

## Current Event

### MERS-CoV in KSA

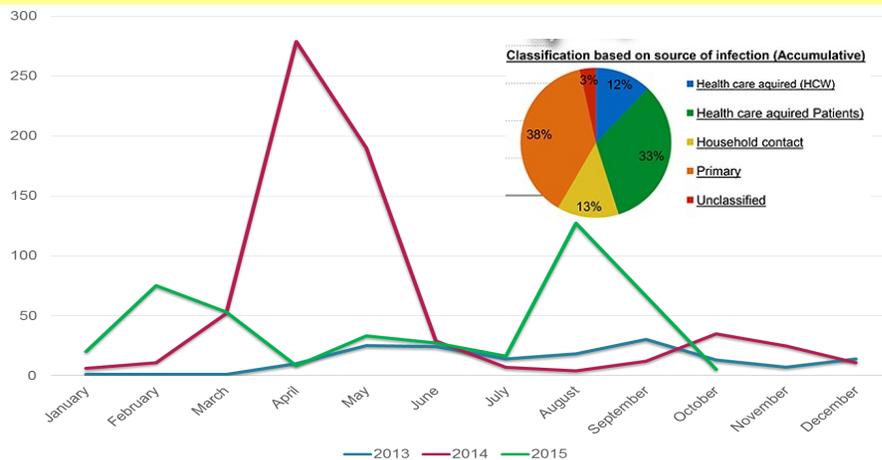
More than three years passed since Middle East Respiratory Syndrome due to coronavirus (MERS-CoV) has been identified in Saudi Arabia. Yet, it continues to be a national and international concern.

## Editorial Notes

The first case of MERS-CoV infection was identified in 2012 in the western region in Saudi Arabia. Retrospective studies identified an outbreak involving 13 patients in April, 2012, in Zarqa, Jordan. Since then, cases have been identified across the Arabian peninsula, in Asia, Europe, Africa, and the USA. MERS-CoV marks the second known zoonotic introduction of a highly pathogenic coronavirus; the first zoonotic introduction of a coronavirus into the human population occurred with the severe acute respiratory syndrome (SARS) in 2003.

As of October 27<sup>th</sup> 2015 the global number of reported cases reached 1599, including 574 deaths (Case-Fatality Rate [CFR%]=35.8%). In Saudi Arabia the total number of reported cases reached 1272 (79.5% of the global number) with a CFR% of 42.5%. As a national response to the emerging outbreak of MERS-CoV, Saudi Arabia created a national body, the Command and Control Center (CCC) to ensure appropriate and expedient response to the outbreak. The CCC holds three meetings weekly to monitor all activities related to MERS-CoV; some key stakeholders participate in the development of interventions. About half of the confirmed cases (51%) were community acquired (38% were primary cases and 13% were secondary cases that occurred within households). About 45% of the cases occurred within health care facilities, of which approximately one third occurred among health care workers (HCWs), whereas 3% of the cases remain unclassified. Figure 1 shows the epidemic curve of MERS-CoV over the last three years (2013-

Figure 1: Epidemic curve of MERS-CoV in Saudi Arabia, 2013-2015



### Cases of MERS-CoV: International Week (IW): 19-25 Oct 15:

|                    |   |
|--------------------|---|
| Total cases        | 9 |
| Symptomatic cases  | 8 |
| Asymptomatic cases | 1 |
| Healthcare worker  | 1 |

The last pilgrimage to Makkah (*Hajj*) that ended end of September 2015 has been attended by about 2 million people from all over the world. It is worth mentioning that no cases of MERS-CoV were detected not only during this season, but also since 2012.

#### MERS-CoV Case Definition\*:

A confirmed case is a suspected case with laboratory confirmation of MERS-CoV infection. Where suspected cases are: defined as case with the following presentation:

Adults (> 14 years):

- I. Acute respiratory illness with clinical and/or radiological, evidence of pneumonia or Acute Respiratory Distress Syndrome.
- II. Hospitalized patient with healthcare associated pneumonia based on clinical and radiological evidence.
- III. Upper or lower respiratory illness within 2 weeks after exposure to a confirmed or probable case of MERS-CoV infection
- IV. Unexplained acute febrile ( $\geq 38^{\circ}\text{C}$ ) illness, AND body aches, headache, diarrhea, or nausea/vomiting, with or without respiratory symptoms, AND leucopenia

\* Refer to CCC guidelines June 2015

## Recent publication:

Muth D, Corman VM, Meyer B, Assiri A, Al-Masri M, Farah M, Steinhagen K, Lattwein E, Al-Tawfiq JA, Albarrak A, . Infectious Middle East Respiratory Syndrome Coronavirus Excretion and Serotype Variability Based on Live Virus Isolates from Patients in Saudi

## MERS-CoV in KSA 2015\*

| Region           | Case       | Primary    | Secondary  | U.C.      |
|------------------|------------|------------|------------|-----------|
| Riyadh           | 287        | 98         | 180        | 9         |
| Al-Ahassa        | 52         | 11         | 37         | 4         |
| Eastern Region   | 21         | 10         | 11         | 0         |
| Jeddah           | 17         | 9          | 7          | 1         |
| Qassim           | 15         | 9          | 6          | 0         |
| Najran           | 14         | 9          | 5          | 0         |
| Taif             | 11         | 8          | 3          | 0         |
| Madinah          | 7          | 1          | 6          | 0         |
| Asir             | 4          | 2          | 2          | 0         |
| Tabuk            | 4          | 4          | 0          | 0         |
| Makkah           | 3          | 3          | 0          | 0         |
| Hail             | 2          | 1          | 1          | 0         |
| Al-Joaf          | 2          | 2          | 0          | 0         |
| Jazan            | 1          | 1          | 0          | 0         |
| Northern Borders | 1          | 1          | 0          | 0         |
| Qunfotha         | 1          | 1          | 0          | 0         |
| Al-Baha          | 0          | 0          | 0          | 0         |
| Bisha            | 0          | 0          | 0          | 0         |
| Hafr Al-Batin    | 0          | 0          | 0          | 0         |
| Qurayyat         | 0          | 0          | 0          | 0         |
| <b>Total</b>     | <b>442</b> | <b>170</b> | <b>258</b> | <b>14</b> |

Case: Confirmed Symptomatic. U.C. : Unclassified cases

\*Period: Form 29 Dec 2014 to 25 Oct. 2015