

New CHI Sustainability Academy Builds Capabilities for Singapore Healthcare towards Sustainable Development & Carbon Reduction

Singapore, 4 July 2024 – The global healthcare system has a complex relationship with sustainability. While the sector constantly delivers remarkable innovations to help prolong and improve the quality of human life, its extensive supply chains, energy-intensive processes, and waste production are a major contributor to pollution as well as the greenhouse gas emissions responsible for global warming. In support of Green Plan 2030, CHI INNOVATE 2024 brings together more than 800 thought leaders and activators from across our partners to develop the platforms and resources necessary for effective and collective action for sustainable healthcare.

“We face mounting evidence of the impact of climate change on human health — ranging from the spread of vector-borne diseases due to changing ecosystems, to the repercussions of extreme weather events on vulnerable populations — there is an increased urgency for those of us in the healthcare to look at our impact on the environment through a more critical lens. In caring for our patients, we must first do no harm,” said Professor Eugene Fidelis Soh, National Healthcare Group’s (NHG) Deputy Group Chief Executive Officer for Population Health, and Executive Director of the Centre for Healthcare Innovation (CHI), which is part of NHG.

The CHI Sustainability Academy

At the opening ceremony of the conference, Guest-of-Honour, Grace Fu, Minister for Sustainability and the Environment officially launched the **CHI Sustainability Academy**. This new Academy will bring together local and international partners to drive a culture of sustainability in healthcare, by educating and inspiring leaders and professionals in Singapore and our region for collective action. It serves as a hub for the healthcare community to advance sustainable healthcare practices through strategic global partnerships and local actions for change.

To bridge the gap between knowledge and action in addressing healthcare’s impact on climate change, the Academy will utilise a capability-building suite — *CLIME* — to equip stakeholders with the necessary skills to spearhead sustainable initiatives:

- **Care model and service redesign for quality and sustainability** — Professionals are trained to drive sustainable change using quality improvement, lean, and design thinking tools.
- **Leadership to build sustainable healthcare organisations** — Leaders are trained to understand how to drive and maintain sustainability movements.
- **Impact measurement of sustainability efforts in healthcare** — Professionals are trained to quantify carbon footprints and make impactful communications to the management.
- **Deploying sustainable Materials and Environments in healthcare** — Professionals gain settings-based insights and opportunities when introducing sustainability.

The CHI Sustainability Academy is led by Associate Professor Wong Hon Tym, Clinical Director of CHI. Kick-starting the Academy’s suite of training courses for sustainability is the **CHI-GSC Leadership Masterclass: Towards Net Zero Healthcare in Singapore**. This masterclass was conducted on 3 July 2024 in partnership with the renowned Geneva Sustainability Centre (GSC), and supported by the Hospitals of Singapore Network, Singlife, and Workforce Singapore. It is the

healthcare sector's first sustainability course endorsed as part of Workforce Singapore's Career Conversion Programme for Sustainability Professionals, which aims to support the transformation of sustainability within healthcare, enabling current healthcare professionals and new hires to take on new or redesigned sustainability roles to kickstart and drive their organisation's sustainability efforts.

Among the pioneer batch of the Masterclass attendees is Mr Low Chee Wee, Deputy Director, Operations (Pharmacy), TTSH. Said Mr Low, "It is becoming increasingly clear that the health of the communities we serve is inextricably linked to the health of our planet. The impact of climate change whether we want it or not is happening and as healthcare professionals we now have that added responsibility for being good stewards and inspiring others to care for our environment. Healthcare must continuously strive to be green and climate resilient and I am most appreciative that my hospital and the Academy are committed to building capabilities of staff, to be equipped with appropriate skills and knowledge to develop relevant strategies and practices for a sustainable healthcare system. I am delighted to be in this pioneer batch."

In collaboration with leading organisations in sustainability, the Academy will also bring together international and local perspectives on strengthening sustainable capabilities within healthcare.

Noting the excellent support and partnerships garnered by the Academy to-date, Professor Joe Sim, Group Chief Executive Officer, NHG, said, "The opening of CHI Sustainability Academy marks our firm commitment to fostering innovation and leadership in sustainable practices across our healthcare industry. It is a significant milestone in our journey towards a greener future, where knowledge and action converge to drive meaningful change. I look forward to the new future we will be enabling through this Academy."

(Refer to Annex 1 for the Academy's full list of partners).

Ongoing Sustainability Efforts in Singapore's Public Healthcare Sector

At the conference, participants had a chance to learn more about the ongoing sustainability efforts helmed by the three public healthcare clusters in Singapore. From the National University Health System (NUHS), the National University Hospital (NUH) has achieved a 95 per cent reduction in the use of desflurane, an anaesthetic agent with high global warming potential. For SingHealth, KK Women's and Children's Hospital (KKH) has achieved an impressive 75 per cent reduction in energy usage, by replacing outdated light tubes with SMART IoT fittings in its facilities. At NHG, TTSH's Eye Department has successfully reduced the waste produced during cataract surgeries by 40 per cent through upcycling disposed, non-biohazardous waste generated from these surgeries.

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About Centre for Healthcare Innovation

The Centre for Healthcare Innovation (CHI) drives systems transformation to add years of healthy life to the communities we serve. This transformation is powered by our understanding of the innovation cycle — beginning with care redesign, augmented by effective technology adoption, and ultimately engendering job redesign for our future workforce. CHI aims to transform health by delivering greater value at the care level; enabling health and social change for population health at the systems level; and empowering sustainable healthcare at the ecosystem level.

For more information, visit us at: www.chi.sg

Annex 1: List of CHI Sustainability Partners

Collaborating Partners	Supporting Agencies
<ul style="list-style-type: none"> <p>Centre for Sustainable Healthcare To co-develop and co-deliver the CHI SA capability building programme (SusQI) through the provision of faculty, expert coach and/or guest lecturer.</p> <p>Geneva Sustainability Centre To co-develop and co-deliver a CHI Sustainability Academy Masterclass for the training of hospital leaders in sustainability-related topics, and to provide faculty and expert coach.</p> <p>Merck Sharp & Dohme To co-develop and co-deliver the CHI SA capability building programme via expert coach and guest lecturer provision. This would be for Sustainability in Pharmaceutical: Co-development of case studies, sustainability in pharmaceutical industries e.g. drugs, anesthetic drugs, oncology drugs, cancer drugs.</p> <p>NanRise To co-develop and co-deliver the CHI SA capability building programme for emerging technologies to drive innovation for sustainability, through the provision of faculty and/or expert coach.</p> <p>NTU Energy Research Institute To co-develop and co-deliver the CHI SA capability building programme through the provision of Faculty, Expert Coach and/or Guest Lecturer.</p> <p>NUS Centre for Sustainable Medicine To have joint organisation of knowledge sharing engagements for leaders and healthcare professionals on sustainability in healthcare, project channelling into CHI SA, provide faculty and expert coach. To also collaborate on NUS CoSM's post-graduate programmes, and publication strategy.</p> 	<ul style="list-style-type: none"> <p>MOH Holdings Faculty provision to co-develop CHI SA curriculum – in areas where inputs are required (may include infrastructure and beyond). To co-create and co-deliver curriculum customized to the Singapore healthcare context, as well as spread and scale successful CHI SA projects.</p> <p>Ministry of Sustainability and Environment SG Eco Fund to take in eligible CHI SA projects. MSE's upcoming e-learn primer will also be a resource for CHI SA's curriculum eg: pre-reading material. CHI to also add value to MSE's eLearn+ with its healthcare and social strengths.</p> <p>Temasek Foundation (TF) To contribute time as expert coaches for the project teams. Be part of a scoping and enabling panel in the early phase of the programme to guide and support the new project teams, where applicable, in industry link-ups and strategy. TF will also be part of an evaluation panel in the later part of the programme to critique the graduating project teams for their value, merit and potential to scale.</p> <p>Workforce Singapore (WSG) Collaboration with CHI Sustainability Academy on Workforce Singapore's Career Conversion Programme for Sustainability Professionals and the development of new programmes to support sustainability transformation efforts within Singapore's healthcare ecosystem.</p> <p>A*StartCentral Supporting CHI SA project teams by connecting them with relevant startup solutions, with IP provision where necessary. Venture Building for selected graduating teams from CHI Sustainability Academy.</p> <p>SGInnovate Venture Building for selected graduating project teams from CHI Sustainability Academy</p>

<ul style="list-style-type: none"> • Singapore Institute of Technology To co-develop and co-deliver the CHI SA capability building programme (Materials Selection, Impact Measurement) through the provision of Faculty, Expert Coach and/or Guest Lecturer. • Singlife Sponsorship funding to support the CHI Sustainability Academy programme, co-development and co-delivery of knowledge sharing engagements, as well as collaboration on Preventive Health models of care (Financial Literacy & Workplace Health). 	<ul style="list-style-type: none"> • Hospitals of Singapore Network Representing 12 hospital members across the three healthcare clusters in Singapore, representing 80% of licensed hospital beds. The HOS Network drives the collective leadership for the future of hospitals in sustainability. • IHH Healthcare Singapore Co-develop and co-deliver the CHI SA capability building programme (Sustainability Reporting; Sustainability practices from IHH's network and Diversity Equity and Inclusion and Governance) through the provision of Faculty, Expert Coach and/or Guest Lecturer.
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Annex 2: Chinese Glossary

National Healthcare Group	国立健保集团
Centre for Healthcare Innovation	医疗保健创新中心
A member of the National Healthcare Group	国立健保集团成员
CHI INNOVATE	医疗保健创新中心举行的 CHI INNOVATE 论坛
CHI Sustainability Academy	环境永续发展学院
CHI-GSC Leadership Masterclass: Towards Net Zero Healthcare in Singapore	领导力大师课程：迈向新加坡净零排放医疗保健
Low Chee Wee Deputy Director, Operations (Pharmacy) Tan Tock Seng Hospital	刘志伟 副总监，营运（药局） 陈笃生医院
Professor Joe Sim Group Chief Executive Officer National Healthcare Group	沈恒毅教授 集团首席执行总裁 国立健保集团
Professor Eugene Fidelis Soh Executive Director, Centre for Healthcare Innovation Deputy Group CEO (Population Health) National Healthcare Group	苏源财教授 执行董事, 医疗保健创新中心 副集团首席执行总裁 (国民保健) 国立健保集团
Associate Professor Wong Hon Tym Clinical Director Centre for Healthcare Innovation	黄宏森副教授 主任 医疗保健创新中心
National Healthcare Innovation and Productivity Medals	全国医疗保健创新和生产力奖章