

SARS lessons crucial for mounting coronavirus test

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The strain of coronavirus that has killed more than 80 people in China and that has spread to several countries appears to be more contagious but less deadly than SARS, offering health authorities some clues in dealing with the latest outbreak.

Mortality

"From what we see now, this [disease](#) is indeed...not as powerful as SARS," said Gao Fu, head of China's Centre for Disease Control and Prevention, at a press briefing in Beijing.

French health minister Agnes Buzyn said that while "the spread of the virus appears to be more rapid than SARS... the mortality is clearly lower."

The current outbreak of coronavirus is a new strain, dubbed 2019-nCoV, and belongs to the same family of diseases as SARS. Genetically, the two viruses are roughly 80 percent similar.

According to the World Health Organization, the 774 deaths from SARS during the 2002-2003 outbreak came from 8,096 confirmed cases.

That's a mortality rate of 9.5 percent.

As of Monday the new coronavirus has killed 81 people from 2,744 confirmed cases, making it deadly in 3 percent of infections.

Transmission

Scientists at Britain's Imperial College estimate that each coronavirus patient infects on average 2.6 others.

That's a relatively low rate of reproduction, a key determining factor in the size and spread of disease outbreaks.

SARS's reproduction rate was 2-3 people, making it about as infectious as the annual influenza

epidemic.

There are some caveats, however, including so-called "super-spreaders"—patients who are capable of contaminating dozens of other people.

A crucial question remains unanswered this time around: at what stage does a patient become infectious?

Ma Xiaowei, head of China's National Health Commission said that transmission of coronavirus was possible during the disease's [incubation period](#)

That means that someone who is sick with coronavirus would be able to pass it on to someone else even if they aren't yet displaying any symptoms.

This working hypothesis is yet to be fully confirmed, however.

"Defining the scale of asymptomatic transmission remains key: if this is a rare event then its impact should be minimal in terms of the overall outbreak," said Jonathan Ball, professor of Molecular Virology at the University of Nottingham.

"But if this transmission mode is contributing significantly then control becomes increasingly difficult."

China has taken unprecedented measures to try to contain the spread of the disease, shutting down transport in the city of Wuhan, where the [outbreak](#) originated.

But if coronavirus is indeed contagious when patients aren't showing symptoms, measures such as taking travellers temperatures at airports may be insufficient to curb its spread.

Symptoms

Both SARS and coronavirus have similar symptoms, according to an observational study of dozens of early cases in Wuhan.

All patients suffered from pneumonia, nearly all had a fever, and over half experienced breathing difficulties.

But Bin Cao from the China-Japan Friendship Hospital and Capital Medical University, who wrote the study published in *The Lancet*, said there were some "important differences" between the two diseases.

Whereas SARS patients presented upper respiratory tract issues including runny noses and sore throats, those symptoms are largely absent with coronavirus.

The average age of the patients studied was 49 and just under a third of them suffered from pre-existing chronic conditions, including diabetes and heart disease.

There is currently no vaccine or cure for coronavirus but anti-bacterial treatments for the pneumonia it causes are commonly available.

Outbreak control

The SARS epidemic was extinguished in a matter of months thanks to a global mobilisation by governments and health workers.

China imposed strict hygiene measures among its population, such as the wearing of breathing masks in public and the rapid isolation of suspected cases.

It also banned the eating of civets, a small mammal that is a delicacy in parts of China, which was identified as the animal that transferred SARS to humans.

It's still unclear which animal passed on coronavirus to humans but China has placed a temporary ban on the sale of all wild animals in the meantime.

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