry of Health

#### ECDC assessment

Human cases of MERS-CoV continue to be reported in the Arabian Peninsula, particularly in Saudi Arabia. The risk of sustained human-to-human transmission in Europe remains very low. The current MERS-CoV situation poses a low risk to the EU, as stated in a <u>rapid risk assessment</u> published on 29 August 2018, which also provides details on the last case reported in Europe.

On 2 August 2018, ECDC published a <u>rapid risk assessment regarding public health risks related to communicable diseases during</u> <u>the 2018 Hajj, Saudi Arabia, 19–24 August 2018</u> that also addresses MERS-CoV.

#### Actions

ECDC monitors this threat through epidemic intelligence and reports on a monthly basis.

# Distribution of confirmed cases of MERS-CoV by place of infection and month of onset, from March 2012 and as of 29 April 2019



Year and Month\*

\*If month of onset is not available month of reporting has been used

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#### Geographical distribution of confirmed MERS-CoV cases by probable region of infection and exposure in 2019, Saudi Arabia, as of 29 April 2019



#### Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 3 May 2019

## Epidemiological summary

#### **Americas**

<u>Dominican Republic</u>: In 2019 and as of 6 April 2019, the Dominican Republic has reported five cholera cases and no deaths. This represents three new cases since the previous CDTR update. During the same period in 2018, the Dominican Republic reported 14 cholera cases.

<u>Haiti</u>: In 2019 and as of 2 March 2019, Haiti has reported 194 cases, including 3 deaths (CFR: 1.5%). This represents an increase of 17 cases and no deaths since the previous CDTR update. In 2018, Haiti reported 3 786 cholera cases, including 41 deaths (CFR: 1.1%). Since the beginning of the outbreak in 2010 and as of 2 March 2019, Haiti has reported 819 980 suspected cholera cases, including 9 792 deaths (CFR: 1.2%).

#### Africa

<u>Cameroon</u>: As of 26 April 2019, Cameroon has reported 1 052 cholera cases, including 63 deaths (CFR: 6%) since the beginning of the outbreak in May 2018. This represent an increase of 55 cases and five deaths since the previous CDTR update.

<u>Democratic Republic of the Congo</u>: In 2019 and as of 7 April 2019, the Democratic Republic of the Congo has reported 8 522 suspected cholera cases, including 206 deaths (CFR: 2.4%). This represents an increase of 2 728 cases and 68 deaths since the previous CDTR update. In 2018, 31 387 cases, including 1 042 deaths, were <u>notified</u> across the country (CFR: 3.3%).

<u>Ethiopia:</u> According to WHO, no new AWD cases have been reported since the last week of January 2019 and it now considers the event closed. In 2019 and as of 3 March 2019, Ethiopia reported 8 AWD cases in the Afar Region. In 2018, Ethiopia reported 3 357 suspected AWD cases from the Afar, Oromia, Somali and Tigray Regions and the city of Dire Dawa.

Kenya: In 2019 and as of 22 April 2019, 1 463 suspected cases, including 8 deaths (CFR: 0.5%), have been reported in Narok, Kajiado, Nairobi, Garissa and Machakos Counties. Among these cases, 65 cases, including one death, were reported among healthcare workers from Nairobi Hospital. This represent an increase of 573 cases and 4 deaths since the previous CDTR update.

<u>Nigeria</u>: According to the Nigeria Centre for Disease Control, in 2019 and as of 31 March 2019, 374 cases, including 24 deaths (CFR: 6.4%), were reported in nine states. This represent an increase of 37 cases and three deaths since the previous CDTR update. For the same period in 2018, 2 863 cases, including 56 deaths (CFR: 2%), were reported in 15 states.

<u>Mozambique</u>: Following Cyclone Idai and as of 22 April 2019, the UN Office for the Coordination of Humanitarian Affairs has reported 6 596 cholera cases, including eight deaths (CFR: 0.1%). This represents an increase of 5 168 cases and seven deaths since the previous CDTR update. Cholera cases have been reported in Beira, Dondo and Nhamatanda.

Somalia: As of 31 March 2019, WHO reported 7 005 suspected cholera cases, including 46 deaths (CFR: 0.7%), since December 2017. This represents an increase of 138 cases and no deaths since the previous CDTR update.

Tanzania: In 2019 and as of 21 April 2019, Tanzania has reported 226 cholera cases, including 3 deaths (CFR: 1.3%). This represents an increase of 103 cases since the previous CDTR update. The last case reported in Zanzibar was on 11 July 2017.

Zimbabwe: According to WHO, no new cases have been reported since 12 March 2019. Since September 2018, 10 722 cases, including 69 deaths (CFR: 0.6%), have been reported in the country.

#### Asia

Yemen: Since the beginning of the outbreak and as of 27 April 2019, Yemen has reported 1 656 254 suspected cholera cases and 3 272 deaths (CFR: 0.2%). This represents an increase of 114 568 cases and 238 deaths since the last CDTR update.

#### ECDC assessment

Cholera cases continue to be reported in eastern Africa, the Gulf of Aden and the Horn of Africa over the past few months. Cholera outbreaks have also been notified in western and southern Africa. Despite the number of cholera outbreaks reported worldwide, few cases are reported each year among returning EU/EEA travellers. In this context, the risk of cholera infection in travellers visiting these countries remains low even though sporadic importation of cases in the EU/EEA remains possible. In 2017, 17 cases were reported in the EU/EEA Member States, while 23 and 24 cases respectively were reported in 2016 and 2015. All cases had travel history to cholera-affected areas.

According to WHO, vaccination should be considered for travellers at higher risk, such as emergency and 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 hands with soap, eating thoroughly cooked food and avoiding the consumption of raw seafood products.

#### Actions

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

# Geographical distribution of new cholera cases reported worldwide between February to April 2019



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