

## Current major event

### Three simultaneous hospital outbreaks of MERS in Saudi Arabia

From 26 May 2017 to 25 June 2017, three, simultaneous, clusters of Middle East respiratory syndrome coronavirus (MERS-CoV) were reported from three different hospitals in Riyadh city, Riyadh Region in Saudi Arabia, of which two clusters are related. A total of 48 laboratory-confirmed cases of MERS, 6 related deaths were reported during this period from the three clusters (Case-fatality rate, CFR: 12.5%) (*Please see the table*). 54% of detected MERS cases were health care workers (HCWs) with no reported death; 60% of the cases were asymptomatic.

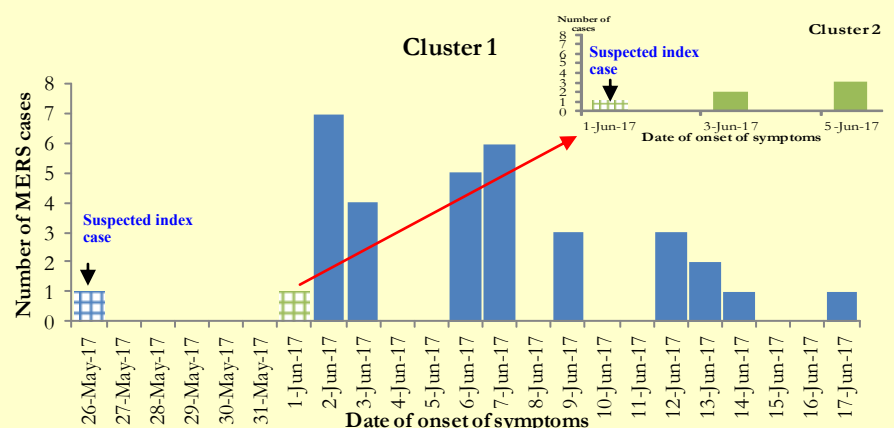
### Editorial note

Since the emergence of the novel disease in April 2012 up to June 2017, a total of 2,036 laboratory-confirmed cases of Middle East respiratory syndrome (MERS), including 730 deaths (CFR: 35.9%) were reported globally. Among these cases, 1,668 (81.9%) were reported from Saudi Arabia including 656 deaths (CFR: 39.3%). From January to June 2017, Saudi Arabia has reported 141 laboratory-confirmed cases of MERS including 32 deaths (CFR: 22.7%).

Forty eight cases were associated with three simultaneous, clusters in three different hospitals in Riyadh city, Riyadh Region during the months of May and June 2017. 26 out of 48 (54.2%) are HCWs with no reported death. Two out of the three clusters are related, the index case of the second cluster visited the emergency room of hospital where the first cluster took place; then the patient received kidney dialysis sessions in hospital 2 where the second cluster began later on (*Please see the graph above*).

A total of 33 MERS cases including 5 deaths (CFR: 15.2%) were reported in cluster 1 with date of onset of symptoms started from 26 May and last case in 17 June 2017; 6 MERS cases including 1 death (CFR: 16.7%) were reported in cluster 2; while 9 MERS cases without any death were reported in the third cluster. 29 out of 48 cases were asymptomatic, and were detected through the active contacts' screening of confirmed cases.

Two Epidemic curve, by date of onset, showing MERS cases from two related clusters (1 and 2) in Riyadh Region, Saudi Arabia (Date of onset of symptoms from 26 May 2017 to 17 June 2017)



MERS cases and deaths from the three hospital outbreaks, Riyadh Region, KSA, June 2017

Order of cluster	Survived	Death	CFR (%)
Cluster 1	28	5	15.2
Cluster 2	5	1	16.7
Cluster 3	9	0	-
<b>Total</b>	<b>42</b>	<b>6</b>	<b>12.5</b>

These three simultaneous hospital outbreaks rises the number of health care setting outbreaks of MERS-CoV, reported in Saudi Arabia, to reach six hospital outbreaks since the beginning of the current year with a total of 71 cases including 10 deaths (CFR: 14.1%).

These recent MERS clusters affirm the importance of systematic use and application of strict hospital infection control measures across all healthcare facilities in a consistent and uniform manner. It is obvious now that triage, early detection including aggressive contact tracing; effective infection prevention and control (IPC) measures in health care settings and high quality case management remain the key components of preventing hospital outbreaks from MERS.

After five years since its emergence, MERS-CoV continues to remain a disease of global health concern. Consequently, continuous and consistent improving of hospital infection control measures as well as systematic global risk assessment will remain the major key to prevent any threat of global spread of this coronavirus, without specifically known countermeasures.

## Update on outbreaks in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; Cholera in Somalia; Cholera in Yemen; Chikungunya in Pakistan.

### Current public health events of international concern [cumulative N° of cases (deaths), CFR %]

#### Avian Influenza: 2006-2017

Egypt (A/H5N1) [359 (122), 34%]  
Egypt (A/H9N2) [3 (0)]

#### Chikungunya: 2016-2017

Pakistan [6,507 (0)]

#### MERS-CoV: 2012-2017

Saudi Arabia [1,668 (656), 39.3%]

#### Cholera: 2016-2017

Somalia [51,036 (782), 1.5%]  
Yemen [185,301 (1,233), 0.7%]

#### Meningococcal disease: 2017

Nigeria [14,513 (1,166), 8%]

#### Avian Influenza A (H7N9): 2013-2017

China [1,486 (571), 38.4%]

#### Ebola Virus Disease: 2017

DRC [8 (4), 50%]

#### Wild poliovirus: 2014-2017

Pakistan [382 (0)]  
Afghanistan [65 (0)]

#### Zika Virus Infection: 2015-2017

84 countries and territories have reported transmission so far.