



University of Toronto Healthcare Engineering Symposium

Celebrating Professor Michael Carter's 80th Birthday

June 5, 2026 | 12:00-7:00 pm | Myhal Centre for Engineering Innovation & Entrepreneurship

This special symposium brings together current and former U of T students, colleagues, collaborators, and distinguished researchers, to celebrate Professor Michael Carter's extraordinary impact on healthcare engineering. For more than four decades, Prof. Carter has been a pioneering force in healthcare operations, capacity planning, scheduling, patient flow modelling, and training generations of leaders who now shape health systems across Canada and beyond.

Program webpage:

<https://che.utoronto.ca/university-of-toronto-healthcare-engineering-symposium/>



Program Abstracts

Keynote Address

Erwin W. Hans

Professor of Operations Management in Healthcare, Department of Industrial Engineering & Management Science, Center for Healthcare Operations & Research (CHOIR), University of Twente

Title: The Michael Carter Effect

Abstract: In 2002, Professor Michael Carter published the article "Diagnosis: Mismanagement of Resources" in OR/MS Today, calling on more OR professionals to respond to the challenges facing the healthcare system. At the time, fewer than 2% of INFORMS members belonged to the Health Applications Section, despite the sector's size and importance. Since then, the healthcare OR community has grown substantially. In this presentation, I will describe how Professor Carter inspired and helped launch the healthcare OR/OM research center CHOIR in the Netherlands, which has generated a significant impact over the past two decades.

Achieving impact, however, remains a major challenge. As emphasized by Professor Carter in a 2023 EJOR publication, successful implementation requires careful consideration of five general characteristics of healthcare problems. Building on these insights, I will reflect on lessons learned from our own efforts to achieve real-world impact.

Academic Speakers

Timothy C.Y. Chan

Associate Vice-President & Vice-Provost (Strategic Initiatives)
Professor, Department of Mechanical & Industrial Engineering, University of Toronto

Title: The Mystery of the Missing Clinics at Women's College Hospital

Abstract: This talk presents a project to develop an outpatient clinic schedule for Women's College Hospital, completed in collaboration with Mike and a co-supervised PhD student Brendan Eagen. It presents the application of an optimization model to evaluate numerous scenarios to support decision making by hospital leadership. As with any real-world application, bumps are encountered along the way. It concludes with lessons learned and some reflections on Mike's legacy.

Renata Konrad

Professor, The Business School at Worcester Polytechnic Institute

Title: Beyond Healthcare: Can Engineers and Operations Researchers Rise to the Challenge of Human Trafficking?

Abstract: Dr. Carter challenged the engineering and operations research communities to consider what they could offer healthcare. This talk embraces that spirit, examining how engineers and operations researchers can help counter human trafficking, a complex issue with profound societal and economic consequences. Forced labour and sexual exploitation victimize tens of millions worldwide, forming a multi-billion dollar industry that crosses borders, spans wealthy and impoverished nations, and erodes fundamental human rights. Like healthcare, anti-trafficking efforts face fragmented data, limited resources, and competing objectives, challenges where engineering and analytical tools are uniquely positioned to make an impact. Ongoing transdisciplinary collaborations and project examples will be discussed.

John T. Blake

Professor, Department of Industrial Engineering, Dalhousie University

Title: Naming Names

Abstract: As his first PhD in health care, I have known Mike for more than 3 decades. I have stories. I will share some of them to give all a feeling for what it was like to be in Mike's lab in the early days.

Industry Speakers

Ali Vahit Esensoy

Associate Vice-President, Strategy & Enablement, Sun Life Canada

Title: The Human Infrastructure: Michael Carter's Legacy in Healthcare Engineering

Abstract: Michael Carter was among the first to build healthcare engineering as a discipline, and then spent his career building the people who would carry it forward and extend its reach across health systems. This talk reflects on what it means to be one of them: to be trained by someone who built a field by insisting it stay connected to the problems it was meant to solve. I'll trace what that formation looked like from the inside, and what it produced, in me and in the broader community of practitioners he sent into the world.

Taylor Martin

Director, Workforce Management, Analytics and Optimization, Unity Health Toronto

Title: Applied Healthcare OR: From Optimal to Practical

Abstract: Mike Carter and Carolyn Busby's 2023 paper identified six challenges facing OR implementation in healthcare. This talk reflects on these challenges, drawing on practical experience to explore the shift from theoretical optimality to real-world impact. Examples illustrate the importance of internal champions, engaging with critical operational and human issues, and working with available data rather than waiting for perfect information. The discussion considers cultural resistance, managing stakeholder expectations, and the value of "small" OR in building shared understanding and consensus. Ultimately, meaningful change emerges through incremental progress, strong partnerships, and reframing success beyond optimal solutions.

Aviv Gladman

Chief Medical Information Officer, Mackenzie Health

Title: Healthcare Ambient Intelligence

Abstract: The evolution of artificial intelligence has led to the rise of ambiently intelligent healthcare systems that deliver on the quadruple aim of optimizing patient experience while enhancing the quality, safety, and efficiency of care delivery, improving population health, and tackling healthcare provider burnout. This presentation will discuss how Smart Hospitals use ambient intelligence systems and a real-time health system framework to improve both clinical workflow and patient outcomes.

Graham Woodward

Vice President, Mental Health and Addictions Center of Excellence (MHA CoE), Ontario Health

Title: Twenty Years of Improving Provincial Programs in Ontario

Abstract: Over the past 20 years, provincial health care programs in Ontario—and my own career—have benefited profoundly from the work and legacy of Mike Carter. His influence spans cancer screening and chemotherapy, dialysis, cardiology, and mental health and addictions care, shaping how services are planned and delivered across the province.

In this presentation, I will reflect on several system-level improvements developed through the work of Mike Carter, his team, and his students. Many of these innovations are now embedded within Ontario Health and taken for granted, despite having been largely unimaginable before Mike Carter's involvement.

Panel Discussion

Moderator: **Peter Vanberkel**, Professor, Department of Industrial Engineering, Dalhousie University
Panel members:

- **Carolyn Busby**, Operations Research Consultant, Busby Healthcare Analytics
- **Adriane Castellino**, Manager, Risk & Analytics, Retirement Homes Regulatory Authority
- **Caroline Chan**, Physician, Emergency Department & Academy Director, Scarborough Academy of Medicine
- **Jenya Doudareva**, Senior Manager - AI/Responsible AI, OnX
- **Tammi Hawa**, Senior Product Manager, Ontario Government
- **Daphne Sniekers**, Manager, Health Care Consulting, KPMG Canada
- **Suting Yang**, Senior Methodologist / Biostatistician, The Hospital for Sick Children
- **Tahera Yesmin**, Senior Methodologist, The Hospital for Sick Children

Title: Lasting Impact Beyond Academia

Abstract: This moderated panel discussion brings together alumni and colleagues to reflect on the influence of Mike's mentorship and work. Through brief introductions and shared anecdotes, panelists will highlight how Mike has shaped their studies, careers, organizations, and lives, offering a personal and engaging tribute to his lasting impact.

Sponsors



Photo Booth Sponsor: **Holly Jin** (U of T: PhD 2005)