Editorial note

Since its emergence in 2012, cases of Middle East respiratory syndrome (MERS) continue to occur in countries of the Eastern Mediterranean Region signifying that the global threat of MERS has not yet subsided. Last year, the outbreak in South Korea was a strong reminder that MERS remained an international health threat and could cause severe disruption to health, economic and social services if health systems remain unprepared.

Despite its low levels of transmission, the virus presents an uncertain future as a number of critical knowledge gaps on the source and route of transmission have hindered the global response to this emerging infection.

What have we learnt so far on MERS-Cov is that it is a zoonotic virus and the evidence accumulated, so far, suggests that human infections have been associated with either direct or in-direct contact with animals, especially camels. We have also known that MERS-Cov is widespread in camel populations in the Arabian Peninsula and some African countries such as Egypt, Ethiopia, Kenya Nigeria, Tunisia and Sudan. However, these findings do not explain whether the virus was circulating in the dromedary camels of these countries before the first human infection was detected in 2012.

From the public health perspective, we have also learnt that the risk factors for nosocomial outbreaks are overcrowding, lack of proper assessment and triaging of suspected patients, uncontrolled patient movement, absence of patient cohorting and poor compliance with infection control practices by health-care workers.

The available information suggests that the mystery of MERS has not yet fully unfolded. Like any other emerging infection, it has the potential to turn into an explosive outbreak with rapid dispersion of the virus into the susceptible populations. A substantial amount of research on MERS has been carried out since its discovery. However, a number of knowledge gaps still remain and filling these is critical both to advancing our understanding of MERS-Cov infection and, more importantly, to improving the effectiveness of the global response to the virus. Some of these gaps (please see above) have been identified during the recent mission of WHO.

Like all coronavirus, MERS-Cov is prone to mutations and may acquire an enhanced ability to become more easily transmissible. Considering the current uncertainties surrounding the virus and its presumed capability to cause a global health emergency, conducting such research to close the currently existing knowledge gaps is vital and of urgent priority. Only then, we can perhaps avert another global health emergency.