

This weekly bulletin provides updates on threats monitored by ECDC.

NEWS

ESCAIDE abstract call now open

The 2019 abstract call for the European Scientific Conference on Applied Infectious Disease Epidemiology (ESCAIDE) is open until 8 May 2019, closing at 23:00 CET. Candidates can submit abstracts on a wide range of topics in the field of infectious diseases for an opportunity to present their research at ESCAIDE. For more information on the abstract submission process, visit the ESCAIDE website: [Main call for abstracts 2019](#).

ESCAIDE 2019 will give focus to current societal challenges and their implications on public health. Topics will include climate change and its impact on disease introduction and spread in Europe, the erosion of public trust in a post-factual world and resultant effects on vaccine confidence and uptake and how recent global health events such as the Ebola virus disease outbreak in West Africa are shaping global health security. This year's conference will take place at the Brewery Conference Centre in Stockholm from 27–29 November 2019.

I. Executive summary

EU Threats

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

Opening date: 8 October 2018

Latest update: 5 April 2019

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

→Update of the week

Week 13, 2019 (25–31 March 2019):

Among 45 countries reporting on geographic spread, 11 in the northern, southern and western areas of the European Region reported widespread activity. Specimens collected from individuals presenting with influenza-like illness or acute respiratory infection to sentinel primary healthcare sites yielded an influenza virus positivity rate of 32%. This represents a decrease for the third week in a row.

Among 45 countries reporting on influenza activity, 42 reported baseline or low intensity levels. No country reported high intensity levels.

Influenza type A virus detections dominated, with more A(H3N2) than A(H1N1)pdm09 viruses among sentinel and non-sentinel source specimens. Very few influenza B viruses were detected.

Among all the specimens from patients with severe acute respiratory infection (SARI) collected in week 13 of 2019 that were tested for influenza viruses, 33% were positive and all were type A.

Pooled data from 22 Member States and areas reporting to the [EuroMOMO](#) project indicated that the all-cause excess mortality observed in previous weeks has returned to normal levels.

Non EU Threats

New! Cyclone Idai - Southern Africa - 2019

Opening date: 1 April 2019

Latest update: 5 April 2019

From the beginning of March to mid-March 2019, Cyclone Idai hit Malawi, Mozambique and Zimbabwe. Cyclone Idai resulted in several hundred casualties, hundreds of thousands of displaced people and an upsurge of infectious diseases outbreak such as cholera.

→Update of the week

Since the previous CDTR, Mozambique has reported more than 2 000 new cholera cases. A vaccination campaign for cholera has started in the affected areas of Mozambique.

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

Opening date: 1 August 2018

Latest update: 5 April 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 17 October 2018, the International Health Regulations Emergency Committee 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 [Ministry of Health](#) of the Democratic Republic of the Congo has reported 63 additional cases, including 43 additional deaths, among confirmed cases. Among the new reported cases in the past week, two are healthcare workers.

Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 5 April 2019

Several countries in Africa, Asia and the Americas have reported [cholera](#) 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 1 March 2019, new cholera cases have been reported worldwide and countries such as Mozambique have reported new cholera outbreaks.

The countries reporting the majority of new cases since the previous update are Yemen (89 012 cases, 233 deaths), the Democratic Republic of the Congo (2 343 cases, 52 deaths) and Mozambique (1 428 cases, 1 death).

Additionally, WHO has closed the events for cholera outbreaks in Burundi and Uganda during this period.

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

Opening date: 24 September 2012

Latest update: 5 April 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 4 April 2019, [Saudi Arabia](#) has reported an increase of 14 cases and 3 deaths since the previous CDTR published on 20 March 2019. So far, 10 of 13 regions in Saudi Arabia have reported 117 cases in 2019 and of these, three regions (Eastern Province, Makkah and Jizan) reported cases in the last 7 days.

Influenza A(H9N2) - Multistate (World) - Monitoring human cases

Opening date: 30 January 2019

Latest update: 5 April 2019

Animal influenza viruses that cross the animal-human divide to infect people are considered novel to humans and have the potential to become pandemic threats.

→Update of the week

On 3 April 2019, an additional case of human infection with H9N2 avian influenza was confirmed in Jiangsu Province, China. The patient is a 9-year-old male who developed symptoms on 15 March 2019 and was admitted to hospital on 16 March 2019 in severe condition with pneumonia. After receiving antiviral treatment, the case recovered and was discharged on 28 March 2019. The case had a history of visiting a live poultry market before the illness onset. No further cases were detected among the case's family members.

II. Detailed reports

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

Opening date: 8 October 2018

Latest update: 5 April 2019

Epidemiological summary

2018–2019 season overview:

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

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

Among hospitalised influenza virus-infected patients admitted to ICU wards, 99% were infected with type A viruses. Among those that were subtyped, 69% were A(H1N1)pdm09 viruses. Among influenza virus-infected patients admitted to other wards, 99% were infected with type A virus. Among those that were subtyped, 58% were A(H1N1)pdm09 virus.

Of the patient specimens from SARI surveillance that tested positive for influenza, 99% were infected with influenza type A virus, 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 against influenza A (H3N2) viruses.

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

Circulating viruses in the European Region remain susceptible to neuraminidase inhibitors supporting the 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 [VENICE report](#). Vaccine effectiveness was moderate and all-cause excess mortality has been observed in those aged 65 years and above and to a lesser extent in the age group 15–64 years. The peak in excess mortality seen over recent weeks is declining.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the [Flu News Europe website](#).

Recommendations on the composition of the 2018–2019 and 2019–2020 influenza virus vaccines are available from the [WHO](#) website.

New! Cyclone Idai - Southern Africa - 2019

Opening date: 1 April 2019

Latest update: 5 April 2019

Epidemiological summary

From the beginning of March to mid-March 2019, Cyclone Idai hit Malawi, Mozambique and Zimbabwe. Cyclone Idai resulted in several hundred fatalities, hundreds of thousands of displaced people and an upsurge of infectious diseases outbreak such as

cholera.

Malawi: As of 26 March 2019, according to the [United Nations Office for the Coordination of Humanitarian Affairs](#), 59 fatalities and 87 000 displaced people have been reported after Cyclone Idai.

Mozambique: Following Cyclone Idai and as of 30 March 2019, [WHO](#) reported 501 fatalities and 140 000 displaced people. In addition, 2 094 cholera cases have been reported. The main affected area are Beira (> 500 000 residents), Nhamatande and Dondo.

Zimbabwe: Following Cyclone Idai and as of 26 March 2019, [OCHA](#) reported 172 fatalities. As of 30 March 2019, 4 500 displaced people are reported, according to [ACAPS](#).

Governmental and international partners have implemented an emergency response that involves national ministries of health, WHO, OCHA, the World Food Programme, UNICEF, the International Organization for Migration and several NGOs. However, according to WHO, the humanitarian situation remains of concern especially because of poor access to affected areas, disruption of water supply and poor sanitation and displacement of population.

Sources: [ACAPS](#) | [WHO Regional Office for Africa](#) | [OCHA](#) | [ReliefWeb](#) | [ECHO](#)

ECDC assessment

In the aftermath of Cyclone Idai, the most immediate risks in the affected areas of Malawi, Mozambique and Zimbabwe are increased transmission of diarrhoeal diseases related to lack of access to safe drinking water, poor sanitary conditions and acute respiratory infection in children accommodated in overcrowded shelters. The risk of a major upsurge in cholera cases in affected or bordering areas with previous transmission and flood-specific risks (e.g. tetanus and leptospirosis) should be given priority when adopting mitigating measures. Mosquito-borne diseases represent a risk that should also be taken into account in this context. In the affected areas in Malawi and Mozambique, malaria is endemic with moderate seasonality. While the main risk of malaria is due to disruption of the health services, an epidemic is not expected due to presumed high levels of acquired immunity in the population. In Zimbabwe, where malaria prevalence and hence immunity levels are much lower, the risk of a malaria epidemic or extended malaria season (the annual seasonal peak is normally February–May) is higher.

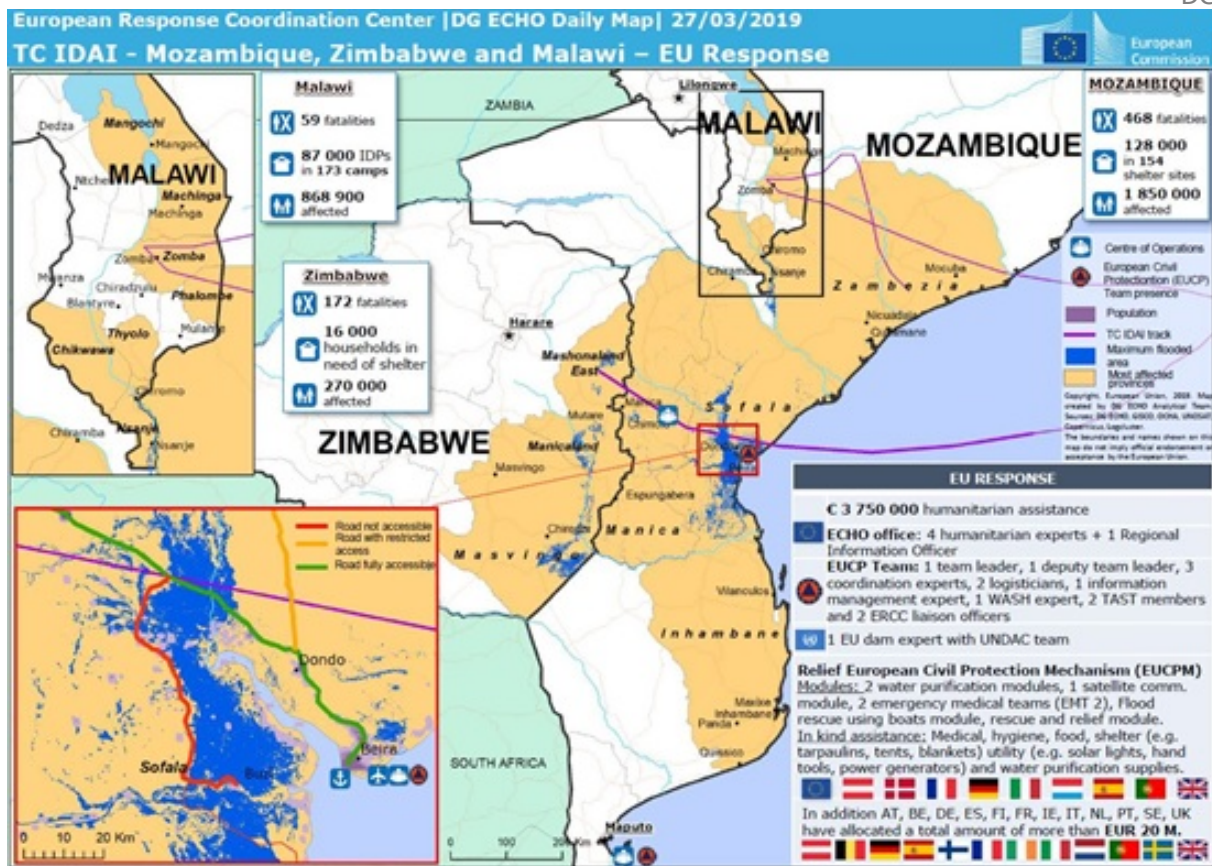
The overall risk for EU travellers or residents in affected countries is very low if proper personal hygiene measures are implemented.

Actions

ECDC is preparing a rapid risk assessment to be circulated next week.

Cyclone Idai, situation report, European Civil Protection and Humanitarian Aid Operations, as of 27 March 2019

DG ECHO



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

Opening date: 1 August 2018

Latest update: 5 April 2019

Epidemiological summary

Since the beginning of the outbreak and as of 3 April 2019, there have been 1 107 Ebola virus disease cases (1 041 confirmed, 66 probable), including 695 deaths (629 confirmed, 66 probable), according to the Ministry of Health of the Democratic Republic of the Congo.

As of 3 April 2019, 82 healthcare workers have been infected, of whom 29 have died.

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

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Ituri Province.

Source: [Democratic Republic of the Congo Ministry of Health](#) | [WHO Disease outbreak news](#) | [WHO Africa weekly bulletin](#)

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.

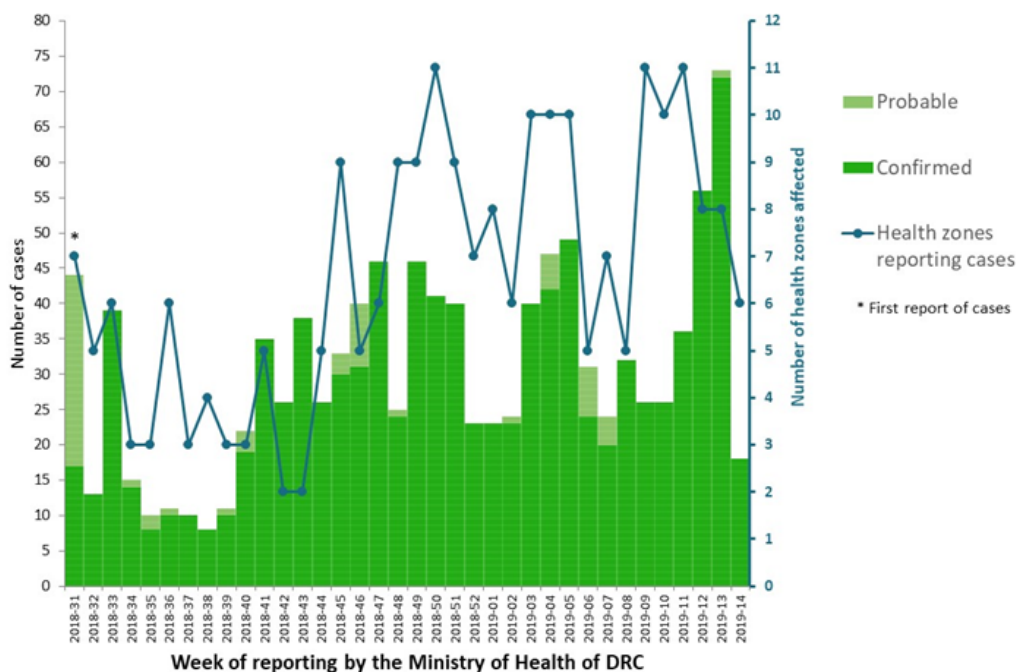
WHO assessment: As of 7 February 2019, the [WHO assessment](#) is that the risk of spread is low at the global level, but remains very high at national and regional levels.

Actions

ECDC published an [epidemiological update](#) on 3 April 2019 and the third update of a [rapid risk assessment](#) on 13 February 2019.

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 3 April 2019

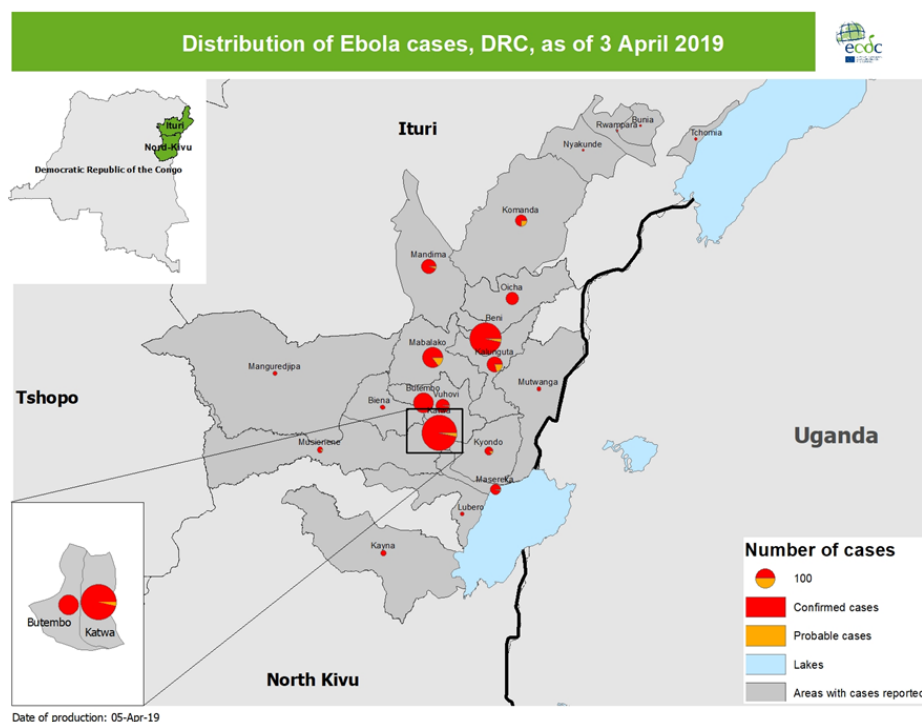
ECDC



The MoH of DRC are currently conducting data cleaning. Thus, these figures are likely to change over coming days as cases are being reclassified.

Geographical distribution of confirmed and probable cases of Ebola virus disease, North Kivu and Ituri Provinces, Democratic Republic of the Congo, as of 3 April 2019

ECDC



Cholera – Multistate (World) – Monitoring global outbreaks

Opening date: 20 April 2006

Latest update: 5 April 2019

Epidemiological summary

Americas

Dominican Republic: In 2019 and as of 9 March 2019, the Dominican Republic reported 2 cholera cases and no deaths. No new cases have occurred since the previous CDTR update. During the same period in 2018, the Dominican Republic reported 9 cholera cases.

Haiti: In 2019 and as of 23 February 2019, Haiti reported 177 cases, including 3 deaths (CFR: 1.7%). This represents an increase of 87 cases and one death 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 23 February 2019, Haiti has reported 819 963 suspected cholera cases, including 9 792 deaths (CFR: 1.2%).

Africa

Burundi: WHO considers the cholera event in Burundi under control. Since the beginning of the outbreak in late December 2018 and as of 3 March 2019, 191 cases, including 2 deaths, have been reported (CFR: 1%).

Democratic Republic of the Congo: In 2019 and as of 3 March 2019, the Democratic Republic of the Congo reported 5 794 suspected cholera cases, including 138 deaths (CFR: 2.4%). This represents an increase of 2 343 cases and 52 deaths since the previous CDTR update. In 2018, [31 387 cases](#), including 1 042 deaths, were notified across the country.

Kenya: In 2019, a cholera outbreak was reported in Kenya. As of 24 March 2019, 890 suspected cases, including 4 deaths (CFR: 0.5%), have been reported in Narok, Kajiado, Nairobi, Garissa and Machakos Counties. This represents an increase of 47 cases and 1 death since the previous CDTR update.

Nigeria: According to the Nigeria Centre for Disease Control, in 2019 and as of 17 March 2019, 337 cases, including 21 deaths (CFR: 6.2%), were reported in eight states. For the same period in 2018, 1 817 cases, including 38 deaths (CFR: 2.1%), were reported in 13 states.

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Mozambique: Following Cyclone Idai and as of 2 April 2019, the United Nations Office for the Coordination of Humanitarian Affairs has reported 1 428 cholera cases, including 1 death. Cholera cases have been reported in Beira, Dondo and Nhamatanda.

Somalia: As of 17 March 2019, WHO reported 6 867 suspected cholera cases, including 46 deaths (CFR: 0.7%), since December 2017. This represents an increase of 106 cases and no deaths since the previous CDTR update on 1 March 2019.

Tanzania: In 2019 and as of 17 March 2019, Tanzania reported 123 cholera cases, including 3 deaths (CFR: 2.4%). This represents an increase of 62 cases and two deaths since the previous CDTR update on 1 March 2019. The last case reported in Zanzibar was on 11 July 2017.

Uganda: WHO considers the cholera event in Uganda under control. Since the beginning of the outbreak in January 2019 and as of 10 February 2019, 53 suspected cholera cases, including 3 deaths (CFR: 5.7%), have been reported across four divisions in Kampala and Kiira municipalities.

Zambia: In February 2019, a cholera outbreak was reported in the capital city of Lusaka that led to seven cases reported. In **March 2019**, an additional outbreak was reported in Northern Province. As of 22 March 2019, 45 cases, including 3 deaths, have been reported (CFR: 6.7%) in this province.

Zimbabwe: As of 23 February 2019 and since September 2018, 10 722 cases, including 69 deaths (CFR: 0.6%), have been reported in the country. This represents an increase of 42 cases and one death since the previous update on 1 March 2019. According to WHO, no new cases have been reported in the capital city of Harare since December 2018.

Asia

Yemen: Since the beginning of the outbreak and as of 28 March 2019, Yemen has reported 1 541 686 suspected cholera cases and 3 034 deaths (CFR: 0.2%). This represents an increase of 89 012 cases and 233 deaths since the last CDTR update on 1 March 2019.

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 were reported in 2016 and 2015 respectively. 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.

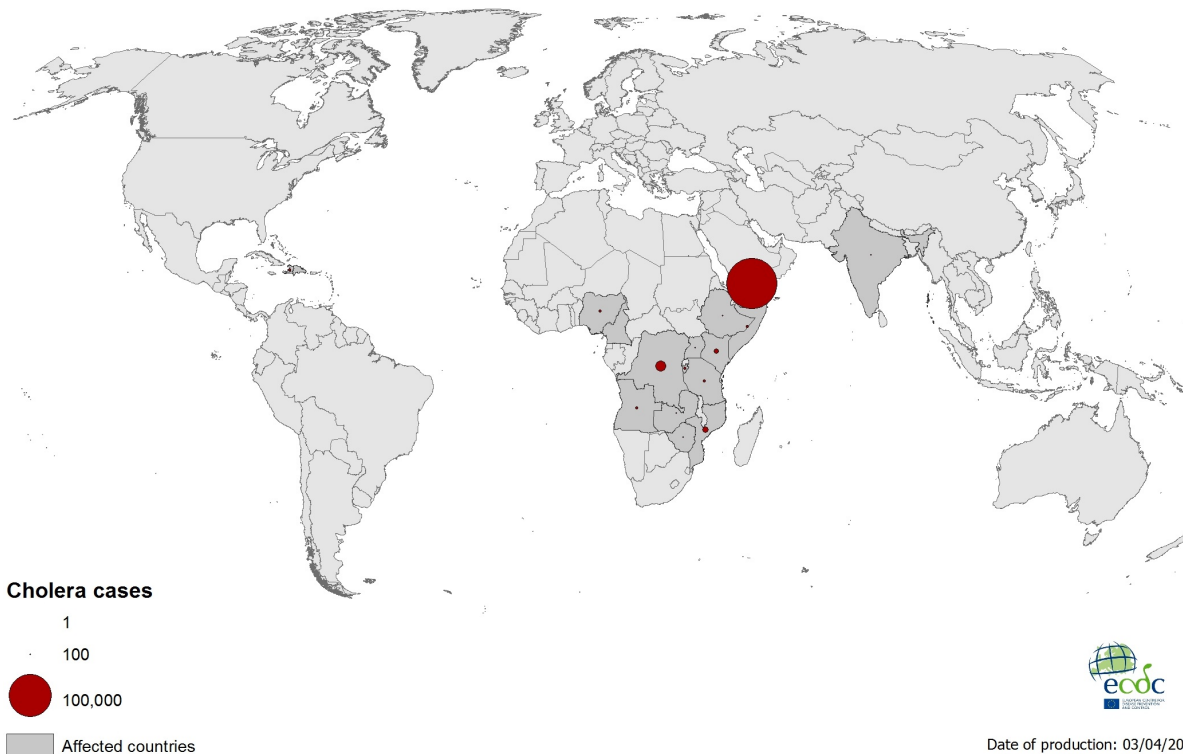
Travellers to cholera-endemic areas should seek advice from travel health clinics to assess their personal risk and apply precautionary sanitary and hygiene measures to prevent infection. These can include drinking bottled water or water treated with chlorine, carefully washing fruit and vegetables with bottled or chlorinated water before consumption, regularly washing hands with soap, eating thoroughly cooked food and avoiding 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 January to April 2019

ECDC



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

Opening date: 24 September 2012

Latest update: 5 April 2019

Epidemiological summary

In 2019 and as of 4 April 2019, 130 MERS-CoV cases have been reported in Saudi Arabia (117) and Oman (13), including 27 deaths in Saudi Arabia (23) and Oman (4). In Saudi Arabia, 50 cases were primary (23 of whom reported contact with camels), 31 were healthcare-acquired, 18 were household contacts and 18 were unspecified secondary cases. In 2019, 65% of the 117 cases in Saudi Arabia were reported in Wadi Aldwasir (56) and Riyadh (20) and in the last 7 days, 75% of the 8 cases in Saudi Arabia were reported in Eastern Province (6).

Since April 2012 and as of 4 April 2019, 2 427 cases of MERS-CoV, including 876 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

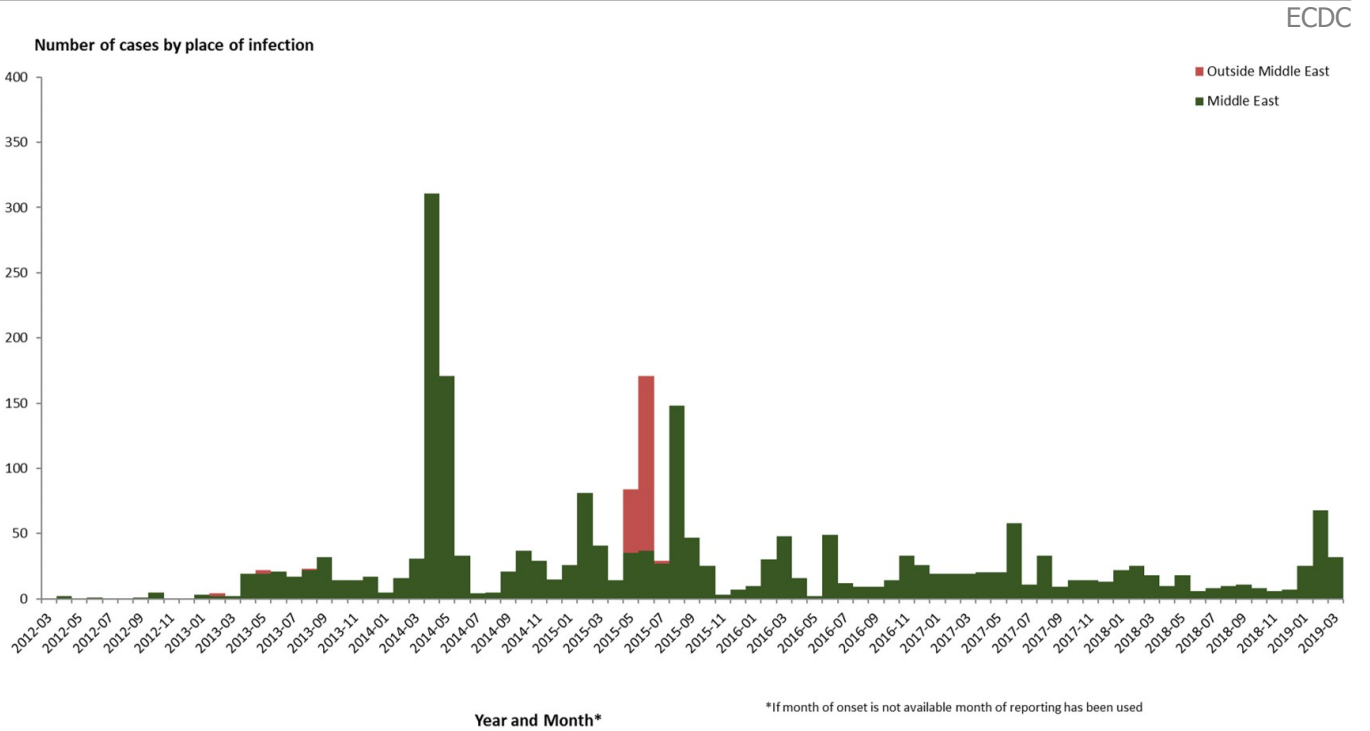
Human cases of MERS-CoV continue to be reported in the Arabian Peninsula, particularly in Saudi Arabia. The risk of sustained human-to-human transmission in Europe remains very low. The current MERS-CoV situation poses a low risk to the EU, as stated in a [rapid risk assessment](#) published on 29 August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

On 2 August 2018, ECDC published a [rapid risk assessment regarding public health risks related to communicable diseases during the 2018 Hajj, Saudi Arabia, 19–24 August 2018](#) that also addresses MERS-CoV.

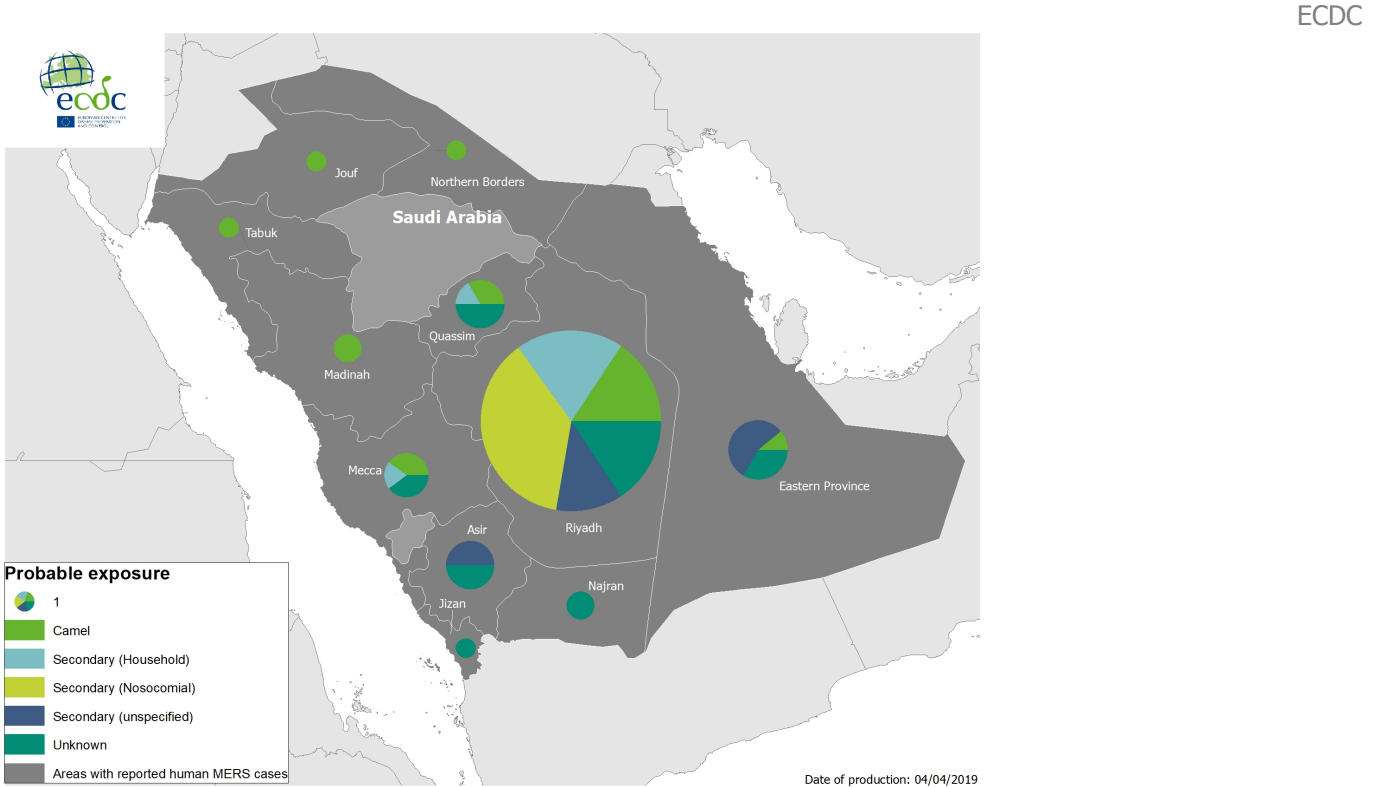
Actions

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 04 April 2019



Geographical distribution of confirmed MERS-CoV cases by probable region of infection and exposure in 2019, as of 04 April 2019



Influenza A(H9N2) - Multistate (World) - Monitoring human cases

Opening date: 30 January 2019

Latest update: 5 April 2019

Epidemiological summary

Since 1998 and as of 3 April 2019, 55 laboratory-confirmed cases of human infection with influenza A(H9N2) virus, including one death, have been reported globally. Cases occurred in China (47), Egypt (4) and Bangladesh (3). Additionally, one case was detected in Pakistan in 2015, according to literature.

Sources: [ECDC avian influenza page](#) | [WHO avian and other zoonotic influenza page](#) | [ECDC/EFSA joint report: Avian influenza overview November 2018 – February 2019](#)

ECDC assessment

Although avian influenza A(H9N2) has caused infection in humans, human infections remain rare and no sustained human-to-human transmission has been reported. No human cases due to A(H9N2) have been reported in Europe.

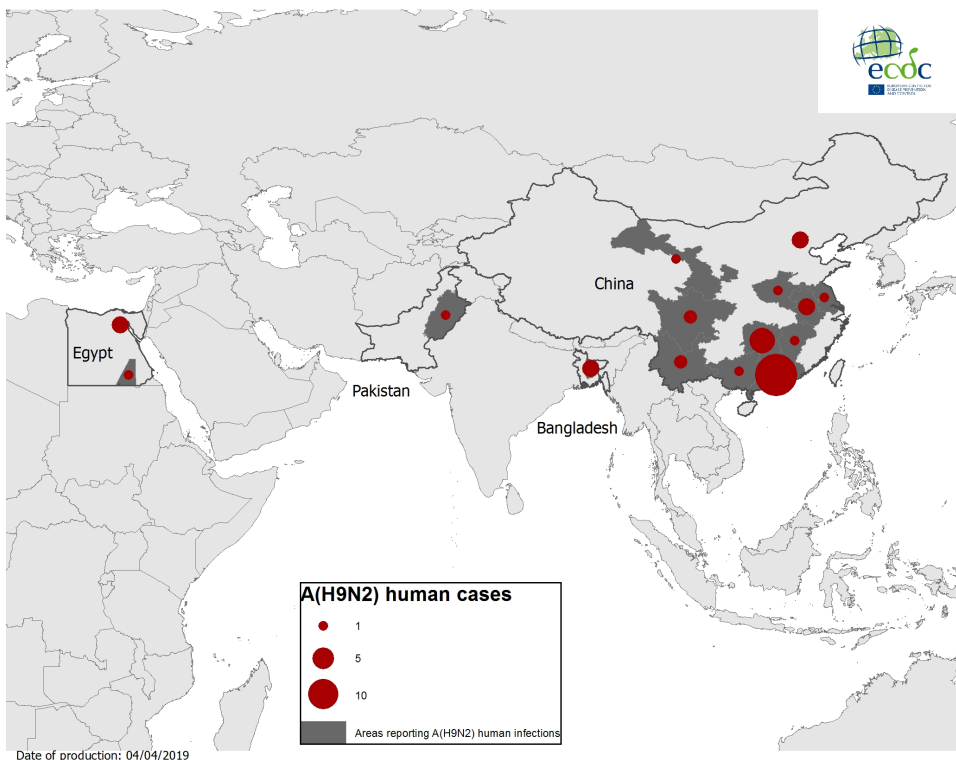
The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to remain very low. As the likelihood of zoonotic transmission of newly introduced or emerging reassortant avian influenza viruses is unknown, the use of personal protective measures for people exposed to avian influenza viruses will minimise the remaining risk.

Actions

ECDC monitors avian influenza strains through epidemic intelligence in order to identify significant changes in the epidemiology of the virus. ECDC together with EFSA and the EU reference laboratory for avian influenza produce a quarterly updated report of the [avian influenza situation](#) and the last [report](#) was published on 28 March 2019.

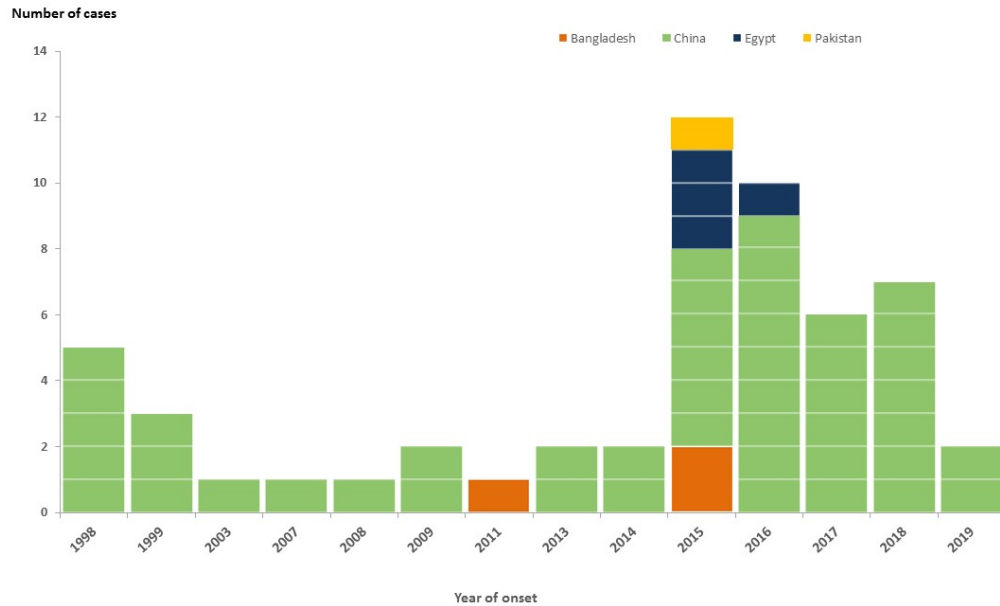
Geographical distribution of confirmed human cases of A(H9N2), 1998 - 3 April 2019

ECDC



Distribution of confirmed human cases of A(H9N2) by reporting country, 1998 - 3 April 2019

ECDC



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