

Dalhousie press release features groundbreaking environmental work including Dr. Sean Christie

Media release: National project involving Dalhousie University's Healthy Populations Institute aims to reduce greenhouse gas emissions linked to health care, create low-carbon 'green' health system

Tuesday, June 8, 2021 (Halifax, NS) Researchers at Dalhousie University are collaborating with colleagues across the country to find ways to reduce greenhouse gas emissions and environmental degradation linked to the health-care system while raising awareness about sustainability through a nationally co-ordinated network that received \$6 million in federal funding.

Neurosurgeon and professor, Dr. Sean Christie, and Gillian Ritcey of Dalhousie's [Healthy Populations Institute](#) (HPI) are partnering with Dr. Fiona Miller of the [Institute of Health Policy, Management and Evaluation](#) in Toronto on the project, titled CASCADES (Creating a Sustainable Canadian Health System in a Climate Crisis). Colleagues at the [Planetary Health Care Lab](#) at the University of British Columbia and the [Canadian Coalition for Green Health Care](#) are also participating in this national approach to curb climate change.

The partner organizations are joining together through CASCADES to address health system sustainability, which is defined as improving, maintaining or restoring health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve it, to the benefit of the health of current and future generations. CASCADES will provide co-ordinated and consistent movement forward toward net-zero emissions in health-care systems across Canada.

Dr. Christie, vice chair and director of Research in Dalhousie's Division of Neurosurgery and a neurosurgeon at the QEII Health Sciences Centre in Halifax, says the health-care community should play a major role in Canada's pledge to achieve net-zero emissions by 2050 because of the sector's greenhouse gas footprint and its social reach. Greenhouse gas emissions from health care account for five per cent of Canada's total carbon footprint, making it one of the worst polluters in the world, according to a 2019 article in the Canadian Medical Association Journal.

"Climate action across Canada's health-care community, however, remains limited in scope and piecemeal owing to partial implementation of solutions, inconsistent measurement across settings and regions, and insufficient communication," says Dr. Christie, one of the founding partners in the CASCADES network.

Dr. Christie has seen the pollution up close in his own profession. His concern led him to join forces with Ritcey and work with Dr. Daniel Rainham as co-lead of HPI's flagship project, "Creating Sustainable Health Systems in a Climate Crisis," which is aimed at co-ordinating a province-wide effort to green Nova Scotia's health-care system.

"We've seen an urgent and collective response to COVID-19. We've proven to ourselves, and to each other, that the world can come together and make quick and impactful changes to protect humanity," says Ritcey, HPI's managing director.

"How our facilities contribute to climate change and other environmental challenges is key in looking at how we can make improvements over time that result in our transformation to a more sustainable health system that contributes to the well-being of communities in this province," said Steve Button, senior director, Facility Management and Support, Nova Scotia Health. "This collaboration with Dalhousie University presents an opportunity to initiate lasting change within our health system that will support the transition to high quality, low-carbon care delivery models."

The CASCADES project, supported by \$6 million in funding from Environment and Climate Change Canada, has two overarching goals. The first is to increase awareness and motivation, and develop the skills, tools and networks to enable action. This will be achieved through professional development training to provide clinicians and administrators with the skills to support sustainable change.

The second is to generate and support sustainable health-care innovations that could then be spread across Canada using 'playbooks' to implement them so they become best practice in sustainable health care. Examples of service delivery innovations include using alternative anesthetic gases and substituting standard asthma inhalers with dry powder inhalers or smaller volume inhalers.

To learn more about the project, visit: <https://www.healthypopulationsinstitute.ca/cascades> and follow [@CascadesEn](#) and/or [@CascadesFr](#) on Twitter for updates.