

**COVID-19: TACKLING THE NOVEL
CORONAVIRUS**
LONDON SCHOOL OF
HYGIENE & TROPICAL MEDICINE



Step 2.8 Response in Singapore

Prof Teo Yik Ying, Dean, NUS Saw Swee Hock School of Public Health, discusses the measures taken in Singapore to contain the outbreak and their impact (recorded on 9th March 2020). He also shares update on the response in Singapore since recording below. We can always learn from others - as you listen and read the material consider what you think could be learnt from Singapore, and how any measures might need adapting to your context.

Singapore continues to ramp up case finding and contact tracing capacity, with the number of tests per day increased from 2,000 in February to 8,000 now, with an eventual target of 40,000 by July. We started only testing symptomatic patients presenting at primary care clinics or hospitals, but the country has now expanded to include testing of frontline workers such as healthcare workers, people working in nursing care homes, and also other workers in essential sectors. These are on top of sentinel surveillance activities which include swabbing a random subset of patients presenting with influenza-like illnesses at primary care clinics – a programme which during non-COVID-19 times helps to establish baseline prevalence of circulating virus strains. Contact tracing has also adapted the use of technology, with a Bluetooth app TraceTogether. This is able to register the mobile phone numbers of nearby contacts, if these phones have similarly downloaded the app, and within the surveillance radius. However, the uptake of the app is still not optimal, with only about 20% penetrance – this translates to only 4% capability for contact tracing, and the developers estimated a requirement of at least 80% for operational contact tracing to be meaningful.

Owing to an increase in community cases, Singapore entered a partial lockdown, termed "circuit breaker", on 7 April. This was scheduled to end on 4 May, but was subsequently extended until 1 June. The partial lockdown saw school closures as well as closure of workplaces for non-essential services. Crucially, the construction sector was also closed on 19 April for two weeks, as there were a number of cases emerging from workers in the construction sector. Modellers estimated that the circuit breaker is successful at reducing the R_t to below 1, and the number of cases in the community has indeed fallen from a high of 48 (3-day average on 8-10 April) to a recent 3-day average of <20.

Singapore has modified its stance on face masks, and mandated the use of reusable cloth masks in public spaces. From 14 April, everyone leaving home must wear a mask. However, the recommendation regarding surgical face masks remains, that surgical face masks should only be used when one is ill and aiming to seek medical care, although the government has stepped back from discouraging the use of surgical face

masks. The change in stance was brought about by knowledge of asymptomatic and pre-symptomatic transmissions; it was viewed that wearing a reusable cloth mask primarily helps in source control – meaning it protects others from droplets that one can expel in the process of speaking, coughing or sneezing.

If you want to know more about the responses in Asia, you may wish to read a short article by Prof Yik Ying and others - including Prof Leung - about the resilience of health systems in Japan, Singapore and China in the context of COVID-19, included in the See Also section.

Audio transcript

SPEAKER 1: Can you tell us a little bit about the national activities in Singapore in response to the outbreak?

SPEAKER 2: So I think Singapore used the traditional approach of isolation of their confirmed cases in the early parts of the outbreak. So these are very traditional methods of social distancing, identifying who the cases are, making sure that we contact trace who they have been in contact with, and then making sure those people that have been in possible contact are identified, isolated, and monitored daily in terms of temperature, whether they have any symptoms that they are coming down with an infection. And then, from there, treat the individuals that are infected in an environment that is clinically sound and supportive of any progression or escalation in their clinical symptoms.

One other response that has worked well with regards to contact tracing is actually the multi-sectorial cooperation that we have seen. Traditionally, contact tracing has been the mandate of people in the health sector, but, given the scale of the problem and the complexity of people movement that we are seeing in Singapore, actually, the police have been roped in to work with the health sector to identify possible contacts.

And it's not just regular police. It's actually the criminal detectives that are being roped in. These are people with specific training to look at evidence, to look at piecing together very sparse information, including ploughing through CCTV footages, to really trace the movement patterns, the interaction patterns of a confirmed case with the rest of society. This multi-sector cooperation has been important and instrumental in addressing and closing some of the gaps that we see.

Now I think the other area that has worked quite well is really in terms of having a trusted source of communication to the general public. And we see that in terms of the daily reports that are published and available online. That happens between 8:00 PM to 9:00 PM every day.

Equally, there is a trusted platform where individuals can sign up to receive WhatsApp messages that comes directly to the phone up to two to three times a day that talks about the current situation that's happening within the country, that talks about what are the new enforcement measures that are put in place. And, thirdly, it sends regular reminders of what are the individual responsibility in terms of not touching your face,

in terms of constantly washing hands. Wear a mask if only you are feeling unwell and so on.

What does a school of public health have to contribute in times like this? We actually have people who are very good in communication. Public health communication is one of the key elements in traditional schools of public health. If we understand society of populations, how do we make use of that information of their understanding to actually transmit the necessary precautions to the public such that they react in a personally responsible way?

Equally, schools of public health have modellers that are able to use mathematics, statistics, and very clever computing to piece together information that look at what has happened is able to inform what is going to happen in the future.

SPEAKER 1: I understand that the Singapore government made the decision to give each household four face masks. Can you tell us a bit about the communications strategy that went with that approach?

SPEAKER 2: Right, so, first, we could start off with the rationale why the government decided to give face masks to the public from its national stockpile. And it was really because the government sensed that there was a lot of public and anxiety around the inability to access, to buy face masks in the market and individuals, that degree of fear that they are being put in a compromising situation just because they do not have face mask.

The government decided in that span that they need to address and calm the society down. So they announced publicly that the government will dig into its national stockpile and give every household four face masks. But what is important is not just the act of giving four face masks. It is important to also look at the accompanying statement that was released as well, which is these four face masks are meant for individuals to use only when they are not feeling well, when they are ill, when they may have symptoms, flu-like symptoms.

This is important because the message here is very clear that you use the face mask only when you are ill. And you don't wear a face mask if you are well. And, just because you're going to a crowded place, you feel that it confers additional protection. What does the face mask actually do? And, more importantly, what is the sense of false confidence that the face mask, wearing a face mask, actually gives to the individual?

If, by wearing a face mask, an individual now takes on more risky behaviour and takes on less preventive measures, such as regular washing of hands with soap, I think that becomes a much greater challenge. I think the communication strategies have been one of their approaches that have been very dedicated, as well as a lot of effort has been put into it to make sure that the communication is done well.

Then the third area is really in terms of preparing the society as a whole to respond to this outbreak. And, in terms of preparing the society, this is where there is the fiscal measure to make sure that there is no financial disincentive for people to step forward if they believe that they are suspected of being infected, whether it is to minimise the

impact on their daily livelihood or to minimise impact from the need to seek treatment. The fiscal policy on the confirmed cases is clearly one area that has been put in place.

The second area is actually to try and minimise the long-term impact that this outbreak will have on trade, on businesses, on individuals who are employed by reducing their financial burden and increasing liquidity in the society. So this is where interest rates are being cut. This is where particular subsidies are being put in place to help employers manage the cost of employing or continuing employing people within their workforce. So the fiscal policy, again, is one area that is implemented well

See Also

Coronavirus (COVID-19) Outbreak – Insights from Leading Expert Prof Yik-Ying Teo

<https://www.lshtm.ac.uk/newsevents/events/coronavirus-covid-19-outbreak-insights-leading-expert-prof-yik-ying-teo>

Covid-19: The response in Singapore

<https://www.nuffieldtrust.org.uk/news-item/covid-19-the-response-in-singapore>

Are high-performing health systems resilient against the COVID-19 epidemic?

[https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(20\)30551-1.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)30551-1.pdf)