

## Current major event

### Efforts to find the source of MERS-CoV continues

Despite a recent decline in reported human infections from MERS-CoV, the threat of this novel virus to global health continues to pose a real and persistent danger. As long as the source of this virus remains unknown, public health measures to prevent transmission of this virus to humans remain inadequate. There has been an urgent call, in recent time, to identify the source of this virus, transmission kinetics and the exposure that result in human infection through conducting appropriate epidemiological studies in the countries where laboratory-confirmed human infections have been reported.

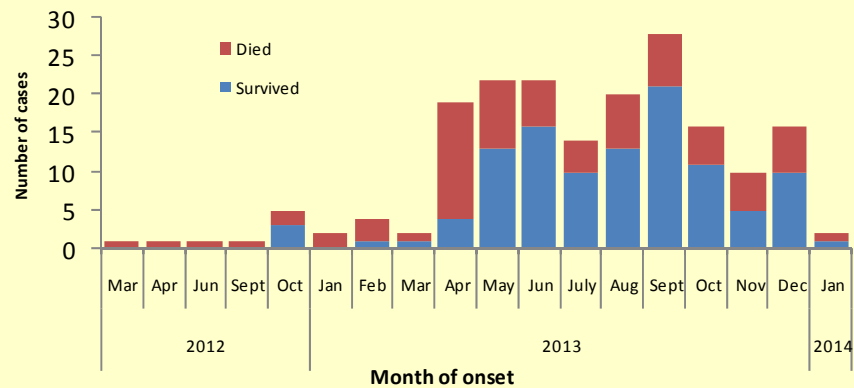
### Editorial note

Currently, 180 laboratory confirmed infections with Middle Eastern respiratory syndrome coronavirus (MERS-CoV) have been reported to WHO. Of these infections, about one-third are suspected to be infections acquired from a possible animal reservoir through an unknown route. The remaining two-third infections have occurred as a result of subsequent limited human-to-human transmission. The animal reservoir that serves as the source of virus infecting humans is uncertain. Evidence is accumulating that suggests camels found in the Middle East may be widely infected.

More than three-fourth of the total laboratory-confirmed human infections of MERS-CoV reported to WHO do not have a history of direct contact with camels or other animals. This suggests that either camels are not the primary source of the virus transmitted to humans or that the route of transmission is indirect. It is possible that camels are secondarily infected from another animal species that serves as the primary reservoir for both human and camel infections.

In order to prevent transmission of the virus from its animal source to humans, and the subsequent human-to-human transmission that is now commonly observed, it is critical that the route of

Distribution of MERS-CoV cases (n = 182) by outcome and month of onset



MERS-CoV cases and deaths reported from the EMR countries

| Country      | Cases | Deaths | CFR (%) |
|--------------|-------|--------|---------|
| Jordan       | 4     | 3      | 75      |
| Saudi Arabia | 144   | 59     | 41      |
| Qatar        | 10    | 2      | 20      |
| Tunisia      | 3     | 1      | 33      |
| UAE          | 12    | 3      | 25      |
| Oman         | 0     | 2      | 100     |
| Kuwait       | 2     | 0      | 0       |

transmission and exposures that result in human infection be further delineated. The most effective way to accomplish this is to use a case-control study which examines the specific exposures, activities, and behaviors of human cases of MERS-CoV infection and compares the frequency with which these occur to that of other non-infected individuals.

Recently in a meeting, organized by WHO, the affected countries in the region agreed to participate in a multi-country case-control study to determine the mode of exposure. A further consultation is scheduled in Riyadh, Kingdom of Saudi Arabia during the first week of March to finalize the research protocol and agree on a research implementation plan. It is expected that decisions will be firmed up in this meeting on standardized data collection as well as other technical support that the countries may require from WHO and other international health agencies for conducting this case-control study.

## Update on outbreaks

in the Eastern Mediterranean Region

Novel Coronavirus in Jordan and Saudi Arabia

### Current public health events of international concern

[cumulative N° of cases (deaths), CFR %]

#### Avian influenza

|              |                     |
|--------------|---------------------|
| Egypt        | [173 (63), 36.4%]   |
| Indonesia    | [192 (160), 83.3 %] |
| Viet Nam     | [125 (62), 49.6%]   |
| Cambodia     | [31 (27), 87.1%]    |
| Global total | [629 (375), 59.6%]  |

#### Hepatitis E

|             |                       |
|-------------|-----------------------|
| South Sudan | [12,718 (251), 1.9%]# |
|-------------|-----------------------|

#### Novel Coronavirus (MERS-CoV)

|              |                 |
|--------------|-----------------|
| Saudi Arabia | [144 (59), 41%] |
| Oman         | [0 (2), 100%]   |
| Qatar        | [10 (2), 20%]   |
| Jordan       | [4 (3), 75 %]   |

#### Yellow fever

|       |                |
|-------|----------------|
| Sudan | [49 (15), 32%] |
|-------|----------------|

#### Crimen-Congo haemorrhagic fever

|          |                 |
|----------|-----------------|
| Pakistan | [100 (20), 20%] |
|----------|-----------------|

#### Wild poliovirus

|          |           |
|----------|-----------|
| Syria    | [17 (0)]  |
| Somalia  | [180 (0)] |
| Cameroon | [2 (0)]   |

CFR=Case-Fatality Rate; # Suspected cases