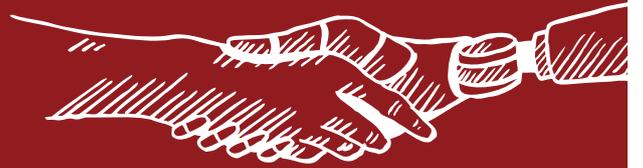




## INNOVATION STORIES



### Telemedicine: Improve Bystander CPR Rate



Some members of the Siriraj Emergency Medical Service team with their partner True Digital.

Telemedicine has witnessed remarkable advancements in recent years, thanks to the rapid progress in technologies such as 5G and Wi-Fi 6, which have significantly improved speed and reduced latency. These advancements have revolutionised various aspects of healthcare, including emergency care.

This article highlights how Siriraj Hospital in Thailand have applied telemedicine in emergency care – using telemedicine to improve the bystander Cardiopulmonary Resuscitation (CPR) rate before ambulance arrival. This innovative approach aims to empower individuals to deliver life-saving interventions in critical situations, thereby significantly enhancing the chances of survival for cardiac arrest victims.

#### Background

Cardiac arrest is a life-threatening condition that requires immediate medical attention. Bystander CPR, performed by individuals present at the scene, is crucial in maintaining blood circulation and oxygen supply until professional help arrives. The procedure plays a vital role in improving survival rates for the victims.

Although many countries, including Thailand, have implemented dispatcher-assisted CPR protocols that provide instructions over the phone from emergency dispatchers, the bystander CPR rate remains low. This might be due to dispatchers being unable to empathise with the bystanders and not directly assisting them in overcoming their fears or obstacles. However, telemedicine shows great potential in overcoming this problem by providing real-time video communication to support the dispatchers.

#### Developing the Solution

Recognising the urgent need for a solution, a team of dedicated healthcare professionals from Siriraj Emergency Medical Services at Siriraj Hospital, Thailand, and technology experts from True Digital embarked on a mission to develop a telemedicine-assisted CPR system. The goal was to create a user-friendly telemedicine system accessible through any smartphone without requiring the download of additional applications before emergencies.

The **CHI Fellowship in Healthcare Innovation & Leadership** inspired the project, and provided guidance in the creation of a new process. When a cardiac arrest call is received, the emergency center sends a URL link via telephone message, which connects the caller to a web-based application featuring real-time video communication.

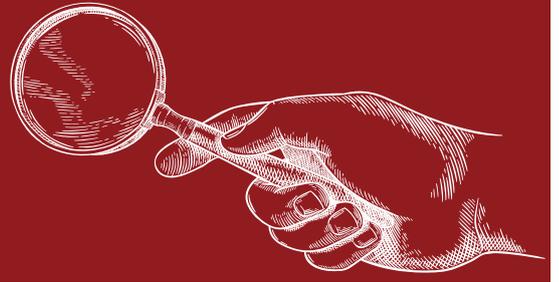
This allows the emergency dispatcher to visualise the patient and the scene, enabling them to provide telemedicine-assisted CPR instructions. These instructions include guidance for the bystander through the CPR steps, immediate feedback, and support. Simultaneously, the ambulance team receives the GPS location and gains access to the telemedicine system to view the patient and the scene before their arrival. This empowers them to prepare a resuscitation plan in advance.

#### Future Plans

Having completed the prototype, the project will now focus on conducting pilot studies to explore the feasibility and effectiveness of the telemedicine-assisted CPR system in improving the bystander CPR rate and patient outcomes. This will provide valuable insights and data to refine further and optimize the solution.

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

# HIGHLIGHTS @CHI



## CHIT-CHAT SERIES: MEDTECH ACTUATOR ASCEND DEMO DAY

22 June 2023

The event kicked off with a panel discussion on "Enhancing Social Care with Healthcare Innovation", featuring Karen Wee of Lions Befrienders, Pauline Erica Tay of National Health Innovation Centre (NHIC), A/Prof Tan Cher Heng of the Centre for Healthcare Innovation (CHI), and Buzz Palmer of MedTech Actuator, moderated by George Han from MedTech Actuator.

The panel recognised the importance and the dedication of our local entrepreneurs, explored current and future opportunities of the Singapore's health system and discussed how startups could positively disrupt and benefit the current healthcare ecosystem.



The event saw a gathering of start-ups and healthcare professionals.

After the discussion, everyone was abuzz as they explored the innovations showcased by the start-ups at the exhibition, and had a chance to listen to innovators pitch their solutions to create a more equitable social care system for the community.

CHI's collaboration with MedTech Actuator is part of the "CHIT Chat Series", where the healthcare innovation community exchange insights/ideas on the latest in innovation, bridging the supply and demand gap in healthcare.

[Click here for more.](#)



A/Prof Tan Cher Heng sharing about more innovation and adoption.

## CHI TALKS ABOUT VR IN HEALTHCARE ON CNA 938

12 June 2023

CNA's Stanley Leong chats with A/Prof Wong Hon Tym, CHI's Clinical Director on taking healthcare training into the future with virtual reality (VR).

The 6S MyCare VR programme enables healthcare professionals to gain hands-on experience in a safe and interactive virtual environment, offering an experiential learning experience to complement e-learning.

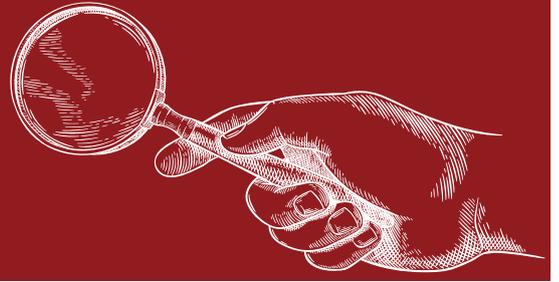
With MyCare VR, staff can learn anytime, anywhere, overcoming operational constraints such as manpower and logistics needed for in-person training.

[Catch the broadcast interview here.](#)



A/Prof Wong Hon Tym, CHI's Clinical Director.

# HIGHLIGHTS @CHI



## CHI & SIT GO ON A DEEP DIVE INTO PROBLEM STATEMENTS

10 June 2023

The collaborative and dynamic energy was infectious as CHI hosted an innovation session with Singapore Institute of Technology (SIT), one of CHI's strategic partners. The productive session had everyone taking a deep dive into a selection of problem statements, and explored potential innovative solutions together.

This session provided us with a platform to collaborate, brainstorm, and exchange insights. We discovered new perspectives and challenged assumptions.

A special shoutout to our partners in SIT for their enthusiasm, dedication, and valuable contributions during the session. Stay tuned as we embark on this innovation adventure together!

[Click here for more.](#)



A group shot of SIT participants and members of CHI to mark the collaborative occasion.



Participants shared their thoughts in an open conversation facilitated by CHI.



Moving ahead with Digitalisation as participants learnt more about Digital Prototyping.



“Want to **SAVE TIME** and **AVOID COSTLY MISTAKES** in your innovation journey?”

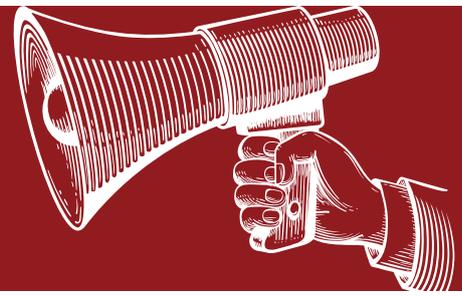
LOOK UP **CHILD** WHERE WE HAVE **OVER 1,000** HEALTHCARE INNOVATION PROJECTS, PRACTICAL TIPS & IDEAS TO HELP REDUCE YOUR MISTAKES!



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# UPCOMING EVENTS



## CHI INNOVATE 2023

28 JULY 2023



### THE STAGE IS SET.

### THESE 4 BRIDGE-BUILDERS ARE FRONT AND CENTRE



#### Organising & Mobilising for Positive Change

Renowned Johns Hopkins University political scientist Prof Han will help us crack the code to activate people for a common cause.

What have history and data taught us about the success and failure of social movements? How do we inspire and galvanize whole communities to transform?

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



#### Social Innovation Can Strengthen and Heal Communities

With a knack for disruptive thinking, our opening speaker, through his leadership at the Lien Foundation, masterfully blends innovation with compassion when tackling society's most pressing challenges. These are his stories and lessons.

**Lee Poh Wah**  
CEO  
Lien Foundation



#### Use Everything at your Disposal for Change

Known as Thailand's "Condom King", Viravaidya's audacious and innovative advocacy for family planning, HIV prevention and community activation has saved millions of lives and continues to shape a brighter future.

Hear how this living legend dismantles taboos, defies societal norms and cajoles the transformation of public health and behaviour

**Mechai Viravaidya**  
Founder & Chairman  
Population and Community  
Development Association  
(PDA) Thailand



#### Tech with a Beating Heart

In this digital and virtual age, how can we harness the power of technology to build the necessary bridges between healthcare and our communities, while preserving the humanity and heart in these models of care? Dr Bajwa will share great examples and ideas from the NHS.

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

The stage is set and our Centrestage speakers are ready to engage you, each with their own perspective and experience to guide us as we build bridges between health & social care.

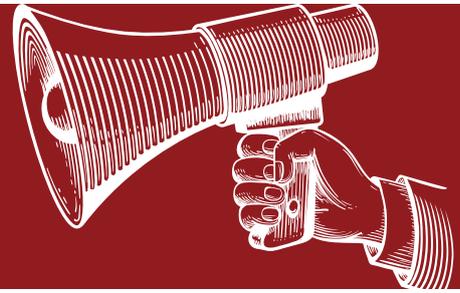
Be part of the conversation themed "Building Bridges: Health & Social Care", which will galvanise us to breach traditional boundaries and work with community partners to catalyse health and social changes, ultimately creating more sustainable healthcare and healthy communities.

Visit our website for the full programme and speakers at: [chiinnovate2023.klobbi.com](http://chiinnovate2023.klobbi.com).

Scan to visit the website  
and to purchase tickets!



# UPCOMING EVENTS



## NG TENG FONG HEALTHCARE INNOVATION PROGRAMME: INNOVATION GRANT

Deadline: 28 Aug & 27 Nov 2023

### CALL FOR APPLICATION

Category 1  
Innovation

Up to  
**\$100K**  
per project

Category 2  
Clinical Research

Up to  
**\$100K**  
per project

Category 3  
Pitch For Fund

Up to  
**\$20K**  
per project

NTF HIP is a competitive grant and the amount is subjected to the availability of funds each FY.



Pre-Application  
Consultation

**FY23 Grant Call  
Closing Dates**

- 28 Aug
- 27 Nov



Download  
the Info Pack &  
Application Form

The Ng Teng Fong Healthcare Innovation Programme (NTF HIP): Innovation Grant, is now open for applications!

The competitive, year-round grant, is accepting applications for 3 categories: Innovation, Clinical Research, and Pitch for Fund.

If you would like to find out more or consult us in person, sign up for a pre-application consultation session with the QR code on the left.

The NTF HIP Grant aims to drive innovation in healthcare to benefit and enhance the health of our patients and the population we serve.

NTF HIP serves as a financial lever of innovation, and help funds the innovation work and programmes facilitated by CHI.

Contact us at [NTF\\_HI\\_Prog@ttsh.com.sg](mailto:NTF_HI_Prog@ttsh.com.sg) for any further enquiries.



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).

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