



Planetary Health Report Card (Medicine): *Université de Montréal*



2022-2023 Contributing Team:

- Students: Melody Porlier*, Diana Gueorguieva Danielova, Philippe Yin.
- Faculty Mentors: Dre Claudel Pétrin-Desrosiers.
- *Primary Contact: Melody Porlier, melody.porlier@umontreal.ca

Land acknowledgement:

Université de Montréal's main Campus is situated in Tiohtià:ke/Montréal, on the traditional and unceded territory of the Kanien'kehà:ka Nation. The authors recognize the Kanien'kehà:ka as custodians of the lands and waters on which Université de Montréal is located.

Summary of Findings

Overall	C+
<u>Curriculum</u>	B+
<ul style="list-style-type: none"> The Université de Montréal has a longitudinal curriculum on the health impacts of climate change, with the recent introduction of several lectures and clinical cases with associated learning objectives. The medical school is in the process of further expanding the curriculum on planetary health and sustainable healthcare. Recommendations: The curriculum could be expanded to further develop subjects related to sustainability in healthcare and planetary health issues outside the scope of climate change. 	
<u>Interdisciplinary Research</u>	C
<ul style="list-style-type: none"> The medical school at Université de Montreal recently organised and hosted several conferences and symposiums on planetary health and sustainable healthcare, and has ongoing plans to pursue this involvement in the future. Recommendations: The medical school could develop a website dedicated to planetary health to help students to find relevant information about research projects and activities related to planetary health and sustainable healthcare. 	
<u>Community Outreach and Advocacy</u>	D -
<ul style="list-style-type: none"> The Université de Montréal offers many opportunities for students to be involved in community outreach and advocacy as well as a well established Patient-Partner Office. However, no such opportunities involve communities impacted by climate change or environmental perturbations specifically. Recommendations: Partnership with community organisations in relation to planetary health could be secured for interested students within the “Community medicine” or “Social medicine” clerkship rotations. The Patient-Partner Office and Social Accountability Office could further develop partnerships with communities most impacted by the effects on climate change and environmental perturbations. 	
<u>Support for Student-Led Initiatives</u>	B
<ul style="list-style-type: none"> The Université de Montréal and its medical school have a dynamic student life with many opportunities for involvement in planetary health or sustainability initiatives. However, funding for these projects often come from sources outside the institution. Recommendations: The medical school could increase its support for planetary health or sustainability initiatives by creating dedicated grants for those projects. Such projects could also receive further formal recognition and be credited in the curriculum. 	
<u>Campus Sustainability</u>	C
<ul style="list-style-type: none"> The Université de Montréal has committed to carbon zero emissions for 2040 and has a clear associated action plan. Recommendations: Further efforts could be made to facilitate active transport or carpooling and/or offer free public transit passes for students during their clerkship years. 	

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 color, 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 centered 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. Did your medical school 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.

Score explanation: Medical students at Université de Montréal who have not previously completed undergraduate university-level studies must complete one elective, which can be chosen among classes offered by the Faculty of Medicine or any other class offered by the institution. While no lecture-based medical-school specific elective focusing on planetary health is offered, some medical-school electives include learning objectives on planetary health. MMD 1141 “Global Health Immersion” elective includes learning objectives centred on climate change and migrations. The new elective HOR 1200 “Risks and Challenges in the 21st Century”, offered by the Faculty of Arts and Sciences but accessible and publicised to medical students by the Faculty of Medicine, is an elective based on teamwork and interprofessional collaboration with content that varies annually, but revolves around Sustainable Development Goals of the United Nations.

Curriculum: Health Effects of Climate Change

2. Does your medical school 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: As part of the M1 curriculum, the effects of extreme heat on health, in the context of climate change, is discussed within the “Health Impacts of Climate Change” 90-minute lecture. More specifically, 14 slides are dedicated to the health effects of extreme heat, covering the physiology of thermoregulation, the general health effects of extreme heat with a focus on heat exhaustion and heat stroke, the current epidemiological data on morbidity and mortality associated with extreme heat as well as future projections, urban heat island, and populations vulnerable to health effects of extreme heat. In M2, the “Heart and circulation” course includes a compulsory self-guided learning module (taking approximately 60 minutes to complete) specifically on the cardiovascular effects of extreme heat and their link to climate change. This module furthers the concepts previously discussed in the M1 class and presents a clinical vignette illustrating the impacts of extreme heat on cardiovascular health.</i></p>	

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: In M2, the “Respiration and oxygenation” module includes a problem-based learning case and associated learning objectives on health impacts of forest fires.</i></p>	

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: In M1, the impacts of climate change on the distribution of zoonotic and vector-borne diseases are briefly covered in a lecture within the module “Pathogenic microorganisms and infection”, and briefly mentioned in the lecture “Health impacts of climate change”, with an emphasis on the spread of Lyme disease in Quebec.</i></p>	

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.

Score explanation: In M1, students participate in a workshop on social accountability, during which several clinical cases and situations are presented, including a vignette on air pollution and respiratory disease. This serves as a basis for a discussion on social and environmental determinants of health and the social responsibility of medical professionals. In M2, the “Respiration and oxygenation” module includes a PBL on asthma comprising learning-objectives on the impacts of climate change on allergic rhinitis and asthma with associated readings in articles and government publications, as well as a 1-hour lecture on air pollution and its effects on cardiac and respiratory health. In M3/M4, the “Community medicine” clinical rotation includes a 90-minute presentation on “Urban planning and public health”, which includes notions related to air pollution and climate change.

6. Does your medical school 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.

Score explanation: In M1, the cardiovascular health effects of climate change are introduced in the lecture “Health effects of climate change”. These are further developed in M2, within the “Heart and circulation” course. This course includes a compulsory self-guided learning module (taking approximately 60 minutes to complete) specifically on the cardiovascular effects of extreme heat in the context of climate change. The “Respiration and oxygenation” course in M2 also contains an hour-long lecture on air pollution and its effects on cardiac and respiratory health.

7. Does your medical school 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.

Score explanation: In M1, the psychological impacts of climate change are briefly introduced in the “Health effects of climate change” lecture. The “Mental health” course also includes a learning objective on eco-anxiety in one problem-based learning case. Ecoanxiety is also the subject of a clinical vignette and associated discussion in the “Environmental anamnesis” lecture in M3.

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 M1, the “Environment and cardiac health” lecture lists climate change as a threat to food and water security leading to health issues. These issues are also mentioned in the “Health effects of climate change” lecture.

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 M1, the “Environment and cardiac health” lecture presents the Lancet study “Effect of exposure to natural environment on health inequalities: an observational population study”, showing a reduction in health inequalities related to lower income in greener environments. The outsized impacts of air pollution on children and populations with lower SES is also addressed through a clinical vignette presented within the social accountability workshop as part of the M1 curriculum. The impacts of colonisation on ecological disturbances leading to health impacts on Indigenous populations are briefly mentioned in the “Indigenous Health in Canada - Children and Teenagers” lecture as part of the core curriculum. The disproportionate impacts of climate change on Indigenous populations is also explained in the “Health effects of climate change” lecture in M1. Additionally, the self-learning module on extreme heat and cardiovascular events stresses the link between urban heat islands and lower socio-economical status in Montreal. Finally, in M3, the “Environmental Anamnesis” class introduces the concept of intersectional climate justice.

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 M1, the “Global Health, Globalization and Health systems in developing countries: crises, responses and global lessons” briefly mentions climate and environmental changes and forced migrations as current issues, although without further developing those subjects. Furthermore, the “Health impacts of climate change” lecture in M1 presented the latest IPCC findings, including information on health inequalities. Global inequalities are also discussed in the elective course “Global Health Immersion”, which includes a team project of a subject related to global health inequalities.

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

11. Does your <u>medical school</u> 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: At University of Montreal, the fetotoxic/embryotoxic effects of solvents are briefly presented in an M1 lecture of health risks in the workplace, as part of the core curriculum. The subject is also presented in the “Global Health Immersion” elective course. As part of this elective course, students can also further develop the subject as they have to submit a team project on a health inequity subject, with the option of choosing maternal health as a research axis.

12. Does your <u>medical school</u> 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: Several lecture-based classes and problem-based learning cases cover topics related to anthropogenic pollution or environmental threats and their effects on health. In M1, the lecture “Your patients and their job” covers the health impacts of several industry-related toxins, such as crystalline silica, wood particles, diesel smoke, solvents, and nanoparticles. The health impacts of environmental toxins are further developed in M2, within the “Professional diseases and toxicology principles” lecture. The impacts of wildfires and of carbon monoxide intoxications on respiratory health are also covered in depth in a problem-based learning case within the “Respiration and oxygenation” module, and the negative health impacts of air pollution due to proximity to highways are also discussed in the “Social Responsibility of Physicians” class. The neoplastic risks of exposure to arsenic, asbestosis, radon, and vinyl chloride are also discussed in the “Oncology basics” lecture offered in M1. The difference in life-expectancy between Montreal neighbourhoods, in part because of the geographical distribution of industries and associated pollution, was discussed within several classes throughout the curriculum. Finally, M3 students attend a class on environmental anamnesis, in

which a case study highlighting the importance of taking into account the place of residency and surrounding environment as to evaluate the patient's risk exposure to extreme heat.

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.

Score explanation: A new and extensive curriculum on Indigenous history and health at the Faculty of Medicine of Université de Montréal has been implemented in the past years, including several links between Indigenous leadership and planetary health. The curriculum includes a "Traditional Indigenous Medicine" lecture, detailing an ongoing research project on Indigenous antidiabetic medication conducted in collaboration with Eeyou Istchee Cree communities. Furthermore, the social and environmental determinants of Inuits, Metis and First Nations health are discussed throughout the curriculum. Ecological disturbances caused by colonisation as a cause of harm to Indigenous populations as well as the importance of their territory for healing and medicine are briefly mentioned in the "Indigenous Health in Canada - Children and Teenagers" lecture. There is also an opportunity to do summer internships (M1-2) or clerkships (MS3-4) in the Wemotaci Atikamekw reserve.

14. Does your medical school 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?

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: Although social and environmental determinants of health and vulnerable populations are discussed throughout the curriculum, the outsized impacts of anthropogenic environmental toxins on marginalised populations are not, to our knowledge, discussed specifically in the medical curriculum at Université de Montréal.

Curriculum: Sustainability

15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?

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.
<i>Score explanation: In M3, the lecture “Eat well, live well” lists several environmental benefits of a vegetarian diet (less greenhouse gas production, land surface and water consumption).</i>	

16. Does your <u>medical school</u> 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.
<i>Score explanation: The “Health effects of climate change” lecture in the first-year curriculum at Université de Montréal states that the health system globally would constitute the fifth biggest polluting country in the world, and a significant source of carbon emissions. An overview of sustainability in healthcare is further presented in the lecture, giving the example of the NHS efforts to attain net zero emissions.</i>	

17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> 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 anaesthesia 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)
	<i>Score explanation: Several components of a sustainable healthcare practice are covered in the core curriculum at Université de Montréal. The M1 lecture on health effects of climate change addresses the importance of “choosing wisely” in the context of better patient care as well as reducing the environmental impacts of the health system. The health and environmental co-benefits of non-pharmacological interventions are discussed in M3 in the environmental anamnesis class, introducing the concept of “nature prescribing”. This lecture also presents the environmental impacts of inhalers. The impacts of anaesthetic gases are not part of the formal curriculum, but are systematically discussed with students by several clinical supervisors within the anesthesiology rotation in M3-M4.</i>

Curriculum: Clinical Applications

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
<i>Score explanation: At Université de Montréal, strategies for conversations with patients about climate change are introduced in the third year curriculum. For instance, topics such as counselling on health and environmental co-benefits of lifestyle choices are introduced, as well as strategies for helping patients manifesting eco-anxiety.</i>	

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.
<i>Score explanation: At Université de Montréal, a new “Environmental anamnesis” lecture was introduced in the core curriculum in 2022, aiming specifically at teaching students to take into account an environmental history in the context of climate and global environmental changes. An M3 lecture on health risks in the workplace also presents strategies for taking an environmental history.</i>	

Curriculum: Administrative Support for Planetary Health

20. Is your medical school 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.

Score explanation: In February 2022, a new “Climate crisis and planetary health” taskforce was created within the Faculty of medicine, with the goal of fostering innovation in planetary health teaching within the medical curriculum (at pre-graduate and post-graduate levels, as well as continuing medical education). The taskforce is composed of 4 faculty members and a medical student. At the moment, a literature review on the best practices in health education was conducted and presented to the dean, as well as recommendations for curriculum improvement. The taskforce is also represented in the Program Renewal Committee (aiming at creating a reformed curriculum starting in fall 2024) in order to ensure the inclusion of ESH/planetary health concepts in every module and train faculty members to teach those concepts.

21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core 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.

Score explanation: At Université de Montréal, planetary health topics are well integrated within the first two years of the curriculum, including several lectures focusing specifically on the health effects of climate change, as well as planetary health topics covered in cardiology, respirology, psychiatry and infectious diseases modules. The effects of environmental pollution on health are also covered throughout these first two years. In clerkship years, students attend a new lecture aiming to teach students how to question and guide their patients in the context of climate change, and topics related to environmental quality are discussed in the Community Medicine clerkship rotation.

22. Does your medical school 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.
<p><i>Score explanation: Several mechanisms have been put in place in the past years to ensure the integration of planetary health and sustainable healthcare content throughout the curriculum. A student-led initiative that started in 2019 is responsible for the majority of the recent curricular additions on climate change and health. These changes were enabled by the program director, who oversaw and took responsibility for the integration of this new content throughout the curriculum. In February 2022, a new "Climate Crisis and Planetary Health" was appointed. One of their main goals is to assess the actual state of the planetary health curriculum at Université de Montréal as well as best national and international practices in planetary health teaching, and produce recommendations for a more extensive and innovative planetary health curriculum. As the entire medical curriculum at Université de Montréal is undergoing a renewal, this taskforce is represented in the Curriculum Renewal Committee in order to ensure an extensive longitudinal coverage of planetary health and sustainable health issues throughout the revised curriculum.</i></p>	

Section Total (x out of 72)	55
------------------------------------	-----------

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 emphasized.*

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: Several researchers at the institution, notably in affiliation with the School of Public Health, have a primary research focus on planetary health. While several members of the Faculty of Medicine at Université de Montréal are interested in planetary health issues, they are mostly involved in teaching and curriculum improvement or sustainability initiatives in the healthcare system. While some of these initiatives have been published in peer-reviewed journals, no faculty members conduct primary research on planetary health issues at the time.</i></p>	

2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u> ?	
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.
<p><i>Score explanation: While there is no formal department or institute dedicated to planetary health at Université de Montréal, there is a Department of Environmental and Occupational Health within the School of Public Health.</i></p>	

Furthermore, transdisciplinary research on planetary health and sustainable healthcare is facilitated by the institution through the “Innovation Laboratory”. The Laboratory offers strategic, operational, and logistic support for interdisciplinary research and community involvement centred around four research axes, one of which being “Building the future sustainably” (in french: Construire l’avenir durablement - CLAD). Among its missions, the CLAD project aims at driving, coordinating, and diffusing research centred around the “[One Health](#)” approach.

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 Faculty of Medicine at Université de Montréal receives input and feedback from communities through the Social Accountability Office as well as the Patient-Partner Office, in order to better orient the educational, research, and services provided by the Faculty towards the greatest needs of the population. However, communities most impacted by climate change have not been deliberately consulted to date, and no changes in the research agenda in relation to climate change or environmental injustice has been put forth to date.

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: The Université de Montréal has a website dedicated to [Sustainable Development](#). The website compiles research and education opportunities as well as activities and campus news

related to sustainability, among other information. However, there is no Planetary Health dedicated website.

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: In May 2021, the Faculty of Medicine at Université de Montréal hosted the first [International Francophone Symposium on Climate and Health](#), a 5-day event fostering interprofessional collaboration and sharing initiatives in planetary health and sustainable healthcare.

In June 2022, the [Faculty of Medicine hosted a Symposium for sustainable healthcare](#), covering topics such as “choosing wisely” from an environmental perspective, sustainable operating rooms, laboratories and personal protection equipment, and sustainable hospital-based food services, as well as local and national initiatives unsustainable health.

Furthermore, planetary health will be the theme of the next [Annual Days of the Department of Family Medicine and Emergency Medicine at Université de Montréal](#), which will be hosted by the Faculty of Medicine on the 4th and 5th of May 2023.

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

Score explanation: The Faculty of Medicine at Université de Montréal is part of the Quebec Action Network for Sustainable Health (Réseau d'Action en Santé Durable du Québec - RASDQ). The RASDQ aims at promoting sustainable health for all Quebecers through interdisciplinary collaboration, education, and sharing of initiatives through committees. A faculty member was also newly appointed as a faculty representative on the AFMC (Association of Faculties of Medicine of Canada) Planetary and Global Health Committee.

Section Total (x out of 17)	9
-----------------------------	---

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.*

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: While medical students at Université de Montréal have multiple opportunities to work with community organisations, for instance within the compulsory clerkship rotations “Social Medicine” and “Community Medicine”, no partnership is centred around planetary health issues.</i></p>	

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: While medical students at Université de Montréal have multiple opportunities to work with community organisations, for instance within the compulsory clerkship rotations “Social Medicine” and “Community Medicine”, no partnership is centred around planetary health issues.</i></p>	

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 Faculty of Medicine at Université de Montréal has a monthly newsletter that includes coverage on some planetary health/sustainable healthcare activities conducted by students or faculty members.

4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> 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: In 2022, the institution has provided a CME module on inhalators from an environmental perspective. Furthermore, two recent symposiums on planetary health and sustainable healthcare organised by the Faculty of Medicine at Université de Montréal (International Francophone Symposium on Climate and Health, May 2021; Symposium for Sustainable Healthcare, June 2022), offered CME to attending physicians.

There is also an emerging project by the Faculty of Medicine at Université de Montréal to develop a series of eight CME modules on planetary health, which could be offered starting in fall 2023.

5. Does your <u>medical school</u> or its primary <u>affiliated hospital</u> have accessible educational materials for patients about environmental health exposures?	
2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated medical centers have accessible educational materials for patients.

Score explanation: To our knowledge, no such material is currently accessible for patients in hospitals or clinics affiliated with the Université de Montréal, although some Family Medicine Groups have manifested interest in developing such material.

6. Does your <u>medical school</u> or its primary <u>affiliated hospital</u> have accessible educational	
---	--

materials for patients about climate change and health impacts?	
2	Yes, 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: To our knowledge, no such material is currently accessible for patients in hospitals or clinics affiliated with the Université de Montréal, although some Family Medicine Groups have manifested interest in developing such material.</i></p>	

Section Total (x out of 14)	3
------------------------------------	----------

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.

1. Does your medical school or your institution 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.

Score explanation: While students at Université de Montréal can apply for several prizes offered by the faculty or the institution to recognise their community engagement, including for sustainability projects, no faculty/institutional grants or incentive for sustainability projects specifically exist to our knowledge. Student groups involved in planetary health traditionally secure grants from sources outside the medical school or institution (such as the Project Green Healthcare) in order to finance their projects. Furthermore, sustainability/susQI projects are not part of the formal curriculum.

2. Does your institution 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.

Score explanation: Several opportunities are available for medical students to participate in research related to planetary health or sustainability. However, students have to seek out those opportunities themselves as no specific research or fellowship program for medical students is available at the moment.

3. Does the medical school 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: There is no medical school webpage dedicated to planetary health or sustainable healthcare at Université de Montréal. The medical school website offers a directory of faculty members and their research projects, but the information presented is largely incomplete and not up to date, making it difficult for students to find information on research mentors. The family medicine resident webpage further offers information on projects related to planetary health/sustainable healthcare.

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: Several student associations dedicated towards planetary health engagement receive support and/or funding from the Faculty of Medicine. For instance, the medical student association of Université de Montréal has a committee (MedEco) dedicated to the promotion of ecological sustainability. The medical students from the Trois-Rivières campus of Université de Montréal also have a dedicated environmental/sustainability committee, MedVert. Several medical students are also involved in planetary health initiatives with the Quebec branch of the International Federation of Medical Students' Associations, IFMSA-Qc, which receives financial support from the Faculty. Finally, the student committee affiliated with the Social Accountability Office of the Faculty of Medicine receives funding for its activities, which include conferences and workshops on planetary health.

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.
<p><i>Score explanation: There is a student member on the “Climate crisis and planetary health” taskforce of the Faculty of Medicine, aiming at enriching the planetary health/sustainable healthcare curriculum at the undergraduate, residency, and CME levels. Several students are also members of the Social Accountability Office of the medical faculty, which represent several interests, including sustainable health and curriculum reform on planetary health.</i></p>	

6. In the past year, has the <u>institution</u> 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)
<p><i>Score explanation: Several opportunities exist for students at Université de Montréal to be involved in co-curricular planetary health programs.</i></p> <p><i>1- There is a student group at Université de Montréal (P.A.U.S.E) dedicated to sustainable and urban agriculture on the campus, offering many opportunities to be involved in ecological agriculture on campus and outreach activities.</i></p> <p><i>2- Several student interest groups on planetary health at the level of the institution (Eco-Leader) or faculty (IFMSA-Qc, MedEco) have organised conferences and workshops on planetary health destined for students in the past year.</i></p> <p><i>3,4- L'Écothèque is a student group dedicated to activism for a just social and ecological transition. The group offers a platform for discussion with environmental activists and community members impacted by climate change. The group also gathers artistic contributions from students (dance, music, visual arts, etc) for an online exhibition on environmental and social justice.</i></p> <p><i>5- Outdoor activities are regularly organised by appointed sports/social activities representatives for each cohort in the Doctor of Medicine program at Université de Montréal.</i></p>	

Section Total (x out of 15)	10
------------------------------------	-----------

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.

1. Does your medical school and/or institution 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:</i> While there is an Sustainable Development office at Université de Montréal with several staff members, there is no dedicated staff member in charge of medical school or hospital.</p>	

2. How ambitious is your institution/medical school 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
<p><i>Score explanation:</i> The Université de Montréal has committed to achieve carbon neutrality (for scope 1 and 2) by 2040, and aims to achieve the Gold lever of the STARS rating system by 2025. It has a clear action plan for a transition toward a sustainable campus that can be found here. Furthermore, the Faculty of Medicine supports carbon neutrality in the healthcare sector by 2040.</p>	

3. Do buildings/infrastructure used by the medical school 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.
<p><i>Score explanation: The most recent data on energy sources utilized for buildings/infrastructure at Université de Montréal dates back from 2011-2012 and can be found here. As electricity in Quebec is provided via hydroelectricity (a renewable energy source), and using the following conversion table, we estimate that Université de Montréal used 54% of energy needs from renewable energy in 2011-2012.</i></p>	

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.
<p><i>Score explanation: The Université de Montréal prioritises sustainable building practices for new buildings. For instance, the Campus MIL, inaugurated in 2019, has received a LEED Gold certification.</i></p>	

5. Has the <u>medical school</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?	
2	Yes, the medical school 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 has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.

0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.
<p><i>Score explanation: Université de Montréal medical students benefit from reduced-fare transit passes, as do all students using the Montreal transit system. Bike racks are also available at the institution and in most hospital/clinical settings. However, several hospitals are difficult, unsafe, or impractical to access using public or active modes of transportation. As such, many students use their car to access clinical care settings during their clerkship years.</i></p>	

6. Does your <u>medical school</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/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.
<p><i>Score explanation: The medical school classes are distributed among two campuses (Montreal and Trois-Rivières) and different buildings within campuses. While recycling facilities are easily available in most settings, composting opportunities vary according to each building/campus.</i></p>	

7. Does the <u>medical school</u> 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.
<p><i>Score explanation: "Local Local", the official food service provider at Université de Montréal, has committed to several sustainability guidelines, such as using reusable or compostable food containers, increasing local food procurement, and offering several items using distributors rather than individual containers. Local Local has also committed to adopt a composting policy throughout the campus. No efforts to include meat-free days or reduce red-meat consumption has however been stated.</i></p>	

8. Does the <u>medical school</u> or <u>institution</u> 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.
<p><i>Score explanation: To our knowledge, no sustainability guidelines for procurement currently exist at Université de Montréal. However, such efforts are part of their action plan towards sustainability. According to this plan, the adoption of a code of conduct for sustainability in supply procurement is a priority action to be achieved by the end of the year 2023.</i></p>	

9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u> ?	
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.
<p><i>Score explanation: The Université de Montréal sustainability office offers a guide for sustainable events that can be found here, but offers no incentive for organising such events. These are recommended by the institution and Faculty of Medicine by nature, but not mandatory.</i></p>	

10. Does your <u>medical school</u> 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.
<p><i>Score explanation: At Université de Montréal, the “Mon Écolabo” (My Ecolab) initiative offers support to improve environmental sustainability in lab spaces. Labs can further be certified as Bronze, Silver, Gold and Platinum levels according to their degree of sustainability.</i></p>	

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: The Université de Montréal has committed to divest completely from fossil fuel investments by 2035 as part of their plan for a transition toward a sustainable campus that can be found here.</i></p>	

Section Total (x out of 32)	17
------------------------------------	-----------

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 Université de Montréal School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(55/72) \times 100 = 76.39\%$	B+
Interdisciplinary Research (17.5%)	$(9/17) \times 100 = 52.94\%$	C
Community Outreach and Advocacy (17.5%)	$(3/14) \times 100 = 21.43\%$	D-
Support for Student-led Planetary Health Initiatives (17.5%)	$(10/15) \times 100 = 66.67\%$	B
Campus Sustainability (17.5%)	$(17/32) \times 100 = 53.13\%$	C
Institutional Grade	$(76.39 \times 0.3 + 52.94 \times 0.175 + 21.43 \times 0.175 + 66.67 \times 0.175 + 53.13 \times 0.175) = 56.89\%$	C+