Institute of Health Policy, Management & Evaluation
UNIVERSITY OF TORONTO

The Institute of Health Policy, Management and Evaluation (IHPME) Committee on the Environment, Climate Change & Sustainability

A Strategic Plan for July 2017 – June 2018

Report #1
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Submitted by: The IHPME Committee on the Environment, Climate Change & Sustainability

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The IHPME Committee on the Environment, Climate Change and Sustainability

Preamble:

The gravity of climate change has called attention to the range of environmental challenges facing the human community, and highlighted the potential for alternative futures that are environmentally and socially sustainable. The Institute of Health Policy, Management and Evaluation (hereinafter, the Institute) has a role in addressing these challenges and realizing these opportunities, due to the profound implications of climate change for population health and health systems, and the outsized environmental impact of the health care sector.

The health implications of climate change are serious and growing, as has been highlighted recently through a series of Commissions, convened by *The Lancet*. Through the first of these, in 2009, climate change was identified as "the biggest global health threat of the 21st Century,"[1] which will "deepen inequities and … shape the future of health among all peoples."[2] A second report, in 2015, noted that, "tackling climate change could be the greatest global opportunity of the 21st century,"[3] and further noted that health was an increasingly important issue and influence in the essential process of political negotiation and policy change.[4]

The health care community has a particular role and responsibility in addressing the challenge of climate change. This responsibility arises, first, from the environmental impact of delivering health care services, which consume quantities of energy, water and other material resources, and produce large amounts of waste,[5] a fact highlighted in a Joint Statement by many of the professional associations with which the IHPME community is affiliated (e.g., the Canadian Medical Association, the Canadian College of Health Leaders), which called for "reducing the health sector's environmental footprint."[6] The responsibility of the health care sector arises also from the need for adaptation and resilience, to ensure that health care practices adapt to changing patterns of illness and to permit healthcare facilities and essential services to continue to be provided, even in the face of urgent and emergent climate-related disturbances.[7] Finally, the responsibility of the health care sector arises from the potential for leadership by health care providers, health system leaders, and the associated research community, in acknowledging the significance of the issue, and identifying strategies to support sustainable change.[8]

Activities to date:

Beginning with an initial discussion at an Institute faculty meeting in September 2016, members of the Institute community have worked to identify ways to tangibly address these issues. As a first step, a Committee was struck to develop a draft Terms of Reference for a Standing Committee.[9] These were accepted at the Institute

retreat in January 2017 (see Appendix 1), leading to the creation of the current Standing Committee.

According to the Terms of Reference, a first step for the Standing Committee was to recommend specific actions that the Institute could take, along with an implementation strategy, with a clearly outlined timeframe for specific deliverables. Accordingly, members have developed this strategy document through meetings of working groups and the Committee as a whole. Concurrently, steps have been taken to raise the profile of sustainability issues within the Institute, notably through the 2017 Education Day, convened in collaboration with the Alumni Association, which featured the topic of "Mobilizing Health Systems to Meet the Challenge of Climate Change".[10]

The Institute is fortunate to be embarking on this initiative at a time when the University of Toronto has identified the environment, climate change and sustainability as issues of strategic importance. Motivated initially by a student-led petition seeking divestment of university finances from fossil fuels, President Gertler published an ambitious plan to address the challenge of climate change in March 2016.[11] As of January 1, 2017, the University has a Presidential Advisor on the Environment, Climate Change and Sustainability. As well, a University-wide Committee has been convened, with a mandate to support the implementation of specific commitments made in the Administrative Response to the President's Advisory Committee on Divestment from Fossil Fuels, and to catalyze and support divisional effort.[12]

University-wide efforts enable access to resources that can be of great value to the Institute and its health system partners, including information about curricular innovations, research developments, and operational improvements. As well, the University Committee has offered a definition of sustainability that is aligned with the social purpose of the University in general, and the Institute in particular, and which the Institute Committee has adopted to inform its work:

> *Sustainability has both environmental and human dimensions. We adopt a regenerative approach that goes beyond harm reduction and damage limitation. The goal is human activity that simultaneously improves both human and environmental wellbeing. The two crucial aspects of this approach are that (i) we look for net positive outcomes, and (ii) outcomes are net positive in both human and environmental terms.*

Finally, it is important to note that the work of the Institute Committee is made possible because others – at the University, within health systems, and beyond – are already leaders in this area. Our aim is to recognize and build on the work that is already being done, and to embed such efforts as a core mission of the Institute. To that end, we outline here a first strategic plan.

A First Strategic Plan

Our **overarching goal** is that the Institute be part of the solution to the challenge of climate change and work actively to support environmentally and socially sustainable health systems, the health of populations, and health equity.

We will achieve **impact** through community-engaged and collaborative efforts in (i) education, (ii) research, and (iii) operational activities, and through (iv) cross-cutting work across all three of these core activities.

(i) Education

Our goal is to provide opportunities for all Institute students in all Institute educational programs to develop and mobilize knowledge related to the environment, climate change and sustainability, specifically as these issues affect health systems and the health of populations.[13]

Specifically, **we aim** to ensure that:

- All students in all our educational programs achieve core competencies related to the environment, climate change and sustainability, including the nature of the challenge, the role of health systems, and discipline- or program-specific opportunities for change.

- All students have opportunities to add additional environment, climate change and sustainability expertise to their program of study, including through community-engaged learning, research or professional practice.

- All faculty are supported in their educational efforts to advance knowledge and practice-change related to the environment, climate change and sustainability, as these issues affect health systems and the health of populations.

We will deliver these aims, in a staged process over time.

In Year 1, we will **achieve** the following:

- We will identify a set of core competencies related to the environment, climate change and sustainability for all graduates of the Institute's educational programs.
- A majority (>50%) of all Institute courses will be certified as "green courses," through the self-certification program hosted by the University of Toronto Sustainability Office: http://www.fs.utoronto.ca/SustainabilityOffice/Programs/GreenCourses/

In Year 1, we will **develop** the following, for delivery in subsequent years:

- An implementation plan and timeline for embedding core competencies into all Institute educational programs.

- An overview of educational "pathway" opportunities, to allow students to add additional sustainability expertise to their program of study, including through community-engaged learning, research or professional practice.
    - To include on-campus educational opportunities within the Institute, through the Faculties on our Executive Committee (the Dalla Lana School for Public Health, the Faculty of Medicine, the Lawrence S. Bloomberg Faculty of Nursing, and the Faculty of Information) and through other programs and Faculties on campus, such as the John H Daniels Faculty of Architecture, Landscape and Design;
    - To include off-campus opportunities for experiential learning, research or placements, which can support health system partners.

- A strategic collaboration with Public Health Sciences in the Dalla Lana School of Public Health,[14] and other faculty across the university, with an interest in environment, climate change and sustainability curricula in population health and health systems, which provides opportunities to:
    - Identify and address pedagogical issues in a "core competencies" approach to student education;
    - Identify relevant graduate curricula for educational "pathways" for interested students;
    - Support faculty in their efforts to integrate these issues into curriculum and teaching strategies;
    - Develop cross-faculty opportunities for student engagement.

(ii) Research

Our goal is to advance research-based knowledge and impact on the environment, climate change and sustainability in relation to health and health systems.

Specifically, we **aim** to support:

- Health system stakeholders to identify and address environment, climate change and sustainability challenges through the development, synthesis and mobilization of research-based knowledge.

- Institute-affiliated researchers to pursue opportunities to include environment, climate change and sustainability issues as relevant components or considerations in all the research they do, wherever these issues might feasibly be interrogated.

- Institute-affiliated researchers to develop focused projects or programs of work that address issues of the environment, climate change and sustainability, as these issues affect health and health systems.

We will deliver these aims, in a staged process over time.

In Year 1, we will **achieve** the following:

- Generate and disseminate knowledge about research needs and opportunities related to the environment, climate change and sustainability that Institute-affiliated faculty and students are pursuing or aim to pursue.
    - This will involve a survey of students, alumni and faculty (adjunct, core, status) to gather knowledge on involvement in, interest in, and needs in relation to, the environment, climate change and sustainability in health and health systems;
    - Dissemination of regular profiles about Institute-affiliated research, or health system partner interests, related to these issues through existing communication channels e.g. Connect, IHPME website.

In Year 1, we will **develop** the following, for delivery in subsequent years:

- Plan for targeted outreach with research groups associated with and related to Institute activities.
- Plan for Institute Research Day devoted to these issues.

(iii) Operations

Our goal is to mitigate the environmental impact of all Institute activities, and foster socially and environmentally sustainable practices.

Specifically, we **aim** to ensure:

- That the environmental impact of Institute operations is understood, measured and reported on.

- That environmental and social sustainability considerations are taken into account in decisions about Institute operations, including the use of physical space, the purchase of goods and services, and the engagement of personnel.

- That staff, students and faculty are engaged in and empowered by efforts to enhance sustainable operations.

We will deliver these aims, in a staged process over time.

In Year 1, we will **achieve** the following:

- Measurable improvements in the sustainability of office operations in IHPME at 155 College, as assessed by the "Green Office Self-Assessment Tool" supported by the University sustainability office: http://www.fs.utoronto.ca/SustainabilityOffice/Programs/GreenOffice/SelfAssessmentTool/
    - As of June 2017 our operations have been assessed as "sprout". Within a year our goal is to be assessed as "tree" after implementing recommendations from the self-assessment tool (see Appendix 2)
- Engage the Office of Environmental Health & Safety to conduct an ergonomics assessment at IHPME at 155 College.
- Organize well-being activities during lunch and breaks at IHPME 155 College.
- Encourage staff at IHPME at 155 College to participate in the Green Ambassador program supported by the University sustainability office.
- Communicate regularly on sustainable operations.

In Year 1, we will **develop** the following, for delivery in subsequent years:

- Plans for next steps in sustainable office operations at IHPME at 155 College.
- Consultation with Facilities & Services about building retrofits at 155 College.
- Plans for extending the impact of sustainable operations through collaborative engagement and outreach, for example, through collaboration with other occupants at 155 College, or with operations across the diverse sites where members of the Institute community work.
- Considerations for an Institute-wide carbon offset policy.

(iv) Cross-Cutting Initiatives

Our goal is to support broader and deeper impact through efforts that synergize our educational, research and operations activities, that mobilize our students and alumni, and that facilitate awareness through regular communication and transparent reporting on progress.

Specifically, we **aim** to ensure:

- That we communicate regularly and widely, to increase awareness, foster engagement and build capacity.

- That we report publicly on progress, using appropriate measures and assessment schemes where possible, to track and compare efforts and accomplishment.

- That we mobilize the expertise and energy of students and alumni in addressing these challenges.

- That we seek cross-cutting opportunities that leverage our educational, research and operational activities, and extend impact through collaborative activity.

We will deliver these aims, in a staged process over time.

In Year 1, we will **achieve** the following:
- A student-led student engagement strategy (Appendix 3).
- Regular reporting and communication, through the Institute website and "IHPME Connect," to make our activities and accomplishments visible, and raise awareness of these issues.
- An application to the Connaught Global Challenge Award, in collaboration with colleagues in Public Health Sciences at the Dalla Lana School of Public Health, and others across the university.[15]

In Year 1, we will **develop** the following, for delivery in subsequent years:
- Identify ways to participate in collaborative measurement and reporting schemes, such as the "Lancet Countdown".[16]
- Plan for a "Listening tour" with health system partners – to identify opportunities for collaboration related to the environment, climate change and sustainability, including through educational initiatives (e.g., community-engaged learning opportunities such as placements or practica), research-based knowledge or operations.
- Identify opportunities for alumni engagement.
- Identify additional opportunities for collaborative, cross-cutting activity.

Moving Forward – From Plan to Action

From the inception of coordinated Institute effort on these issues, we have aimed to be action and engagement oriented. To that end, we have identified a set of goals, and specific aims, as well as key deliverables for the first year of our collective efforts (Table 1). The Committee will regularly review these goals, aims and deliverables, and provide updates through regular communication channels, and through publicly available annual reports, to be submitted by July 1 each year.

Resource requirements:

In support of these efforts, we seek in-kind contributions from the Institute, specifically as these relate to Communications, Web design and maintenance, and administrative support.

Table 1. Action plan

What to accomplish	Lead
Education • Core competencies identified	Christine Shea
• Certification of > 50% "green courses"	
• Implementation plan and timeline for core competencies	
• Initial overview of educational "pathway" opportunities	
• Develop educational collaboration with Public Health Sciences in DLSPH, and others	
Research • Faculty/ student/ alumni survey	Fiona Miller
• Develop and communicate research profiles	
• Plan for targeted outreach with relevant research groups	
• Plan for Institute Research Day	
Operations • "Sprout" to "Tree" in sustainable office operations in IHPME at 155 College	Alex Titeu
• Ergonomics assessment in IHPME at 155 College	
• Well-being activities in IHPME at 155 College	
• Staff participation in Green Ambassador program in IHPME at 155 College	
• Communicate regularly on sustainable operations	
• Plans for next steps in sustainable office operations in IHPME at 155 College	
• Plans for collaborative operations work beyond IHPME at 155 College	
• Consultation with Facilities & Services about building retrofits	
• Considerations for Institute-wide carbon offset policy	
Cross-cutting initiatives • Student-led student engagement strategy	Saerom Youn & Vineeth Sekharan
• Identify opportunities for alumni engagement	Committee as a whole
• Regular reporting and communication	Fiona Miller, Christine Shea, Rebecca Biason
• Plan for "Listening tour" with health system partners	Fiona Miller
• Develop application to the Connaught Global Challenge Award	Whitney Berta, Fiona Miller, Christine Shea
• Identify opportunities for collaborative measurement and reporting	Fiona Miller
• Identify opportunities for additional collaborative, cross-cutting activity	Committee as a whole

Appendix 1. Terms of Reference

IHPME Committee on the Environment, Climate Change & Sustainability

Terms of Reference

Context

Growing recognition of the immediacy and severity of the challenge of climate change is motivating action across many sectors in pursuit of a more sustainable future.

Health sector organizations are among those rising to the challenge, highlighting the public health consequences of climate change as well as the responsibility and potential of the health sector in climate change mitigation, adaptation and leadership. For example, *The Lancet* has supported high profile initiatives to identify climate change as "the biggest global health threat of the 21st Century,"[17] and to clarify that, "tackling climate change could be the greatest global opportunity of the 21st century."[18] More recently, the *Lancet* Countdown has been launched to track progress on "health and climate change." This "international, multidisciplinary collaboration between academic institutions and practitioners across the world" provides a powerful framework for coordinated action by fostering the development and use of indicators and indicator domains relevant to the health implications of, and the health sector's role in tackling, climate change.[19]

Organizations of higher learning are also increasing their coordinated engagement. At the University of Toronto, President Gertler's March 2016 response to the "Report of the President's Advisory Committee on Divestment from Fossil-Fuels," makes a clear case for action:

> The reality of anthropogenic climate change, and the need to reduce greenhouse gas (GHG) emissions in response, is now well established and widely accepted. So too is the consensus that we must take action to limit the rise in global temperatures to 2 degrees C above the pre-industrial average, if we are to avoid catastrophic impacts on the planet and humanity.[20]

Accordingly, the President has set out an ambitious plan that aims to be both comprehensive and impactful, relating to the University's several roles as "Research Performer and Innovation Catalyst," "Educator," "Energy Consumer" and "Investor" - the role that provided the initial impetus for action. To ensure central leadership that can provide a framework for cooperation and collaboration across the university, a Presidential Advisor on the Environment, Climate Change and Sustainability has been appointed, effective January 1, 2017. The Advisor is to chair a university-wide Committee of the same name, to support the implementation of

specific commitments made in the Administrative Response to the President's Advisory Committee on Divestment from Fossil Fuels. Alongside this central leadership, divisional initiative is understood to be of *fundamental* importance to achieving outcomes.

Taken together, the significance of the challenge, the responsibility and capacity of the health sector, and the commitment of the University of Toronto, create a clear and compelling context for action by IHPME.

Mandate

The Committee's mandate is to advise the Director of IHPME on:

1. Alignment, coordination and collaboration with university-wide activities that address "the Environment, Climate Change and Sustainability," and which relate to the University's role as (i) Research Performer and Innovation Catalyst, (ii) Educator, and (iii) Energy Consumer, and

2. Contributions to addressing these issues that are pertinent to IHPME's mission and community of practice, and which relate to the health sector's role in climate change mitigation, adaptation and leadership.

To achieve this mandate the Committee will:

1. Deliver a Report to the Director that recommends specific actions IHPME can take to achieve these objectives, within a pre-specified time frame;

2. Develop a strategy for implementation of accepted recommendations, within a pre-specified time frame;

3. Coordinate the implementation of accepted recommendations;

4. Review and revise the Committee's recommendations to the Director on a regular basis, or as appropriate, and the associated implementation strategy and activity.

The Terms of Reference will be reviewed within a year of establishing of the Committee. After three years, the Director - in consultation with the IHPME community - will assess the Committee's work and recommend whether it should continue.

To gain traction and ensure success, the Committee will focus initially on activities related to IHPME's mission and vision, drawing on partners as appropriate. The Committee will also support other initiatives at the university and within IHPME's broad community of practice where possible.

Membership

The Chair and Committee members will be appointed by the Director, in consultation with members of the IHPME community.

The membership is to be comprised of:

1. Research and innovation experts who can identify ways to incorporate environment, climate change and sustainability issues into existing and future research and impact initiatives;
2. Leaders and users of IHPME's professional and research educational programs, as well as its outreach and engagement activities;
3. Individuals with expertise in, and responsibility for, IHPME's operational activities.

Membership should include individuals from each of the following constituencies – clinical and non-clinical faculty (full, cross, status, adjunct), students, staff, alumni and community representative(s).

Members will serve terms of three (3) years, with the possibility of extension.

Operation

The Committee will set an annual agenda, according to its mandate.

Subcommittees may be established to consider items on that agenda, where appropriate. Subcommittee membership may include members not formally on the Committee.

In light of its deliberations, when the Committee reaches a consensus on any matter on its agenda, it may make recommendations to the Director.

The full Committee will normally meet at least once per semester.

Administrative support will be provided to the Committee.

Annual Report

The Committee will submit an annual report to the Director of IHPME, describing its activities over the previous year and the progress of the Institute in addressing the commitments that are made as a result of the Committee's work.

Appendix 2. Operations

Encourage reuse of binders and supplies by placing old/unused items in copy room (+1/2)	Green Office - Procurement	Year 1
Shared use of printers, staplers (photocopy room) (+1/2)	Green Office - Procurement	Year 1
Purchase 100% post-consumer, recycled paper (+1)	Green Office - Procurement	Year 1
Only purchase energy efficient electronics (+1/2)	Green Office - Procurement	Year 1
Purchase sustainable office furniture (+1/2)	Green Office - Procurement	Year 1
Provide recycled notebooks and set-up one-side printed paper recycling box (+1)	Green Office - Procurement	Year 1
Promote recycling as part of office culture (+1)	Green Office - Waste reduction	Year 1
Buy office material in bulk to reduce packaging waste and delivery (+1)	Green Office - Waste reduction	Year 1
Promote food containers and waste reduction (+1/2)	Green Office - Waste reduction	Year 2
Promote proper use of green bin by posting instructions (+1/2)	Green Office - Waste reduction	Year 1
Promote and better define collection box for e-waste recycling (+1)	Green Office - Waste reduction	Year 1
Promote book recycling, raise awareness of clothing donation and swapping activities (+2)	Green Office - Waste reduction	Year 2
Office policy to hold paperless meetings (+2)	Green Office - Paper/Printing	Year 2
Set double-sided printing on all printers (+2)	Green Office - Paper/Printing	Year 1
Reminders to unplug electronics and light switches (+1/2)	Green Office - Energy Conservation	Year 1
Stand-by mode after 10 minutes and to hibernate after 15 minutes (+1)	Green Office - Energy Conservation	Year 1
Make an effort to turn off power-bars at the end of the day (+1)	Green Office - Energy Conservation	Year 1
Purchase LED lighting going forward (+1)	Green Office - Energy Conservation	Year 2
Work with building manager for energy retrofits (+3)	Green Office - Energy Conservation	Year 3
Ask staff/faculty/students during the wintertime, we tend to open blinds during the day and closed at night (+1)	Green Office - Energy Conservation	Year 3
Ask staff/faculty/students to close blinds during the summertime (+1)	Green Office - Energy Conservation	Year 3
Promote culture that reduces our collective energy use (+3)	Green Office - Energy Conservation	Year 2
Enable sleep mode on all office machines, including fax machines, copiers and printers after 5 minutes of non-use (+1/6)	Green Office - IT Use & Disposal	Year 1

Promote electronic recycling	Green Office - IT Use & Disposal	Year 1
Communicate and train staff on green initiatives (+1/2)	Green Office - Education and Awareness	Year 1
Develop a schedule/strategy for implementing and review (+4)	Green Office - Education and Awareness	Year 1
We have more than one Green Ambassador (+2)	Green Office - Education and Awareness	Year 1
Encourage alternative transport (+1)	Green Office - Transportation	Year 1
Promote use of underground parking spots (+1)	Green Office - Transportation	Year 1
Promote UofT TTC and other travel discounts (+1/4)	Green Office - Transportation	Year 1
Ask building management for more bike racks (+1)	Green Office - Transportation	Year 2
Buy biodegradable dish soap (+1)	Green Office - Kitchen, Shared Areas, Food and Beverage	Year 1
Buy reusable or biodegradable coffee filters (+1)	Green Office - Kitchen, Shared Areas, Food and Beverage	Year 1
Buy recyclable utensils or use reusable dishes (+1/2)	Green Office - Kitchen, Shared Areas, Food and Beverage	Year 1
Use water jugs for meetings (+1/2)	Green Office - Kitchen, Shared Areas, Food and Beverage	Year 1
Engage the Office of Environmental Health & Safety to conduct an office wide ergonomics assessment	Wellbeing	Year 1
Yoga	Wellbeing	Year 1
Walking groups	Wellbeing	Year 1
Engage one staff to participate in the Green Ambassador program	Green Ambassador	Year 1
Assess Green Course certification feasibility*	Green Course	Year 1
Obtain Green Course certifications for new IHPME courses*	Green Course	Year 2
Obtain Green Course certifications for majority of IHPME courses*	Green Course	Year 3

*In collaboration with Education

Appendix 3. Preliminary Student Engagement Strategy

Saerom Youn, Vineeth Sekharan

Below are 5 possible strategies to engage students. A simple survey will be circulated online for students to rate each strategy by answering the below 2 questions:

- How much do you like the idea: 1(not at all) to 5 (very much)
- How likely are you to participate in the program: 1 (not at all) to 5 (very much)

Based on ranking, the Committee can choose which ideas to pursue.

Ideas:

Rationale	Description	Steps	Measure of impact
IHPME Climate Change Challenge			
Produce common measure of CCC's Operations success at among faculty and students	Set goal for IHPME (students AND faculty) to "level up" from a sprout by the end of the year by creating an online calculator to perform self-assessment on sustainability measures.	1. Construct online calculator 2. Produce web platform for entry & data collection 3. Students & faculty complete assessment every 3 months for 1 year (reminder alerts given) 4. Assess progress 5. Update "sprout" 6. End of year social/celebrations/conference for participants: students receive co-curricular record (CCR) on transcript	-Number of participants -Degree of improvements per participant -Meeting goal as department (Y/N)
Info-Hub for knowledge mobilization			
Linked to the "sprout" image, website as source of blogged updates about news & research on climate change and health	Produce & promote useful infographics, defunct myths surrounding climate change, specifically to research being produced by IHPME or DLSPH. Materials can be reposted to facebook, twitter, etc.; open for sharing.	1. Call-out to students interested 2. Partner with professors interested in having their research 'mobilized'; students also conduct independent research to be updated 3. Work with web designer to produce useful, visually enticing materials	-website traffic statistics (clicks, shares, etc.)
Course structures			
Bring to student consciousness incorporation of ideas	Putting a climate change "spin" on courses and course developments according to student	1. Call out to faculty interested in incorporating climate change in courses 2. Call out to students who have good ideas/would like to be	-embedding climate change discussion in course eval -Number of courses altered

relating to climate change and health	preferences	partnered with profs to develop changes 3. Discuss options, limitations, and plan for next year Ex. New courses, new course assignments, inclusion 10 min of lecture material linking climate change to health, using climate change and health data from hospitals/university/city	-Number of students exposed (# of students enrolled in changed courses)
Independent research projects			
Incorporate element of research in CCC's impact on IHPME	Funding specific research project outside of student's thesis nor a course for any IHPME students interested (ex. funded for the summer $ amount for completion of project	1. Pool easily attainable data or research questions 2. Earmark funding 3. Open to students & faculty duo (perhaps a joint-venture?) 4. Pursue project 5. Evaluate outcome 3 possible processes: 1. Given DATA → determine what question can be answered 2. Given QUESTION → look available data 3. Study Abroad: Partnership with schools in countries whose impact of climate change on health is more visible (public/global health related projects) -Could partner with hospital, Ministry, other organizations who have specific questions they want investigated surrounding climate change & health *Potential research questions to address Ex. Study/promote the impact of climate change on Canada Health Budget projections Ex. Track changes to TORONTO/local area & link to health due to climate change Ex. Study/promote the impact of pipeline establishment or road rail transport on health Ex. Defunct myths surrounding adverse health effects of wind	-amount of funding secured for projects -# of students pursuing projects -# of faculty supervising projects -# of institutions getting involved in projects -# of publications/presentations/conferences from the program

		turbines on health	
Data-Hub			
Create a centralized website linking students to relevant data sets and other sources	Identify & accumulate a list of data sources available to tap into for sustainability initiatives/research	1. Call out to student team & faculty lead 2. Research whether a source already exists 3. Determine strategy to start mining through the web, personal contacts, and different sources within and outside IHPME to track publically available data. If not publically available, then liaison with data holders to try to gain access to make it available for IHPME students.	-# of data sources found -# of data sources accessed -breadth of data source (by geography, volume, variety, etc.)

Endnotes

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[2] Editorial. A Commission on climate change. *The Lancet*. (2009): 2009 May 16;373(9676):1659.
[3] Watts N, Adger WN, Agnolucci P, Blackstock J, Byass P, Cai W, Chaytor S, Colbourn T, Collins M, Cooper A, Cox PM. Health and climate change: policy responses to protect public health. *The Lancet*. 2015 Nov 7;386(10006):1861-914.
[4] Editorial. Climate and health: preparing for Paris. *The Lancet*. 2015 Nov 7;386(10006):1795
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[6] Joint Position Statement, 2009, Toward an Environmentally Responsible Canadian Health Sector, Association of Canadian Academic Healthcare Organizations, Canadian Association of Physicians for the Environment, Canadian Coalition for Green Health Care, Canadian College of Health Service Executives, Canadian Dental Association, Canadian Healthcare Association, Canadian Healthcare Engineering Society, Canadian Medical Association, Canadian Nurses Association, Canadian Pharmacists Association, Canadian Public Health Association, David Suzuki Foundation, National Specialty Society for Community Medicine. [NB. Since this Joint Position Statement was published the names of certain of these organizations have changed; the Canadian Healthcare Association and Association of Canadian Academic Healthcare have joined forces to become HealthCareCAN; the Canadian College of Health Service Executives is now called the Canadian College of Health Leaders].
[7] Balbus J, Berry P, Brettle M, Jagnarine-Azan S, Soares A, Ugarte C, Varangu L, Prats EV. Enhancing the sustainability and climate resiliency of health care facilities: a comparison of initiatives and toolkits. *Revista Panamericana de Salud Pública*. 2016 Sep;40(3):174-80.
[8] Friedrich MJ. Medical Community Gathers Steam to Tackle Climate's Health Effects. *JAMA*. 2017 Apr 18;317(15):1511-3.
[9] Many thanks to the members of this initial committee: Tina Smith, Paul Williams, Aviv Shachack, Ahmed Bayoumi, Anne Louise Pontigon Montgomery, Vineeth Sekharan, Saerom Youn, James Byrne.

[10] The event was held on April 4, 2017. The organizing committee consisted of Malak Sidky and Fiona Miller (co-chairs), Tina Smith, Rhonda Cockerill, Rebecca Biason, Lee Fairclough, Annette Bradbury, and Talya Wolff.
[11] President Meric S. Gertler, *Beyond Divestment: Taking Decisive Action on Climate Change*, Administrative Response to the Report of the President's Advisory Committee on Divestment from Fossil-Fuels, University of Toronto, March 2016
[12] *Ibid*.
[13] The Institute provides many learning opportunities and supports many learners. While it is expected that such learning activities will increasingly be enriched by attention to the environment, climate change and sustainability, we focus initially on building these issues into our formal educational programs.
[14] NB. The collaboration with Public Health Sciences in the Dalla Lana School of Public Health (DLSPH) on education has begun
[15] The Connaught Global Challenge Award is an annual award to support team initiatives with up-to $250K of funding: "The program aims to heighten UofT's contribution to important issues facing society through the advancement of knowledge, and the transfer and application of solutions. Global Challenge teams will represent **new** collaborations involving leading UofT researchers and students **from multiple disciplines**, along with innovators and thought leaders from other sectors." See: http://www.research.utoronto.ca/research-funding-opportunities/connaught-global-challenge-award/
[16] The Lancet Countdown represents an "international, multidisciplinary collaboration between academic institutions and practitioners across the world" to track progress on "health and climate change," by fostering the development and use of indicators and indicator domains relevant to the health implications of, and the health sector's role in tackling, climate change. See: Watts N, Adger WN, Ayeb-Karlsson S, Bai Y, Byass P, Campbell-Lendrum D, Colbourn T, Cox P, Davies M, Depledge M, Depoux A. The Lancet Countdown: tracking progress on health and climate change. *The Lancet*. 2016 Nov 14.
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[18] Watts N, Adger WN, Agnolucci P, Blackstock J, Byass P, Cai W, Chaytor S, Colbourn T, Collins M, Cooper A, Cox PM. Health and climate change: policy responses to protect public health. *The Lancet*. 2015 Nov 7;386(10006):1861-914.
[19] Watts N, Adger WN, Ayeb-Karlsson S, Bai Y, Byass P, Campbell-Lendrum D, Colbourn T, Cox P, Davies M, Depledge M, Depoux A. The Lancet Countdown: tracking progress on health and climate change. *The Lancet*. 2016 Nov 14.
[20] President Meric S. Gertler, *Beyond Divestment: Taking Decisive Action on Climate Change*, Administrative Response to the Report of the President's Advisory Committee on Divestment from Fossil-Fuels, University of Toronto, March 2016