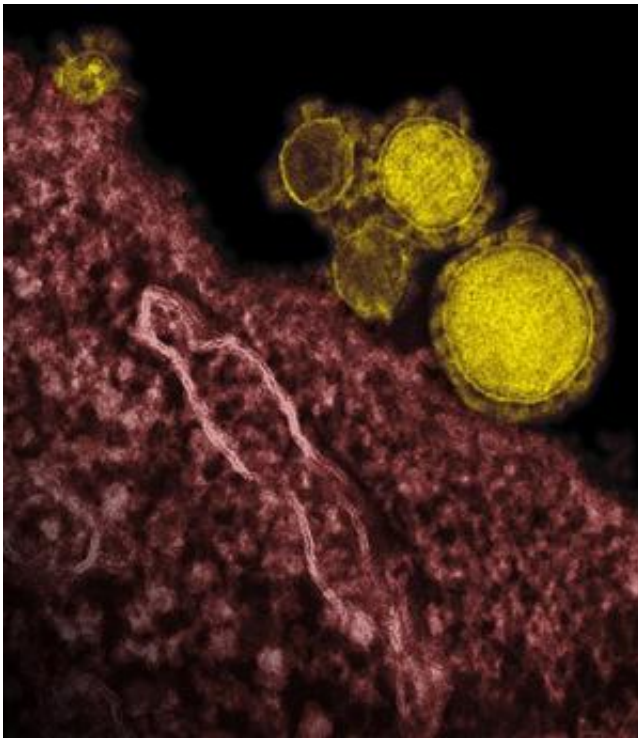


# New MERS virus spreads easily, deadlier than SARS, researchers show

June 19 2013, by Maria Cheng

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This undated electron microscope image made available by the National Institute of Allergy and Infectious Diseases - Rocky Mountain Laboratories shows novel coronavirus particles, also known as the MERS virus, colorized in yellow. The mysterious new respiratory virus that originated in the Middle East spreads easily between people and appears more deadly than SARS, doctors reported Wednesday, June 19, 2013 after investigating the biggest outbreak in Saudi Arabia. (AP Photo/NIAID - RML)

A mysterious new respiratory virus that originated in the Middle East spreads easily between people and appears more deadly than SARS, doctors reported Wednesday after investigating the biggest outbreak in Saudi Arabia.

More than 60 cases of what is now called MERS, including 38 deaths, have been recorded by the [World Health Organization](#) in the past year, mostly in Saudi Arabia. So far, illnesses haven't spread as quickly as SARS did in 2003, ultimately triggering a global [outbreak](#) that killed about 800 people.

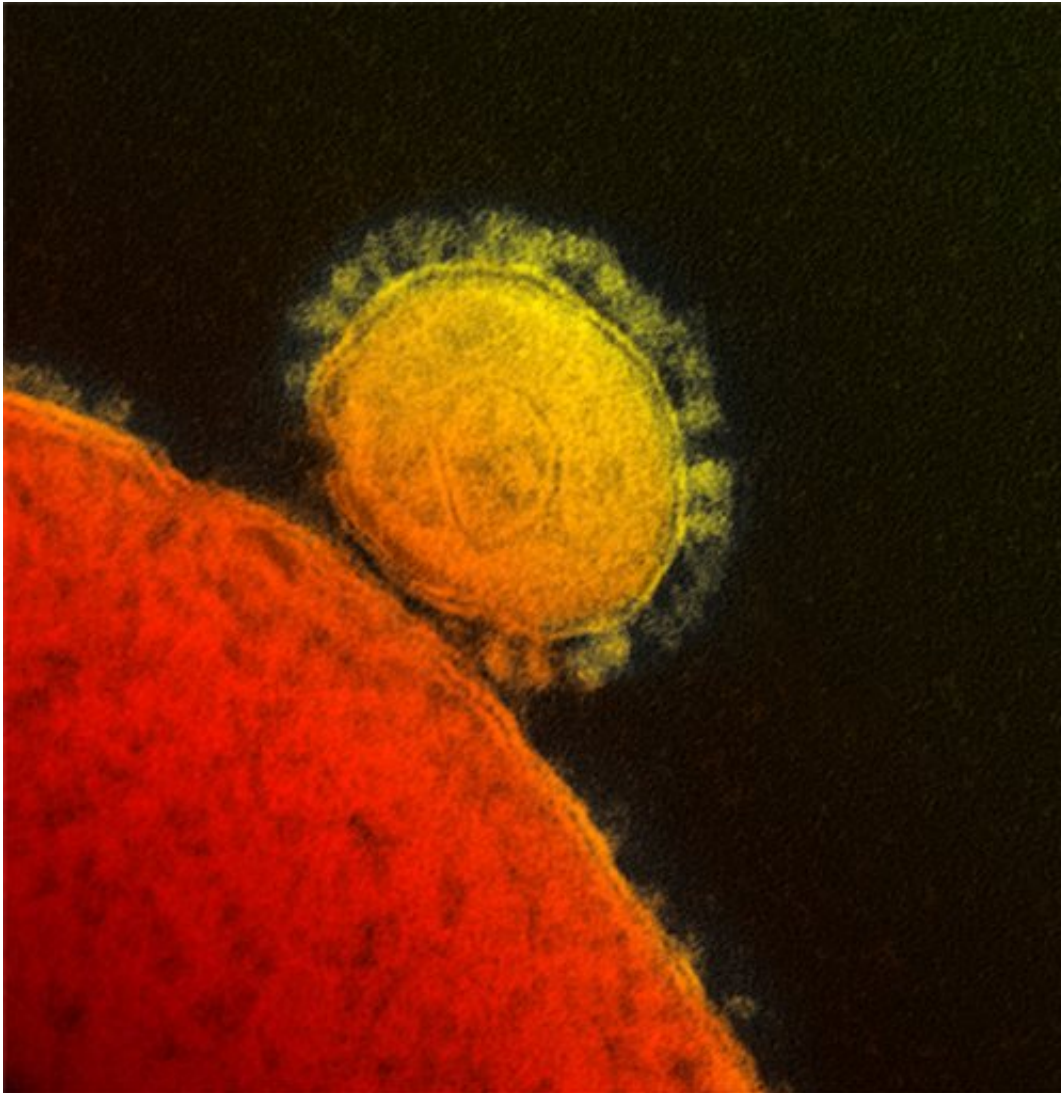
An international team of doctors who investigated nearly two dozen cases in eastern Saudi Arabia found the new [coronavirus](#) has some striking similarities to SARS. Unlike SARS, though, scientists remain baffled as to the source of MERS.

In a worrying finding, the team said MERS (Middle East respiratory syndrome) not only spreads easily between people, but within hospitals. That was also the case with SARS, a distant relative of the [new virus](#).

"To me, this felt a lot like SARS did," said Dr. Trish Perl, a senior hospital [epidemiologist](#) at Johns Hopkins Medicine, who was part of the team. Their report was published online Wednesday in the *New England Journal of Medicine*.

Perl said they couldn't nail down how it was spread in every case—through [droplets](#) from sneezing or coughing, or a more indirect route. Some of the [hospital patients](#) weren't close to the infected person, but somehow picked up the virus.

"In the right circumstances, the spread could be explosive," said Perl, while emphasizing that the team only had a snapshot of one MERS cluster in Saudi Arabia.



This undated electron microscope image made available by the National Institute of Allergy and Infectious Diseases - Rocky Mountain Laboratories shows a novel coronavirus particle, also known as the MERS virus, center. The mysterious new respiratory virus that originated in the Middle East spreads easily between people and appears more deadly than SARS, doctors reported Wednesday, June 19, 2013 after investigating the biggest outbreak in Saudi Arabia. (AP Photo/NIAID - RML)

Cases have continued to trickle in, and there appears to be an ongoing

outbreak in Saudi Arabia. MERS cases have also been reported in Jordan, Qatar, the [United Arab Emirates](#), Britain, France, Germany, Italy and Tunisia. Most have had a direct connection to the Middle East region.

In the Saudi cluster that was investigated, certain patients infected many more people than would be expected, Perl said. One patient who was receiving dialysis treatment spread MERS to seven others, including fellow dialysis patients at the same hospital. During SARS, such patients were known as "superspreaders" and effectively seeded outbreaks in numerous countries.

Perl and colleagues also concluded that symptoms of both diseases are similar, with an initial fever and cough that may last for a few days before pneumonia develops.

But MERS appears far more lethal. Compared to SARS' 8 percent death rate, the fatality rate for MERS in the Saudi outbreak was about 65 percent, though the experts could be missing mild cases that might skew the figures.

While [SARS](#) was traced to bats before jumping to humans via civet cats, the source of the MERS virus remains a mystery. It is most closely related to a bat virus though some experts suspect people may be getting sick from animals like camels or goats. Another hypothesis is that infected bats may be contaminating foods like dates, commonly harvested and eaten in Saudi Arabia.

Doctors around the world have struggled to treat patients. "We need more information from other countries to find out what the best treatment is," said Dr. Clemens Wendtner, who treated a MERS patient who later died in Munich. "Our patient got everything possible and it still didn't help him."

Other experts said there are enough worrying signs about MERS that it can't yet be written off, despite the relatively small number of cases it has caused.

"As long as it is around, it has every opportunity at the genetic roulette table to turn into something more dangerous," said Michael Osterholm, an infectious diseases expert at the University of Minnesota.

WHO Director-General Dr. Margaret Chan has previously called MERS the single biggest public health threat and acknowledged officials were "empty-handed" regarding prevention measures.

"We understand too little about this virus when viewed against the magnitude of its potential threat," she said last month in Geneva.

At a meeting this weekend in Cairo, WHO will meet with other experts to discuss MERS and to possibly develop guidelines for next month's Ramadan, when millions of Muslim pilgrims will be visiting Saudi Arabia.

**More information:** Journal: [www.nejm.org](http://www.nejm.org)  
WHO: [www.who.int](http://www.who.int)  
CDC: [www.cdc.gov/coronavirus/mers/overview.html](http://www.cdc.gov/coronavirus/mers/overview.html)

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