

Media Release

(For Immediate Release)

COVID-19 Symptom Checker launched to inform and help the Singapore public navigate care options

1. *Friday, 3 April 2020* – When you or a family member experience symptoms that might be related to COVID-19, what information can help you stay calm and decide on the next course of action? Amidst the rapidly developing COVID-19 situation, making sense of information about the disease and choosing when and where to go for treatment can be overwhelming.
2. A team comprising clinicians and computer scientists from the National University Health System (NUHS), the National Centre for Infectious Diseases (NCID), and the MOH Office for Healthcare Transformation (MOHT), has launched a publicly available online [COVID-19 Symptom Checker](#).
3. The checker helps people with symptoms by suggesting preferred options for care based on their age, recent travel history, people they may have been exposed to, and most-importantly, the symptoms they might be having. The site does not collect personally identifiable data. The user receives immediate suggestions on possible next steps, be it continuing to monitor their symptoms or seeking medical attention at the appropriate healthcare setting. While the tool does not dispense medical advice, it helps with navigating the healthcare system.
4. Said Professor Robert Morris, Chief Technology Strategist, MOHT: “This triage tool helps people cut through the deluge of information, better understand the significance of the symptoms they are experiencing and get clear guidance about what steps they could take to seek care, and when.”
5. Professor John Eu-Li Wong, Special Advisor to NUHS, said: “Given the understandable concern that everyone has about COVID-19 and its association with common symptoms, we feel that harnessing smartphones with a simple guide on what to do and where to go for assessment would help both the public and the healthcare system. We will continue to update the Symptom Checker as we learn more about the disease and better understand what information everyone needs.”
6. The checker can also provide a source of reassurance for many of us who would like to seek guidance on how to keep healthy during the developing COVID-19 situation. It reminds those

who are well to continue practices like social distancing, hand washing, and how to reach out if they do develop symptoms.

7. The impetus for developing the self-checker stemmed from statistics from MOH which showed 24 per cent of COVID-19 positive patients in Singapore had been doctor-hopping (i.e. consulting multiple doctors in a short period).

8. Teams from NCID, NUHS, and the National University of Singapore (NUS) provided the clinical advice for this platform. Recommendations are aligned with guidelines from the Ministry of Health (MOH) and the World Health Organization (WHO). The checker's usability was then validated by a team led by Dr Franco Wong, Head of Jurong Polyclinic: surveys conducted found that nearly 60 per cent of respondents were open to using an online-based self-checker, and 79 per cent of respondents felt the self-checker was 'easy to use'.

9. The team recognised that patients often wonder when to see a doctor, and if so, where to go. For example, they may not realise there are now 943 Public Health Preparedness Clinics (PHPCs) in Singapore, and these are especially well-equipped to address COVID-19 concerns.

10. "The aim of the checker is to empower people and their families with the right information, support and resources to make an informed personal decision, act at the right time, and not have to make a dash to the emergency department," said Dr Glorijoy Tan Shi En, Associate Consultant, NCID.

11. Added Associate Professor James Yip, Group Chief Medical Informatics Officer, NUHS: "More effective patient-direction can help reduce the burden on an already heavily-taxed healthcare system. The symptom checker is a way to optimise the health care system's resources, while getting the best outcome for the patient."

12. Following the initial rollout, there are plans to expand the scope of the checker to include pre-registration for consultations at GP clinics or PHPCs; access to telemedicine providers; information on waiting times at Emergency Departments; direct link-up with the appropriate healthcare facility for those who need testing; and a heat map on COVID-19 infection clusters.

13. Said Dr Praveen Deorani, Data Scientist, MOHT: "With more people using the checker, and with our subsequent analysis of how it is being used, we can then use machine learning techniques to track the behaviour of the virus (and the symptoms it manifests) so the patient can elect the right locus of treatment at the right time."

14. The checker is being launched across three platforms, a dedicated website (www.sgcovidcheck.com), a link on the Ministry of Health's website (www.moh.gov.sg) and as a bookmark in HealthHub. The Symptom Checker is an informational resource and does not replace instructions from healthcare providers or guidance from local health authorities.

Experts available for interview:

NUHS:

Professor John Eu-Li Wong, Special Advisor to NUHS

Associate Professor James Yip, Group Chief Medical Informatics Officer, NUHS

NCID:

Dr Mark Chen, Head, NCID Research Office

Dr Glorijoy Tan Shi En, Associate Consultant, NCID

NUP:

Dr Lew Yii Jen, Chief Executive Officer, NUP

MOHT:

Professor Robert Morris, Chief Technology Strategist, MOH Office for Healthcare Transformation

Dr Praveen Deorani, Data Scientist, MOH Office for Healthcare Transformation

Media contacts:

Binny Tay, Senior Manager, Communications Office, National University Health System

DID: 6772 4693

HP: 9790 5398

Email: binny_tay@nuhs.edu.sg

Marion Abraham, Deputy Director, Corporate Communications, National Centre for Infectious Diseases

HP: 9750 2903

Email: marion_abraham@ncid.sg

Andrew Long, Assistant Manager, Corporate Communications, MOHT

HP: 8388 5927

Email: andrew.long@moht.com.sg

About the National University Health System

The National University Health System (NUHS) aims to transform how illness is prevented and managed by discovering causes of disease, development of more effective treatments through collaborative multidisciplinary research and clinical trials, and creation of better technologies and care delivery systems in partnership with others who share the same values and vision.

Institutions in the NUHS Group include the National University Hospital, Ng Teng Fong General Hospital, Jurong Community Hospital and Alexandra Hospital; three National Specialty Centres - National University Cancer Institute, Singapore (NCIS), National University Heart Centre, Singapore (NUHCS) and National University Centre for Oral Health, Singapore (NUCOHS); the National University Polyclinics (NUP); Jurong Medical Centre; and three NUS health sciences schools – NUS Yong Loo Lin School of Medicine (including the Alice Lee Centre for Nursing Studies), NUS Faculty of Dentistry and NUS Saw Swee Hock School of Public Health.

With member institutions under a common governance structure, NUHS creates synergies for the advancement of health by integrating patient care, health science education and biomedical research.

As a Regional Health System, NUHS works closely with health and social care partners across Singapore to develop and implement programmes that contribute to a healthy and engaged population in the Western part of Singapore.

For more information, please visit www.nuhs.edu.sg.

About the National Centre for Infectious Diseases (NCID)

The National Centre for Infectious Diseases (NCID) is a purpose-built facility designed to strengthen Singapore's capabilities in infectious disease management and prevention. NCID houses clinical services, public health, research, training and education and community engagement functions under one overarching structure. In addition to the clinical treatment of infectious diseases and outbreak management, the expanded roles and functional units of NCID include the National Public Health and Epidemiology Unit, the National Public Health Laboratory, the Infectious Disease Research and Training Office, the Antimicrobial Resistance Coordinating Office, and the National Public Health programmes for HIV and Tuberculosis. Benchmarked to international standards and best practices for treatment and safety, NCID will better enhance Singapore's ability to respond effectively to infectious outbreaks.

Visit www.ncid.sg for more information.

About MOH Office for Healthcare Transformation (MOHT)

MOHT is an agile unit with the mandate to address fundamental and longer-term issues critical for system-level healthcare transformation to meet Singapore's changing demography, and health and disease patterns. MOHT works with partners to identify pilots that support its programmes and complement ongoing work at MOH and clusters / institutions, with each pilot taking a design-centric approach to implementation, involving providers, healthcare professionals, patients and caregivers at all stages of the design of solutions. MOHT adopts a value-based healthcare approach in endeavouring to achieve better health and clinical outcomes. A longer-term and broader perspective is essential in identifying key system-wide changes needed. These encompass shifts in the following three directions: (1) longitudinal, holistic care across persons' entire life course; (2) strengthened focus on wellness and the prevention of chronic disease; and (3) empowerment of individuals and patients for better self-management.

Each collaboration will be staged with rapid build-measure-learn cycles, anchored by enablers such as technology scanning, IT, data analytics, finance and incentive redesign. From these collaborations, MOHT will develop frameworks, methodologies and toolkits to enable effective solutions to be scaled across the wider healthcare system.

For more information, visit www.moht.com.sg.