



## Pandemic-proof Health Screening Services for the Community

*The future of health monitoring is here, as PhD students drive an initiative to make health screening services more accessible through telemedicine.*

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*(Photo above) Ms Fong Jiawen, 22, (left) straps a cuff on Ms Bernice Chai, 40, to take her blood pressure. These health screening booths were originally designed as mass screening swab booths and have been repurposed by CTS's student organisers.*

**M**adam Wendy Tang, 60, is undergoing a health screening. However, she's not at a polyclinic or public hospital, but in a telemedicine booth set up by Community Telehealth Service (CTS) at the Punggol 21 Community Club.

CTS, a student-led ground-up initiative supported by Nanyang Technological University's Graduate College Community-Engagement Project, came about because "we saw how the pandemic has delayed many health screenings for the elderly and those at risk of health problems," said Dr Michelle Law, 31, first-

year PhD student at Nanyang Technical University's (NTU) Lee Kong Chian School of Medicine and project lead of CTS. "Some people might have felt anxious going to the hospital or healthcare settings [*because of*] the pandemic and many people were actively avoiding large crowds."

In September last year, the former medical officer at the National Centre for Infectious Diseases (NCID) spoke to like-minded individuals to identify current health screening obstacles, review seniors' health needs and brainstorm potential solutions.



*(Above) (Centre) Ms Fong Jiawen, 22, from NTU Lee Kong Chian School of Medicine hands Mdm Wendy Tang, 60 (right) a weighing scale. The tests conducted during the health screening include a body mass index (BMI) and fat percentage test.*

Co-founder, Mr Wee Soon Keong, 28, a PhD student from NTU's Lee Kong Chian School of Medicine said, "Traditional screening often has people queuing up at different booths for each measurement, often leading to large crowds. We looked at ways to change the user experience and wanted to reimagine the Care model. We asked ourselves — what can we do to bring healthcare monitoring to their doorstep?"

In a matter of five months, Dr Law and her co-founders, Mr Wee and Mr Alvin Chew, 28, a PhD student at NTU's Institute of Health Technologies, worked hard to find healthcare and technology partners, as well as the right location to run this pilot in the heartlands.

The team started off by sending cold emails of their proposal to potential partners and sponsors to seek support. **Medi-Whale**, a South Korean healthcare startup, heard of CTS's initiative and reached out to them to offer their AI-based health technology for screenings. To secure a location for CTS' pilot running, Mr Chew, a resident of Punggol, reached out to the People's Association and pitched the initiative to them.



*(Above) (R-L) NTU Lee Kong Chian School of Medicine student, Ms Fong Jiawen, 22, and Mr Alex Wong, 48, a community volunteer getting equipment ready before tending to the next participant. Appointment slots for the health services have been fully booked till the end of February and users are encouraged to sign up via their waiting list.*

One key challenge the trio faced was finding enough volunteers who would be keen to support this student initiative. "Initially we wanted to launch CTS at the start of December 2020," said Mr Wee. "But we needed time to find and train

volunteers. Thankfully, with the help of NTU's Graduate College, some students reached out to us and are now part of the community volunteer team running the pilot together."

With the start of Phase 3 of Singapore's re-opening in the last week of December 2020, the team was able to hold face-to-face training sessions for volunteers. They were trained in how to help seniors register and manage medical equipment used during the screenings. Due to the small space and safe-distancing precautions, participants are expected to use certain equipment, such as the smart weighing scale, on their own.

The booth may seem small, but it is capable of running basic health monitoring, which includes tests for blood pressure, eye health, cardiovascular disease, diabetes and obesity risks.



*(Above) (L-R) Mr Wee Soon Keong, 28, Dr Michelle Law, 31, and Mr Alvin Chew, 28, from NTU Lee Kong Chian School of Medicine, are the founders of Community Telehealth Service.*

"With CTS, we hope to bring health monitoring to the community in an accessible and pandemic-proof manner," said Mr Chew. "However, the

telehealth service is meant for personal monitoring and does not replace the usual doctor appointments or annual check-ups. If any abnormalities are detected during the screening, we will refer users to the optometrist, polyclinic or hospital for a follow-up on a case-by-case basis.”

These telemedicine booths are a first important step to encourage seniors to take charge of their health.

When Madam Tang concluded her tests, which lasted only 20 minutes, she received her results immediately, and community volunteers were available to briefly explain her results to her. When asked about her experience and if she would recommend it to her friends, she said in Mandarin, “Yes! It’s simple and convenient. Health is important!”

*Community Telehealth Service pilot screenings started on January 9 and will go on till February 28 at Punggol 21 Community Club. It is available for Singaporeans above 50 of age and people who had their health screenings delayed due to the Covid-19 pandemic. Priority will be given to those with CHAS (Orange/Blue), Merdeka Generation or Pioneer Generation cards. CTS is funded by the Young ChangeMakers grant by the **National Youth Council** and **oscar@sg** by **Temasek Trust**, and supported by **NTU's Graduate College**.*

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## The Storytellers