

## **Scientists grappling with Covid-19 'covert transmissions', says report**

**Malaysiakini**

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CORONAVIRUS | Scientists are scrambling to understand Covid-19 cases that show little or no symptoms but could still be contagious, according to reports.

Previous reports claimed that asymptomatic transmissions of the disease are rare and is not a major driver of the pandemic, but there is mounting evidence to suggest otherwise.

According to a news report today by Nature, which summarised the latest research, some of the first detailed estimates of the phenomena suggests that covert cases could represent about 60 percent of all Covid-19 infections.

It said many scientists have suspected an undetected pool of covert cases showing few or no symptoms, because an increasing number of infected people can't be linked to known cases or travel to epidemic hotspots.

This is distinct from groups trying to understand cases that have gone

undetected due to lack of testing, or "preclinical cases" where people are incubating the virus but have yet to show symptoms.

The report by the prominent scientific journal quoted a paper published on March 6 suggesting there were 37,400 people with the virus in Wuhan as of Feb 18, that authorities didn't know about.

"By our most conservative estimate, at least 59 percent of the infected individuals were out and about, without being tested and potentially infecting others," the lead author of the study, Wu Tangchun, was quoted as saying.

"This may explain why the virus spread so quickly in Hubei and is now circulating around the world."

The paper has yet to undergo peer-review.

However, Nature also quoted the London School of Hygiene and Tropical Medicine disease modeller Adam Kucharski saying that Wu's estimates are in line with several other smaller studies, and his methods are sound.

"It's the most recent analysis of the best data set we have," Kucharski reportedly said.

Mathematical epidemiologist Gerardo Chowell from Georgia State University in Atlanta reportedly said Wu's model probably overestimates the transmission rate and exaggerates the number of infections with mild or no symptoms, but the results are probably in the right ballpark.

Quoting a separate study involving 565 Japanese citizens evacuated from Wuhan, China, it was reported that 13 of the evacuees were found to be infected.

Of these, four of them never developed symptoms despite testing positive.

As for the Diamond Princess cruise ship, where its 3,711 crew and passengers had been quarantined and closely monitored, Chowell's modelling study reportedly found that about 18 percent of the 700 infected people never showed symptoms.

The study was published in the journal *Eurosurveillance* on March 12.

However, Chowell reportedly told *Nature* that the ship's crew and passengers represent a "special population".

This is because a disproportionate number of the ship's passengers are elderly people, who tend to develop more severe symptoms.

Taking several other studies into account, Chowell reportedly said he believes asymptomatic or mild cases combined represent about 40 to 50 percent of all infections.

As for whether mild or asymptomatic Covid-19 cases could be infectious, the Nature report quoted several studies suggesting that they can.

One draft report by a team based in Germany detected high levels of the virus in throat swabs of mildly ill Covid-19 patients.

Another team in China found high viral loads in 17 people soon after they became ill, and one person who never developed symptoms but shed a similar amount of viral particles as those who showed symptoms.

This meant that the virus could easily be expelled into the environment through coughs and sneezes, Nature reported, where it could cause new infections.

A separate study involving 700 infected children in China found 56 percent had little to no symptoms, leading to concerns that this may have led to an underestimate of children's susceptibility to the virus.

Nature quoted researches urging that if these findings hold water, then urgent measures are needed to curb mild and asymptomatic cases, including by closing schools, cancelling public gatherings, and keeping people in homes and out of public places.

“Implementing strong social-distancing measures is the only way to stop the virus from spreading,” Chowell was quoted as saying.

The studies quoted by Nature contrast a report by the World Health Organisation (WHO) and China joint mission on Covid-19, which was released late last month.

It reflects a rapidly evolving understanding of the disease as more data becomes available.

According to the WHO-China joint report, 80 percent of laboratory confirmed cases have mild or moderate illness.

Laboratory tests - in combination with rapid contact tracing - were able to find some cases before they begin to show symptoms.

Preliminary data suggested that the virus is detectable - in swab samples taken through the mouth or nose - for up to two days before symptoms begin to show,

the report said.

“Asymptomatic infection has been reported, but the majority of the relatively rare cases who are asymptomatic on the date of identification/report went on to develop the disease.

“The proportion of truly asymptomatic infections is unclear but appears to be relatively rare and does not appear to be a major driver of transmission,” the report said.

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