



# THE GREEN REVOLUTION IN HEALTHCARE: CHI LEADERSHIP COUNCIL CONVERSATIONS ON SUSTAINABILITY

4-5 July 2024



CENTRE FOR  
HEALTHCARE  
INNOVATION®

# FOREWORD

Dear Colleagues and Partners,

As we stand at the crossroads of healthcare and environmental stewardship, it is clear that our actions today will shape the health and well-being of future generations. The “Green Revolution in Healthcare” report is a powerful call to action, urging us to integrate sustainability into every aspect of our healthcare practices.

Our sector is uniquely positioned to lead by example, demonstrating how sustainable practices can enhance patient care while protecting our environment. This report highlights the urgent need for change and provides a roadmap for achieving a more sustainable healthcare system. By adopting energy-efficient technologies, reducing waste, and promoting green initiatives, we can significantly lower our environmental footprint and set a standard for others to follow.

The impact of climate change on our patients is undeniable. We are already witnessing an increase in heat-related illnesses, respiratory conditions, and vector-borne diseases. It is imperative that we adapt our healthcare systems to meet these challenges head-on. Through collaboration and innovation, we can develop and share best practices for effective waste management, lower energy consumption and sustainable operations.

Sustainability in healthcare is about more than just the environment; it is about creating healthier communities. By embracing sustainable practices in healthcare, we can improve public health outcomes and build a resilient healthcare system capable of withstanding future challenges.



A tangible outcome of our commitment to sustainability is the launch of the CHI Sustainability Academy.



*Image: Official launch of CHI Sustainability Academy on July 4, 2024 by Guest-of-Honour, Minister Grace Fu, Minister for Sustainability and the Environment.*



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Officially inaugurated on July 4, 2024, during the CHI INNOVATE 2024 conference, this academy aims to build capabilities for sustainable development and carbon reduction in Singapore's healthcare sector. By bringing together local and international partners, the academy will drive a culture of sustainability, equipping healthcare leaders and professionals with the skills needed to lead this green revolution.

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I extend my deepest gratitude to the CHI Leadership Council and the Editorial Team for their unwavering dedication and hard work in bringing this report to life. Your commitment to advancing sustainable healthcare practices is truly inspiring and a beacon of hope for our collective future.

Let us move forward with a shared vision for sustainable healthcare and a collaborative spirit to take action, knowing that together, we will ensure health for generations.



*Sincerely,*

Prof Eugene Fidelis Soh  
Chairman of CHI Leadership Council

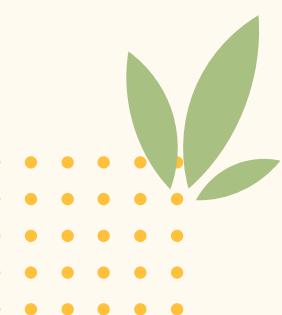




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# CHAPTER 1

## WHAT'S THE BIG DEAL: THE DIRE STATE OF CLIMATE CHANGE AND ITS RELATIONSHIP WITH HEALTH

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### INTRODUCTION

"The climate crisis is a health crisis" – climate change is no longer a distant threat; it is a present reality that profoundly impacts global health. The global impact of climate change is increasingly visible in stark statistics. According to the Intergovernmental Panel on Climate Change (IPCC), global temperatures have already risen by 1.1°C since pre-industrial levels, with projections suggesting that a 1.5°C rise could occur as early as 2030 if significant mitigation measures are not taken. This temperature increase is driving extreme weather patterns, such as more frequent and severe heatwaves, floods, and storms. By 2050, climate change could push over 100 million people into poverty due to these climate shocks, which threaten not only economies but also global health systems, particularly in vulnerable regions. The World Health Organization (WHO) estimates that climate change could cause an additional 250,000 deaths annually between 2030 and 2050, from heat stress, malnutrition, malaria, and diarrheal disease.

Human activities, particularly the burning of fossil fuels, deforestation, and industrial processes, have significantly contributed to the accumulation of greenhouse gases in the atmosphere. The global healthcare sector also contributes significantly to climate change - the sector accounts for around 4.4% of the world's greenhouse emissions – if healthcare were a country, it would be the fifth largest emitter in the world. The healthcare industry must take proactive responsibility for its climate footprint, not only by addressing climate-induced health problems but also by playing a crucial role in mitigating the impact of its operations on climate change and promoting environmental sustainability.

<sup>1</sup> Healthcare's Climate Footprint 2019 Study by Healthcare without Harm and Arup



## CLIMATE CHANGE AND ITS IMPACT ON HEALTH

Climate change necessitates urgent attention and action from all sectors, and healthcare is no exception. The healthcare sector is affected by climate change, – from extreme weather events to increased spread of diseases such as dengue fever and malaria. The climate crisis is not just an environmental issue. It is a healthcare crisis. As climate change escalates, ecosystems and supply chains that support human life are increasingly disrupted. These changes directly and indirectly affect human health, leading to higher disease burdens, increased mortality, and greater strain on healthcare systems worldwide. The social determinants of health further compound these issues in disadvantaged communities.



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