

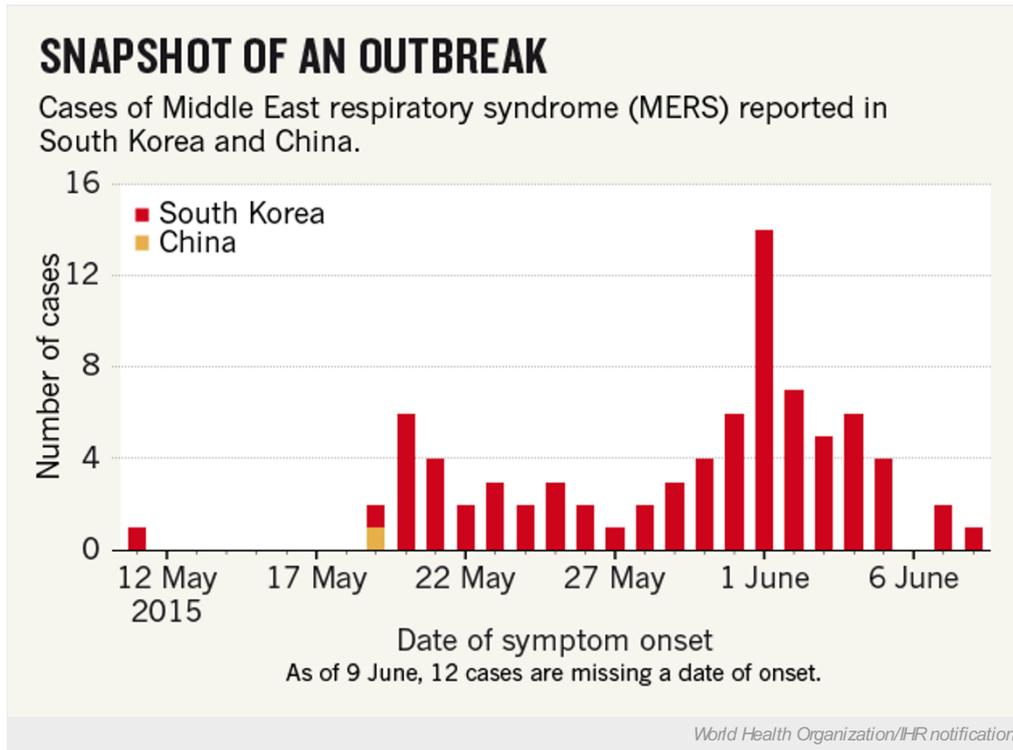
# How to make sense of MERS outbreak data

Plotted data show that next week will reveal whether South Korea’s infection-control measures are working.

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Call it a snapshot of an outbreak. As Middle East respiratory syndrome (MERS) continues to spread in South Korea, the graph below — known as an epidemic curve, or epi-curve — allows scientists to make sense of the data. It plots the time at which people fall ill, creating a more accurate picture of the outbreak dynamics than the stream of daily case reports, which do not account for delays in reporting infections or the lag between when people became infected and when they developed symptoms.



Shown as the left-most point on the epi curve, the man who brought MERS to South Korea fell ill on 11 May. He then visited four different health-care facilities before receiving a diagnosis, where he infected others (MERS typically [only spreads between people in hospitals](#), where medical procedures can combine with poor infection control to disseminate the virus). Because of the 5–6 day incubation period of the virus in this outbreak, the people whom he infected do not appear on the curve until a week later. They show up as the wave of cases beginning on 19 May.

The man went on to be diagnosed with MERS on 20 May, at which point South Korean authorities began to trace the people he had had contact with, isolate them, and ramp up infection control. But not before the first wave of new cases had infected more people in hospitals. These later infections show up as the second peak in the graphic.

With 108 people already infected in the South Korean outbreak, some of whom may not have been isolated in time, before they had contact with others in hospital, more cases are expected. The epi curve this time next week will, for the first time, show the development of the outbreak since the country’s control measures reached full speed. Should the numbers level off or decrease, this will be welcome news to many in South Korea and beyond.