News

NTU Singapore graduate students to provide free telehealth monitoring service for community

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Nine graduate students from Nanyang Technological University, Singapore (NTU, Singapore) have started an initiative to carry out a free health monitoring exercise for 1,000 people.

Known as the Community Telehealth Service (CTS), it aims to provide free health monitoring at public venues such as community centres to Singaporeans above 50 years of age, as well as those who have had their regular health check-ups deferred due to the COVID-19 pandemic.

The nine students are from the Lee Kong Chian School of Medicine and the Interdisciplinary Graduate Programme.

The check-ups will take place in specially constructed telemedicine booths that leverage the latest health technologies to test for eye and cardiovascular diseases, diabetes, as well as obesity.

The computerised health screening system is provided by South Korean healthcare startup Medi-Whale. It uses an automated camera to take several images of a person's eye and its artificial intelligence (AI)-powered system then processes the retinal images to determine an individual's health conditions.

The pilot for the Community Telehealth Service will be held from 9 January 2021 to 28 February 2021 at Punggol 21 Community Club. Registration opened on 2 January and interested parties can register for the telehealth screenings at https://blogs.ntu.edu.sg/communitytelehealthservice/.

Dr Michelle Law, a medical doctor who is now a PhD student at Lee Kong Chian School of Medicine and leader of the project, said: "We started this initiative as we saw how the pandemic has delayed many health screenings for the elderly and those at risk of health problems. Other obstacles to getting their routine check-ups included cost, a long commute to clinics, and crowds – all of which we intend to mitigate with CTS."

Dr James Lim, business director of Medi-Whale, said: "We are glad to be part of the CTS project, an initiative by graduate students at NTU. In a rapidly ageing society, localised access to basic healthcare and screening will be key to the elderly quality of life. Knowledge of health risk and seeking appropriate medical treatment is vital for the elderly," he added.

Organisers of the telehealth initiative said that they will ensure that the events adhere to safe management measures, as stipulated by the Singapore government.

Apart from online registration, operating the booths requires little to no human intervention, allowing the health ambassador volunteers from the Health Promotion Board to focus on guiding the users in the use of the devices at the booth.

Alvin Chew, a PhD student from NTU's Interdisciplinary Graduate Programme and co-founder of CTS, said: "With CTS, we hope to bring health screening to the community in an accessible and 'pandemic-proof' manner. However, the telehealth screening 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 the users to a polyclinic or hospital for a follow-up."

Dr Lim from Medi-Whale added: "As a provider of a comprehensive AI-powered health screening system based on a simple eye examination, we seek to provide primary healthcare providers with early disease detection. Such community-level screening is preferred by the elderly in countries like South Korea, as it eliminates invasive tests (blood test) and minimises unnecessary hospital consultations, especially during the on-going pandemic."