



## **MIDDLE EAST RESPIRATORY SYNDROME CORONAVIRUS (MERS-COV)**

The Middle East Respiratory Syndrome Coronavirus (MERS-CoV) is a novel coronavirus first reported globally as a human pathogen in 2012, identified from a specimen collected from a resident of Saudi Arabia who died from his infection. Later, it was retrospectively determined two fatalities associated with an earlier nosocomial cluster in Jordan in April 2012 were also due to this virus.

Since April 2012, cases of MERS-CoV have been identified in the following countries: Saudi Arabia, Qatar, Jordan, the United Arab Emirates, Oman, Kuwait, Yemen, Lebanon, Iran, Algeria, the United Kingdom (UK), France, Italy, Greece, Germany, the Netherlands, Tunisia, Egypt, Malaysia, the Philippines and the United States of America (USA).

The initial cases in France, Italy, Tunisia and the UK were linked to travel to the Middle East. Limited transmission in the countries of Europe and North Africa has occurred in close contacts of people who had travelled to the Middle East. All cases outside of the Middle East had either recent travel history to the Middle East countries or contact with someone returning from the Middle East.

On May 2, 2014 the Centers for Disease Control and Prevention confirmed the first case of MERS-CoV in North America (in the USA) in a traveler from Saudi Arabia. The patient is a healthcare worker who lives and works in Saudi Arabia. He was isolated in a hospital during the course of illness and later discharged, having fully recovered. On May 11, 2014, a second USA imported case of MERS was confirmed in a traveler who also came to the USA from Saudi Arabia. This patient is also a healthcare worker who traveled from Saudi Arabia to Orlando. On May 18, health officials verified the patient tested negative for *active* MERS-CoV infection, was no longer symptomatic, and posed no threat to the community; the patient was considered fully recovered and was discharged from the hospital. These two USA cases are not linked.

Since MERS-CoV was first identified, serious illness and death have been seen in patients with underlying medical conditions and/or in older individuals. The illness has been milder in younger, healthy people.

As of June 16, 2014, the World Health Organization has reported 701 human cases, including 249 deaths (case fatality rate of 35.5%). An additional 113 cases occurring between 2012 and 2014 have been reported by the Saudi Arabian Ministry of Health on June 3, 2014. These cases are not reflected in the current case count. Of note, approximately 97% of the cases occurred in the Middle East (in Saudi Arabia, United Arab Emirates, Qatar, Jordan, Oman, Kuwait, Egypt, Yemen and Lebanon).

**The risk to Canadians is low; there are no cases currently in Canada.**

To date, MERS-CoV has occurred in a pattern of discrete clusters among family, household or nosocomial settings, including limited transmission to relatives, patient visitors, patient roommates and health care workers. Adult men are disproportionately represented among case counts. The large number of cases with comorbidity may reflect contribution within the nosocomial setting and/or their increased susceptibility. Recently, there have been an increasing number of infections among healthcare workers, indicating the importance of following strict infection control practices in health care settings.

*References:*

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