Everyone has part to play to flatten epidemic curve: Expert

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In the ongoing battle to contain the spread of Covid-19, every action counts, experts said yesterday.

“Social distancing, personal hygiene, business continuity plans, can all help to reduce $R_0$ (R-naught) to less than one,” infectious diseases expert Wang Linfa said during a panel discussion hosted by The Straits Times.

$R_0$ refers to the basic reproduction number. It indicates the natural spread of the virus, said Professor Wang, who is director of the programme in emerging infectious diseases at Duke-NUS Medical School.

If the $R_0$ is less than one, it means each existing infection causes less than one new infection. In this case, the disease will decline and eventually die out. But if it is greater than one, it will probably keep spreading.

Countries including Singapore are taking measures to drive the $R_0$ to less than one, said Prof Wang.

“I think, so far, we are doing pretty well, but I think we need to really keep it up,” he said, adding that everyone, from the individual to the Government, can help draw down $R_0$ for Covid-19.

Prof Wang said the $R_0$ for Covid-19 is estimated to be between two and three, similar to severe acute respiratory syndrome (Sars). In comparison, the $R_0$ for measles is about 12.

Prof Wang said bringing the $R_0$ down would also help to “flatten the epidemic curve” by preventing the number of infected cases from surging suddenly.

The epidemic curve is an n-shaped curve that is used to visualise when new cases happen and at what speed during a virus outbreak.

Prof Wang said: “If you let the natural $R_0$ play out, hospitals will collapse because there are not enough beds, not enough ventilators.

“So, the strategy is to flatten the curve so that, for example, you have severe cases of 10 per day rather than a hundred or a thousand per day.”

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