

APRIL 2021

Health in a Changing Climate

Symposium Report

Scientific Committee

Kimberly Wintemute
Alan Abelson
Eileen Nicolle
Tomislav Svoboda
Michael Benusic
Antonia Sapping
Colin Sue-Chue Lam
Nicholas Wang
Shima Shakory
Deborah Kopanski-Giles
Samantha Green
Edward Xie | Committee Chair



Family & Community Medicine
UNIVERSITY OF TORONTO

REFLECTION ON OUR GOALS

Land Acknowledgement

This virtual event was hosted at the University of Toronto Department of Family and Community Medicine (DFCM) on land that has been the traditional territory of many nations, including the Huron-Wendat, Anishinaabe, and the Mississaugas of the Credit.

This meeting place is still the home to many Indigenous people from across Turtle Island. We remain grateful to have the opportunity to work on this land.

Our program focused on climate change but we were also attentive to immense problems of air pollution, soil degradation, environmental displacement and access to clean water.

While we discussed action for a healthier future, we also acknowledged that, on the day of the symposium, 39 Indigenous communities in Canada still did not have safe drinking water. While many people call this place home, about 1 in 6 people experiencing homelessness in Toronto identify as Indigenous.

Over the course of the symposium, we reflected on these questions adapted from Dr. Dylan Robinson of Queen's University:

1. Do we know the colonial history of the discipline we work in?
2. Do the ways in which our discipline perpetuates heteronormative / settler colonial / anti-BIPOC values impact our lives or the lives of our patients?
3. What ground are we occupying, and inviting others to occupy?

DFCM TEAM

This event would not have been possible without the dedicated efforts of DFCM staff and faculty:

David Tannenbaum

DFCM Interim Chair

Katherine Rouleau

Vice-Chair, Global Health and Social Accountability

Viola Antao

Director, Faculty Development

Jessie Chen

Program Assistant, Global Health and Social Accountability

Megan Parry

Program Coordinator, Global Health and Social Accountability

Brian Da Silva

eLearning Design Analyst

Amy Noise

Communications Strategist

Alicia Fung

Communications Assistant

SYMPOSIUM SPEAKERS



KEYNOTE: Planetary Health and a Healthy Recovery from COVID-19

Dr. Courtney Howard

Past-President, Canadian Association of Physicians for the Environment

Framework for planetary health



Action alleviates anxiety



Our job is to recommend co-benefits




*watch the
videos*

PANEL 1: Making the Links

Dr. Deborah McGregor

Canada Research Chair, Indigenous Environmental Justice

Indigenous peoples were complete societies



Addressing justice in solutions



Connecting the dots, naming the problem



"Indigenous peoples were complete societies with their own knowledge systems and laws for thousands of years"

SYMPOSIUM SPEAKERS

PANEL 1: Making the Links



Maya Menezes

Program Director at climate justice organization, The Leap

Environmental justice



Care work as a climate solution



Role of doctors in making change



Dr. Alice McGushin

Programme Manager, The Lancet Countdown

Health effects of climate change



Opportunity to set goals for climate action



Building back from COVID-19



Dr. Claudel P-Desrosiers

Chair, Québec Association of Physicians for the Environment

Advocating as trainees



Highlights of the Lancet Countdown



2020 Lancet Countdown Policy Brief



SYMPOSIUM SPEAKERS

PANEL 2: Knowledge to Action



Dr. Terry Kemple

RCGP National Representative for Sustainability, Climate Change and Green Issues

UK progress on sustainable healthcare



RCGP Green Impact toolkit



What can general practitioners do?



Dr. Aimée Bouka

Vice-Chair, Section of Residents, College of Family Physicians of Canada

Guide to improving family medicine training



Inequalities and healthcare



Equitable world as motivation



Dr. Fiona A. Miller

Founding Director, Centre for Sustainable Health Systems, UofT

Sustainable health systems



Where healthcare can make an impact



Integrating care with communities



BREAKOUT GROUPS

"It was inspiring to meet other physicians and people who are involved in this."

Peter Sakuls, conference facilitator

At the end of our symposium, we asked our participants to discuss 9 major topics for improving the health of our communities in a changing climate. We had 17 facilitators guide the discussions with expertise in family medicine, education, ecological health, patient and family engagement, global health, quality improvement, social accountability, emergency medicine and advocacy.

Thank you to all of our facilitators from a variety of professions and disciplines:

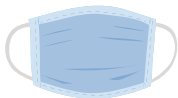
- KitShan Lee | Facilitator Lead
- Yasmeen Razvi
- Peter Sakuls
- Anna Cooper Reed
- Victoria Haldane
- Mia Kibel
- Matthew Teper
- Shinthujah Arulanantham
- Kara Hounsell
- Eleanor Colledge
- Brent Elsey
- Kabisha Velauthapillai
- Sarah Levitt
- Leah Bennett
- Daniel Rosenbaum
- MaryEllen Ruddell
- Shelby Olesovsky

KEY THEMES & CHANGE IDEAS

"For all of these initiatives, it's so important to have an interprofessional perspective."

Kara Hounsell, conference facilitator

15 breakout groups discussed 9 key topics of interest and ideas for change



Clinical

Key Themes: Education on green practices - optimize care in the community to avoid unnecessary healthcare use

Change Ideas: Sustainability in measures of health system outcomes - collaboration among patients and providers - virtual care when appropriate



Advocacy

Key Themes: Reducing carbon footprint, e.g. switching to greener inhalers, cutting food waste - virtual care when appropriate - addressing mental health

Change Ideas: Share and spread knowledge (micro) - divest from fossil fuels (meso) - use examples from other places to support policy changes here (macro)



Diet

Key Themes: Improving food culture - overconsumption - influence of industry on dietary patterns and guidelines

Change Ideas: Education during periodic health exam - promotion of plant-based diets - recognize different diet choices

KEY THEMES & CHANGE IDEAS



Education

Key Themes: Rapid adoption of emerging evidence - balance of theory and practice-based solutions - breaking barriers between disciplines

Change Ideas: Learning embedded and integrated across phases of education and careers - recognition of urgency - codesign between teachers and learners



Mental Health

Key Themes: Tools and strategies needed to engage people in discussions that address ecological anxiety about environmental damage and climate change

Change Ideas: Channel anxiety into advocacy and action



QI & Research

Key Themes: Virtual care expansion - legislative mandate for change - green QI

Change Ideas: Menu or database of options for conducting QI initiatives



Social Accountability

Key Themes: Links between climate justice and health inequities - identify individuals who will be at higher risk from climate change

Change Ideas: Incorporating underrepresented perspectives - inclusive of people with lived experience - emphasis on co-benefits



Green Office

Key Themes: Improving food culture - overconsumption - influence of industry on dietary patterns and guidelines

Change Ideas: Education for patients and providers - promotion of plant-based diets - recognize different diet choices



Transport

Key Themes: Different modes of travel based on geography and needs

Change Ideas: Advocacy for cycling and active transport

GREEN IDEAS

Sustainable Primary Care Innovations

watch the videos



INHALER SUSTAINABLE QI Kimberly Wintemute

- Pull strategies: contests, promos, online marketing, telemarketing, word of mouth, referral programs, commercials, billboards, radio advertisements



GREEN OFFICE INITIATIVE Meghan Davis and the Hamilton FHT

- Green Office Initiative to decrease their water, energy, emissions, toxin use and waste
- 165+ family physicians and 300 healthcare professionals working in teams in over 90 locations



MINI-COURSE ON SUSTAINABILITY Emma McDermott and Gillian Ritcey, Dalhousie

- Delivered the university's first interprofessional mini-course focused on the creation of sustainable health systems in a climate crisis



GREEN TEAM Eileen Nicolle and Sumac Creek Health Centre

- Reorganized clinic plus staff education to vastly reduce biohazard waste
- Remove unnecessary exam table paper to reduce waste and improve cleaning



PROJECT GREEN HEALTHCARE CFMS Health & Environment Team

- Student teams partnered with local mentors from interdisciplinary backgrounds
- First-of-its-kind national community of practice empowering Canadian medical students to lead green change within our healthcare systems

NEXT STEPS for 2021

PARTICIPANT FEEDBACK HIGHLIGHTS

86%

I will use the information I learned in my practice

96%

I would like to learn more about environmental determinants of health

Top 3 practice changes

1. Sustainable QI initiatives
2. Engaging patients in discussion
3. Rx inhalers with lower carbon footprints

We were delighted to have so many DFCM staff, faculty, and learners join us for the symposium. Our team also learned a great deal about interests for future topics and new initiatives sprouting up from DFCM sites.

We will be working hard with the DFCM Climate Change & Health Community of Practice to make more educational and professional development resources available, including Quality Improvement ideas and Green Office toolkits.



EARTH DAY 2021



What is one thing I can do today to fight climate change?

Did you know that there's a huge difference in the climate impact of inhalers?

The hydrofluorocarbon (HFC) propellant in metered-dose inhalers (MDI) is a potent greenhouse gas: 100 doses from an MDI is equivalent to a 290 km journey by car.

Fortunately, we have more sustainable alternatives: the carbon footprint of dry powder inhalers (DPI) is 30 times smaller than MDIs.

Consider making the switch at your patient's next Rx renewal.

You can cut greenhouse gases from inhalers by **97%** simply by switching from metered-dose to dry powder inhalers.



CENTRE FOR SUSTAINABLE HEALTH SYSTEMS
Enabling sustainable health

Environmentally Sustainable Opportunities for Health Systems

Metered dose inhalers (MDIs)

MDIs are common medical devices used to deliver inhaled medication. They are typically used in the treatment of asthma and chronic obstructive pulmonary disorder.¹

MDIs use HFC propellants to deliver medication.³

HFCs are artificial fluorinated gases that act as potent greenhouse gases (GHGs) when released into the atmosphere. These gases are widely used in industry, including the healthcare sector.

Hydrofluorocarbons (HFCs)
Common HFC propellants used in MDIs include:
HFC 134a: 370 GWP**
HFC 227ea**
3550 GWP**

Global Warming Potential (GWP)

Global Warming Potential (GWP) is a standardization tool used to compare the global warming impact of different types of GHGs over a fixed time period (usually 100 years). It measures the amount of energy a gas will absorb compared to the equivalent mass of carbon dioxide (CO₂), which has a GWP of 1.

HFCs are "high-GWP gases" as they have substantially more heat than CO₂ per unit mass.

100 MDI EQUIVALENT TO 290 km car journey*

Health care systems can curb MDI-related HFC emissions by implementing the following strategies

1 ENCOURAGING MDI ALTERNATIVES

The carbon footprint of MDIs is much higher than that of other inhaler devices such as dry powder inhalers (DPIs), nebulizers, and aqueous mist inhalers. Opting for these alternative treatment options, when appropriate, can help reduce the carbon footprint of inhalers (though all of these options have environmental impacts).

CARBON FOOTPRINTS

Inhaler Type	Carbon Footprint (kg CO ₂ e per dose)
Seride Evohaler MDI	2.54 kg CO ₂ e per dose
Ventolin Accuhaler DPI	7.3 kg CO ₂ e per dose
Rapinert Soft Mist (nebulizer)	0.08 kg CO ₂ e per dose
Electric Nebulizer	0.00 kg CO ₂ e per dose

WHEN MDIs ARE NECESSARY...

Choose **smaller volume** relievers

Small volume relievers emit less propellant at each use, and therefore, have lower carbon footprints than large volume relievers.²

Check out the infographic

Get the poster

Inhalers shaped like this ...

...contain a potent greenhouse gas that contributes to climate change.

Ask about whether switching to a different type of inhaler is right for you.

CENTRE FOR SUSTAINABLE HEALTH SYSTEMS
Institute of Health Policy, Management & Evaluation
UNIVERSITY OF TORONTO

Dalla Lana
School of Public Health