

APRIL 2021

# Health in a Changing Climate

## Symposium Report

### Scientific Committee

Kimberly Wintemute  
Alan Abelsohn  
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.



### 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.<sup>1</sup>

MDIs use HFC propellants to deliver medication.<sup>2</sup>

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:



Global Warming Potential (GWP) is a metric used to compare the global warming effects 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 (CO<sub>2</sub>), which has a standardized GWP of 1.

HFCs are "high-GWP gases" as they're substantially more heat than CO<sub>2</sub> per unit mass.

#### 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).<sup>3</sup>

#### CARBON FOOTPRINTS



#### 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.<sup>3</sup>

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.