



Planetary Health Report Card (Medicine)

*Faculty of Medicine and Health
Sciences, McGill University*



McGill

Faculty of
Medicine and
Health Sciences

2023-2024 Contributing Team:

- Students: Casey Cohen*, Sarah Bensemana, Ericka Iny, Tania Morin, Anne-Sophie Roy, Laurence Robert, Fayeza Ahmad, Nayra Abdel Fattah
- Staff: Kimberly John
- Faculty Mentors: Dr. Signe Richer
- *Primary Contact: Casey Cohen, casey.cohen2@mail.mcgill.ca

Land Acknowledgement:

McGill University is on land which has long served as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous peoples whose presence marks this territory on which peoples of the world now gather.

Summary of Findings

Overall	C+
<u>Curriculum</u>	B
<ul style="list-style-type: none"> Planetary Health (PH) connections exist within the core medical curriculum. They are mostly found within various solitary lectures dedicated to climate change and health and many of them only briefly cover PH content. Minor changes to the curriculum were introduced over the past year, including the addition of a few new lectures discussing various PH topics. PH connections in the curriculum do not have more dedicated time allocated consistently throughout medical education and are not incorporated in a longitudinal manner. Recommendations: The medical school should identify PH (including climate change) as a priority theme and include in depth material in learning objectives and test questions, in addition to filling in content gaps. 	
<u>Interdisciplinary Research</u>	C
<ul style="list-style-type: none"> McGill University's Office of Sustainability (MOOS) has a website which centralises information regarding PH research at the university. Furthermore, the McGill Sustainability Systems Initiative (MSSI) group has a website that includes funding opportunities, networking support, and research information. McGill lacks a dedicated institute for interdisciplinary PH research that emphasises the impacts of anthropogenic environmental changes on health. Within the Faculty of Medicine and Health Sciences itself, it is difficult to find faculty members who have a primary research focus in PH or healthcare sustainability Recommendations: The faculty should encourage primary research in PH and provide support by facilitating access to resources and grants. 	
<u>Community Outreach and Advocacy</u>	D+
<ul style="list-style-type: none"> The Faculty of Medicine and Health Sciences does not offer community-facing education opportunities on PH. This extends to a lack of patient materials regarding environmental health exposures, as well as climate change and health impacts. There is limited partnership between the medical school and community organisations to promote planetary and environmental health. Recommendations: The faculty should produce and introduce content on environmental health exposures, climate change, and health impact at the postgraduate level. Additionally, the faculty could augment meaningful partnerships and promote medical student involvement through the addition of relevant community organisations in the Community Health Alliance Project (CHAP) course. 	
<u>Support for Student-Led Initiatives</u>	C
<ul style="list-style-type: none"> Overall, the administration is supportive of student-led PH initiatives. At an institutional level, the McGill Sustainability Projects Fund (SPF) has a mandate to build a culture of sustainability on McGill campuses. They offer their time, funding, and enthusiasm for student projects from all faculties. There are research opportunities for students to perform research related to PH, but the students have to seek these opportunities out themselves. Recommendation: Within the Faculty of Medicine and Health Sciences, the administration could further support student-led initiatives by facilitating connections between research mentors and students, creating grant opportunities, and developing a student fellowship program designated for PH. The faculty could create a webpage to put all past and ongoing PH related initiatives and research opportunities to facilitate information accessibility. 	
<u>Campus Sustainability</u>	C+
<ul style="list-style-type: none"> The McGill University Climate and Sustainability Strategy 2020-2025 (link) includes a stated goal of carbon neutrality by 2040, amongst other objectives. There is also a target for obtaining a reforestation plan for carbon offsetting and for 	

the institution to become zero-waste by 2035. However, it is unclear how these strategies are being implemented in the medical school buildings.

- Recommendations: Despite having initiatives to make laboratories more environmentally sustainable, the Faculty of Medicine and Health Sciences should work towards extending sustainable practices through composting, sustainable food and beverage options, and waste management. The faculty should also work on implementing a plan to promote and incentivize environmentally-friendly transport options to and from clinical sites.

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as “a solutions-oriented, transdisciplinary field and social movement focused on analyzing and addressing the impacts of human disruptions to Earth’s natural systems on human health and all life on Earth.” This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanization, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment, and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change “the greatest threat to global health in the 21st century,” many medical school’s institutional priorities do not reflect the urgency of this danger to human health.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients’ health. This preparation is in the hands of the institutions providing our medical training. It is imperative that we hold our institutions accountable for educating medical students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats. Because climate change and environmental threats disproportionately affect vulnerable populations (for example, communities of colour, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and accountability among medical schools, we have created a Planetary Health Report Card that medical students internationally can use to grade and compare their home institutions on an annual basis. This medical-student-driven initiative aims to compare medical schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts 5) medical school campus sustainability.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 1. Describe how the environment and human health interact at different levels.
 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Medical School vs. Institution:** When “medical school” is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more

broadly. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions providers are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mold after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

- If there are more than one "tracks" at your medical school with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples).

Added to our resources this year, the Planetary Health Report Card [Literature Review by Metric](#) collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

Section Overview: This section evaluates the integration of relevant planetary health topics into the medical school curriculum. Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation: There was an elective called “Wilderness Medicine, Climate Change, and Health” offered to fourth year medical students towards the end of their studies, but it has not been offered in 2023 and 2024 due to the course leader’s maternity leave. This elective is expected to be offered again in coming years. However, spots are limited and acceptance to this elective is based on a lottery system.</i></p> <p><i>There is an Undergraduate Medical Education elective called “Public Health and Preventive Medicine”. It is available to McGill clerkship students and offers the possibility to do environmental health work related to climate change (environmental hazards, reportable infectious diseases) in a variety of domains (health surveillance, protection, promotion and prevention).</i></p> <p><i>There is also an Interprofessional Global Health Course offered by the Department of Global and Public Health that offers one class on Climate Change and its impact on global health.</i></p>	

Curriculum: Health Effects of Climate Change

1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
3	This topic was explored in depth by the core curriculum.

2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: A 50-minute lecture titled “Planetary Health,” providing an overview of climate change and its effects on health as well as the environmental impact of the healthcare system is presented in the core medical curriculum. This lecture addresses the relationship between heat-related illness and climate change (air pollution and quality, extreme heat, vulnerable populations), as well as its effects on the health system and people at risk. The lecture touches on statistics from the United States as well as in Canada. However, it does not touch on the disparities between populations.</i></p> <p><i>Another lecture covering “Transnational Threats” briefly mentions risk factors and protective factors in the case of extreme heat.</i></p>	

1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The “Planetary Health” lecture in the core medical curriculum addresses the relationship between heat-related illness and climate change (air pollution and quality, extreme heat, vulnerable populations). It extensively addresses the effects of climate, such as heat waves and air pollution, on the health system and population.</i></p>	

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The “Lyme Disease” lecture in the infectious diseases block of the core medical curriculum mentions an increase in tick-borne infectious diseases such as Lyme disease and West Nile disease in correlation with an increase in temperatures due to climate change.</i></p>	

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?	
------------------------------------------------------------------------------------------------------------------------------------	--

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The “Planetary Health” lecture in the core medical curriculum extensively addresses the increase of lung disease and mortality due to air pollution. Multiple studies are presented on the topic and several graphics and tables show the net increase of respiratory health problems due to air pollutants. The impact of asthma inhalers on the environment was also briefly covered in a short set of slides (4 slides) at the end of the respiration block’s lecture, titled “Asthma: Definition, diagnosis, evaluation and management.”</i></p>	

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: Similarly to the respiratory health effect of climate change and air pollutants, cardiovascular health is addressed in the same lecture (“Planetary Health”) in the same fashion with multiple articles and graphics presented. The impact of air pollution on heart failure is also covered in a short set of slides (3 slides) at the end of the circulation block’s lecture, titled “Heart Failure-Clinical Aspects.”</i></p>	

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The topic is covered over 6 slides from the Climate Wise curriculum on topics such as “Climate change and psychotropic medications,” “Climate change and neurodegenerative diseases,” and “Climate change and Mental Health” in two of the core Neurology and Psychiatry courses for 2nd year students (pre-clerkship). The two lectures are the following: “Antidepressants and mood stabilisers” and “Approach to dementia and delirium.”</i></p>	

1.8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: In the lecture “Maternal and Child Health of the Indigenous Population in Canada” of the Reproduction and Sexuality block, it is mentioned that numerous polluting industries surrounding the Akwesasne territory have introduced toxic compounds in the air, which impacts the food chain, including mothers’ milk. The changes in the health of the ecosystem impact the health of the populations who directly depend on the environment for nourishment.

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: In the lecture “Planetary Health” of the Molecules to Global Health course, it is mentioned that living circumstances, such as lower income, malnutrition, and lack of cooling options are potent risk factors for extreme heat-related disease. The mortality rate of these conditions were found to be 1-2% higher in people living in poverty as well as in the African American population. This same lecture includes the Climate Wise slides pertaining to “Climate Change and Indigenous Health” as well as “Climate Change and the Social Determinants of Health”.

In the Reproduction and Sexuality course, the lecture “Maternal and Child Health of the Indigenous Population in Canada” highlights that the impact of exposure to toxic contaminants due to climate change is more extensive in Indigenous communities since their lifestyle heavily relies on local products and wildlife.

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: In the Molecules to Global Health course, the lecture “Planetary Health” comprises a graph portraying the global burden of disease due to air pollution in several countries. It highlights the unequal health impacts of air pollution amongst developed and developing nations. It also highlights that the countries affecting climate change the least will suffer the most from it. The rest of the lecture was focused on North American issues.

Curriculum: Environmental Health & the Effects of Anthropogenic Toxins on Human Health

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: In the lecture “Maternal and Child Health of the Indigenous Population in Canada” of the Reproduction and Sexuality block, it is mentioned that the numerous polluting industries surrounding the Akwesasne territory have introduced toxic compounds in the air, which impacts the food chain including mothers’ milk.

Additionally, there is a lecture in the same block titled “Reproductive Hazards in the Workplace” which discusses endocrine disrupting chemicals, lead, phthalates and their effect on infertility. Lastly, the lecture titled “Drugs in Pregnancy,” mentions industry-related teratogenic chemicals.

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university’s surrounding community?

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: In Quebec, the presence of heat waves have an impact on the health of the surrounding community. The lecture “Planetary Health” in the Molecules to Global Health course uses a case series of extreme heat at a local hospital to demonstrate how climate change can affect health. The lecture explores the anthropogenic causes of Urban Heat Islands (a built environment that is hotter than surrounding rural areas).

1.13. To what extent does your medical school emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The Med-1 lecture "Planetary Health" includes the Climate Wise slide on Climate Change and Indigenous Health which recognizes Indigenous climate leadership and knowledge in addressing the climate crisis. There are no classes in the core medical curriculum that focus on the importance of Indigenous knowledge and values systems as essential components of planetary health solutions.</i></p>	

<p>1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?</p>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The "Planetary Health" lecture includes the Climate Wise slides pertaining to Climate Change and Indigenous Health as well as Climate Change and the Social Determinants of Health. The lecture "Maternal and Child Health of the Indigenous Population in Canada" in the Reproduction and Sexuality course covers the outsized impact of PCBs, dioxins, DDT, and other toxic compounds on Indigenous communities. This lecture discusses how industries in proximity to Indigenous communities have increased the exposure to toxic contaminants in the environment, consequently impacting local food, fish, and mothers' milk.</i></p>	

Curriculum: Sustainability

<p>1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</p>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: The “Planetary Health” lecture in 1st year includes the Climate Wise slides pertaining to the Co-Eco Health Benefits of Plant-Based Diets, recognizing the environmental impact of meat-based diets. There is also a core lecture on Nutrition given to 2nd year students in the Family Medicine block of Transition to Clerkship course (TCP), which includes one slide on “Proteins and the environment” with a graphic emphasising that animal-based food production has a significant impact on green-house gas emissions compared to other foods.

1.16. Does your medical school curriculum address the carbon footprint of healthcare systems?

3	This topic was explored in depth by the core curriculum
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: The lecture “Planetary Health” in the Molecules to Global Health course presents the impact of healthcare as polluters in terms of carbon emissions. Strategies towards greening practices include: greener building practices, waste management, environmentally preferable purchasing, safer chemicals, water use, initiatives to reduce urban heat island, food choices in cafeterias and at conferences. These were listed on a single slide, and did not offer any further exploration.

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core curriculum? (points for each)

2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfill this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)

	<p><i>Score explanation:</i></p> <ul style="list-style-type: none"> • <i>Waste reduction within the healthcare system was approached on a macro level in the “Planetary Health” lecture, with the benefits of avoiding over-medicalisation/investigation provided through the Climate Wise slide on Practising Resource Stewardship in Healthcare.</i> • <i>Moreover, the “Improving Health” lecture discusses “social prescribing” as a tool to prescribe social interventions to address a variety of social problems.</i> • <i>The impact of inhalers on the healthcare carbon footprint was recently integrated into the respirology block.</i> • <i>Resource stewardship (namely antibiotic stewardship, imaging and inappropriate procedures) is addressed in multiple lectures during the Transition to Clerkship course for 2nd year students, namely in the Family Medicine and the Neurology courses. However, the link between over-using resources and the environment could be addressed in further depth.</i> • <i>The Choosing Wisely Canada campaign, which aims to reduce unnecessary tests and treatments in Canada, delivers a brief presentation every year and is incorporated into the curriculum. They discuss how “unnecessary tests and treatments expose patients to potential harm, consume precious health care resources, and contribute to the climate crisis.”</i>
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school’s</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
<p><i>Score explanation: The medical school curriculum does not introduce strategies for having conversations with patients about climate change.</i></p>	

1.19. In training for patient encounters, does your <u>medical school’s</u> curriculum introduce strategies for taking an environmental history or exposure history?	
2	Yes, the core curriculum includes strategies for taking an environmental history.
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.
<p><i>Score explanation: The first-year lecture “Occupational Lung Disease” discusses strategies, clinical questions, and potential pitfalls when obtaining a work/environmental history. Additionally, Medical Interviewing sessions as part of the Clinical Method course stress the importance of obtaining a proper exposure/occupational history in clinical encounters.</i></p>	

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<p><i>Score explanation: Thanks to student advocacy efforts and leadership from a faculty member, said faculty member has become the curriculum lead for Planetary Health integrations. Over the past years, a variety of Climate Wise slides have been introduced into the core pre-clerkship curriculum and the existing “Planetary Health” lecture has been refreshed. There are ongoing efforts to increase curricular integrations beyond the pre-clerkship curriculum.</i></p>	

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s) .
0	There is minimal/no education for sustainable healthcare.
<p><i>Score explanation: “Planetary Health” is the only lecture in the core curriculum that addresses issues related to planetary health/sustainable healthcare. In the past year, there have been longitudinal integrations of planetary health content throughout the pre-clerkship curriculum, by means of the Climate Wise slides. There is still a place for longitudinal integration across pre-clerkship and clerkship.</i></p>	

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	Yes , the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	No , the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Score explanation: A faculty lecturer passionate about planetary health and climate change is responsible for overseeing the curricular integration of planetary health and sustainable healthcare, through the Social Accountability, Population Health & Health Advocacy Longitudinal Theme.

Section Total (52 out of 72)

72.2%

Back to Summary Page [here](#)

Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Interdisciplinary Research

Section Overview: *This section evaluates the quality and quantity of interdisciplinary planetary health research at the medical school and broader institution. Interactions between health and the environment are complex and multifactorial. While climate change has been extensively studied from an environmental science perspective, planetary health is an emerging field. As leading health institutions with talented researchers and research resources, medical schools should fund research studying the health effects of climate change and anthropogenic environmental toxins. This obligation is particularly strong because the public and policymakers are more attentive to climate change when its implications for human health are emphasised.*

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u>?	
3	Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation: At McGill’s Faculty of Medicine, a few individuals conduct research related to planetary health, one physician working on climate change and health, and another working on environmental health and inclusion of traditional Indigenous knowledge. To our knowledge, there are no researchers with a primary research focus in planetary health.</i></p> <p><i>Within the Faculty of Medicine and Health Sciences, the School of Population and Global Health (SPGH) includes additional researchers that have a primary focus in Occupational health or Environmental health (link). One of the five research priorities of the SPGH is related to climate change: “Build healthy, sustainable environments and communities” (link). Also, the Global Health Scholars program, available each year to undergraduate students, has 2 projects related to climate change and mental health this year (link). However, the faculty members leading them do not have a primary research focus in planetary health.</i></p> <p><i>In addition, McGill has an Environmental Epidemiology Research Group (link) conducting research aimed at understanding and preventing the impact of pollution on human health. The Department of Global and Public Health also has a group of multi-disciplinary faculty experts and trainees, named the “McGill Global Environmental Health group” (link), whose research focuses on grand challenges in global health, particularly those in low- and middle-income countries, that are related to environmental exposures.</i></p> <p><i>Several McGill faculty and students are part of CASCADES, a network to support Canada’s healthcare community in its transition to high-quality, low-carbon, climate-resilient care. McGill’s Faculty of Medicine will host the CASCADES 2024 Summer Institute on Sustainable Health Systems (link).</i></p>	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?

3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years.
1	There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.

Score explanation: McGill University has a Sustainability Systems Initiative ([MSSI](#)) group which defines itself as an interdisciplinary community of sustainability researchers. The MSSI designs research themes to foster cross-disciplinary teams that can address complex sustainability challenges.

McGill also has an Environmental Epidemiology Research Group ([link](#)) conducting research aimed at understanding and preventing the impact of pollution on human health. The Department of Global and Public Health also has a group of multi-disciplinary faculty experts and trainees, named the “McGill Global Environmental Health group” ([link](#)), whose research focuses on grand challenges in global health, particularly those in low- and middle-income countries, that are related to environmental exposures.

In addition, the McGill Global Health Programs and the McGill Interdisciplinary Initiative in Infection and Immunity are co-sponsoring in 2024 two new Seed Fund Grants with support from the Steinberg Fund for Interdisciplinary Global Health Research to foster interdisciplinary research projects specifically addressing the interplay between climate change and infectious diseases ([link](#)).

Previously, the 2019 McGill Strategic Research Plan ([link](#)) had identified “Design and create sustainable materials, technologies, landscapes, and communities as one of its 7 research excellence themes.

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your medical school?

3	Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda.
1	No , but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.
0	There is no process, and no efforts to create such a process.

Score explanation: The McGill Social Accountability and Community Engagement Office of the Faculty of Medicine and Health Sciences has put in place programs supporting equity and diversity to ensure inclusive learning and work environments, such as the “Community of Support Program” for

Black applicants ([link](#)). There is also the Indigenous Health Professions Program (IHPP) that aims to train more Indigenous health professionals and to teach all future health professionals about the health needs of Indigenous peoples ([link](#)). However, there is no explicit process for these communities to give input or make decisions about the research agenda.

2.4. Does your institution have a planetary health website that centralizes ongoing and past research related to health and the environment?

3	There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
2	There is a website that attempts to centralize various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.

Score explanation: McGill's Office of Sustainability has a website ([link](#)) that includes the institution's Sustainability Strategic Plan, a sustainability projects fund, and resources related to research projects ([link](#)). This website features various campus resources and events and is frequently updated.

Also, the McGill Sustainability Systems Initiative (MSSI) group has a website ([link](#)) that includes funding opportunities, networking support and research information.

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?

4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

Score explanation: The McGill [Sustainability Research Symposium](#) has been hosted annually since 2011, the last one being in February 2023 on the subject of "Health, Healthcare and Sustainability: Healthcare providers to policymakers and global citizens". However, to our knowledge, this event was not repeated in 2024.

2.6. Is your medical school a member of a national or international planetary health or ESH organization?

1	Yes, the medical school is a member of a national or international planetary health or ESH organization
0	No, the medical school is not a member of such an organization
<i>Score explanation: McGill's Faculty of Medicine and Health Sciences is not part of the Planetary Health Alliance or the Global Consortium on Climate and Health Education.</i>	

Section Total (8 out of 17)

47.1%

Back to Summary Page [here](#)

Are there additional research resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Community Outreach and Advocacy

Section Overview: *This section evaluates medical school engagement in community outreach and advocacy efforts associated with planetary health. Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of color. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.*

3.1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation: The faculty of Medicine and Health Sciences at McGill University offers the Community Health Alliance Project (CHAP) course to first year medical students as part of its curriculum. For this course, a number of local community organizations work directly with medical students who volunteer and contribute to the organization's missions over the year. One of these organizations is "Santropol Roulant" which fights food insecurity through sustainable and organic urban agriculture projects. To our knowledge, this is the only partner community organization that promotes planetary and environmental health.</i></p>	

3.2. Does your medical school offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The institution/medical school have not offered such community-facing courses or events.
<p><i>Score explanation: McGill institution offers multiple courses for undergraduates around the topic of sustainability and the environment (link). In 2021-2022, the School of Population and Global Health had organised a series of webinars including one on "Climate Justice and Health" (link), but there</i></p>	

were no more recent events on that topic. Also, since 2023, McGill offers an online module available for all students to enrol in at their will, named “Creating a Brighter Future: Sustainability at McGill”, available via MyCourses (students’ platform). McGill’s School of Global Health offers a Summer Institute Program on global health in May-June 2024 with a specific dedicated talk on the “Environment and Global Health” ([link](#)). However, the faculty of Medicine and Health Sciences has not been involved in planning any planetary health related courses or events in the past year ([link](#)).

3.3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not receive communications about planetary health or sustainable healthcare.

Score explanation: The “What’s New” weekly newsletter sent to all McGill students contains content that pertains to sustainability which occasionally mentions the environment. However, this is not through the medical school and thus medical students do not receive regular communications about planetary health/sustainable healthcare.

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?

2	Yes, the institution or main affiliated hospital trust offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
1	Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are no such accessible courses for post-graduate providers

Score explanation: The Office for Continuing Professional Development at the Faculty of Medicine and Health Sciences offers courses ([link](#)) to both medical students and post-graduate providers. However, there were no courses on climate change and health. On another hand, McGill’s main affiliated CIUSSS (West-Central) has a new (February 2024) website page with their ongoing green initiatives and projects for healthcare professionals to go to get more information on the hospitals’ strategic planning ([link](#)), and perhaps get involved in their hospital sites.

3.5. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?

2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated medical centres have accessible educational materials for patients.
<p><i>Score explanation: Multiple McGill University-affiliated hospitals have a website page with environmental safety advice and resources accessible to patients. For example, the Montreal Children’s Hospital’s website has online articles talking about the impact of pesticides aiming at educating the patient and their parents, and the Jewish General Hospital has a “Health and Safety” page for patients as well (link).</i></p>	

3.6. Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation: The Montreal Children’s Hospital website has online articles talking about the health impact of climate change aiming at educating the patient and their parents. On the McGill University Health Center (MUHC) website, there is a portal for patient information and resources, where patients may seek a variety of health-related topics including “Environmental and Metabolic diseases” (link). However, the resources available pertaining to health and climate change are hardly accessible, and the resources are aimed more towards an academic audience (link). In 2015, the Research Institute at the McGill University Health Center released an article mentioning climate change and parasitic infections.</i></p>	

Section Total (5 out of 14)	35.7%
------------------------------------	--------------

Back to Summary Page [here](#)

Are there additional community engagement and advocacy resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Support for Student-Led Planetary Health Initiatives

Section Overview: *This section evaluates institutional support for student-led planetary health initiatives, such as funding, fellowships, programming, and student groups. Planetary health is a young field and, as young people facing a future deeply shaped by climate change, students are often some of the first at an institution to engage with it. Institutions should provide support for students to engage in sustainability quality improvement (QI) initiatives, discover mentors in their area of interest, and receive funding for planetary health projects.*

4.1. Does your <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the medical school or institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	The medical school or institution encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available and there is no requirement to participate.
0	No, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.
<p><i>Score explanation: The McGill Sustainability Projects Fund has a mandate to build a culture of sustainability on McGill campuses through the development and seed-funding of interdisciplinary projects for students of all faculties. Since 2010, \$10 million has been allocated towards 250+ projects, with 86% being student-staff collaborations. The Sustainability Projects Fund has an estimated yearly total of \$1,000,000 making it the largest fund of its kind in Canada.</i></p>	

4.2. Does your <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.
<p><i>Score explanation: A specific research program for students to pursue planetary health/sustainable healthcare research does not exist, nor is there an explicit fellowship. There are some researchers and physicians doing research on related topics, but it is on the student to reach out to them and see if they have any opportunities available.</i></p>	

4.3. Does the <u>medical school</u> have a webpage where medical students can find specific

information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.

2	The medical school has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	There is a medical school webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
0	There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation: The McGill Office of Sustainability site provides a [webpage](#) listing all projects in the Sustainability Projects Fund (SPF), including sustainable healthcare. The McGill Office of Sustainability site equally provides a [webpage](#) with the list of members of the Advisory Council on Sustainability. However, there is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

4.4. Does your medical school have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?

2	Yes, there is a student organization with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it lacks faculty support .
0	No, there is not a student organization at my institution dedicated to planetary health or sustainability in healthcare.

Score explanation: In 2021, the McGill Medical Students' Society (MSS) Sustainability Committee was created with aims to coordinate sustainability initiatives and advocacy efforts within the medical student body. However, the MSS Sustainability Committee lacks faculty support.

4.5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?

1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.

Score explanation: In the Fall 2020 General Assembly, the McGill Medical Students' Society (MSS) voted in favour of the Motion to Include the Role of Sustainability Representative in the VP Global Health Junior Position. The VP Global Health Junior sits on the General Council and

Executive Council of the MSS.

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)

1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)

Score explanation:

Garden:

1) *EnviroSanté, the Outaouais Campus branch of the McGill Medical Students' Society (MSS) Sustainability Committee, maintains a community garden at a long-term care and housing residence located directly behind the medical school campus. The garden is maintained by medical students and provides opportunities to host workshops.*

2) *[McGill Campus Crops](#): A collective working on urban agriculture initiatives to grow food on campus and provide students with space and opportunities to learn. They also promote discussion around issues of food politics and food security.*

3) *[McGill Permaculture Club](#): A club that aims to increase awareness of permaculture and to grow student's appreciation of its benefits. Club activities include workshops, farm visits, discussion groups, movie screenings, and hands-on farm work.*

Panels, speaker series, or similar events:

The [McGill Sustainability Systems Initiative \(MSSI\)](#) hosts an annual "Sustainability Research Symposium", a one-day symposium comprising speakers, panel discussions, student posters, and networking opportunities. There are also other [regular workshops](#), such as "Envisioning Sustainability at McGill" or "Waste : What Goes Where?"

Outdoors program:

The [McGill Outdoors Club](#) is a student club providing opportunities for hiking, camping, canoeing, skiing, snowboarding, cycling and climbing.

Section Total (8 out of 15)

53.3%

Back to Summary Page [here](#)

Are there additional student-led initiative resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Campus Sustainability

Section Overview: *This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavor, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinizing every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimizing environmental impact.*

5.1. Does your <u>medical school</u> and/or <u>institution</u> have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.
1	There are no salaried sustainability staff , but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation: The McGill Office of Sustainability (MOOS, link) provides the necessary guidance and resources to enable different sustainability initiatives on campus. MOOS provides the strategic guidance, support, and resources to transition McGill into an institutional model of sustainability for society. Specifically, MOOS works in partnership with students, staff, and faculty to advance McGill's vision for sustainable research, education, connectivity, operations, and governance.</i></p> <p><i>There are no branches or appointed personnel of MOOS within the medical school. However, there is a MUHC Sustainability Committee in the McGill University Health Centre (MUHC), one of our major hospitals, and its affiliated Research Institute. This committee is chaired by an assistant to the Director of Technical Services whose main responsibility is to advance sustainability dossiers and to track the performance of technical service.</i></p>	

5.2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?	
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate

0	The institution/medical school does not meet any of the requirements listed above
	<i>Score explanation: In 2020, McGill expanded on its long-term targets, through the Climate and Sustainability Strategy 2020-2025, to include achieving carbon neutrality by 2040, ten years ahead of Canada's national target and Quebec's provincial target for carbon neutrality. Their targets also include attaining a Platinum sustainability rating by 2030 and obtaining a reforestation plan for carbon offsetting (Bayano- McGill reforestation plan). Additionally, while there are goals for the institution to become zero waste by 2035, it is unclear how the medical school is integrating changes in order to meet these targets.</i>

5.3. Do buildings/infrastructure used by the <u>medical school</u> for teaching (not including the hospital) utilize renewable energy?	
3	Yes medical school buildings are 100% powered by renewable energy
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.
<i>Score explanation: McGill doesn't have cogeneration on campus for two main reasons. First, Québec's electricity is 99% from renewable sources (e.g. hydroelectricity), therefore, generating electricity on campus would increase GHG emissions. Additionally, Québec's electricity rates are very competitive and deploying a cogeneration system doesn't offer a viable payback with the current rate structure. McGill and the medical school buildings are heated with steam from the powerhouse, which is natural gas-powered (for now). The remainder of the energy consumption is powered by hydro-electricity and is renewable. According to the Energy Management Plan, in 2016, 49% of the McGill Campus' energy expenditure was provided by renewable sources.</i>	

5.4. Are sustainable building practices utilized for new and old buildings on the <u>medical school</u> campus, with design and construction of new buildings and remodeling of old buildings conforming to a published sustainability rating system or building code/guideline?	
3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the majority of old buildings have been retrofitted to be more sustainable.
2	Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have not been retrofitted .
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.
<i>Score explanation: One of our institution's newer hospitals, the McGill University Health Centre (MUHC, Glen site), incorporated the implementation of energy-efficient initiatives that resulted in 35% less energy consumption than for the average standard Canadian hospital. In addition, there were strategies implemented to reduce light pollution as a result of adapted lighting fixtures and an</i>	

emphasis on natural light (via the use of glass). Low-flow faucets were also utilised to decrease potable water consumption by at least 40% in relation to comparable buildings. A bicycle path was also built linking to the City of Montreal's network and 397 parking spaces for cyclists. It was also reported that 79 charging stations were built for electric vehicles around the hospital. Other strategies also included decreasing heat island effect using large areas dedicated to green spaces (394 trees, 7500 perennials and 3750 shrubs that do not require any watering) as well as the white roofing's highly reflective materials. Additionally, McGill University's Life Sciences Complex has been awarded LEED gold certification. Most other McGill hospitals and campus buildings used by the medical school lack any sort of retrofitting and/or a concrete plan for sustainable development.

5.5. Has the medical school or institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

2	Yes, the medical school or institution has implemented strategies to encourage and provide environmentally-friendly transportation options such as safe active transport, public transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school or institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school or institution has not implemented strategies to encourage and provide environmentally-friendly transportation options.

Score explanation: The Sustainable Commuting Program encourages sustainable, low-carbon travel among faculty, staff, and students at McGill. This program provides incentives to remove some of the barriers to sustainable commuting - such as costs, safety, distance from campus, and access to public transit networks. The Faculty of Medicine and Health Sciences has yet to implement a plan to incentivize environmentally-friendly transport options for students travelling to and from clinical sites.

5.6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?

2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.

Score explanation: In all buildings of the McGill University, waste collection is done in three streams: paper/cardboard, glass/metal/plastic, and garbage. The compost stream only existed in residence buildings and, since March 2019, on the ground floor of the McConnell Engineering Building as a pilot project for hallway organic waste collection of the Department of Buildings and Grounds. Therefore, in the McIntyre Medical Sciences Building only glass, metal and plastics recycling is accessible to students and faculty as of now.

5.7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

3	Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.

Score explanation: The Food and Dining Services at McGill have made some progress in offering some sustainable options to students and staff. It is estimated that 50% of all food served on campus is grown, raised or processed locally. The Mac Farm of the MacDonald campus is the university's largest supplier of in-season produce.

Moreover, there are initiatives such as the Farmer's Market and Meatless Mondays to encourage students to buy local produce and reduce their consumption of meat. McGill received a gold rating on the Stars (Sustainability Tracking Assessment and Rating System) with AASHE (Association for the Advancement of Sustainability in Higher Education). However, the medical school itself does not have any specific initiatives.

5.8. Does the medical school or institution apply sustainability criteria when making decisions about supply procurement?

3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.

Score explanation: In the McGill University's [Supplier Code of Conduct](#), the third section pertains to Environmental Principles for Suppliers. The university expects its suppliers to abide by environmental regulations and to mitigate the negative environmental impacts of their operations. As per the [McGill University Guidelines for the Purchase and Use of Printing Paper and Printing Services](#), the McGill University Printing Services are expected to apply the 4-Rs (rethink, reduce, reuse, and recycle). More specific guidelines include the strict use of 100% post-consumer recycled photocopy band and the provision of 100% post-consumer recycled exam booklets. No other specific sustainable guidelines for procurement were found.

As a result of the 2013-2018 Sustainable Procurement Strategic Plan, the university now gives a 6-hour training in Sustainable Procurement to all of its Procurement Services staff. The course "Sustainable

Purchasing 101” is also available to all McGill staff members. McGill is now in the process of building a new strong [2020-2025 Sustainable Procurement Strategic Plan](#).

The Sustainable Procurement Strategic Plan also informs the Sustainable Labs Guide and the Lab waste Solutions project which encompasses the Faculty of Medicine and Health Sciences lab-intensive courses and buildings.

5.9. Are there sustainability requirements or guidelines for events hosted at the medical school?

2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required .
0	There are no sustainability guidelines for medical school events.

Score explanation: The Medical Students’ Society (MSS) has adopted the MSS Guidelines for Sustainable Events. This was a student-led initiative that does not bind clubs to abide by the guidelines, but incentivises them to do so by reducing funding for clubs who disregard these sustainability guidelines. It is now possible to get the office of sustainability to certify our event as sustainable.

5.10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?

2	Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.

Score explanation: McGill has created a [Sustainable Labs Guide](#) to reduce the negative environmental impacts of research to improve waste management practices, promote green chemistry as well as reduce energy and water use.

The faculty and medical school are also being supported by the [Systemic Solutions to Lab Waste Management project](#), a multi-stakeholder project to reduce, reuse and recycle non-hazardous lab waste at McGill. To date, a lab waste audit was conducted to guide faculty- and building-specific waste reduction strategies.

In February 2020, the McGill-wide [Green Labs Initiative](#) was launched and is still ongoing. The goals of this project are to initiate a sustainability culture in McGill laboratories by implementing sustainable practices in the labs and educating personnel on those practices. So far, recycling bins with signs have been distributed across labs. This initiative includes many of the labs affiliated with the medical school, even including off-campus labs of the McGill University Health Center at the Glen Site and MGH.

5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?	
4	The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.
3	The institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.
<p><i>Score explanation: In December 2023, McGill's Board of Governors approved a second phase of socially responsible investment (SRI) commitments for the McGill Investment Pool (MIP) from all direct holdings in fossil-fuel firms listed in the Carbon Underground 200 (CU200).</i></p> <p><i>On April 23, 2020, McGill's Board of Governors approved an action plan aiming to reduce the carbon footprint of its endowment investments. The approach consists of divesting from high carbon intensive companies (e.g. fossil fuel companies), and is expected to render McGill's equity portfolio at least 33% less carbon intensive than the benchmark by 2025. For the 2020 fiscal year, the McGill Investment Pool's Equity Portfolio was less carbon intensive than the benchmark by 19.4% (see Report on Endowment Performance 2019-2020).</i></p> <p><i>Divest McGill, a student-led environmental justice campaign, has been mobilising for divestment at McGill since 2012. This group is advocating for complete and transparent divestment from the top 200 fossil-fuel intensive companies.</i></p>	

Section Total (19 out of 32)	59.4%
------------------------------	-------

Back to Summary Page [here](#)

Are there additional sustainability resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Grading

Section Overview

This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

Letter Grade*	Percentage
A	80% - 100%
B	60% - 79%
C	40% - 59%
D	20% - 39%
F	0% - 19%

**Within each grade bracket, a score in the top 5% (_5 to _9%), receives a “+”, and a score in the bottom 5% (_0- _4%) receives a “--”. For example, a percentage score of 78% would be a B+.*

Planetary Health Grades for the McGill School of Medicine

The following table presents the individual section grades and overall institutional grade for the McGill School of Medicine on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(52/72) \times 100 = 72\%$	B
Interdisciplinary Research (17.5%)	$(8/17) \times 100 = 47\%$	C
Community Outreach and Advocacy (17.5%)	$(5/14) \times 100 = 36\%$	D+
Support for Student-led Planetary Health Initiatives (17.5%)	$(8/15) \times 100 = 53\%$	C
Campus Sustainability (17.5%)	$(19/32) \times 100 = 59\%$	C+
Institutional Grade	$(72 \times 0.3 + 47 \times 0.175 + 36 \times 0.175 + 53 \times 0.175 + 59 \times 0.175) = 55.7\%$	C+

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which McGill University has participated in the Planetary Health Report Card initiative.

Planetary Health Report Card Trends for McGill University Faculty of Medicine and Health Sciences

