Transforming the patient experience in Emergency Medicine at University Health Network

A growing city and a global pandemic is straining our Emergency Departments like never before. We need your help to enhance innovations, space and quality of care in Emergency Medicine.

Emergency Medicine at UHN

Named the number-four hospital in the world by *Newsweek*, Toronto General Hospital (TGH) is uniquely positioned as a leader to influence the evolution of health care and alter the course of the COVID-19 global pandemic.

Our Emergency Medicine team comprises 90-plus physicians, nurse practitioners and physician assistants, and over 200 nurses across two sites: TGH and Toronto Western Hospital. Emergency Departments (EDs), including our own, serve as the safety net of the healthcare system; they had to be ready to serve as the initial testing centres for COVID-19.

Prior to and during this pandemic, we have had the knowledge to compassionately care for the sickest and most complex patients in the country due to our highly skilled experts across all programs, including cardiac, transplant and oncology. Our hospital is a provincial and national referral centre and people come here from across Canada for our specialized care. We need an ED space to reflect that.

EMERGENCY FAST FACTS

GE

- 125,000+ patients seen annually at two sites: Toronto General Hospital (TGH) and Toronto Western Hospital (TWH)
- TGH's ED was designed for 20,000 patients a year, but currently cares for 55,000+
- With our rapidly growing population, we anticipate an increase of 18,000+ patients in the ED over the next 5 years at TGH

Challenges in Emergency Medicine

A GROWING CITY, A RISING NEED

Toronto is North America's fastest-growing city and downtown hospitals are struggling to keep up with the demand. In 2016, TGH added 14 hallway spaces to its ED, and yet overcrowding and the use of unconventional treatment areas persist. Toronto's growth continues to skyrocket. According to projections from SkyscraperPage.com and the





Toronto General Hospital Number 4 in the world. Best in Canada.

All photos were taken either before the COVID-19 pandemic or following appropriate physical distancing guidelines.

Ontario Ministry of Finance, respectively, by 2030, Toronto will have 350-plus new buildings and more than 650,000 new residents, adding a population size comparable to the City of Hamilton.

IMPACT OF COVID-19

TGH's ED is the first point of contact for many patients, increasing the strain on our ED resources and highlighting our lack of space. Since the onset of the virus, our healthcare teams have quickly adapted their approaches and responses to patient care. We have implemented physical distancing and contact precautions, but as a result our emergency care spaces have been reduced by 40 per cent. Even with the arrival of vaccines, the virus will be with us for the foreseeable future, and we must be ready to respond to future infectious diseases.

CARING FOR SOCIAL DETERMINANTS OF HEALTH

Patients with social complexity, substance use and mental health diagnoses utilize the ED to address both medical and non-medical social needs, known as social determinants of health because they influence health outcomes. More than half of the high-need, medically complex patients we see at UHN live in low-income neighbourhoods or lack housing. In extreme situations, patients utilize the ED solely for needs such as food, shelter, clothing and loneliness. Caring for this growing vulnerable population, combined with the city's need for increased healthcare capacity, has been a main priority at UHN. Downtown hospitals are struggling to meet the demand, and these challenges have been intensified by the COVID-19 pandemic. By comparison, UHN's two Emergency Departments see more visits by shelter residents than St. Mike's and other hospitals.

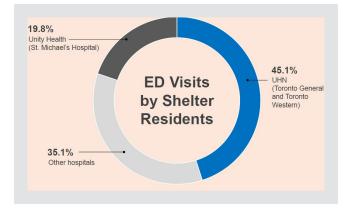




Photo by Dr. Dawn Lim

The ED is also frequently the sole point of contact with the healthcare system for other marginalized members of our society. Implicit bias, systemic racism and discrimination continue to plague hospitals and EDs, leading to adverse health outcomes for patients, especially for those who identify as 2SLGBTQI+, Black, First Nations, Inuit or Métis, as well as patients who are newcomers to Canada. Emergency physicians often learn about social determinants of health, but this is often taught without the context of how racism, colonialism and other forms of discrimination are embedded within Canadian healthcare structures and the laws that govern them. To mitigate social determinants of health, UHN's Emergency Departments are working to enhance the ways in which they provide equitable, high quality, patient-centered and culturally safe care to the diverse populations we serve.

Creating equitable access to care

EXPANDING THE EMERGENCY DEPARTMENT

Faster. Safer. Streamlined. The new Rapid Assessment Centre at Toronto General Hospital will address the challenges facing our Emergency Department and improve the patient experience, now and into the future. The Centre is being designed as a pandemic-ready and surge space to increase our capacity. The design will focus on providing exceptional and compassionate care, even while physical distancing.

"Before the pandemic, space was severely limited, and now, overcrowding is no longer an option. This expansion project will set up our patients and staff for improved safety for years to come."

- Dr. Sam Sabbah, Medical Director, Emergency Medicine

REGISTRATION AND RAPID ASSESSMENT

In our current TGH Emergency Department, triage and registration includes a mix of patients with varying conditions going through the same process. Screening for the virus and safety measures have further slowed the patient flow. The Centre's registration process will feature two separate streams: one for very complex and sick patients, and a fast-tracked stream for those who are less sick. Approximately half of ED patient volume can be managed through the new rapid assessment space, resulting in faster evaluation and care.

CREATING A HEALTHIER SPACE

Our existing rapid assessment space in the ED is less than 2,000 square feet, with five exam rooms and three hallway stretchers. Before the pandemic, it was often overcrowded. There is no privacy and no natural light, as well as uncomfortable seating and limited accessibility. The new Rapid Assessment Centre will expand the ED by an additional 9,000 square feet and be equipped with negative pressure exam rooms, separated treatment recliners and clinical decision units. There will be 4.5 times more ambulatory space for patients, including enclosed space for viral containment and negative pressure rooms. The Centre will also offer access to natural light to provide an inviting and relaxing view for patients and staff.

CREATING VIRTUAL MODELS OF CARE

Currently in its pilot phase, the Virtual Emergency Department (VIRTU-ED) allows patients and their caregivers to connect with an emergency physician at UHN from home, through their mobile device or a computer. By developing the optimal virtual care technologies, workflows and processes required to enable remote access, we enable ED clinicians to see and treat patients outside the department.

For lower acuity patients, this results in easier, quicker and more efficient access to 24/7 emergency care while maintaining physical distancing. For patients with moderate acuity the need to be seen in-person, our platform will also allow for pre-arrival assessments and streamlined orders to shorten the time they spend in the ED. In the future, through integrating "smart" technology with our online triage and streamlined workflows, our model can become a "smart" virtual care system.

"When we think of patient-centred care, we think of the right care for the right patient at the right time, but also at the right place."

- Dr. Sameer Masood, Director of Quality, Safety and Innovation, and Lead of the Virtual Emergency Department

The Virtual ED complements and enhances in-person emergency care. We also link our system with specialty clinics and primary care clinics within the community to ensure appropriate diversion from the ED and timely follow up to maintain continuity of care. UHN and the Ministry of Health will benefit through cost savings achieved by reducing in-person visits to the hospital, and by shortening the length of stay for ED patients that have been assessed prior to their arrival. UHN's Virtual ED was also selected as the first program to pilot the potential future UHN-wide virtual care interface, ThinkAndor. Emergency Medicine was chosen because success in an under-resourced, challenging environment will be easy to scale up and replicate across the institution.

A NOVEL TEAM CHAMPIONING HEALTH EQUITY

UHN is developing a novel team to care for vulnerable and marginalized patients in the ED. Comprehensively identifying and addressing social determinants of health in the ED requires personnel with professional and lived experience. To best care for vulnerable patients with complex medical and social needs, we are building a social needs health care team with the combined expertise to efficiently assist patients.

OUR REQUEST TO YOU

We remain dedicated to helping our patients and their families in Toronto, throughout the province and across Canada. We thank you for this opportunity to present a potential partnership with University Health Network, as we work to transform emergency care.

TO LEARN MORE, PLEASE CONTACT:

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UHN Foundation is an amalgamation of Toronto General & Western Hospital Foundation and Toronto Rehab Foundation.