

Moving from front line to command post in war on diseases

Outgoing NCID chief hopes to better engage with organisations like the WHO in new role

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She will soon no longer be on the front line of Singapore's war against Covid-19, but Professor Leo Yee Sin from the National Centre for Infectious Diseases (NCID) will still be planning for the battle against the next disease threat – from the command post instead.

In her new role from July 1 as senior consultant at the Ministry of Health and senior adviser to the National Healthcare Group, she will be coordinating infectious disease and outbreak management.

Prof Leo, who helped establish the NCID in 2017 and has been its executive director for the past six

years, hopes to better engage with regional organisations as well as international bodies like the World Health Organisation.

"It is very important for Singapore to be represented in some of these international policymaking bodies," she said, adding that she would like to spend more time establishing such relationships.

With trade and travel being the lifeblood of Singapore, Prof Leo said the country has to continue to be vigilant and aware that some very challenging diseases will eventually come to its shores.

Citing the mosquito-borne Zika virus as an example, she said: "When we first heard of Zika, we were still operating from the old Communicable Disease Centre.

Then, we were battling dengue and thought (the 2007 outbreak of) Zika in the Yap islands in Micronesia was mild – fever and rash."

But the situation was very different when Zika reached Singapore in 2016.

"It went through the South American wave, causing microcephaly (where babies are born with abnormally small heads and brain defects). When it arrived in Singapore, there were different clinical manifestations. We were fortunate there was no microcephaly in the 14 live births then," she said.

Prof Leo said Singapore has to be mindful, especially today, that there are many factors contributing to higher frequency of emerging infections, and "we just have to get the system ready to deal with the different types of emerging infections".

"If you look at how we responded to Covid-19, we can never be 100 per



Professor Leo Yee Sin helped establish the National Centre for Infectious Diseases in 2017 and has been its executive director for the past six years. In July, she will begin her new journey as senior consultant at the Ministry of Health and senior adviser to the National Healthcare Group.
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answered the urgent call to lead Singapore's front-line response against the virus.

"I told myself that it was not going to be easy, and since I had chosen this path, I was more or less prepared to take up the hardship," she said. "But I never envisaged myself being in this arena of emerging infectious diseases."

There was no looking back from there. Four years later, the severe acute respiratory syndrome (Sars) descended on the island.

While there were many questions and few answers in the initial days, Singapore took many of the lessons from the Nipah experience and applied them to fighting Sars, Prof Leo said.

Her desire to lift the fog of "war" and understand the pathogen was what kept her going.

"That was and still is what keeps me going, essentially," she said. "Sars, Zika, chikungunya and many other outbreaks that happened in the last two decades, and the most recent Covid-19, kept me going because they were all new to Singapore and were very challenging.

"Despite that, I must confess I don't look forward to more novel outbreaks. The system requires some degree of recovery."

But this outgoing commander-in-chief in the battle against disease outbreaks at the NCID will still be making her presence felt there. Prof Leo said she has given her assurance to the NCID's new chief, Professor Vernon Lee, that he can tap her institutional knowledge, and that of those who worked together with her, to help in his decision-making.

Looking back on the 24 years she had been on call 24/7 to address any emerging disease outbreaks in Singapore, Prof Leo said giving up was never an option.

"The word 'surrender' is not in my vocabulary," she said.

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MOTIVATED BY CHALLENGES

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PROFESSOR LEO YEE SIN, on her desire to lift the fog of "war" and understand the pathogens.

cent ready. Of course, there are gaps, but we managed to put a system together that worked."

The country has learnt that while it must have drawn-up plans, it has to stay flexible and be able to understand the threat and adjust to intervene accordingly, she added.

"The one thing that we always have to remember is that no single pathogen behaves exactly like the previous one, and no two outbreaks are exactly the same," she said.

In her initial days working in the emerging diseases arena, Prof Leo was swimming in the deep end. She had picked human immunodeficiency virus (HIV) as her sub-speciality, after working as a clinical fellow in Los Angeles in the United States in 1992. Half her workload there were HIV cases.

The 1999 Nipah virus outbreak here was her fork in the road. Workers at an abattoir developed encephalitis and pneumonia, and she