

SUSTAINABLE HEALTH SYSTEM  
**COMMUNITY of PRACTICE**



# June 2021 Report

Prepared by the Centre for Sustainable Health Systems

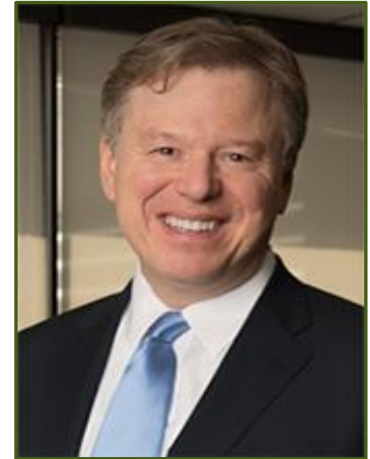
## Message from the Executive Co-Sponsors

*"The Sustainable Health System Community of Practice (CoP) emerged out of a recognition that the health sector needs to take responsibility for its contributions to climate change. Toronto Academic Health Science Network (TAHSN) and Council of Health Science (CHS) organizations have made many commitments to environmental sustainability, and there is already significant capacity and enthusiasm to improve the sustainability of healthcare. The Community of Practice seeks to connect leadership with efforts to make change so that existing and new initiatives aimed at providing high-quality, low-carbon care are properly supported and have the potential to be scaled-up. By working together, we can mount a coordinated response to the climate crisis, laying out a roadmap for collaborative change locally and beyond."*



Adalsteinn Brown

Dr. Andy Smith & Dr. Steini Brown, June 2021



**Andy Smith**

*President and Chief Executive Officer, Sunnybrook Health Sciences Centre*



**Adalsteinn Brown**

*Dean, Dalla Lana School of Public Health, University of Toronto*

## Building on our commitments to sustainability

### Women's College Hospital

"We are integrating the principles of sustainability and sound environmental practice into all functions and operations within our hospital. Our aim is to reduce our environmental footprint and maintain compliance with municipal, provincial and federal legislation in order to protect human health and the environment." [SOURCE]

**UHN**

"UHN's vision is "A Healthier World," and includes "a shared commitment to the betterment of all". At the same time, climate change is recognized as a major threat to health with energy management playing a key role in mitigating the causes and impacts of climate change." [SOURCE]

### University of Toronto

"The University of Toronto St. George campus will become climate positive by 2050. We commit to reducing more greenhouse gases than we emit, creating a net benefit in our community." [SOURCE]

### SickKids

"At SickKids, we believe that patients and their families, staff and the community need a healthy planet, so over the years, we have committed through our KidsGoGreen program to: Prevent patients, families, staff and the community from exposure to harmful pollutants; Reduce the amount of greenhouse gases released into the environment; Become more efficient in using energy and water; Generate less waste and divert more waste from landfill; Promote healthier and greener modes of transportation options such as walking, cycling, transit and carpooling." [SOURCE]

### Holland Bloorview

"We strive to operate our facility in an environmentally responsible manner through the efficient use of utilities. We are effectively serving our clients and the community by redirecting energy savings and limited resources towards client care and effectively meeting increasing service expectations." [SOURCE]

### Michael Garron

"It is of critical importance to improve energy efficiency and reduce our operating costs. Equally important is displaying our commitment to the environment through the reduction of greenhouse gases, while improving our air quality." [SOURCE]

### Sunnybrook Health Sciences Centre

"We are committed to environmental stewardship and to reducing the hospital's dependence on non-renewable energy and waste sources. Through our five key environmental programs; energy conservation, waste management, sustainable transportation, procurement and an awareness & education campaign, we are an environmental leader within the hospital, throughout the community and across the country. Fostering awareness has reduced the environmental impact of hospital activities and has helped us realize our vision of inventing the future of health care." [SOURCE]

**CAMH**

"[Our] overarching goal is to achieve an integrated, sustainable and highly energy efficient facilities which reflect its leadership role and values in 21st century of a sustainable healthcare service delivery." [SOURCE]

### Unity Health Toronto

"We are committed to addressing energy and environmental issues while continuing to seek new opportunities to decrease energy consumption." [SOURCE]

### Trillium Health Partners

"Trillium Health Partners has made a commitment to sustainability and going green. Through events, initiatives and behavior change across all sites, there has been a demonstrated commitment to employee engagement, outreach and education." [SOURCE]

### North York General

"At NYGH we believe that healthy patients need a healthy planet, so over the years we have made a serious commitment to decreasing our energy consumption, waste production, and reducing our carbon footprint." [SOURCE]

### Baycrest Health Sciences

"We consider our facility a primary source of care, and an integral part of the local community. The key to this relationship is being able to use our facilities efficiently and effectively to maximize our ability to provide the highest quality of healthcare services while integrating environmental stewardship into all aspects of facility operations." [SOURCE]

### Sinai Health

"Mount Sinai is working towards becoming one of the most energy efficient acute care hospitals in Ontario. [Our] plan combines operational excellence and prudent investment in existing system retrofits with high performance design standards for ongoing renovations to achieve this goal." [SOURCE]

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## Introduction to the Community of Practice

### Background

Climate change is recognized as the biggest global health threat of the 21st century and reduction in greenhouse gas emissions is central to global efforts to address climate change. Healthcare is one of the leading sources of greenhouse gas emissions in Canada and around the world. Across the Toronto Academic Health Science Network (TAHSN) of hospitals and the Council of Health Sciences (CHS), which represents the University of Toronto health sciences sector, **sustainability commitments** are outlined in strategic plans and other organizational documents, and many clinicians, staff, faculty and trainees are playing important roles in efforts to reduce greenhouse gas emissions **on the ground**. However, there are opportunities for us to deepen these commitments and do more collectively to improve health system sustainability.

A **sustainable health system** provides high quality, accessible and equitable care while taking into account and mitigating the impact of that care on the climate and our future. Collectively embracing sustainability as part of our commitment means that we work together to provide evidence, ideas, leadership and advocacy to reduce and minimize greenhouse gas emissions through action, research and education, first at a local level, with the ambition to play a leadership role nationally and internationally.

### Emergence, Purpose, and Structure

In recognition of the urgent need to work together to address this important health and social issue, the leadership of the Toronto Academic Health Science Network (TAHSN) and the Council of Health Sciences (CHS) have come together to form the **Sustainable Health System Community of Practice (CoP)**.

The CoP is led by two executive co-sponsors, Dr. Andy Smith, the President and Chief Executive Officer of Sunnybrook Health Sciences Centre, and Dr. Adalsteinn (Steini) Brown, Dean of the Dalla Lana School of Public Health at the University of Toronto.

The **purpose** of the CoP is to:

- ▶ Identify, spread, leverage and evaluate existing good practice strategies to reduce greenhouse gas emissions
- ▶ Deliver and evaluate educational initiatives for sustainable healthcare and health systems for staff, faculty and trainees
- ▶ Organize and support events that bring together partners from across TAHSN and the University to clarify issues, review options and new research, and identify priority items for collaborative action
- ▶ Work towards broad uptake of the results of CoP efforts, provincially, nationally and internationally

The CoP strives to improve health system sustainability via a **model of change** consisting of three primary channels:

- ▶ **Working groups** focused on opportunities for collaborative practice change that will improve quality while reducing the carbon intensity of care. Led by members of the CoP senior leadership table, the working groups are comprised of individuals from the broader TAHSN and CHS communities with interest and expertise in the group's area of focus.

- ▶ **Community engagement** in the form of educational and other events focused on raising awareness of the health sector's contributions to climate change and building capacity to identify and harness opportunities to improve sustainability
- ▶ **Evaluation** of the CoP itself as well as individual sustainability initiatives to facilitate a deeper understanding of how to effectively facilitate sustainability transitions within the healthcare sector.

## Accomplishments to date

The CoP was initiated in the midst of a global pandemic that has posed significant challenges for health professionals, health scientists and health system leaders. Despite this, interest in healthcare's role in the climate crisis was sufficient to move the initiative forward. Senior leaders from across the TAHSN and CHS communities were enrolled, and the Senior Leadership Table met for the first time in September 2020, under the leadership of Drs. Steini Brown and Joshua Tepper, then President and CEO of North York General Hospital. The leadership table met monthly through the fall, moving to a bi-monthly schedule in the new year, under the leadership of Drs. Andy Smith and Steini Brown.

At its first meeting, the CoP Senior Leadership Table initiated three working groups, focusing on:

- ▶ Sustainable Inhalers
- ▶ Sustainable Operating Rooms
- ▶ Sustainable Virtual Care

Each Working Group moved quickly to develop a strategy for collaborative practice change, with embedded evaluation, and to report regularly on its progress. Through discussion, members of the CoP Leadership Table identified the need for a fourth working group, addressing equity as a cross-cutting theme for the CoP, and as a new and distinctive body of work related to climate resilience. Thus, a new working group has recently been initiated:

- ▶ Equity in Climate Action

The CoP Senior Leadership Table and its Working Groups have initiated other productive conversations locally, nationally and internationally. Though not yet formal Working Groups, members of the CoP have initiated work to:

- ▶ Build capacity for sustainable procurement
- ▶ Develop linkages with UCL Partners, the academic health science network in England, given the English NHS' ambitious commitment to a net-zero health system before mid-century, and the potential for shared learning

A **signature achievement** for the CoP is the formation of CASCADES – “Creating a Sustainable Canadian Health System in a Climate Crisis” – a national capacity-building initiative for climate action and awareness in health care, funded for \$6 million dollars over five years by

Environment and Climate Change Canada. Led by the University of Toronto, with university and NGO partners, CASCADES promises to leverage and extend the work of the CoP locally and nationally.

Creating a Sustainable Canadian Health System  
**CASCADES** ✓ in a Climate Crisis  
Créer un système de  
santé canadien durable face à la crise climatique



## CoP Senior Leadership Table



**Dale Clement**

*VP Clinical, St. Joseph's Health Centre*



**Anna Cooper Reed Karli Farrow**

*Emerging Leaders for Environmentally Sustainable Health Systems (ELESH)*



**Brian Hodges**

*EVP Education & Chief Medical Officer, UHN*



**Lisa Dolovich**

*Dean, Faculty of Pharmacy, UofT*



**Peter Goldthorpe**

*VP Transformation, SickKids*



**Linda Johnston**

*Dean, Faculty of Nursing, UofT*



**Robin McLeod**

*Vice Chair, Quality and Best Practices, Department of Surgery, UofT*



**Imara Rolston**

*Assistant Professor, DLSPH; Policy Development Officer, City of Toronto*



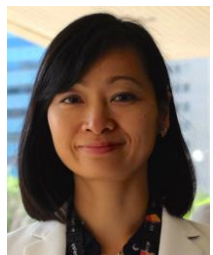
**Ron Saporta**

*COO, Facilities & Services, UofT*



**Kaveh Shojania**

*Vice Chair, Quality & Innovation; Professor, Department of Medicine; UofT*



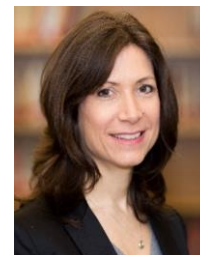
**Christine Soong**

*Division Head, Hospital Medicine, Sinai Health*



**Oliver Tsai**

*Director of IT, Sunnybrook Hospital*



**Kimberly Wintemute**

*Family Doctor, Nort York General Hospital*

## Secretariat



The [Centre for Sustainable Health Systems](#) strives to lead and support efforts to achieve truly sustainable health systems. Such systems are characterized by practices and policies that are environmentally, socially, and financially sustainable, allowing us to address the health and care needs of today without compromising our ability to address those needs tomorrow.

The Centre serves as secretariat to the CoP, offering the following forms of support:

- ▶ Organizing meetings of the senior leadership table and working groups
- ▶ Convening events and educational opportunities
- ▶ Supporting evaluation and conducting research
- ▶ Synthesizing evidence

Centre members with secretariat duties for the CoP are:



**Fiona Miller**

*Founding Director, Centre for Sustainable Health Systems;  
Professor, Institute of Health Policy, Management & Evaluation UofT*



**Geoff Anderson**

*Fellow, Centre for Sustainable Health Systems; Professor, Institute of Health Policy, Management & Evaluation UofT*



**Nicole Simms**

*Managing Director, Centre for Sustainable Health Systems*



## CoP Working Groups

### Overview

The Senior Leadership Table of TAHSN and CHS representatives has established Working Groups to leverage the expertise and interests of the broader community of practice to motivate collaborative action to extend and deepen collective impact. The general **Terms of Reference** for CoP Working Groups are detailed below.

### Purpose

- ▶ Each Working Group will identify, implement, and evaluate sustainability opportunities in their respective areas in a timely and strategic manner.

### Scope

- ▶ Working Groups have a focus on the Toronto Academic Health Science Network of hospitals and/ or the University of Toronto affiliated academic health science community but may engage and have an impact beyond the Greater Toronto Area.

### Membership

- ▶ Working group leads will be members of the CoP Senior Leadership Table. Leads are to recruit members from the broader TAHSN and CHS communities. Partners not affiliated with TAHSN/ CHS to be engaged as appropriate.

### Meeting Arrangements

- ▶ Working Groups will strive to meet at least once per month so that progress can be achieved between bi-monthly CoP meetings.

### Reporting

- ▶ Working Groups will report on plans and progress to the CoP Senior Leadership Table on a regular basis.

### Resources

- ▶ The Centre for Sustainable Health System is to support Working Groups to conduct, record, evaluate and report on their activities.

### Deliverables

- ▶ Working Groups will ensure deliverables in accordance with their focus and plans. The SMART Goals (Specific, Measurable, Attainable, Relevant and Timely) may provide a useful reporting framework.

### Timeframe

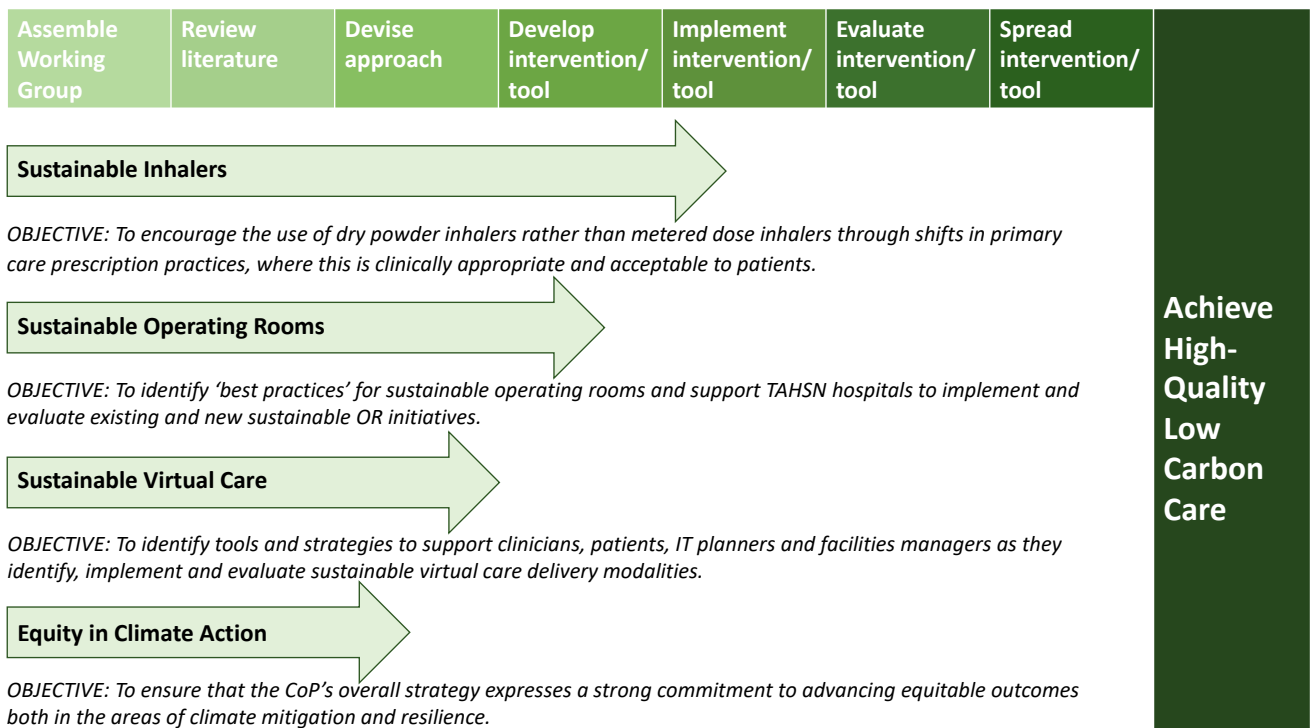
- ▶ The Working Groups may operate for the full two-year term of the CoP, or a lesser timeframe as is appropriate to their aims and activities.
- ▶ If the CoP term is extended, Working Group Terms of Reference will be reviewed with an opportunity for refresh and renewal

Thus far, four working groups have been established.

- ▶ Sustainable Inhalers
- ▶ Sustainable Operating Rooms
- ▶ Sustainable Virtual Care
- ▶ Equity in Climate Action

The figure below illustrates the progress of each Working Group towards the CoP's ultimate goal of achieving high-quality, low carbon care. Terms of Reference and Project Updates specific to each Working Group follow.

**CoP Working Group Progress Toward High-Quality, Low Carbon care**



## Sustainable Inhalers Initiative

### Background

Metered-dose inhalers (MDIs) are common medical devices used to deliver inhaled medication, typically for individuals with asthma or chronic obstructive pulmonary disease (COPD).

MDIs contain high levels of hydrofluorocarbons (HFCs) that act as potent greenhouse gases (GHGs) when released into the atmosphere, contributing to the healthcare sector's carbon footprint. HFC emissions from MDIs mostly come from the use-phase when propellants are released into the atmosphere.



Both patients and health care professionals have many opportunities to opt for more environmentally sustainable options with respect to the treatment of respiratory conditions. The following strategies may be employed individually or in combination to mitigate the environmental impact of inhalers:

- ▶ Encouraging environmentally preferable alternatives to MDIs, such as dry-powder inhalers (DPIs), whenever possible
- ▶ Ensuring appropriate inhaler technique
- ▶ Practicing sustainable recovery and recycling of inhalers
- ▶ Developing suitable prescribing practices around inhalers

## Working Group

### LEAD

**Kimberly Wintemute**

*Family Doctor, North  
York General Hospital*

### MEMBERS

**Lisa Dolovich**

*Dean, Faculty of Pharmacy, UofT*

**Jean Wilson**

*Assistant Professor, Lawrence S.  
Bloomberg Faculty of Nursing, UofT*

### SECRETARIAT

**Fiona Miller**

*Founding Director, CSHS; Professor,  
Institute of Health Policy,  
Management & Evaluation UofT*

**Naba Khan**

*Research Assistant, CSHS*

## Inhalers Working Group - Terms of Reference

<b>Purpose</b>	<b><i>To inspire clinical practice change:</i></b> To encourage the use of dry powder inhalers rather than metered dose inhalers through shifts in primary care prescription practices, where this is clinically appropriate and acceptable to patients.
<b>Plans</b>	<ul style="list-style-type: none"> <li>▶ Use a peer-to-peer educational strategy to encourage practice change, through a series of educational webinars and the sharing of practical tools to inform patients and support clinicians</li> <li>▶ Conduct a robust evaluation of the intervention using UofT's UTOPIAN Data Safe Haven, "a secure researchable database comprised of de-identified patient records extracted from electronic medical records (EMRs) in contributing primary care practices" and qualitative interviews with clinicians who participate in the educational intervention.</li> </ul>
<b>Scope</b>	<ul style="list-style-type: none"> <li>▶ The Working Group has a primary focus on the community of primary care clinicians and clinics affiliated with UofT but engages beyond the Greater Toronto Area. There is potential for the inhaler working group to collaborate with CASCADES for national engagement and impact.</li> </ul>
<b>Membership</b>	<ul style="list-style-type: none"> <li>▶ The Working Group is led by Kimberly Wintemute, with the participation of Jean Wilson and Lisa Dolovich, with support from Fiona Miller and Naba Khan from the Centre for Sustainable Health Systems</li> <li>▶ The Working Group has collaborated closely with the following clinicians and scientists to develop and deliver the educational intervention and its evaluation: Samantha Green, Brenda Chang, Gabrielle Busque, Michelle Greiver and Karen Tu</li> </ul>
<b>Meetings</b>	<ul style="list-style-type: none"> <li>▶ The Working Group meets every two weeks, with additional meetings as appropriate.</li> </ul>
<b>Timeframe</b>	<ul style="list-style-type: none"> <li>▶ The Working Group expects to operate for the full two-year term of the CoP.</li> </ul>
<b>Progress</b>	<ul style="list-style-type: none"> <li>▶ <b>Scoping the problem:</b> The Working Group initiated its efforts by conceptualizing the range of opportunities to improve the sustainability of inhaler care, including through education, procurement and clinical practice change. After consulting with hospitalists and respirologists, and reviewing issues related to improving inhaler technique and the appropriate recovery and recycling of inhalers, the Working Group decided to focus its efforts on prescribing practice change in primary care.</li> <li>▶ <b>Designing the intervention:</b> The Working Group consulted with primary care scientists, health services researchers and clinicians to design a set of peer-to-peer educational interventions, using a webinar format and providing implementation resources for clinicians developed by the North York General Hospital, St Michael's Hospital and South East Toronto family health teams (letter to patients, poster, coverage list; see: <a href="https://www.sustainablehealthsystems.ca/copsustainableinhalerinitiative">https://www.sustainablehealthsystems.ca/copsustainableinhalerinitiative</a>). Research Ethics Board approval has been granted to evaluate the intervention using an interrupted time series analysis, assessing prescription patterns through the EMR data safe haven (UTOPIAN) housed by the Department of Family and Community Medicine, supplemented by qualitative interviews of clinicians participating in an educational session to understand the impact of the educational intervention on practice change intentions and actions.</li> <li>▶ <b>Implementing the intervention:</b> The webinars will be offered in June, September and December by primary care clinicians (family physicians, nurse practitioner, pharmacy). CME accreditation will be sought for fall sessions, which will be recorded and made available for asynchronous viewing. A "frequently asked questions" list will be developed and continually updated.</li> <li>▶ <b>Broader engagements and impacts:</b> The inhaler working group promises to have a significant impact on local, provincial and national inhaler prescribing practices, including through engagement, outreach and impact on national clinical practice guidelines.</li> </ul>

## Sustainable Operating Rooms Initiative

### Background

Operating rooms (ORs) are key sites for patient care. ORs are also energy and waste intensive spaces that have been shown to have a negative impact on the environment and – consequently – human health. The OR contributes to environmental degradation in several ways, such as via the use of disposable products and single-use surgical devices; unnecessary energy used for heating, ventilation, and air conditioning; and the use and disposal anesthetic gases and pharmaceuticals. Other sources of the OR's negative environmental impact include biohazardous medical waste such as fluids and contaminated materials. Overall, ORs generate up to a third of total hospital waste.



Implementing strategies to support environmental sustainability in the OR presents an opportunity to reduce waste and expenditure, while ensuring sterility and patient safety. There are several options that may be employed individually or in combination to mitigate the environmental impact of the OR. These include:

- ▶ Adoption of environmentally preferable products and practices
- ▶ Reduction in the use of unnecessary supplies
- ▶ Revision of waste management practices
- ▶ Reduction of energy use

## Working Group

### LEAD

#### Robin McCleod

*Vice Chair, Quality and Best Practices, Department of Surgery, UofT*

### MEMBERS

#### Ali Abbass

*Anaesthesiologist, St. Joseph's Health Centre (SJHC), Unity Health Toronto*

#### Laura Donahoe

*Thoracic Surgeon, Toronto General Hospital; Assistant Professor, Department of Surgery, UofT*

#### Emily Pearsall

*Manager, Best Practice in Surgery, Department of Surgery, UofT*

#### Ed Rubenstein

*Energy & Environment Manager, UHN*

### SECRETARIAT

#### Fiona Miller

*Founding Director, CSHS; Professor, Institute of Health Policy, Management & Evaluation UofT*

#### Nicole Simms

*Managing Director, CSHS*



## OR Working Group - Terms of Reference

<b>Purpose</b>	<i>To identify opportunities to reduce the environmental impact of ORs:</i> To identify 'best practices' for sustainable operating rooms and support OR teams at TAHSN hospitals to implement and evaluate existing and new sustainable OR initiatives.
<b>Plans</b>	<ul style="list-style-type: none"> <li>▶ Develop a Best Practice Guidance Document, following the Best Practice in Surgery guideline development process, to identify sustainable OR opportunities</li> <li>▶ Work with stakeholders at TAHSN hospitals to review current practices and opportunities to adopt more sustainable OR practices</li> <li>▶ Work with stakeholders at TAHSN hospitals to implement and evaluate selected sustainable OR practice changes, developing educational and other implementation resources as appropriate.</li> </ul>
<b>Scope</b>	▶ The Working Group has a primary focus on TAHSN hospitals with operating rooms and OR clinicians and staff affiliated with the University of Toronto, but also engages beyond the Greater Toronto Area.
<b>Membership</b>	<ul style="list-style-type: none"> <li>▶ The Working Group is led by Robin McLeod, with the participation of Emily Pearsall, Ali Abbas, Ed Rubinstein and Laura Donahoe, and support from Fiona Miller and Nicole Simms from the Centre for Sustainable Health Systems</li> <li>▶ The development of the Best Practice guideline has been supported by several trainees, including Victoria Haldane, Jamie Goldman and Tiffany Got, and a network of OR clinicians and sustainability leads across the TAHSN hospitals</li> </ul>
<b>Meetings</b>	▶ The Working Group meets monthly, with additional meetings as appropriate.
<b>Timeframe</b>	▶ The Working Group expects to operate for the full two-year term of the CoP.
<b>Progress</b>	<ul style="list-style-type: none"> <li>▶ <b>Developing the Best Practice Guidance Document:</b> The Working Group began its efforts with a review of the academic and grey literature to identify best practices for sustainable ORs. As well, the group surveyed stakeholders from TAHSN hospitals to gain a preliminary overview of current OR practices; conducted information gathering sessions with OR managers, waste haulers, and industry representatives; and consulted OR clinicians (anesthesiologists, surgeons, OR nurses) and environmental leads from across TAHSN hospitals on the emerging document. The guidance document is currently being finalized, with the next round of stakeholder consultations pending and submission for publication planned by end of summer 2021.</li> <li>▶ <b>Developing a baseline report:</b> The Working Group is developing a structured questionnaire, based on the Best Practice guidance document, and has consulted with OR managers and sustainability staff to design a data collection strategy involving structured interviews with key informants at each of the 9 TAHSN hospitals with ORs.</li> <li>▶ <b>Implementing the intervention:</b> The Working Group plans to work with each TAHSN hospital on an implementation strategy, using shared implementation resources and data collection tools, adapted as necessary to each hospital context.</li> </ul>

## Sustainable Virtual Care Initiative

### Background

In-person care delivery systems require that patients, staff, and caregivers travel to meet at care facilities. That travel, combined with the building, heating and lighting of those facilities, comprises a significant portion of health system GHG emissions. Moving from in-person to virtual care delivery is therefore a promising way to reduce the environmental impacts of care delivery – in the short term, via a reduction in travel-related emissions, and in the longer term, via a decreased need to build and maintain clinical and office space.

These benefits may come sooner than anticipated. The COVID-19 pandemic has accelerated the uptake of virtual approaches to care delivery across the country. For example, virtual visits went from approximately 4% of all primary care visits in Canada prior to the pandemic to approximately 60% in a matter of months. However, the technologies used to facilitate virtual care have variable environmental impacts in their production, operation, and disposal. Transitioning to virtual care therefore involves making important choices about investment in information and communications technology (ICT). Any investment in virtual care delivery should include carefully examining its financial cost, impact on quality of care, and environmental impacts – *the triple bottom line*.



A recent survey by Canada Health Infoway found that 68% of Canadians indicated they would be more likely to opt for a virtual visit if they knew it was associated with a reduced carbon footprint. Patients, clinicians, and managers need more information in order to maximize the environmental benefits of virtual care.

## Working Group

### LEADS

**Peter Goldthorpe**

*VP Transformation, SickKids*

**Oliver Tsai**

*Director of IT, Sunnybrook Hospital*

### MEMBERS

**Payal Aggarwal**

*Family Physician and Innovation Fellow, Institute for Health System Solutions and Virtual Care (WIHV), Women's College Hospital*

**Bobby Gheorghiu**

*Manager of Trending and Performance, Canada Health Infoway*

**Kyle Robinson**

*Director, Facilities, Operations and Sustainability, SickKids*

### SECRETARIAT

**Geoff Anderson**

*Fellow, Centre for Sustainable Health Systems; Professor, Institute of Health Policy, Management & Evaluation UofT; Research Lead and NPA, BeACCoN*

**Nicole Simms**

*Managing Director, CSHS*

## Virtual Care Working Group - Terms of Reference

<b>Purpose</b>	<i>To support sound investments in innovative sustainable virtual care:</i> To identify tools and strategies to support clinicians, patients, IT planners and facilities managers as they identify, implement and evaluate sustainable virtual care delivery modalities.
<b>Plans</b>	<ul style="list-style-type: none"> <li>▶ Systematically review the literature on virtual care and work to identify the tools and strategies that have been used to measure the greenhouse gas impacts of virtual care delivery modalities</li> <li>▶ Work with end-users to select or adapt a set of tools tool that are sound, relevant and feasible in the TAHSN context</li> <li>▶ Pilot the tools in a set of participating TAHSN hospitals and primary care settings</li> <li>▶ Based on the pilot test results, make recommendations to the CoP on a set of tools and strategies that can be used across members institutions to provide meaningful information on the greenhouse gas emission implications of innovative virtual care delivery modalities.</li> </ul>
<b>Scope</b>	▶ The Working Group engages members with a local (TAHSN), provincial and national focus, with an aim to pilot the virtual care measurement tool at participating TAHSN hospitals. There is potential for the virtual care working group to collaborate with CASCADES for national engagement and impact.
<b>Membership</b>	▶ The Working Group has been led by Geoff Anderson with the participation of Peter Goldthorpe, Oliver Tsai, Bobby Gheorghiu, Kyle Robinson and Payal Aggarwal, and support from Nicole Simms from CSHS; Peter Goldthorpe and Oliver Tsai will co-chair the group as of September 2021.
<b>Meetings</b>	▶ The Working Group meets every two months, with additional meetings as appropriate.
<b>Timeframe</b>	▶ The Working Group expects to operate for the full two-year term of the CoP.
<b>Progress</b>	<ul style="list-style-type: none"> <li>▶ <b>Reviewing the literature:</b> The Working Group began its efforts with a review of the academic literature on the environmental benefits of virtual care; an updated review is planned to identify the range and types of environmental impacts that might reasonably be assessed, drawing on virtual work/ education literature as appropriate.</li> <li>▶ <b>Developing and piloting a virtual care measurement tool:</b> The Working Group has consulted with UK colleagues regarding the potential to adapt a virtual care measurement tool being used within the English NHS for piloting in select TAHSN hospitals.</li> </ul>

## Equity in Climate Action Initiative

### Background

The “Equity in Climate Action” Working Group is a new initiative of the Community of Practice. It reflects the CoP’s acknowledgement that, within the context of climate change, “a sustainable health care system provides high quality, accessible, and *equitable care* while taking into account and mitigating the impact of that care on the climate and our future.” To that end, the TAHSN and CHS Community of Practice have agreed to prioritize the development of an equity framework to ground and shape the group’s overarching work. As an extension of the equity framework creation process, the group will advance a new equity and climate resilience focus, thus adding to the CoP’s current work on climate mitigation.

An equity and climate resilience focus for the CoP aligns with City of Toronto climate resilience policy that has prioritized equity. In 2019, the City of Toronto officially launched its Climate Resilience Strategy after three years of extensive engagement with over 3000 residents, community leaders, not-for-profit organizations, experts, policy makers, and private industry leaders (City of Toronto 2019). The Resilience strategy was clear in highlighting the importance of applying an equity approach to climate change interventions, which responds to the disproportionate ways that equity seeking groups will be impacted by climate change and other unexpected societal shocks (Box 1).

Today, the pandemic’s disproportionate impact on Toronto neighbourhoods with higher populations of Black and racialized residents across Canada and the Greater Toronto Area (IRG 2020; City of Toronto 2020) is further proof that there is need for systems change that that will promote Black and racialized communities’ resilience to environmental and societal shocks. Ample evidence has shone light on the ways in which systemic racism shapes the structural determinants of health for Black and racialized people and contributes to and intensifies socio-economic marginalization (Metcalf 2019; CAS 2019; Statistics Canada 2016; CCPS 2018). More recent socio-spatial research and COVID-19 data have highlighted the ways the Greater Toronto Area (GTA) is being reshaped by

## Working Group

### LEAD

#### Imara Rolston

*Assistant Professor, DLSPH; Policy Development Officer (On Parental Leave) Confronting Anti-Black Racism (CABR) Unit, City of Toronto*

### MEMBERS

#### Dale Clement

*VP Clinical, St. Joseph’s Health Centre*

#### Anna Cooper Reed

*Emerging Leaders for Environmentally Sustainable Health Systems (ELES)*

#### Kaveh Shojania

*Vice Chair, Quality & Innovation; Professor, Department of Medicine; UofT*

#### Oliver Tsai

*Director of IT, Sunnybrook Hospital*

### SECRETARIAT

#### Fiona Miller

*Founding Director, CSHS; Professor, Institute of Health Policy, Management & Evaluation UofT*

growing levels of racialized income equality creating “two cities” marked by increased racial segregation and racialized precarity (Hulchanski 2018; WI 2020; Metcalf 2019). Neighbourhoods with higher numbers of Black and racialized residents face heightened environmental risk (City of Toronto 2020). Without intentional interventions on the part of health care leaders, and with the advance of climate change and its impacts, the GTA will become an urban region not just spatially divided by income but also spatially divided by health outcomes and overall wellness. The TAHSN and CHS group have an opportunity to intervene in this impending reality in increasingly substantive ways.

#### BOX 1: Climate change, health and health equity

**“The root causes and upstream drivers of climate change and health inequities are often the same:** Our energy, transportation, land use, housing, planning, food and agriculture, and socioeconomic systems are at once key contributors to climate pollution and key shapers of community living conditions. ...

**The health risks and impacts of climate change are not equally or fairly distributed across people, communities or nations:** The impacts of climate change on health are significantly moderated by individual and community vulnerability and resilience. Two critical components of climate vulnerability are pre-existing health status and living conditions. ...

**Climate change exacerbates existing health and social inequities:** Climate change worsens environmental conditions (e.g., ozone pollution) associated with chronic illness and injury and causes social and economic dislocations that most impact disadvantaged communities.

**Interventions that act on upstream shared systemic causes can most effectively address both climate change and health inequities:** Interventions to address climate change and health inequities range from upstream structural, policies, and systems changes to downstream treatment, rehabilitation, and disaster recovery efforts. ...”

*Rudolph L, Harrison C, Buckley L, North S. Climate change, health, and equity: a guide for local health departments. Oakland, CA and Washington D.C.: Public Health Institute and American Public Health Association. 2018.*



## Equity Working Group - Terms of Reference

<b>Purpose</b>	To ensure that the CoP's overall strategy expresses a strong commitment to advancing equitable outcomes both in the areas of climate <b>mitigation</b> and <b>resilience</b> .
<b>Plans</b>	<ul style="list-style-type: none"> <li>▶ Develop an equity framework to guide all CoP work</li> <li>▶ Use the framework to embed equity within the mitigation-focused efforts of CoP working groups</li> <li>▶ Develop a new strategic focus on climate resilience through pilot work to conceptualize and characterize an equity-oriented climate resilient health system</li> </ul>
<b>Scope</b>	▶ The Working Group has a primary focus on TAHSN hospitals and clinics and partner organizations in the community, such as those connected to TAHSN through Ontario Health Teams.
<b>Membership</b>	▶ The Working Group is led by Imara Rolston with the participation of Dale Clement, Oliver Tsai, Kaveh Shojania and Anna Cooper Reed, with support from Fiona Miller from the Centre for Sustainable Health Systems. A trainee is currently being recruited to support the Working Group's efforts.
<b>Meetings</b>	▶ The Working Group expects to meet every two months, with additional meetings as appropriate.
<b>Timeframe</b>	▶ The Working Group expects to operate for the full two-year term of the CoP.
<b>Progress</b>	<p>▶ <b>Development of strategic approach:</b> The Working Group has recommended three main strategic approaches to ensure that the CoP's mandate is fully shaped by a commitment to equity:</p> <ul style="list-style-type: none"> <li>○ <b>Framework development:</b> The Working Group plans to develop an overall equity values and principles framework. Once a framework of this sort is developed, it can be applied as a lens to various projects and initiatives the COP has developed and is yet to develop.</li> <li>○ <b>Mainstreaming/ Grounding:</b> The COP has already identified a number of strategic focus areas to mitigate the climate harms of healthcare which can benefit from an equity framework and lens. The values and principles framework, in this sense, can be applied to all aspects of the COP's work to ensure that equity is a priority consideration and commitment.</li> <li>○ <b>Equity and Climate Resilience Pilots:</b> In addition to developing and mainstreaming an equity framework, the COP can conduct pilot work that specifically focuses at the intersection of equity and <i>climate resilience</i>. An equity-driven approach to climate resilient health care remains undeveloped, though key elements could include: <ul style="list-style-type: none"> <li>• <b>Data for equity-informed patient care &amp; population health:</b> Care providers and organizations have to quickly develop a practical understanding of how climate change is impacting disease patterns and population vulnerabilities to improve overall health and health care, including through improved coordination with public health. Creating race-based climate change informed data systems can generate insights that form the foundation for systemic change, improvement, and innovation.</li> <li>• <b>Climate-ready healthcare workforce:</b> Supporting existing care staff and administrators to "bring climate change to the bedside," ultimately connecting emerging climate change and equity knowledge to the practice and provision of care.</li> <li>• <b>Health institution advocacy:</b> Care delivery organizations can ally with community partners and actors to advocate for systemic changes that ensure historically marginalized and underserved communities are prioritized in climate resilience and change efforts. Health institutions can also participate in and create new city- or region-wide partnerships to advance key pillars of an equity-driven climate resilience agenda.</li> </ul> </li> </ul>

## Community Engagement

### Working Group Activities

Several of the working groups described above have begun to identify and engage a community of interested expert stakeholders in developing content, such as the inhaler educational interventions and the best practice guidelines for greening the OR. Engagement will widen to a broader community of interested stakeholders as materials are disseminated.

### Educational events

Several individuals from across the TAHSN hospitals have attended the Centre for Sustainable Health Systems' Masterclass in Sustainable Healthcare – a professional education program for frontline staff and administrators and leaders within care delivery, professional, and support organizations with an interest in high-quality, low carbon care. Moving forward, the Masterclass will be folded into the Centre's new [CASCADES](#) initiative, which will offer numerous foundational and advanced courses in sustainable healthcare to health professionals locally and nationally.

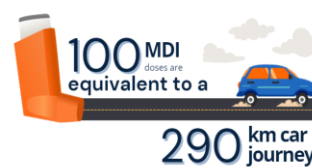
Additionally, the CoP has begun to co-host webinars aimed at engaging interested stakeholders in discussions around sustainability in specific areas of practice.

- ▶ In May, CoP senior leader Dale Clement participated in a Nursing Week webinar hosted by the SickKids' RN Council and co-sponsored by RNC & CSHS titled "[How can nurses answer the call for environmentally sustainable healthcare?](#)"
- ▶ In mid-June, the first educational webinar on [sustainable inhaler prescribing practices](#) was delivered by the sustainable inhaler working group in partnership with several primary care clinicians (family physicians, nurse practitioner, pharmacy). Repeat sessions will be offered in subsequent months.

### Climate Impact of Inhalers: An Educational Webinar

Thursday, June 17th, 2021

12-1 pm EST ([register here](#)) or 7-8 pm EST ([register here](#))



- Learn about the **climate impact of inhalers**
- Identify **opportunities to mitigate** that impact
- Gain access to **tools and resources** to support your efforts

### Proposed survey

In an effort to engage the wider health sciences community in the CoP's work, the Centre for Sustainable Health Systems (the CoP's secretariat) has designed a survey on health system sustainability for circulation within the TAHSN hospitals.

While the CoP is a collaborative endeavor, each TAHSN hospital is at a different point on its sustainability journey. This survey will serve as a tool to generate both TAHSN-wide and organization-specific information that can be used to identify opportunities and evaluate impact.

The survey will take an estimated 5-10 minutes to complete, and will be hosted on the University of Toronto's secure REDCap data collection platform. All responses will be anonymous. If participants elect to submit their email address for future correspondence about the CoP, it will be stored separately from their survey responses.

The survey consists of three core questions designed to establish respondent perception of:

- ▶ The importance of sustainable healthcare
- ▶ Organizational support for sustainability efforts
- ▶ Approaches to encourage sustainability

A final fourth question asks respondents to identify their role at the hospital, as this may be correlated to the above.

The survey has gone through one round of piloting with individuals who hold various health system roles, and refined according to their feedback. Additional feedback is very welcome, and a second pilot is planned.

## Researching the CoP

Funded by the Social Sciences and Humanities Research Council, and with approval from the University of Toronto's Research Ethics Board (REB), Miller and colleagues aim to study the CoP as a transformational change effort, conceptualizing CoP efforts as components of a “**sustainability transition experiment (STE)**” through which new social and technological configurations may emerge.

In addition to enabling the evaluation of the CoP as a system change strategy, REB approval has been (or will be) sought to support focused evaluations of the efforts of each Working Group, to support the publication of Working Group results.

***Sustainability transition experiments (STE)** are “deliberate interventions that test novel configurations of social and technical elements that could lead to substantial low-carbon change” in specific settings, such as cities, or sectors, such as transportation (Rosenbloom, 2018). STE are “**inclusive, practice-based and challenge-led**” (Sengers et al, 2019).*