



Planetary Health Report Card (Medicine): *Queen's University*

2024-2025 Contributing Team:

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Land acknowledgment: Queen's University is situated on traditional Anishinaabe and Haudenosaunee territory. We are grateful to live, learn, and work on these lands, and we recognize their historical significance for the Indigenous Peoples who have lived, and continue to live, here. We acknowledge the impacts of colonialism and commit to building respectful relationships with Indigenous communities through reconciliation and decolonization efforts.

Summary of Findings

Overall Grade	B+
Curriculum	B
<p>Queen's University School of Medicine has covered topics relating to planetary health in both mandatory and elective course material.</p> <p>Recommendations: Areas of improvement include: exploring planetary health's impact on each block (e.g. psychiatry, GI, respiratory), providing dedicated lectures for planetary health, teaching tips for running a sustainable clinical practice, and teaching students how to talk about climate change with their patients.</p>	
Interdisciplinary Research	A
<p>There is support for research on planetary health at Queen's University School of Medicine, boasting both faculty members conducting planetary health research and a dedicated department for interdisciplinary health research.</p> <p>Recommendations: The school can improve its resources related to planetary health through providing complete and up to date information on their web page and obtain and publicize ways to fund research for planetary health.</p>	
Community Outreach and Advocacy	B+
<p>Queen's University School of Medicine has offered community-facing events and has partnered with community organizations to promote planetary health. There are also educational materials regarding environmental health exposures and the health impacts of climate change that are available to patients online.</p> <p>Recommendations: Students can be made aware of more events and opportunities related to planetary health through regular communications from the program.</p>	
Support for Student-Led Initiatives	A-
<p>The Queen's University School of Medicine has an easily accessible website that provides information to both providers and patients on various planetary health resources, opportunities and initiatives. The school also has various student and faculty groups who are dedicated to supporting sustainability in healthcare.</p> <p>Recommendations: The school can offer grants for students to start and complete sustainability initiatives relating to planetary health, and integrate these into the core curriculum.</p>	
Campus Sustainability	C+
<p>The Queen's University School of Medicine has an office of sustainability and a plan to achieve carbon neutrality by 2040. The school has also employed sustainable building practices and encourages environmentally friendly transportation options for students. Recycling and compost programs are available to both students and faculty.</p> <p>Recommendations: The school can improve by receiving more of their energy from renewable energy sources, increasing environmentally sustainable food options at the school, and making sustainability requirements for supply procurement a priority.</p>	

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 analysing 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, urbanisation, 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 health professional schools, we have created a Planetary Health Report Card that students internationally can use to grade and compare their institutions on an annual basis. This student-driven initiative aims to compare health professional 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, and 5) school campus sustainability.

Instructions for Completing the PHRC

Thank you! We are really pleased to have you and your team on board to complete the PHRC at your institution. Many of you will have already been part of a completed report card or even lead the team at your school but please take a moment to read the instructions below.

For a full comprehensive step-by-step guide to completing your report card please refer to the PHRC User Guide. This page serves as a brief overview of the important methodology.

Completing the report card:

The Planetary Health Report Card is a self assessment tool designed to identify an institution's strengths and areas in need of improvement in regards to its planetary health education. The metric-based report card consists of five sections; 1. Curriculum, 2. Interdisciplinary Research, 3. Community Outreach, 4. Support for Student-Led Initiatives and 5. Campus Sustainability.

- **Metrics.** There are roughly 55 metrics (depending on your discipline). Sections 2-5 are the same across all disciplines. Each metric has different criteria for either scoring 1, 2 or 3 points. Participants should read each metric carefully and answer the question with as much accuracy as possible, drawing upon multiple sources where possible. It is vital sufficient investigation is completed for each metric to give a fair and accurate representation of your institution.

Most of the Curriculum metrics are graded by inclusion in **elective** coursework, **brief** coverage in the **core curriculum** or **in depth** coverage in the **core curriculum**.

Elective coursework: This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.

Brief coverage in the core curriculum: This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. Brief inclusion would qualify as inclusion in a single lecture slide in a single year.

In depth coverage in the core curriculum: This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats. Please consider amongst your team that this is the highest score awarded and a subjective decision must be made as to whether the topic should be awarded this score.

(A full list of definitions is provided on the below pages)

- **Types of evidence.** Acceptable forms of evidence include: lecture titles, learning objectives, module descriptions, descriptions of the intended learning, case titles, seminar titles, project titles, webpages, researcher profiles / biographies, news articles, publications, social media output, institutional policy documents. Please be as specific as possible.

It is essential that you have clearly justified the score for each metric, outlining in the box provided the specific content delivered in your curriculum and why you have assigned the

score. Each report card is reviewed by a member of the leadership team for accuracy and consistency across report cards. An example of the sufficient level of evidence is provided below each metric.

Please do not include **lecturers' names** without permission. The title of the lecture or module with a brief description of the material will suffice.

Where material is publicly available via an institution's website, please include hyperlinks to the webpages.

- **Evidence deadline.** Any material from the previous academic year and the current academic year up to the draft deadline of the **17th February 2025** may be included in this report card. Any teaching planned after this date should not be scored in this report card but can be included in the 2025/26 report. You may wish to make a note of any such teaching for your colleagues producing next year's report card.

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 health professional 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/Department vs. Institution:** When “Medical school” is specified in the report card, this only refers to curriculum and resources offered by the School/department 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 including all of its campuses. 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 students 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 mould 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. Please be as specific as possible when providing evidence for this metric.
- **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.
- **Core Curriculum:** This refers to taught material that is delivered to the entire cohort of students in one year.
- **Clerkship / Outreach:** 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, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.
- **Extractivism:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.
- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.
- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.
- **Anthropogenic:** Created through human activity
- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

- If there are more than one “tracks” at your institution 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). Where possible please indicate the proportion of students that are on each track.

Completed in 2022 a [Literature Review by Metric](#) is available for the 2022 medicine report card metrics. We are in the process of updating this review and making it more applicable to all the disciplines. However the review serves as a rough 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?	
Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year. (2 points)	
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. (1 points)	
No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	1
<i>Score explanation: There are currently no elective courses on Planetary Health or Sustainable Healthcare. However, the Global Health AEP is an optional certificate program offered to medical students, and students are required to attend 6 educational sessions on global health, some of which may include topics associated with planetary health or sustainable healthcare.</i>	

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

Score Assigned:	3
<p><i>Score explanation: The first year course titled MEDS 117: Health Determinants has a self-learning module titled “Environmental and Planetary Determinants of Health”, which describes the health impacts of extreme heat through an infographic. Three linked articles for further reading in the module further elaborate on this relationship. The fourth year course MEDS 482: Transition to Residency contains a lecture titled “Health and the Climate Crisis” which also analyzes the impact of extreme heat on health.</i></p>	

<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?</p>	
<p>This topic was explored in depth by the core curriculum. (3 points)</p>	
<p>This topic was briefly covered in the core curriculum. (2 points)</p>	
<p>This topic was covered in elective coursework. (1 point)</p>	
<p>This topic was not covered. (0 points)</p>	
Score Assigned:	3
<p><i>Score explanation: The first year course MEDS 117: Health Determinants contains an independent learning module titled “Environmental and Planetary Determinants of Health”, which describes the impact of extreme weather events like floods and wildfires on health and healthcare. The linked articles for further reading elaborate on this relationship. Another module titled “Introduction to Equity-Deserving Populations” contains an article explaining the impact of extreme weather effects on health threats in vulnerable populations. The fourth year course MEDS 482: Transition to Residency has a lecture titled “Health and the Climate Crisis”, which analyzes the impact of extreme weather events on health and health systems, as well as global effects of rising sea levels on national infrastructure.</i></p>	

<p>1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?</p>	
<p>This topic was explored in depth by the core curriculum. (3 points)</p>	
<p>This topic was briefly covered in the core curriculum. (2 points)</p>	
<p>This topic was covered in elective coursework. (1 point)</p>	
<p>This topic was not covered. (0 points)</p>	
Score Assigned:	3
<p><i>Score explanation: The first year course MEDS 117: Health Determinants contains a self-learning module titled “Environmental and Planetary Determinants of Health”, which describes the impacts of climate change on altered rates of vector-borne, food-borne, and water-borne diseases. Linked</i></p>	

articles elaborate on this relationship. Another module titled “Introduction to Equity-Deserving Populations” contains an article highlighting climate effects of infectious diseases in vulnerable populations. A third module titled “Social and Structural Determinants of Health” also mentions how environmental factors alter susceptibility to infectious disease. The fourth year course MEDS 482: Transition to Residency has a lecture titled “Health and the Climate Crisis” which mentions the impact of climate change on infectious disease patterns such as Lyme disease, malaria, West Nile virus, and Giardia.

1.5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

Score explanation: In the first year course MEDS 117: Health Determinants, a self-learning module titled “Environmental and Planetary Determinants of Health” describes the health impacts of climate change and air pollution through an infographic. Additionally, 3 of the linked articles for further reading in the module cover the impacts of climate change and air pollution on respiratory health, both directly and indirectly via wildfires and smoke inhalation. In another self-learning module titled “Introduction to Equity-Deserving Populations”, a linked article describes the impact of climate effects including air pollution on health threats in specific vulnerable populations. In the second year course MEDS 237: Respiriology, a lecture titled “Asthma Diagnosis and Management” mentions environmental pollutants as causes of asthma. Another lecture titled “Environmental and Occupational Lung Diseases” describes in detail the pathology of lung disease from various pollutants, some of which can be air pollutants. In the fourth year course MEDS 482: Transition to Residency, a lecture titled “Health and the Climate Crisis” includes 1 slide analysing the impact of air quality and climate change on respiratory health (specifically asthma) and changes in allergies.

1.6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

Score explanation: In the first year course MEDS 117: Health Determinants, a self-learning module titled “Environmental and Planetary Determinants of Health” describes the cardiovascular health impacts of extreme heat through an infographic. Additionally, 3 of the linked articles for further reading in the module cover the health impacts of extreme heat and pollution on cardiovascular health. In another self-learning module titled “Introduction to Equity-Deserving Populations”, a linked article describes the impact of climate effects including extreme heat on cardiovascular health threats in specific vulnerable populations. In the fourth year course MEDS 482: Transition to Residency, a lecture titled “Health and the Climate Crisis” spends 2 slides analysing the impact of extreme heat on cardiovascular health with specific mentions of stroke and heatwaves in Canada.

1.7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

Score explanation: In the first year course MEDS 117: Health Determinants, a self-learning module titled “Environmental and Planetary Determinants of Health” includes an article about indigenous health and climate change that mentions mental health as well as a physician’s guide to climate change, health, and equity that has a section on mental health and equity and how physicians can address it. The second year course MEDS 246: Psychiatry has a lecture called “Other Psychotic Disorders” that has a list of environmental factors that can cause neuropsychological diseases. The fourth year course MEDS 482: Transition to Residency contains a lecture titled “Health and the Climate Crisis” which also speaks on the secondary and tertiary effects health effects of climate change, with an increase in rate and severity of mental health illnesses and precipitating factors like food insecurity, displacement, and conflicts.

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

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

Score explanation: The first year course MEDS 123: Population Health has a lecture and separate independent learning module dedicated to One Health and the connection between the environment and human health (however it focuses heavily on antimicrobial resistance). Another course MEDS 117: Health Determinants has a self-learning module titled “Environmental and Planetary Determinants of Health” which provides information on how different consequences of climate change (e.g. food and water scarcity, pollution, land degradation) will affect population health. It also links to a physician’s guide to climate change, health, and equity that features extensive information on how the effects of climate change will affect populations and individuals. Another self-learning module titled “Introduction to Equity-Deserving Populations” has a linked article describing the impact of different climate effects on specific vulnerable populations.

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

This topic was explored **in depth** by the **core** curriculum.

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

Score explanation: At Queen’s University, the M1 MEDS117: Health Determinants course includes a self-learning module on the disproportionate impact of climate change on Indigenous health. Another module explores the impact of climate change on the cardiovascular health of vulnerable populations such as pregnant women, immigrant communities, and Indigenous people. In the M4 MEDS 482: Transition to Residency course, the “Health and Climate Crisis” lecture examines how climate change impacts Indigenous lands disproportionately through flooding and worsening food scarcity.

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

This topic was explored **in depth** by the **core** curriculum.

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

2

Score explanation: At Queen’s University, the M1 MEDS 120: Mechanisms of Disease course includes an “Antibiotics and Antibiotic Resistance” lecture, which goes over how climate change contributes to the rise of infectious diseases in developing countries and challenges they face addressing this issue. In the M4 MEDS 482: Transition to Residency course, a “Health and

Climate Crisis” lecture talks about the tertiary effects of climate change that further exacerbates food scarcity in low-income countries.

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)?

This topic was explored **in depth** by the **core** curriculum.

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

2

Score explanation: At Queen’s University, the M2 MEDS 240: Genitourinary and Reproduction course includes a lecture on “Male Factor Infertility” which briefly goes over environmental chemicals as a possible cause of infertility.

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

This topic was explored **in depth** by the **core** curriculum.

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

0

Score explanation: At Queen’s University, we did not cover human-caused environmental threats that are relevant to the university’s surrounding community.

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

This topic was explored **in depth** by the **core** curriculum.

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was not covered.	
Score Assigned:	2
<i>Score explanation: When MEDS123: Population Health taught about the importance of Indigenous sovereignty and self-governance as a way of improving Indigenous health, it was also briefly mentioned that Indigenous ways benefit the land. MEDS117: Health Determinants has an asynchronous learning module titled “Environmental & Planetary Determinants of Health” that briefly mentions how environmental health can be improved through Indigenous approaches.</i>	

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
This topic was explored in depth by the core curriculum.	
This topic was briefly covered in the core curriculum.	
This topic was covered in elective coursework.	
This topic was not covered.	
Score Assigned:	3
<i>Score explanation: MEDS123: Population Health had a lecture discussing reasons why Indigenous communities have lower life expectancies, including environmental factors. An asynchronous Directed Independent Learning session from MEDS117: Health Determinants titled “Environmental & Planetary Determinants of Health” includes a module (“Environmental and Planetary Determinants of Health”) and a paper (Indigenous Health and Climate Change, J. Ford 2012) that describes the disproportionate impact of anthropogenic toxins and health threats of environmental risks on marginalized populations (e.g., water pollution affecting Indigenous communities and historically Black or low SES communities the most).</i>	

Curriculum: Sustainability

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

Score explanation: While MEDS115: Family Medicine briefly mentions how meat-based diets can be harmful for gastrointestinal health and encourages high fiber plant-based diets, the curriculum does not address the environmental and health co-benefits of a plant-based diet. There was a session on the Healthy People Healthy Planet speaker series that discussed various diets in relation to human and planetary health.

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

This topic was explored **in depth** by the **core** curriculum.

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

1

Score explanation: This topic was covered under the optional article titled “2024 CLIMATE AND HEALTH POLICY PRIORITIES FOR CANADA” on a learning event, which discusses policy priorities including investments into a resilient health system, health practitioners as advocates for climate change, and dietary changes at the hospital level.

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	Score
The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points)	1
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 fulfil this metric. (2 points) .	2
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 point)	1
Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia’s environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0

The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0
<p><i>Score explanation: A 1st year lecture on antibiotics mentions the overuse of antibiotics in agriculture, with an emphasis on its role as contributory factor towards antibiotic resistance. Given that antibiotic resistance can harm human health, there is a push to prescribe fewer antibiotics.</i></p> <p><i>In the first year family medicine course, "Choosing Wisely" is presented as an important concept to evaluate the risk, benefit, and cost of prescribing medication or ordering different imaging modalities. It emphasizes that more interventions, even from a defensive medicine perspective, do not necessarily equal better health outcomes. Additionally, lifestyle changes and diet are indicated as first-line management strategies for hypertension before pharmacotherapy. Education and exercise were also recommended for anxiety/ depression as part of a comprehensive action plan. Deprescribing is also indicated as a first step in psychiatry within our Principles of Pharmacology in Psychiatry lecture.</i></p>	

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?	
Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework. (1 points)	
No, there are not strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
<i>Score explanation: While conversations about environmental hazards and healthy living conditions are included in a full patient history, there is no explicit strategy indicated to have climate change conversations with patients.</i>	

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?	
Yes, the core curriculum includes strategies for taking an environmental history. (2 points)	
Only elective coursework includes strategies for taking an environmental history. (1 point)	
No, the curriculum does not include strategies for taking an environmental history. (0 points)	
Score Assigned:	2

Score explanation:

As part of the core Clinical Skills curriculum, we receive a lecture titled “Gathering Information II - Completing the Interview,” where students are taught how to take a thorough history, including environmental exposures, living situations, and occupational history.

Additionally, as part of our Population Health course, we attend a lecture titled “Introduction to Occupational and Environmental Health,” delivered by an occupational physician. In this lecture, we are introduced to key concepts in environmental health, the role of an occupational physician, and the impact of work and the environment on human health. We also work through case studies to learn how to take an appropriate history while considering occupational and environmental health domains.

Curriculum: Administrative Support for Planetary Health

1.20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?

Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)

Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)

No, there are **no** improvements to planetary health education in progress. (0 points)

Score Assigned:

4

Score explanation: Yes, the medical school is in the process of making minor improvements to ESH/planetary health education. The Lifestyle Medicine Interest Group, led by Queen’s faculty, is planning to launch a lunch-and-learn series and online modules for lifestyle medicine, which includes Planetary Health Education. The school’s faculty have also organized the Healthy People Healthy Planet speaker series to discuss topics related to planetary health for Queen’s students. Additionally, there was the formation of a planetary health committee for faculty and students this past year, as well as the creation of a website linking students to resources for learning and opportunities.

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

Planetary health/ESH topics are **well integrated** into the core medical school curriculum. (6 points)

Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)

Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s)**. (2 points)

There is **minimal/no** education for sustainable healthcare. (0 points)

Score Assigned:	6
<p><i>Score explanation: Topics, such as the role that the environment plays in the development of respiratory pathologies are well integrated into the curriculum longitudinally, and appear multiple times within the curriculum through different courses and different years. Within each system block, environmental factors that affect health are mentioned, if applicable (e.g. hot weather and renal function relationship, environmental chemicals + infertility).</i></p> <p><i>In the first year curriculum, there is a directed independent learning module titled “Environmental & Planetary Determinants of Health” which explores how climate change can impact an individual’s health. This is part of a course, titled “structural determinants of health”, which explores the various factors that can improve or negatively impact one’s health.</i></p>	

<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?</p>	
<p>Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)</p>	
<p>No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)</p>	
Score Assigned:	1
<p><i>Score explanation: Dr. Alexa Caturay is the course director for the undergraduate medicine public health program. Additionally, Dr. Laura Kroeker is the Planetary Health Faculty Lead for Queen’s PGME department and works to “implement strategies to reduce our carbon footprint and reduce the impacts of climate change.” Additionally, the Lifestyle Interest Group is a faculty-run group that is advocating for increased education of lifestyle medicine, including planetary health.</i></p>	

Section Total (53 out of 72)	74%
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Back to Summary Page [here](#)

Interdisciplinary Research

Section Overview: This section evaluates the quality and quantity of interdisciplinary planetary health research at the 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, institutions 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>institution</u>?	
Yes, there are faculty members at the institution who have a primary research focus in planetary health or sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the institution who are conducting research related to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the institution , but not specifically associated with healthcare/vetcare. (1 point)	
No, there are no planetary health and/or sustainability researchers at the institution at this time. (0 points)	
Score Assigned:	3
<i>Score explanation: There exists evidence of published research on planetary health by the medical schools faculty members (including medical students, residents, and attendings) as well as members of other departments within the institution. . Moreover, there are multiple ongoing Quality Improvement (QI) projects with a focus on sustainability and planetary health. Among such project leaders include Dr Anthony Train of the Family Health Team, investigating the impact of the overused medications on the environment.</i>	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?	
There is at least one dedicated department or institute for interdisciplinary planetary health research. (3 points)	
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. (2 points)	
There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research. (1 points)	

There is no dedicated department or institute. (0 points)	
Score Assigned:	3
<p><i>Score explanation: Queen's University has recently initiated a Planetary Health Subcommittee which is dedicated to raising awareness and taking action (including research) on issues that impact learning and healthcare. This subcommittee also includes the Physician Quality Committee and the Utilization Committee, which promotes interdisciplinary membership. Together, the Physician Quality Committee and Utilization Committee are actively working towards quality improvement and utilization initiatives that optimize resource efficiency and have environmental co-benefits to improve climate sustainability at KHSC.</i></p>	

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 institution?	
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. (3 points)	
Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda. (2 points)	
No , but there are current efforts to establish a process for community members to advise or make decisions on the research agenda. (1 points)	
There is no process, and no efforts to create such a process. (0 points)	
Score Assigned:	3
<p><i>Score explanation: Queen's University School of Medicine has recently initiated a partnership in West Africa, conducting a surgical educational program. This program aims to advance equity and accessibility to cancer care, offering competency-based surgical oncology fellowship programs to train general surgeons in 18 countries in West Africa – representing one third of the continent's population. Through this fellowship, African surgeons will receive funding to conduct research with works underway to develop cancer databases and research registries. This program puts local trainees at the centre of the decision making circle.</i></p>	

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?	
There is an easy-to-use, adequately comprehensive website that centralises 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. (3 points)	
There is a website that attempts to centralise various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)	

The institution has an Office of Sustainability website that includes some resources related to health and the environment. (1 point)	
There is no website. (0 points)	
Score Assigned:	2
<i>Score explanation: Associated with the post-graduate medical education planetary health subcommittee is a website which describes work being accomplished (publications, opportunities, education), planetary health committees/groups, pertinent resources as well as relevant partners. Upcoming events are not visible.</i>	

2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?	
Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)	
Yes, the institution has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)	
Yes, the institution has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)	
The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)	
No, the institution has not hosted a conference on topics related to planetary health in the past three years. (0 points)	
Score Assigned:	4
<i>Score explanation: The faculty of health sciences held a virtual “Healthy People. Healthy Planet” speaker series throughout April 2024 on topics including the global impact of animal agriculture and lifestyle medicine,</i>	

2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation?	
Yes, the institution is a member of a national or international planetary health or ESH/ESV organisation. (1 points)	
No, the institution is not a member of such an organisation. (0 points)	
Score Assigned:	1
<i>Score explanation: Queen’s University has students representing the school on the CFMS HEART initiative, a student-lead national planetary health organization. The school of medicine has not</i>	

signed [The Academic Health Institutions' Declaration on Planetary Health](#). The school of medicine however does partake in the Health and Environment Adaptive Response Task force of the Canadian Federation of Medical Students including with student leads.

Section Total (16 out of 17)

94%

Back to Summary Page [here](#)

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 colour. 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 <u>institution</u> partner with community organisations to promote planetary and health?	
Yes, the institution meaningfully partners with multiple community organisations to promote planetary and environmental health. (3 points)	
Yes, the institution meaningfully partners with one community organisation to promote planetary and environmental health. (2 points)	
The institution does not partner with community organisations, but has participating in community focused events relating to planetary health. (1 point)	
No, there is no such meaningful community partnership. (0 points)	
Score Assigned:	2
<i>Score explanation: Queen's University Medical School Postgraduate Medical Education currently has a planetary health collaboration that allows current residents to work with the Growing Sustainable Physicians which is a educational, capacity building, and community building program.</i>	

3.2. Does your <u>institution</u> offer community-facing courses or events regarding planetary health?	
The institution offers community-facing courses or events at least once every year. (3 points)	
The institution offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)	
The institution has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)	
The institution/medical school have not offered such community-facing courses or events. (0 points)	

Score Assigned:	3
<p><i>Score explanation: Queen's University hosts and supports Science Rendezvous Kingston every year whereby Queen's research community comes together to provide Kingston residents with a day of engaging and family-friendly science activities. In 2024, one of the booths; Open Plastic Consortium, demonstrated innovative solutions to the world's plastic waste crisis, and featured mealworms consuming plastic and bacteria aiding in waste reduction efforts. The community also engaged in hands-on activities focused on topics such as wildlife conservation, robotics, and climate change.</i></p>	

<p>3.3. Does your <u>institution</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?</p>	
<p>Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)</p>	
<p>Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to some courses. (1 point)</p>	
<p>Students do not receive communications about planetary health or sustainable healthcare. (0 points)</p>	
Score Assigned:	0
<p><i>Score explanation: The Queen's Health Sciences Faculty promotes stories related to the faculty and occasionally posts planetary health related communication such as a recent post: "Researchers to investigate how wildfire smoke impacts asthma patients". Sustainable healthcare topics are sometimes included in articles published through the Queen's Medical School Dean on Campus blog. These are provided by the Dean of Health Sciences and encourage students to engage with various health topics. However, these are not directly communicated to students via emails or newsletters.</i></p>	

<p>3.4. 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?</p>	
<p>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. (2 points)</p>	
<p>Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)</p>	
<p>There are no such accessible courses for post-graduate providers. (0 points)</p>	
Score Assigned:	2

Score explanation: The Queens School of Medicine currently has a 'Healthy People, Healthy Planet' speaker series, which was designed for faculty, staff, and learners in the Queen's community to encourage healthy behaviors, with an emphasis on the connection between lifestyle and planetary health to support overall wellbeing. The series provides up to six College of Family Physicians Group Learning credits and six Royal College Section 1-Group Learning hours. The Post-Graduate Medical Education faculty also provides resources for educators to add to their curriculum to discuss the topic of planetary health. The Planetary Health website also provides a curriculum tab, which provides learning material for various topics in planetary health to post-graduate providers.

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

Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated medical centres have accessible educational materials for patients. (0 points)

Score Assigned:

2

Score explanation: All physical sites do provide patient-facing brochures on the links between environmental exposures and diseases, all affiliated hospitals have online educational materials that patients can access.

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?

Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:

2

Score explanation: Kingston Health Sciences has a blog available and accessible to patients and has touched on a few climate change topics, including putting out a heat warning. They also have online educational materials that outline the health impacts of climate change, accessible to patients.

Section Total (11 out of 14)

79%

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 **institution** offer support for students interested in enacting a sustainability initiative/QI project?

Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)

The **institution** encourages sustainability QI projects (to fulfil 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. (1 point)

No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

1

Score explanation: A sustainability project is not part of the core undergraduate medical education curriculum, and designated grants for sustainability QI projects are not available. The faculty offers support for these initiatives throughout the medical program, but students must take the initiative independently and seek grant funding from generalized sources or sources exterior to the medical department.

4.2. Does your **institution** offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?

The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)

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. (1 point)

There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Assigned:

1

Score explanation: Queen's School of Medicine does not offer grants specific to planetary health research, and planetary health research projects are not yet a part of the core curriculum. Students may pursue this kind of research independently and may apply for funding through channels open to students undertaking any form of research. There are points within the pre-clerkship curriculum

where students are required to take on a research project with faculty supervision and this could be oriented toward planetary health and QI within a particular discipline if the project itself meets course requirements.

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.

The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)

There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information. (1 point)

There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:

2

Score explanation: The PGME Planetary Health Subcommittee webpage outlines opportunities to take on planetary health research within residency and documents recent planetary health-related publications by physicians at Queen's. The page includes information on committees and groups within Queen's medicine and Kingston Health Sciences center who contribute to and advance planetary health initiatives. Additionally, it outlines resources that interested parties may wish to avail of when initiating or seeking support for a research initiative.

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

Yes, there is a student organisation **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support**. (1 point)

No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)

Score Assigned:

2

Score explanation: The Queen's Medicine Environmental Health Committee was created in the fall of 2024 and is backed by faculty through the Healthy People, Healthy Planet Speakers Series. Furthermore, the committee has held a physician-led event on the health benefits of plant-based foods in October 2024.

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
<p><i>Score explanation: Queen's School of Medicine has a medical student liaison representing sustainability interests who serves on the Queen's medical school Postgraduate Medical Education Committee. Moreover, Queen's University students at large are encouraged to participate on committees such as the Queen's Sustainability Advisory Committee and the Queen's Climate Action Plan Advisory Committee.</i></p>	

4.6. 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)	Score
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.	0
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 organise hiking, backpacking, kayaking, or other outings for students)	1
<p><i>Score explanation: Queen's University has the Alma Mater Society Commission of Environmental Sustainability (AMS CES) which offers many opportunities for sustainable advocacy and engagement, including the Sustainability Hub which hosts events on topics such as agriculture and food security, transportation, and housing and energy. In addition, the Queen's University Outdoors Club organizes several trips and events throughout the year for students to be active outdoors, including weekly kayak sessions and weekend or day trips. The Queen's Medicine Environmental Health Committee has also hosted an "October is Plantiful" event on the implications of individual actions on climate change and biodiversity impact.</i></p>	

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Section Total (12 out of 15)	80%
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Back to Summary Page [here](#)

Campus Sustainability

Section Overview: *This section evaluates the support and engagement in sustainability initiatives by the 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 endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising 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 minimising environmental impact.*

5.1. Does your <u>institution</u> have an Office of Sustainability?	
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. (3 points)	
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 hospital sustainability. (2 points)	
There are no salaried sustainability staff , but there is a sustainability task force or committee. (1 point)	
There are no staff members or task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	2
<p><i>Score explanation: Queen's University has a working group called "Sustainable Queen's" that is composed of tens of staff from various departments working towards a shared goal. There are multiple sub-groups involved in making transportation, community engagement, housing, and curriculum more sustainable. However, there is no designated staff member in charge of hospital sustainability.</i></p>	

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?	
The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)	
The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)	
The institution has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate (1 point)	
The institution/medical school does not meet any of the requirements listed above (0 points)	
Score Assigned:	3

Score explanation: Queen's University is committed to net-zero greenhouse gas emissions by 2040 with a secondary goal of a 70% reduction by 2030. The Climate Action Plan can be found [here](#).

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?

Yes institution buildings are **100%** powered by renewable energy. (3 points)

Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)

Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)

Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)

Score Assigned:

0

Score explanation: More than 75% of the university's scope 1 emissions are produced by a central heating plant which uses natural gas boilers. The remainder of scope 1 emissions are from fuel combustion, and scope 2 emissions are produced by the university's electricity usage (8%) ("[Queen's GHG Inventory Report 2023](#)"). Ontario's power grid was stated as being approximately 33% from renewable sources ("[Canada's Renewable Power - Ontario](#)"), so the university's renewable usage is approximately 2.6%. The medical school is owned by the university, and thus is subject to these usage statistics. The medical school does not utilize any on-site renewable energy sources.

5.4. Are sustainable building practices utilised for new and old buildings on the institution's campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?

Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted**. (2 points)

Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)

Sustainability is **not considered** in the construction of new buildings. (0 points)

Score Assigned:

2

Score explanation: The School of Medicine building at Queen's University was built to a LEED Silver certification ("[School of Medicine](#)"). This is the only non-hospital building currently being

used by the school of medicine, the Old Medical Building having been adopted by other faculties and not meaningfully retrofitted to improve sustainability. The university has updated its Building Standard with the requirement that new buildings must use non-fossil fuel-based heating (for more information, refer to "[Queen's University Greenhouse Gas Inventory Report 2020](#)"). The building's construction also included a small, self-maintained green roof ("[Design & Construction](#)").

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

Yes, the 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-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)

The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)

The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)

Score Assigned:

2

Score explanation: Score explanation: In partnership with the City of Kingston, Queen's University has provided all students with an unlimited bus pass funded by a mandatory \$122 student activity fee that is paid alongside tuition. Queen's University has also installed 60+ electric vehicle charging stations, 400+ bike racks, and implemented a car sharing program. However, accessing off-campus sites without a car in clerkship pushes students to rely on a personal vehicle. Additionally, these alternative transportation methods are not well-advertised during school orientation.

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

Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)

The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)

There is **no** compost or recycling program at the medical school. (0 points)

Score Assigned:

2

Score explanation: The Queen's University medical school building has an organics recycling program and a conventional recycling program in multiple areas.

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

Yes, the institution 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. (3 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)

There are **no** sustainability guidelines for food and beverages. (0 points)

Score Assigned:

2

Score explanation: The university does engage with improving the sustainability of foods acquired, and does offer vegetarian meals ("[Special Diet Options](#)"). The university reports that 71.3% of foods are sourced within Canada (45.6% within 500km) and offers a program supplying cheaper meals with "rescued" ingredients, in line with sustainability goals in place ("[Sustainability Snapshot](#)"). The school has also launched a program wherein some meals are consistent with "Coolfood" guidelines, such that students may choose meals with lower environmental impact (though these are optional) ("[Sustainable Sourcing](#)").

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

Yes, the institution has **adequate** sustainability requirements for supply procurement **and is engaged** in efforts to increase sustainability of procurement. (3 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)

There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:

2

Score explanation: Within the Queen's University [Procurement Policy](#) (updated January 2025), there is a clear statement discussing sustainable procurement. This section of the policy discusses sustainable procurement as a goal of the university, with sustainable procurement defined as balancing the social, ethical, environmental, and economic factors involved in procurement activities. However, in this statement, there are no definitive guidelines or mandates, with the policy only stating that such sustainable procurement is encouraged, and that these factors should be considered when buying goods and services.

Alongside this statement within the procurement policy, Queen's University does provide guidelines for sustainable procurement, with a page dedicated to an explanation of sustainable procurement,

purchasing tips to prioritise sustainability (e.g. “before you buy” reflection questions), and the inclusion of a list of preferred vendors which ave environmentally friendly options for commonly used supplies (i.e. scientific supplies, catering, office supplies etc.)([Sustainable Procurement Guidelines](#)).

While a clear goal of the university and clearly stated in the policy, sustainable procurement is encouraged throughout the university, but not mandated. Within the medical school, there are efforts to follow these suggestions, with events often running using preferred vendors, according to the University Sustainable Procurement Guidelines. For example, all medical school events which involve catering go through Queen’s Hospitality Services (unless otherwise stated), which is classified as a sustainable catering option according to Queen’s University sustainable procurement. While not mandated, there is clear engagement with sustainable procurement within the institution.

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

Every event hosted at the institution **must** abide by sustainability criteria. (2 points)

The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required**. (1 point)

There are **no** sustainability guidelines for institution events. (0 points)

Score Assigned:

1

Score explanation: While there are no current mandatory sustainability requirements for events within the medical school, Queen’s University has multiple resources available to help improve and prioritize event sustainability ([Sustainable Resources](#)). Within the medical school, potential for sustainability is listed as a criteria for Aesculapian Society Initiative Grants, offered semi-annually. There is also a university wide advocacy community, [Sustain Queens](#), which provides further resources and commitment to increased sustainability throughout Queens and in events.

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

Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)

There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)

There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

Score Assigned:

1

The university is currently undergoing a sustainability project to upgrade lab ventilation systems in the School of Medicine Building to decrease its GHG emissions (“[Climate Action Plan: Progress](#)”

[Report](#)”). The university’s “[Lab Safety Checklist](#)” includes turning off lights and other equipment, and closing windows while the lab is not occupied.

5.11. Does your institution’s endowment portfolio investments include fossil-fuel companies?

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. (4 points)

The institution is **entirely divested** from fossil fuels. (3 points)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)

Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

Score Assigned:

2

Score explanation: In 2020, Queen’s University invested more than \$40 million into Pattern Energy, a renewable energy company. The Queen’s Board of Trustees also endorsed its Investment Committee’s Final Report on Climate Change Action Task Force Recommendations ([found here](#)) which sets targets to maintain at least 25% lower carbon emissions than the global equities benchmark by 2030. However, it is estimated that \$32 million of the endowment portfolio is still being invested into fossil fuel companies as mentioned [here](#).

Section Total (19 out of 32)

59%

Back to Summary Page [here](#)

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 Queen’s School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(53/72) \times 100 = 74\%$	B
Interdisciplinary Research (17.5%)	$(15/17) \times 100 = 94\%$	A
Community Outreach and Advocacy (17.5%)	$(11/14) \times 100 = 79\%$	B+
Support for Student-led Planetary Health Initiatives (17.5%)	$(12/15) \times 100 = 80\%$	A-
Campus Sustainability (17.5%)	$(19/32) \times 100 = 59\%$	C+
Institutional Grade	$(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 75.3\%$	B+

Report Card Trends

Section Overview

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

