



## INNOVATION STORIES



### TELEPODS: TAKING VIRTUAL CARE AHEAD



Telehealth has paved the way for virtual care where the community gains greater access to healthcare remotely, enabling patients to consult with their healthcare provider in the comfort of their homes. Four factors drive the increased demand for virtual care: Accessibility to Care; Need for Virtual Space; Telemonitoring as Enabler; and Readiness of Stakeholders.

In an effort to advance virtual care further, the team from Tan Tock Seng Hospital's Telehealth Office started the search for portable pods to be placed around the hospital, which will allow healthcare providers to take calls or conduct video consultations with patients.

These TelePods were fitted with equipment for a seamless telehealth experience, including a laptop, monitor, all-in-one webcam, speaker and microphone and a height-adjustable table.

Installed as a Proof of Concept earlier this year, the soundproof TelePods were set up at the CHI Reimagination Plaza on Level 4, and next to TTSH's Centre for Geriatric Medicine. We catch up with the team to find out their innovation journey.

#### Office Booth Inspired

While there was a growing demand for virtual care, healthcare providers faced challenges such as the long preparation time required to set up devices for teleconsults in clinic room. As resources in clinic rooms were not equipped for telehealth, clinicians face technical issues such as interferences due to unstable internet connection and background noise, and the difficulty in sharing materials (eg: test results) with patients during video consults.

These challenges prevented Telehealth from being leveraged as a resource multiplier. These barriers to conducting teleconsults limit uptake, and hence reduces the possibility of greater access to healthcare.

Inspired by common office booths, the telepods would:

- Free up clinic resources for patients requiring physical care
- Address pain points faced by providers of teleconsults
- Increase value to patients (eg: save on travel time and cost)

To ensure a space ideal as a healthcare utility, the team spent a considerable time visiting showrooms, testing different brands of pods for soundproof quality, lighting, and ventilation.

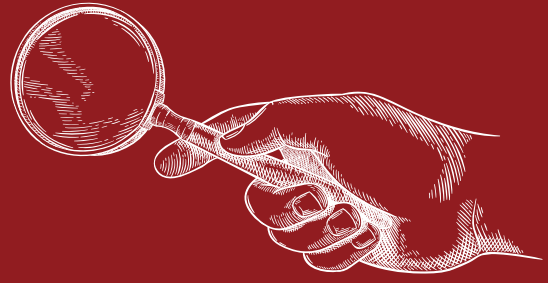
The team also sought advice on infection control to ensure that the pods were suitable for healthcare use, and obtained inputs from clinicians of various disciplines regarding the equipment required, as well as frosted glass for patient confidentiality.

#### Into the Future

"SEAMless Care is about enabling access and care provision that is not constrained by physical or functional boundaries, facilitated by technology and digital tools. The launch of the Telehealth Pods brings us closer to this goal," shared Dr Ravinder Singh Sachdev, who leads the initiative. Looking ahead, the team would like to deploy similar pods in the community, and equip them with tele-monitoring devices, so that patients would be able to walk into a pod and have their vitals measured and transmitted to their healthcare provider / dial-in with their doctor. [Click here for the full article.](#)

**Interested to try out the Telepods? Email the team to find out more: [telepods@healthgrp.com.sg](mailto:telepods@healthgrp.com.sg) (Open to TTSH staff only)**

# HIGHLIGHTS @CHI



## TOWARDS HEALTHIER SG: LEARNINGS FROM NHS' AMBITION & ACTION

17 Feb 2023

*By Assistant Professor Clive Tan, Assistant Chief of Group Integrated Care (Population Health), National Healthcare Group (NHG). Jointly edited by Tjut Rostina, CHI.*

This article was inspired by the CHI 14th Masterclass on "Population Health – Ambition into Action" with Dr Jonty Heaversedge, Chief Medical Officer and the Chief Clinical Information Officer of South East London Integrated Care System, as well as the Clinical Director of Imperial College Health Partners.

Over 350 healthcare professionals engaged in conversation on 17 February, as Dr Jonty shared practical insights on prevention, primary care transformation, and population health management, supported by real life examples and studies.

Assistant Professor Clive Tan distills the key learning points from the Masterclass, and how it relates to NHG's journey towards Healthier SG.

### **Social Deprivation Leading to Poor Health**

Dr Jonty's paradigm of social deprivation leading to poor health helps us take a more people-centred and respectful approach towards how we can help people recover from poor health, and in the future give more attention to these sub-populations to reduce their chances of lapsing into poor health.

This perspective will be more pertinent in the Healthier SG era, where NHG is given the mandate to take charge of the health of 1.5 million people in the Central-North region of Singapore. Their problem is now our problem – in a good way, since our mission is to Add Years of Healthy Life for our people, and what better way to do this than to focus on the people with the greatest need.

### **Key to Population Health: Data, Insights & Action**

Linked data is a cornerstone of a well-integrated health system. This comprises of linked data from the network of health and social care providers and longitudinal data – which will be crucial for care coordination and help the health system better understand the population health needs.

We must then be able to harness insights from the data, make informed decisions and take meaningful action to improve the health of our population, starting with those with the greatest needs.

### **Ownership, Relationships & Empathy: Our Residents, Our People**

Ownership was mentioned several times, when sharing about the IKEA effect and commenting on engendering ownership of issues. What does this mean for us at NHG? One way to encapsulate the concepts of ownership and building relationships is for us to build empathy and see these 1.5 million people as our people.

Dr Jonty's sharing bears many lessons for us as we warm up and get ourselves ready at the starting line of the Healthier SG journey. But what was unspoken that is worth highlighting is that the journey is long and iterative – we have seen many health systems in the world undergo multiple periodic reforms. We have survived many local health reforms, campaigns and crises and have emerged from these stronger and more resilient. For Healthier SG, it is healthy for us to maintain a longer time horizon, pace ourselves sustainably, and stay true to our mission of Adding Years of Healthy Life, which like a good North Star, will always remain in sight but just slightly out of reach.

[Click here for the full article.](#)

[Tune in to the exclusive podcast episode here.](#)



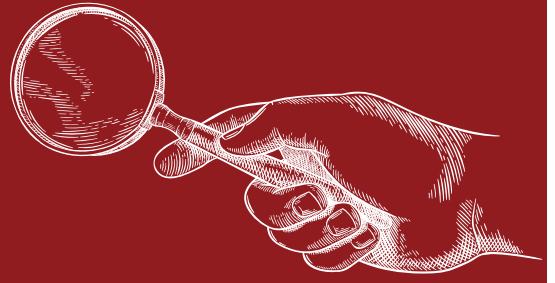
A vibrant conversation was ignited when Dr Jonty asked the audience to share their thoughts on factors that are hindering change and improving social determinants.



The Q&A session, moderated by A/Prof Wong Hon Tym, CHI's Clinical Director, was met by burning questions from colleagues, who added more depth and considerations to the discussion.



# HIGHLIGHTS @CHI



## TTSH AND ICON SIGN MOU FOR EARLY TRIALS

16 Mar 2023

Tan Tock Seng Hospital (TTSH) and ICON has signed an MOU positioning TTSH as a preferred site for early phase oncology trial opportunities with ICON. The MOU was signed by Professor Chin Jin Jih, Chairman (Medical Board) for TTSH, and Suhail Ali, Vice President for Global Clinical Delivery, ICON.

"The MOU with ICON signifies another milestone in P.H.Feng Research Centre which is positioned as the centralised facility for the conduct of clinical trials in Novena Health City campus. Through this collaboration, we look forward to advancing clinical care for our patients by creating access to novel therapies, and contributing to the hospital's mission of excellence in academic medicine," shared Associate Professor Tan Cher Heng, Executive Director, CHI

"Singapore is one of the leading countries in research and innovation within Asia, and this strategic partnership with Tan Tock Seng Hospital, will be mutually beneficial in our shared commitment to deliver novel treatments sooner for patients. Together, we are driven to enhance and further accelerate the development of academic medicine in Singapore and the region," said Suhail Ali.



Participants share their thoughts and discuss how they can contribute in various areas.

The MOU signing ceremony took place at this year's TTSH Research Day, an annual event organised by the CHI's Clinical Research & Innovation Office (CRIO). [Click here for more.](#)

## ART & SCIENCE OF MEDICINE FESTIVAL

18 Mar 2023

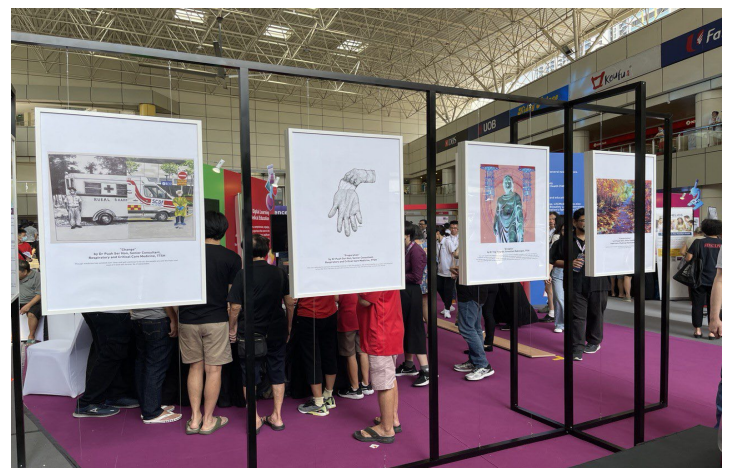
CHI was grateful to be a part of the Lee Kong Chian School of Medicine's inaugural Art and Science of Medicine Festival, where we shared the 6S VR experience with Guest-of-Honour, Minister for Defence, Dr Ng Eng Hen. The experience also attracted the young and old who were eager to exercise their skills in a VR environment. CHI also helped facilitate the showcase of artwork by our clinician colleagues!

The event, organised with support from Nanyang Technological University Singapore, National Healthcare Group and CHI, drew crowds to the Toa Payoh HDB Hub Atrium, participating in various hands-on activities. Thank you Lee Kong Chian School of Medicine for having us and grateful to everyone who joined us at the event!

[Click here for more.](#)

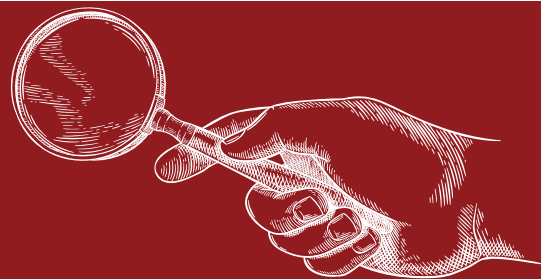


Dr Ng trying out the 6S experience with guidance from Loo Wei Hann, Manager with CHI's Kaizen team.



Art pieces by Tan Tock Seng Hospital clinicians Dr Puah Ser Hon, Dr Rupak Dutta and Dr Ting Yong Han.

# HIGHLIGHTS @CHI



## CHAMP: PARTNERSHIPS, RELATIONSHIPS AND NETWORKS

15 & 16 Mar 2023

Partnerships, Networks, Relationships were key words that reigned high at the CHI Healthcare Advanced Management Programme (CHAMP) earlier this month. Our CHAMPions had open conversations with the senior leaders who gave candid insights into their leadership journey, and how it impacts their organisation.

In the fireside session, with Joe Hau (CEO, NHG Cares), Tan Kwang Cheak (CEO, Agency for Integrated Care Singapore), and J R Karthikeyan (CEO, AWWA), the speakers emphasised on building relationships, and how strengthening networks will help to influence the organisation's agenda. Sharing anecdotes from their personal experience, they advised that partnerships built with organisations who have the same values, are integral in ensuring that we reach the shared goal of a Healthier SG.

The emphasis on partnership and relationships continued the following day with Professor Philip Choo, Group CEO of the National Healthcare Group. In the intimate no-holds barred conversation moderated by David Dhevarajulu, the programme's co-director, Prof Choo urged the CHAMPions to shift towards a resilience mindset, where there is a solution for every problem encountered, for this will influence others in the team to share the same belief.

He advises that it is important to feel dissatisfied with processes at work, spurring on a spirit to constantly seek better ways to work and lead. With Healthier SG on everyone's mind, Prof Choo reassures that while it is an important undertaking that is large in magnitude, it is achievable if everyone played their part. To be effective, leaders would need to articulate that positivity in reaching these goals as long as each member of the team focuses on their tasks at hand.



Fireside Chat with the senior leaders.



Professor Choo dishes out pearls of wisdom in this intimate chat session.

[Click here for more.](#)

## 3 Things Everyone Needs to Know about CHI Learning & Development (CHILD) System

CENTRE FOR  
HEALTHCARE  
INNOVATION

### WHAT IS CHILD?

CHILD stands for the Centre for Healthcare Innovation Learning & Development System.

It is a Knowledge Management platform for sharing of healthcare innovation, improvement and productivity.

CHILD is Open for All!



### WHY DO I NEED CHILD?



**SHARE:**  
I can upload my team's project to showcase our innovation and demonstrate the value we created.



**LEARN:**  
I can search for tools, tips and even pitfalls from others' projects, so that I can shortcut my project.



**DO:**  
I can look for potential collaborators, expand the expertise and resources in my team.

### HOW CAN I FIND CHILD?



@childkm



@CHI Learning & Development System - CHILD



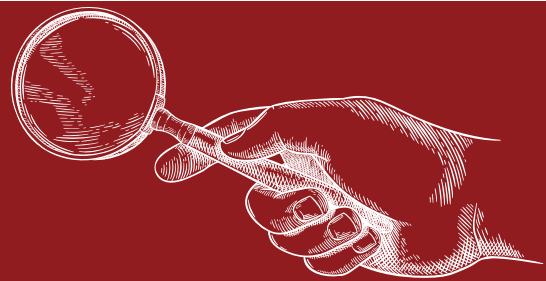
<https://www.chi.sg/knowledge-hub>

Watch this space as CHILD is developing a bigger and better platform!

For more info, email us at [CHILD@CHI.SG](mailto:CHILD@CHI.SG) (cc: [CHILD@ttsh.com.sg](mailto:CHILD@ttsh.com.sg))



# HIGHLIGHTS @CHI



## FLYING: ROLE IN DRIVING SYSTEMS CHANGE

23 Feb 2023

The inaugural retreat of the CHI Future Leaders and Young Innovators Guild (FLYING) held at the end of February, brought together 43 participants from Allied Health, Administration, Nursing, Pharmacy, and Medical departments.

Kicking off the retreat was Dr Tang Kong Choong, deputy CEO of Tan Tock Seng Hospital, who challenged young leaders to look across the horizon to the changes coming in both the health and social landscape.

Sharing his own experience as a clinician shifting his practice from caring for one patient at a time to looking after the health of a population, he highlighted that such adaptability will be needed as we encounter new opportunities and challenges, such as environmental and manpower sustainability.

In addition to learning how FLYING will fit into the ecosystem of driving systems change as Innovators-In-Residence in CHI, participants engaged in vibrant discussions facilitated by core members of the guild.

Through these discussions, participants shared their hopes for both the community of young leaders, and areas of change they the group can contribute towards, such as establishing mentorship networks to better support young staff, initiating new initiatives to improve staff mental wellbeing and offering the perspective of 'middle management' when engaging senior leaders on the development new system-level strategies.

**[Click here for more.](#)**



Dr Tang challenges the young leaders in his opening speech to look across the horizon.



Participants share their thoughts and discuss how they can contribute in various areas.

## INTERNSHIP BYTE: EXPLORING INNOVATION

By Natrawee Ngamprasertsith (Fair), Medical Student, Thammasat University, Thailand

During my internship with Centre for Healthcare Innovation (CHI), I had the opportunity to do a monthlong internship with CHI's Digital and Smart Health Office (DSHO). I was able to observe the implementation of innovative practices in a real-world setting, and how CHI positioned itself in initiating innovation.

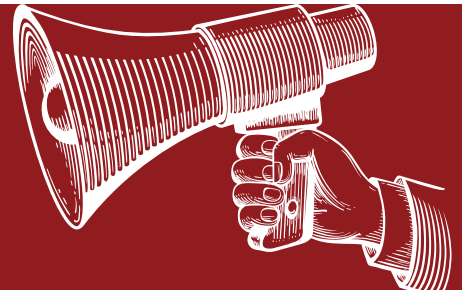
One of the most impactful experiences during my elective was witnessing the development and implementation of the 3D printing lab. The use of 3D printing technology to create personalised prosthetics, implants, and surgical guides for patients brings positive impact to medical procedures and patient outcomes. Another aspect that impressed me was the use of virtual reality (VR) simulation of the 6S principle, developed for employee training.

With a strong commitment to valuing and supporting frontliners and their patients' needs, nurses were encouraged to work with a multidisciplinary team of experts to develop solutions to overcome challenges and to deliver quality care. I am eager to bring what I have learned back to Thailand, and to continue exploring the role that innovation plays in healthcare.



Natrawee with Dr Ng Yih Yng, Deputy Clinical Director of CHI, and Director of DSHO.

# UPCOMING EVENTS



## NATIONAL HEALTHCARE INNOVATION AND PRODUCTIVITY MEDALS

Deadline: 21 April 2023, 12pm

### CALL FOR SUBMISSIONS

Calling for all local Healthcare and Community/ Intermediate and Long-Term Care institutions that have demonstrated thought leadership through the implementation of innovative productivity projects.

The Medals recognise teams who achieve excellence in following award categories:

**NEW!**



**Best Adopter**

Recognises institutions that have adopted past National Healthcare Innovation and Productivity awarded solution(s) successfully



**Automation, IT and Robotics Innovation**



**Care Redesign**



**Workforce Transformation**

Submit to [nhip@chi.sg](mailto:nhip@chi.sg) by 21 April 2023, 12pm!

NATIONAL  
HEALTHCARE  
INNOVATION AND  
PRODUCTIVITY  
2023 MEDALS

ORGANISED BY

CENTRE FOR  
HEALTHCARE  
INNOVATION

SUPPORTED BY

MINISTRY OF HEALTH  
SINGAPORE

Submit your innovation initiative to be considered for the National HIP Medals 2023!

The National HIP Medals is a prestigious, national-level award that recognises local healthcare institutions from the primary, acute and community care sectors that have demonstrated thought leadership through the implementation of healthcare innovations and productivity projects.

This year features a new category "Best Adopter", in addition to "Automation, IT and Robotics", "Care Redesign", and "Workforce Transformation".

Get your team together and share your initiative with us by 21 April 2023, 12pm!

Interested to know more?

Click on the link to read about past winners!  
<https://www.chi.sg/knowledge-hub>

For enquires, email us at [nhip@chi.sg](mailto:nhip@chi.sg)

## HEALTHCARE INNOMATCH 2023

Info session: 3 Apr, 20 Apr & 11 May 2023



### CALLING ALL SMES & START-UPS!

Submit your near market-ready solutions for

### RESHAPING PREVENTIVE CARE FOR A HEALTHIER POPULATION



Up to SGD  
**\$400,000** in  
funding per solution



Potential adoption by  
local healthcare  
institutions

ORGANISED BY

CENTRE FOR  
HEALTHCARE  
INNOVATION

PARTNER HEALTHCARE CLUSTERS



SUPPORTED BY

TEMASEK  
FOUNDATION

Healthcare InnoMatch 2023 is looking for SMEs and Startups with near market-ready solution for "Reshaping Preventive Care for a Healthier Population"!

Win up to S\$400,000 in funding, testbed in a healthcare environment and potential adoption by partner healthcare clusters!

Register for our Information Session (3 Apr/ 20 Apr/ 11 May) to find out more: <https://bit.ly/3nui0qO>

Healthcare InnoMatch is an initiative of CHI under its CHI Start-up Enterprise Link (CHISEL).

CHISEL facilitates a faster and more consistent adoption process for start-ups and SMEs to find suitable healthcare institutions to rapidly implement innovations using a sandbox approach.

**Relive the finals of Healthcare InnoMatch 2022 here!**



[CHISEL@chi.sg](mailto:CHISEL@chi.sg)



<https://www.chi.sg>



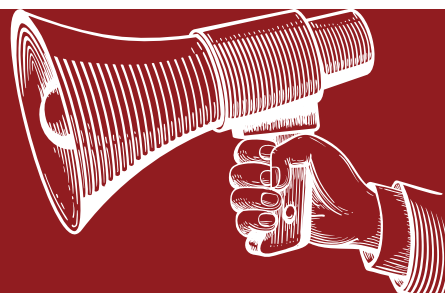
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@chinnoationsg



# UPCOMING EVENTS



## CHI INNOVATE 2023

HAPPENING ON: 28 JUL 2023

**THEY HAVE COMMITTED.**



**Speaker**  
**Prof Hahrie Han**  
Professor and Director,  
Stavros Niarchos Foundation  
SNF Agora Institute  
Johns Hopkins University



**Guest-of-Honour**  
**Mr Ong Ye Kung**  
Minister for Health



**Speaker**  
**Dr Junaid Bajwa**  
NHS Physician/ Board Member  
Chief Medical Scientist  
Microsoft Research

**YOUR TURN.**



28  
JULY  
2023

**CHI INNOVATE**  
Building Bridges : Health & Social Care

For sponsorship and exhibition opportunities, connect with us at : [conference@chi.sg](mailto:conference@chi.sg)

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## CAPE ALLIED HEALTH CONGRESS 2023

HAPPENING ON: 2 - 3 NOV 2023



ABSTRACTS

Themed "Re-inventing for Population Health: Embracing Diversity & Harnessing Inclusivity", the Centre for Allied Health & Pharmacy Excellence (CAPE), welcomes submissions across all settings from Healthcare Institutions, Community Care Organisations, Industry and Academia. Submissions from Allied Health and Pharmacy students, as well as encore abstracts are also welcomed.

The top 3 abstracts will be invited to participate in the oral presentation competition during the Congress and will be awarded cash prizes and certificates.

**Submission deadline: 15 May 2023**

**For more details, please scan the QR codes shown here.**



IDEAS PIT



Tune in to CHI AMPED, the official podcast channel, which feature interviews with leading experts and innovators in the field, providing valuable insights and inspiration for healthcare professionals!

Listen to the series on Spotify: <https://spoti.fi/40f8q9U>  
To suggest conversation topics, email us at [chi@ttsh.com.sg](mailto:chi@ttsh.com.sg).

# NEWS FROM OUR PARTNERS



## DOVER PARK HOSPICE & TTSH TO LAUNCH NEW PALLIATIVE CARE MODEL

3 Mar 2023

Tan Tock Seng Hospital and Dover Park Hospice, with the support of the Ministry of Health will be launching a new palliative care model in the later half of 2023, according to Professor Eugene Fidelis Soh, CEO of TTSH and Central Health.

Together, they will increase access to palliative care services; ensure seamless care transitions between inpatient, day and home hospice setting; reduce hospital readmissions; and respect patients' choice to pass on at home with their loved ones. The programme will be supported by a simplified financing bundle rate that will help provide the patient and their families more peace of mind.

"At Dover Park Hospice, they encourage people to live well because every moment matters. For those of us who have lost loved ones to illness, we treasure these moments and wish to spend more time with them during the terminal phase of their illness. Having lost my own mother to cancer many years ago, I am heartened to see Palliative Care in Singapore come a long way. We can do more to ensure that patients do not spend their last days in and out of the hospital, but with their loved ones," wrote Professor Soh.

[Click here for the sharing.](#)

## NHIC & LKC MEDICINE LAUNCH NEW GRANT

22 Mar 2023



The National Healthcare Innovation Centre (NHIC) has launched a "Joint Exploratory Translational Grant" with the Lee Kong Chian (LKC) School of Medicine's Office of Innovation & Enterprise.

This grant fills the gap for much-needed support in early-stage innovation projects and funds the development of promising health technologies ranging from biotech, medtech, to diagnostics, and software as a medical device. Eligible projects can expect to receive up to S\$100,000 each.

At the launch event, the NHIC team was onsite to speak about their holistic suite of support to partner clinicians on their innovation journey from product ideation, development, commercialisation, to clinical adoption across the public healthcare clusters.

Congratulations NHIC and LKC Medicine on this latest pursuit to drive healthcare forward!

[Click here for more.](#)