

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Foodborne Hepatitis A - Denmark - 2018

Opening date: 3 May 2018

Latest update: 4 May 2018

On 2 May 2018, Denmark reported an outbreak of hepatitis A virus (HAV) genotype 1A infection. So far, six confirmed cases have been detected, with onset dates from 21 January to 10 April 2018. The Netherlands (8), Germany (1) and Ireland (1) reported matching or closely related strains detected in 2018, both from cases infected in these countries or with a travel history to Morocco.

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

Opening date: 11 October 2017

Latest update: 4 May 2018

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

→ Update of the week

During week 17/2018 (23–29 April 2018), influenza activity has been at inter-season levels in all but one reporting country.

Dengue – France, Réunion – 2018

Opening date: 13 March 2018

Latest update: 4 May 2018

Since the beginning of 2018, the island of Réunion, a French department in the Indian Ocean, has seen a significant increase in dengue cases.

→ Update of the week

Since the beginning of 2018 and as of 2 May, there have been 2 119 autochthonous cases of dengue in Réunion. Of these cases, 298 were reported between 23 and 29 April 2018.

Non EU Threats

Poliomyelitis – Multistate (World) – Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 4 May 2018

Global public health efforts are ongoing to eradicate polio by immunising every child until transmission of the virus has completely stopped and the world becomes polio-free. Polio was declared a public health emergency of international concern (PHEIC) by the World Health Organization (WHO) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 7 February 2018, WHO agreed that the spread of poliovirus remains a public health event of international concern and extended the temporary recommendations for an additional three months. In June 2002, the WHO European Region was officially declared polio-free.

→Update of the week

Since the previous CDTR on 6 April, and as of 1 May 2018, no new wild polio virus has been detected according to WHO. The Democratic Republic of Congo has reported one case of vaccine-derived polio viruses type 2 (cVDPV2).

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 4 May 2018

Yellow fever is a mosquito-borne viral infection which occurs in some tropical areas of Africa and South America. Brazil has been experiencing a major outbreak of yellow fever since 2016. An upsurge of confirmed cases has been reported since December 2017.

→Update of the week

Between 24 April and 2 May 2018, [Brazil](#) reported 39 additional confirmed cases and 30 deaths. The cases occurred in São Paulo (30), Rio de Janeiro (6) and Minas Gerais (3) states.

During the same time period, [Brazil](#) reported three confirmed epizootics in non-human primates in Rio de Janeiro (2) and Espírito Santo (1).

Since the previous CDTR, the Czech Republic reported a yellow fever case in a returning traveller from Brazil. The case was unvaccinated and travelled within Brazil between 20 February and 6 March 2018.

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

Opening date: 24 September 2012

Since the disease was first identified in Saudi Arabia in September 2012, approximately 2 000 MERS-CoV cases have been detected in over 20 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 towards dromedary camels in the Middle East as being 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

Since the last update on 4 April 2018, [Saudi Arabia](#) has detected seven MERS-CoV cases. Among the seven cases, three reported camel contact, one was a household contact and three were primary cases with no indication for the route of transmission. The cases occurred in Najran (2), Riyadh (1), Hawejjah (1), Hufoof (1), and Alqunfodha (2). Among the cases five were male and two female. The ages ranged between 43 and 93 years.

II. Detailed reports

New! Foodborne Hepatitis A - Denmark - 2018

Opening date: 3 May 2018

Latest update: 4 May 2018

Epidemiological summary

On 2 May 2018, Denmark posted an urgent inquiry on the EPIS-FWD platform about an investigation of an outbreak of hepatitis A virus (HAV) genotype 1A infection. So far, six confirmed cases with onset dates from 21 January to 10 April 2018 have been identified. Four patients are female and two are male, age ranges from 8 to 72 years. The cases are from different regions of Denmark. Five cases are domestically acquired, while one case has reported travel to Morocco within the incubation period. Two different strains of HAV 1A were identified in the Danish outbreak ("DK2018_267" and "DK2018_231"), with three cases infected with each strain. The sequences of the two strains are available in EPIS-FWD (UI-474).

The Netherlands reported eight patients, identified in 2018, of which four were infected with the strain DK2018_267 and four patients were infected with DK2018_231. The source of infection for all eight patients is unknown, all of them reside in different regions. Two are females and six are males, with age ranging from 12 to 69 years. Other strains matching or closely related to the two Danish strains were identified in the Netherlands in the past from cases with a travel history to Morocco.

Germany reported one case, identified in 2018, with a travel history to Morocco, infected with DK2018_231 (100% identity). Germany also reported additional cases with a travel history to Morocco in April 2018 (four female, two male, aged 23-68 years) with pending typing information.

Ireland reported one non-travel related case identified in 2018 with a strain differing by two nucleotides from the strain DK2018_231.

Italy and Sweden reported no strains matching the two sequences shared by Denmark in their database.

ECDC assessment

This is possibly a multi-strain, multi-country foodborne outbreak. The circulation of the strains has been observed in Morocco in the past. The outbreak is possibly ongoing also in Morocco where a number of European travel-related cases may have been recently infected.

Actions

ECDC is organising a teleconference with involved countries and is drafting a European case definition for this outbreak. Rapid risk assessment to be distributed to EC and MS on 15 May 2018.

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

Opening date: 11 October 2017

Latest update: 4 May 2018

Epidemiological summary

During week 17/2018 (23–29 April 2018), influenza activity has been at inter-season levels in all but one reporting country.

While low in number, 11% of the individuals sampled from primary healthcare settings tested positive for influenza viruses (compared with 12% in the previous week).

Both influenza virus types A and B were co-circulating with the majority being type A.

2017–2018 season overview

Influenza viruses have been circulating at high levels in the Region between weeks 52/2017 and 12/2018 (based on increased proportions - 40% and above - of sentinel specimens testing positive for influenza viruses). This is longer than in recent seasons, e.g. in the 2016-17 season increased proportions of 40% and above were observed between weeks 50/2016 and 06/2017. The long period of high level influenza virus circulation may have contributed to the severity of this season.

For the Region overall, the majority of influenza viruses detected were type B, representing a high level of circulation of influenza

3/10

B viruses compared with recent seasons. B/Yamagata lineage viruses have greatly outnumbered those of the B/Victoria lineage.

Different patterns of dominant influenza virus types and A subtypes were observed between the countries of the Region.

Overall for the season in the Region, of the type A virus detections from sentinel sources, the majority of which were subtyped, A (H1N1)pdm09 viruses have outnumbered A(H3N2) viruses. In non-sentinel sources, similar numbers of A(H3N2) viruses and A (H1N1)pdm09 viruses were reported.

While low in numbers, characterised A(H3N2) viruses fell mainly in clade 3C.2a (57%) and subclade 3C.2a1 (42%), while 42% of B/Victoria lineage viruses fell in a subclade of clade 1A viruses that are antigenically distinct from the current trivalent vaccine component.

The majority of severe cases reported this season were due to influenza type B virus infection and have mostly occurred in persons older than 15 years.

Mortality from all causes now appears to have returned to normal expected levels in all 21 participating countries and regions that report to EuroMOMO.

Interim results from [five European studies](#) indicate 25 to 52% vaccine effectiveness against any influenza.

Source: [Flu News Europe](#), [EuroMOMO](#)

ECDC assessment

Influenza viruses have been circulating widely in the Region between weeks 52/2017 and 17/2018 (based on increased proportions (10% and above) of sentinel specimens testing positive for influenza viruses). This is longer than in recent seasons and may contribute to the severity of this season.

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's website](#). Recommendations on the composition of the 2017-2018 influenza virus vaccine are available on [WHO's website](#).

Dengue – France, Réunion – 2018

Opening date: 13 March 2018

Latest update: 4 May 2018

Epidemiological summary

Authorities reported 2 119 cases on the island from the beginning of 2018 until 2 May 2018. Of all reported cases, 298 were reported between 23 and 29 April 2018. The main affected areas are on the western part of the island. The most prevalent serotype is DENV-2.

The main vector of infection implicated in the outbreak is *Aedes albopictus*.

On 27 March 2018, authorities decided to raise the level of the emergency plan [ORSEC](#) to 3. This plan includes:

- active case finding
- intensification of vector control
- reinforcement of communication to the public and healthcare workers
- mobilisation of additional resources such as the firefighters.

Sources: [ARS](#)

ECDC assessment

The current outbreak is a significant event as the number of cases already exceeds the yearly number of cases reported since 2010. This epidemic could continue and intensify in the coming weeks. Based on previous *Aedes* mosquito-borne outbreaks on the island, further transmission is expected up to the beginning of the austral winter (lasting from July to September) when the temperature will be lower. Control activities are currently in place and include active reinforced vector control, enhanced surveillance, blood safety measures and social mobilisation.

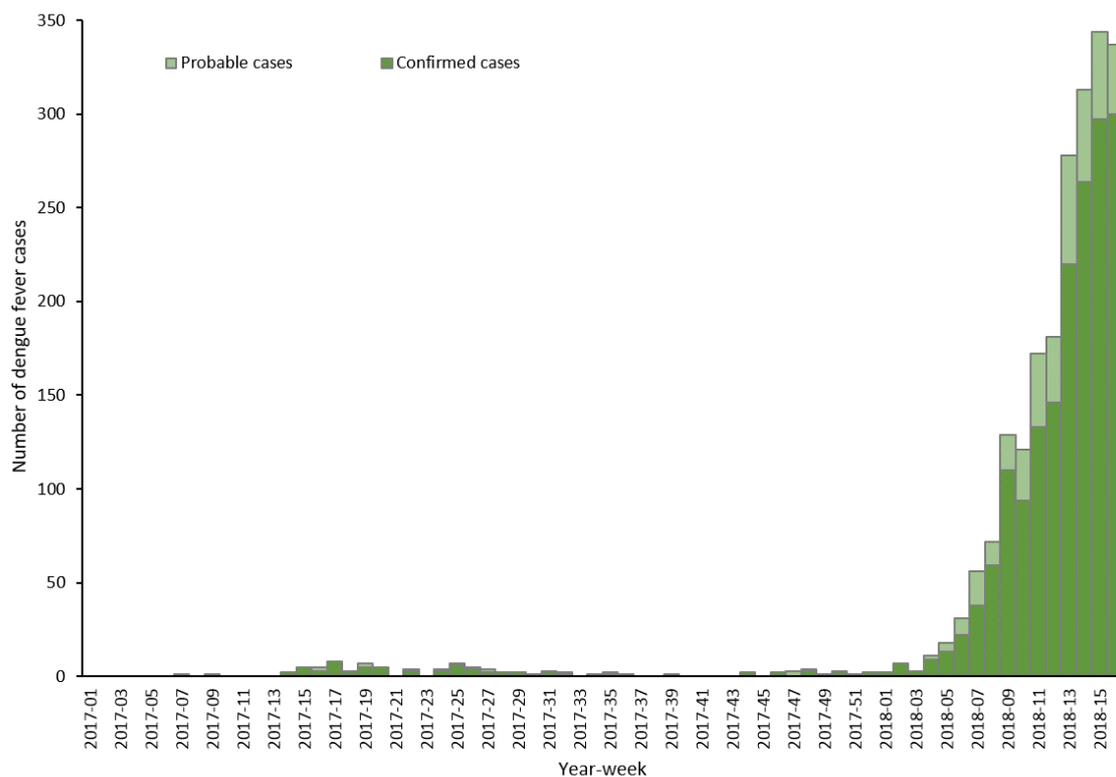
The risk for onward transmission of dengue fever in Europe is linked to importation of virus by viraemic travellers into receptive areas with established and active competent vectors (i.e. *Aedes albopictus* in mainland Europe, primarily around the Mediterranean, and *Aedes aegypti* on Madeira island). Environmental conditions in Europe are expected to become more favourable for the growth of mosquito populations in the coming weeks, reaching a high vector abundance in summer and early autumn. Prior to this high activity season, there is a low likelihood of sustained dengue virus autochthonous transmission in continental Europe associated with virus introduction by returning travellers from Réunion or other areas in the world with active DENV transmission.

Actions

ECDC is closely monitoring the situation and produced a rapid risk assessment entitled '[Dengue outbreak in Réunion, France](#)', which was published on 16 April 2018. ECDC reports monthly dengue outbreaks detected through epidemic intelligence in the CDTR.

Distribution of dengue cases by week of onset, week 1-2017 to week 16-2018, Réunion

Adapted from "Surveillance de la dengue à la Réunion. Point épidémiologique au 30 avril 2018"



Poliomyelitis – Multistate (World) – Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 4 May 2018

Epidemiological summary

Since the beginning of 2018, two countries have recorded cases of wild polio virus type 1 (WPV1): Afghanistan (seven cases) and Pakistan (one case). For the same period in 2017, five cases had been reported.

Since the beginning of 2018, four vaccine-derived polio viruses type 2 (cVDPV2) cases have been reported, all from the Democratic Republic of Congo. For the same period in 2017, no cVDPV2 had been reported.

ECDC links: [ECDC poliomyelitis web page](#) | [Information to travellers to polio-infected countries](#)

Sources: [WHO IHR Emergency Committee](#) | [Polio eradication: weekly update](#)

ECDC assessment

The last locally-acquired wild polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent wild polio outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases. Importation of the infection as well as of polio cases in to the EU remains possible.

ECDC links: [Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA](#) | [ECDC poliomyelitis web page](#)

Actions

ECDC provides updates on the polio situation on a monthly basis. ECDC monitors reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being reintroduced into the EU. Following the declaration of polio as a PHEIC, ECDC updated its [risk assessment](#).

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 4 May 2018

Epidemiological summary

Between July 2017 and week 17-2018, the Ministry of Health in Brazil reported 1 257 confirmed human cases of yellow fever, including 394 deaths. The cases occurred in São Paulo (525), Minas Gerais (511), Rio de Janeiro (214), Espírito Santo (6) and Distrito Federal (1).

During the same time period, the Ministry of Health reported 732 confirmed epizootics in non-human primates. Of those, 587 were reported in São Paulo state, 100 in Minas Gerais, 39 in Rio de Janeiro state, three in Tocantins, two in Espírito Santo and one in Mato Grosso.

Cases among returning travellers

Since the beginning of 2018, unvaccinated travellers from the Czech Republic (1), France (1), the Netherlands (1), Romania (1), Switzerland (1) and Germany (three confirmed cases, one of whom was reported by the United Kingdom) 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 be considered at risk for yellow fever transmission. Consequently, vaccination against yellow fever is recommended for international travellers visiting the state of São Paulo.

The [Ministry of Health, Brazil](#) announced a progressive extension of the standard vaccination recommendations for the whole of Brazil. It will be expanded gradually until 2019.

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

ECDC assessment

The outbreak is currently showing a decreasing trend and as the vector activity season in Brazil is coming to an end, the risk for European travellers is expected to decrease. Brazilian authorities are conducting vaccination campaigns. European citizens

6/10

travelling to any yellow fever risk area should seek medical advice prior travel and should receive the yellow fever vaccine at least 10 days prior to travelling (unless vaccination is contraindicated). They should also follow measures to avoid mosquito bites and be aware of yellow fever symptoms and signs.

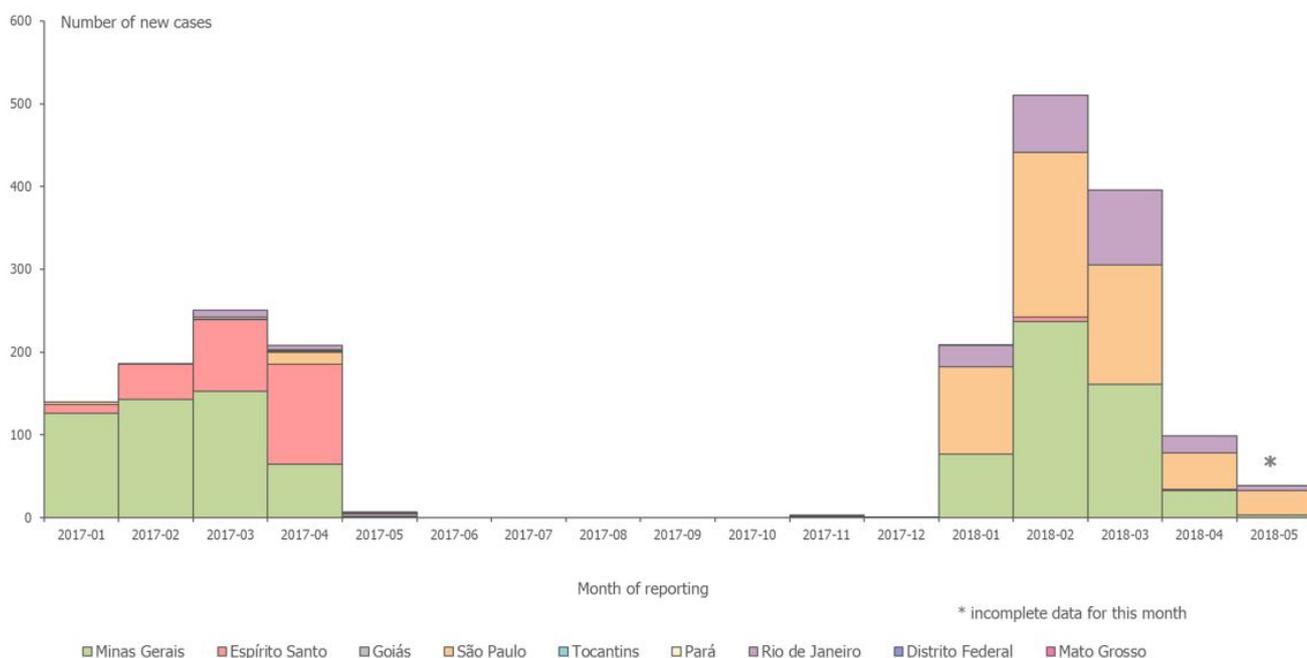
The probability of local yellow fever transmission in continental Europe following introduction of the virus by a viraemic traveller is currently considered very low as *Aedes aegypti* is not present, and vector competency of *Aedes albopictus*, which is present in the southern part of Europe, is limited.

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 - 2 May 2018

ECDC



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

Opening date: 24 September 2012

Epidemiological summary

Since April 2012 and as of 5 May 2018, 2 224 cases of MERS-CoV, including 834 deaths, have been reported by health authorities worldwide.

Web sources: [ECDC's latest rapid risk assessment](#) | [ECDC novel coronavirus webpage](#) | [WHO](#) | [WHO MERS updates](#) | [Saudi Arabia MoH](#) | [ECDC factsheet for professionals](#)

ECDC assessment

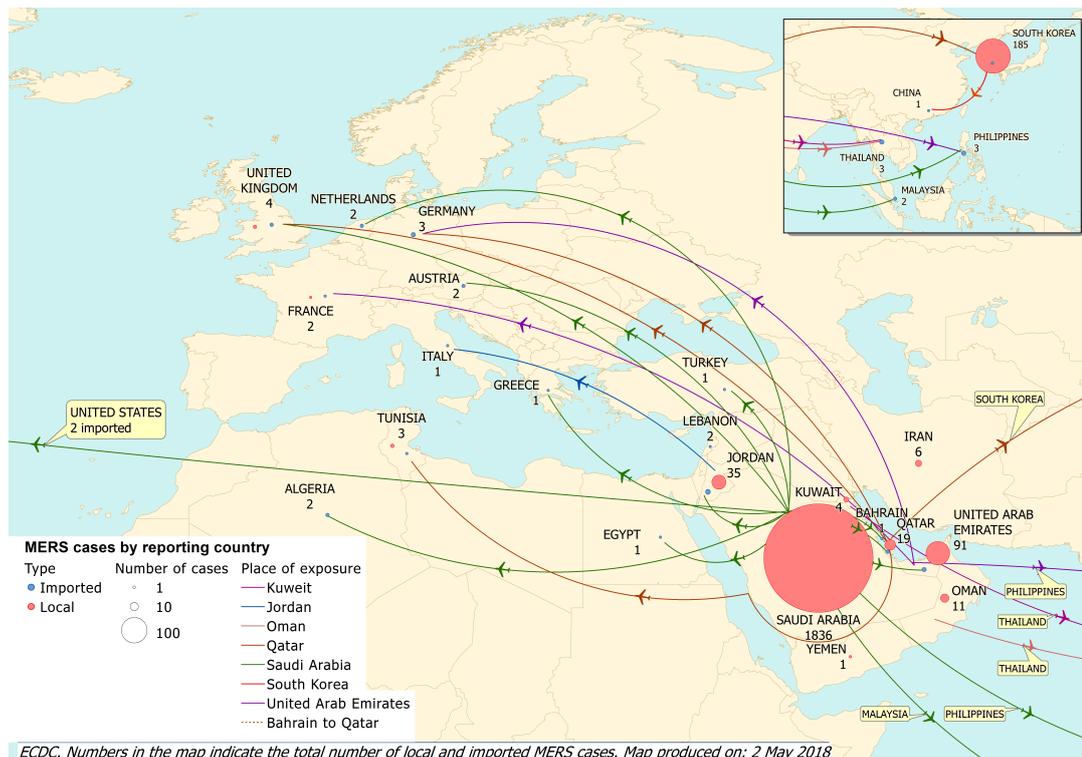
The risk of sustained human-to-human transmission in Europe remains very low. ECDC's conclusion continues to be that the MERS-CoV outbreak poses a low risk to the EU, as stated in a [rapid risk assessment](#) published on 21 October 2015, which also provides details on the last case reported in Europe.

Actions

ECDC published the 21st update of its MERS-CoV [rapid risk assessment](#) on 21 October 2015.

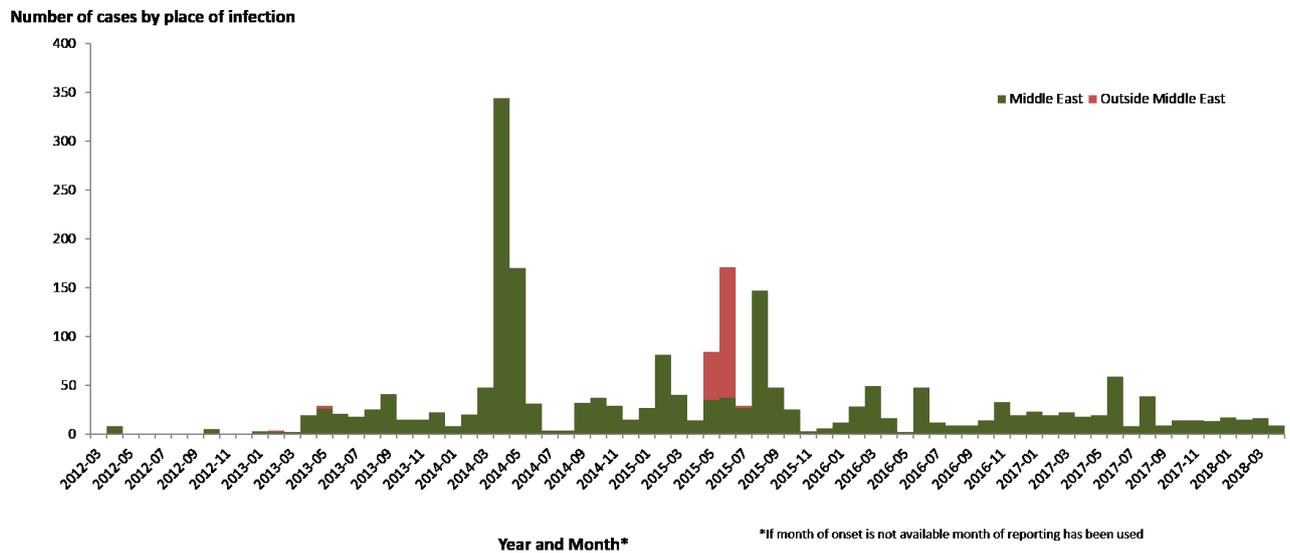
Distribution of confirmed cases of MERS-CoV by country of probable infection and country of report from March 2012 and as of 30 April 2018

Saudi Arabia, WHO



Distribution of confirmed cases of MERS-CoV by first available month and region, from March 2012 and as of 30 April 2018

ECDC, Saudi Arabia, WHO



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