Study underway to find out extent of infection

Key focus is to determine how many are infected without showing symptoms

REIKUROHI & LINETTE LAI

Singapore has taken the fight against the coronavirus to the next level, with a major effort to determine the extent of Covid-19 infection among the population and where weak links exist.

A key focus is to find out how many have been infected but did not show any symptoms and were therefore not tested for the virus.

The National Centre for Infectious Diseases (NCID), which is spearheading the initiative, said this is being done using what is referred to as serology tests to analyse a person’s antibodies and determine whether someone had been infected.

Singapore is believed to be among the first in the world to use such tests on a large scale, to hopefully show whether precautionary measures, such as social distancing and mandatory mask-wearing, are effective and adequate.

The results would also help policymakers understand how different groups, such as frontline healthcare workers, have been affected.

And since these tests can identify those who had been infected but showed mild or no symptoms, they give an insight into the extent of under-diagnosed cases of Covid-19.

As such cases tend to involve young healthy individuals, they indicate how these people contribute to the spread of the disease.

Such serology tests are a well-established tool for managing infectious diseases, the NCID said yesterday, when-sharing the preliminary results of the studies done so far.

The research, commissioned by the NCID’s Covid-19 research work group, were conducted between February and this month, and reflect case figures before the numbers began to spike early this month.

Three separate studies are being done—one healthcare workers, close contacts of Covid-19 patients and the rest of the population including children.

Preliminary results show that the risk of infection is highest among close contacts.

SCOPE

The scope of the studies will be expanded in the coming months to help further shape Singapore’s response measures to the outbreak in the long term.

The NCID said the tests, when applied to Covid-19, are valuable for accurately comparing data across different groups of people according to factors such as age or geographical location.

This enables comparisons both within and across countries to help researchers understand factors that determine the effectiveness of Covid-19 control measures over time.

The studies were planned as early as January, soon after the virus began spreading outside of China.

The work group, also formed in January, is chaired by the NCID’s executive director, Professor Leo Yee Sin, and advised by the Health Ministry’s chief health scientist, Professor Tan Chorh Chuan.

It comprises members from various public healthcare institutions, including the Health Ministry and the Agency for Science, Technology and Research.

“Rigorous research is critical to ensuring a coordinated, effective national-level outbreak response,” said Prof Leo.

“In the case of Covid-19, of which much remains unknown, a swift response in clinical aspects as well as research is especially crucial to outpace the virus’ rapid spread.”

linetteil@sph.com.sg
reil@sph.com.sg

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