Planetary Health Report Card (Medicine):

University of Ottawa

2024-2025 Contributing Team:

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Land acknowledgment

The writers of this report, on behalf of the University of Ottawa, would like to pay respect to the Algonquin people, who are the traditional guardians of this land. The city of Ottawa is located on the unceded land of the Algonquin Anishinaabe Nation. We acknowledge their long standing relationship with the Ottawa territory, which remains unceded. We pay respect to all Indigenous people in this region, from all nations across Canada, who call Ottawa home. We acknowledge the traditional knowledge keepers, both young and old. And we honour their courageous leaders: past, present, and future.

Summary of Findings

Overall Grade	B-

Curriculum	C+

- Following the work of the Planetary Health Curriculum Working Group, a new longitudinal, spiral planetary health curriculum at the University of Ottawa Faculty of Medicine (FoM) has started to be implemented. As of September 2024, the new curriculum has been introduced to the first-year core content, with a year-by-year progression planned for the next few years (i.e., in September 2025, the planetary health curriculum will be integrated in first- and second-year curricula, and so on).
- **Recommendations:** This new planetary health curriculum, based on the 11 curricular competencies identified by the Canadian Federation of Medical Students' Health and Environment Adaptive Response Task force, is a great step in the right direction. We also encourage the FoM to further incorporate Indigenous knowledge and perspectives within the planetary health curriculum.

Interdisciplinary Research	A-

- Dr. Husein Moloo's role as the Director of Planetary Health continues to create momentum with the launch of the Planetary Health Lab in January 2024. This growing team is intended to act as a hub for multidisciplinary research influencing policies both within the medical school and throughout The Ottawa Hospital's (TOH) network in the coming years.
- **Recommendations:** Mechanisms by which community members disproportionately affected by climate change can provide input and make decisions on research activities should be considered.

Community Outreach and Advocacy	C-

- A number of public-facing events & professional development activities related to planetary health took place at the FoM this year. While the University of Ottawa engages in community partnerships with an environmental focus, the FoM itself does not partner with community organizations at this time.
- **Recommendations:** Development of strong, longitudinal community partnerships, and integration with the medical school curriculum, continues to remain a priority.

Support for Student-Led Initiatives	B

- Interested medical students can pursue planetary health initiatives through existing programs with non-specific focuses, such as the 4th year Leadership Elective. There are also enthusiastic mentors present within the faculty, though students must find a way to contact them directly.
- **Recommendation:** Listings of planetary health events on the FoM website could be updated more frequently. Increased availability of planetary health-specific research funding and opportunities to connect with relevant Faculty would also improve medical student engagement. This could be facilitated through a dedicated Planetary Health Lab website.

Campus Sustainability	B

- The uOttawa Office of Campus Sustainability is well-established, with multiple programs for the entire university. Efforts are currently underway to expand the scope of the FoM's Sustainable Events Guidelines.
- **Recommendations:** Most sustainability initiatives occur at the main campus, separate from the medical school. Focus on expansion of sustainable food selection and sustainability in lab spaces is recommended.

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 health professional 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 health professional training. It is imperative that we hold our institutions accountable for educating health professional 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.

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 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 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 medical school 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:	2
Score explanation: The Faculty of Medicine's Global Health Concentration is an optional curriculum that promotes global health education via didactic learning, self-teaching and experiential learning. Medical students may pick and complete whichever of offered topics interest them, and they can complete this optional curriculum over a period of 1-4 years. Planetary health is not the main focus of the global health concentration but is one of several learning topics offered (the other topics include social accountability and Indigenous health). Students that choose to pursue further Planetary Health education through the Global Health Concentration have several learning opportunities made available to them, such as workshops with topics in planetary health or attending and presenting at planetary health conferences. *Furthermore, the Faculty of Medicine offers a leadership elective and a QI elective for 4th year students which promote leadership in healthcare via a change management project. Though planetary health is not the explicit objective of these electives, the primary focus for most students who choose this elective is sustainability and planetary health. In contrast to the Global Health Concentration, this non-clinical elective program does not include any lectures or instruction on Planetary Health, but it does provide an experiential learning opportunity.* *Some QI initiatives from these electives that have created enduring changes at the institution include:* - *In the 2021-2022 school year, one of our students, Nathan Chiarlitti, conducted a project whose focus was on improving sustainable healthcare at The Ottawa Hospital (TOH) General Campus. Nathan's work involved quantifying greenhouse gas emissions generated*	

directly and indirectly by the TOH General each year, according to the Greenhouse Gas Protocol. Following his work, TOH hired a sustainability director and a few sustainability leads, who now conduct a formal carbon footprint analysis for TOH every year. - *This year, (2024-25), one of our students, Allison Williams, is conducting a study on transitioning from sterile water to tap water for endoscopies, thus reducing costs and improving sustainability (cutting down on energy required to sterilize the water, waste generated (the plastic bottle), and transport). With this replacement proven to be safe, tap water is now being trialed for endoscopies at TOH and the study is at the stage of surveying staff attitudes and opinions about the change.*

Curriculum: Health Effects of Climate Change

1.2. Does your medical school 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
Score explanation: This topic was discussed in the 1-hour "Climate Change and Health" lecture in Unit 2 of Year 2. The lecture starts with explanations for the learning objective: "Define environmental health and planetary health", with the first half of the lecture dedicated to these topics. Extreme heat, air pollution, wildfires & smoke, floods, vector-borne diseases, food & water security, and mental health were provided as examples of climate-change related consequences and health risks. Furthermore, the lecture also covered the following objectives:"Explain the current and projected health impacts of climate change on the Canadian population" and "Illustrate how climate change adversely impacts different patient populations". The lecture goes on to detail the environmental and health consequences of climate change for each province (or region, ex. the Maritimes), as well as for the Ottawa-Gatineau region specifically.	

1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
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:	2

Score explanation: This topic was discussed in the 1-hour "Climate Change and Health lecture" in Unit 2 of Year 2, as part of the following learning objectives: "Explain the current and projected health impacts of climate change on the Canadian population" and "Illustrate how climate change adversely impacts different patient populations".

The lecture discussed several examples of climate change leading to specific health consequences and included a map from the Lancet that illustrated various extreme weather trends and events across Canada, and their various impacts on human health. There was a focus on recent wildfire events in Canada, and the resulting effects on individual health and healthcare. The lecture also highlighted the disproportionate impact of extreme weather events on vulnerable populations, stating, "Inequitable baseline health status and baseline exposure status amplify the impact of exposure to extreme weather events, along with the fewest access to resources". This topic is further described in question 1.9 below.

This topic was also briefly mentioned in the Environmental Health lecture in Year 3. On slide 14, it states: "Risks to human health and wellness in Canada, including adverse impacts on physical and mental health due to hazards accompanying extreme weather events, heatwaves, lower ambient air quality, and increasing ranges of vector borne pathogens."

1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?	
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:	2
Score explanation: This topic was briefly mentioned in the Environmental Health lecture in Year 3. On slide 14, it states: "Risks to human health and wellness in Canada, including adverse impacts on physical and mental health due to hazards accompanying extreme weather events, heatwaves, lower ambient air quality, and increasing ranges of vector-borne pathogens.".	

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.	
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 topic of air pollution and cardiorespiratory health is explored in depth within the respirology block in Year 1 of the program. A full 45–60-minute mandatory self-learning module entitled "The Lungs and the Environment: Indoor and Outdoor Air Pollution" is dedicated to air pollution and respiratory health. The learning objectives include the following: 1) recognize the contaminants that may affect indoor air quality and influence respiratory health and 2) List important outdoor air pollutants, their important causes, and their effects on health.

It explores the health effects of outdoor and indoor pollution, the link between air quality and lung health, and the effects of CO2 and global warming. It individually describes several criteria pollutants, such as NOx, CO, SO2 and O3. The concept of particulate matters is explored and PM2.5 and PM10 is explained. Big smog events worldwide and in Canada are explained. The connection to health is made clear and is reinforced with estimation of premature death due to air quality. Finally, the module explains products and substances affecting indoor air quality, such as biological contaminants (ex. mould), combustion products (ex. biomass fuels) , chemical contaminants (ex. volatile organic compounds), and carcinogens (ex. asbestos).

Air pollution is also mentioned, though briefly in each occurrence, throughout the respirology block; it is mentioned as one of multiple etiologies in the COPD lecture, in the cough self-learning module, and in pneumonia & COPD case-based learning sessions.

The topic of respiratory health in relation to climate change and air pollution is briefly revisited in the Year 2 Climate Change and Health Lecture, with two slides dedicated to describing air pollution and its effects on health, and a pediatric pollution-related respiratory emergency case being discussed throughout the lecture.

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

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: This topic was briefly discussed in the Year 1 self-learning module on "The Lungs and the Environment" in regards to the impact of air pollution on cardiovascular health. The topic was also discussed in the 1-hour "Climate Change and Health lecture" in Unit 2 of Year 2, as part of the learning objective "Explain the current and projected health impacts of climate change on the Canadian population". A slide dedicated to extreme heat listed heart conditions as one of the resulting aggravating health effects. Extreme heat is briefly mentioned in the Environmental Health lecture in Year 3, but no links to cardiovascular health are elaborated upon.

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
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: In the year 3 Environmental Health lecture, there is a slide dedicated to the harmful effects of climate change on mental health. This topic was also briefly mentioned in the 1-hour "Climate Change and Health lecture" in Unit 2 of Year 2, as part of the learning objective "Explain the current and projected health impacts of climate change on the Canadian population". A slide dedicated to extreme heat listed mental health as one of the resulting aggravating health effects.	

1.8. Does your <u>medical school</u> 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.	
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: In the Environmental Health lecture in Year 3 there is mention of water and food security and the effects of contaminants on health. Concepts such as Tolerable Daily Intake and Acceptable Daily Intake are taught. The link between air pollution and water contamination is discussed. There are 4 slides on water and threats to water sources and there are 2 slides dedicated to pesticides. "Sustainable management practices for water quantity and quality" is also mentioned as "Climate Change & Health Solutions as Health Professionals". One slide also describes Canada's Top Climate Change risks which includes a paragraph on Ecosystems and one on Fisheries. *In the "Climate Change and Health" lecture, there is one slide dedicated to food and water security as part of the health effects of climate change in Canada. One example is provided from Northern Canada, where climate-related ecosystem changes will likely exacerbate food insecurity in the near future.*	

1.9. Does your <u>medical school</u> 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: This topic is first discussed in the Lungs and the Environment self-learning module in Year 1, where there is a specific tab dedicated to the effects of air pollution on babies. *The topic is further elaborated in the Year 2 Climate Change and Health lecture via the following objectives: "Define environmental racism" and "Illustrate how climate change adversely impacts different patient populations". The lecture discusses how the social determinants of health affect climate-related illnesses and conditions. Examples include income, ethnicity, housing quality, and the location of home/school/workplace. The amplification of health inequities in vulnerable populations (ex. low income, elderly/children, Indigenous/Northern communities, people with chronic diseases, etc.) following extreme weather events was also discussed in the lecture.* *Lastly, in the Environmental Health lecture in Year 3 there are multiple mentions of how climate change disproportionately impacts marginalized communities, through multiple slides describing the inequities associated with the burden of climate change. Communities such as northern and Indigenous Canadians, women, children, older adults, lower income individuals, and people with existing health conditions and inequities are highlighted.*	

1.10. Does your <u>medical school</u> 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: In the Climate Change and Health lecture in Year 2, one slide is a chart showing the proportion of fossil fuel pollution-related deaths in different regions of the world, demonstrating the highest proportion in Eastern Asia. In the Environmental Health lecture in Year 3, one slide is a graph from the World Health Organization which shows the number of deaths linked to the environment. It highlights the disproportionate unequal number of deaths in different regions of the world. *However, this score is generous as these are the only mentions in the curriculum. The emphasis on the unequal global impact is not made clear considering the burden of the issue.*	

1.11. Does your <u>medical school</u> 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: The topic of reproductive health and toxins was discussed briefly in the Environmental Health lecture in Year 3. Slide 40 states that the toxic effects of Per & Poly fluorinated alkyl substances (PFAS) include "developmental abnormalities, reproductive and systemic effects", while slide 73 states that "some types of phthalates have affected the reproductive system in animals. Human health effects from exposure to low levels of phthalates are not as clear."	

1.12. Does your <u>medical school</u> 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:	2
Score explanation: Some examples of human-caused environmental threats in Ottawa and Gatineau, Quebec were addressed in the Climate Change and Health lecture in Unit 2 of Year 2, as part of the learning objective "Explain the current and projected health impacts of climate change on the Canadian population". Examples given included floods, extreme heat and storms. Additionally, several heatmaps of Ottawa were shown correlating heat islands, low-income areas, and areas with health disparities, displaying the potential link between these topics.	

1.13. To what extent does your <u>medical school</u> 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:	0
Score explanation: In the Climate Change and Health lecture, one of the objectives is: "Illustrate how climate change adversely impacts different patient populations - specifically low SES individuals, the elderly, women, children, people of color and Indigenous Peoples". However, Indigenous knowledge and value systems were not incorporated into the lecture.	

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
Score explanation: In the Climate Change and Health lecture, two relevant objectives are: "Illustrate how climate change adversely impacts different patient populations - specifically low SES individuals, the elderly, women, children, people of color and Indigenous Peoples" and "Define environmental racism". Indigenous communities' lack of access to clean water is discussed, and the trailer for the documentary "There's Something in the Water" is played as an introduction to the concept that where someone lives is directly related to their health outcomes. Housing quality (ventilation, exposure to mould, etc.) and location (near toxic waste sites & sources of industrial pollution, heavy traffic, lack of greenspace, etc.) are discussed as anthropogenic toxins and unfavourable environments that disproportionately affect marginalized communities; this was further exemplified via the case study discussed in lecture. Specific emphasis was placed on "race [being] the most significant predictor of a person living near contaminated air, water, or soil," with several statistics and examples provided. *In the Environmental Health lecture in Year 3, this is further emphasized in slide 18, which illustrates that low- and middle-income countries bear the brunt of environmental exposures, with women, children, and older adults facing greater exposures through activities such as cooking smoke and unsafe drinking water.*	

Curriculum: Sustainability

1.15. Does your medical school 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:	2
Score explanation: This topic was covered briefly in the year 2 Climate Change and Health lecture, but was not included as a core objective. On slide 45, the climate and health co-benefits of reducing meat consumption in order to reduce carbon emissions and obesity rates is discussed, and a plant-based diet is recommended to combat this.	

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:	2
Score explanation: This topic was discussed in the 1-hour "Climate Change and Health lecture" in Unit 2 of Year 2, as part of the learning objectives (1) "Analyze the carbon footprint of healthcare and propose new approaches" and (2) "Describe how the CanMeds role Health Advocate is applicable to Planetary Health". In the lecture, the role of physicians and the healthcare system are discussed. Specific examples such as waste generated from a blood sample tray are shown. Examples provided also include the elimination of examination table paper family medicine practice clinics and the utilization of tap water instead of sterile water for procedures. *The best options for anesthetic gases are discussed in the Anesthesia lecture in Year 2. However anesthetic options in the context of sustainable healthcare is not part of a learning objective for that lecture.* *The Environmental Health lecture in Year 3 goes over the role of physicians within the climate crisis and resources such as the Canadian Association of Physicians for the Environment (CAPE) are provided.*	

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)	0
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) .	0
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)	0
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 anaestheisa'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

Score explanation: These topics are briefly touched on in various lectures throughout the core curriculum, however they are not part of the formal learning objectives; therefore, we cannot guarantee that these topics are discussed.

1. Over-medicalization, over-investigation, and over-treatment are concepts that are discussed throughout the pre-clerkship curriculum, in nearly every block. However, the emphasis is on the health benefits to patients and reduced cost to the healthcare system rather than on the environment. One exception is the endocrine block; in teaching about thyroid disorders, Choosing Wisely Canada's guidelines are specifically mentioned regarding ordering thyroid ultrasounds, nuclear medicine scans of the thyroid, and free T3/T4 levels.
2. This topic is not discussed.
3. The health benefits, but not the environmental benefits, of exercise for various medical conditions, such as type 2 diabetes, are discussed.
4. This topic is not discussed.
5. The best options for anesthetic gases are discussed in the Anesthesia lecture in Year 2, however they are not discussed in the context of sustainable healthcare.
6. The environmental impact of different types of inhalers is briefly mentioned in the Respiratory Pharmacology lecture in Year 1.
7. This topic is not discussed.

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 **no** strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
Score explanation: In the training for patient encounters, there are no strategies taught to have conversations with patients about the health effects of climate change.	

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: In the Year 1 Physician Skills Development (PSD) course, taking an exposure and environmental history is introduced, especially when discussing patient occupation and respiratory health. The topic is further explored in the mandatory 45-60 minute self-learning module entitled "Introduction to occupational and environmental health," though part of the module is dedicated to health in the workplace. Objectives relevant to environmental and exposure history for this module include: "Illustrate the influences of the ecosystem, the environment, and the workplace on human health at the individual and population levels" and "Identify common environmental hazards and common hazards that are found in air, water, soil, and foods". *Furthermore, in the Environmental Health Lecture in Year 3, there is a slide dedicated to Taking an Occupational and Environmental Exposure History with associated resources. However, the details are not specific to climate change-related issues.*	

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: The uOttawa Faculty of Medicine's Vice Dean of Global Health, Dr Mark Walker, created a Planetary Health Director position which was appointed to Dr Husein Moloo in 2021. Dr. Moloo and his research team have published a scoping review on planetary health education within undergraduate and postgraduate medical education, which identified key competencies/objectives to cover as well as barriers & considerations to implementation. This data has supported the development of an evidence-based planetary health curriculum at the Faculty of Medicine.

A phase 3 planetary health curriculum working group was formed in the fall of 2022. It began its work in January 2023, and has provided the Faculty of Medicine with recommendations for a longitudinal (across pre-clerkship and clerkship), spiral planetary health curriculum. The key curricular competencies identified in a report from the Canadian Federation of Medical Students' Health and Environment Adaptive Response Task force (HEART) were used as a foundation. Plans for the new curriculum were completed and approved as of February 2024. The incoming first-year medical students in September 2024 (Class of 2028) are the first class who will have this planetary health curriculum integrated longitudinally in their four years of medical education.

Additionally, the FoM hosted its first Planetary Health Symposium in April 2022. Planetary health and ESH will be included in continuing medical education courses and community-facing events as of this past September.

Furthermore, Dr Laura Muldoon, the unit leader for the Society, the Individual and Medicine curriculum, has used feedback from local experts and resources from the Canadian Association of Physicians for the Environment (CAPE) to improve the content of the Climate Change & Health lecture in year 2. However, this process is still ongoing.

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:	2
Score explanation: The lectures solely dedicated to Planetary Health topics are: Air Pollution and the Lungs in Year 1 Respirology Block, Climate Change and Health in the context of the Society, the Individual and Medicine (SIM) curriculum in Year 2, and Environmental Health lecture in the context of the Mandatory selective clerkship rotation in Year 3. *A new longitudinal planetary health curriculum is in the process of being implemented throughout the four years of medical education. In Years 1 and 2 (pre-clerkship), planetary health topics have been integrated into core lectures in the format of videos added to the slideshows. This approach was adopted to ensure consistency in the way these concepts were taught, as not all lecturers may be equally familiar with planetary health. Planetary health is now part of the formal objectives in these lectures, and is also testable in the form of multiple choice questions in each unit's exams.* *We are awarding a score of 4 since currently, the planetary health content has only been added into Year 1 core lectures. As the new curriculum continues to be rolled out over the next few years, we expect that planetary health topics will be fully integrated longitudinally in the medical school curriculum.*	

1.22. 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?	
Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
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)	
Score Assigned:	1
Score explanation: In Summer 2021, the FoM appointed Dr Husein Moloo as Planetary Health Director. He is a strong contributor to applying pressure for change within the FoM and sits on the planetary health curriculum working group.	

Section Total (43 out of 72)	**59.72%**

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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 institution?	
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
Score explanation: Following his appointment as the Director of Planetary Health, Dr. Husein Moloo's primary research focus is now planetary health. Dr. Moloo has initiated multiple research projects related to planetary health in medical education, usage of tap water instead of packaged sterile water for colonoscopies, virtual residency interviews, and sustainable postoperative pathways. A short communication on the importance of Planetary Health education in medical schools was published in August 2021, while a protocol for a scoping review was published in 2022. The scoping review has since been published, in December 2024. He also authored an article on a resident-led initiative for promoting planetary health. *Furthermore, The uOttawa Planetary Health Lab launched in January 2024, bringing together a team of trainees and researchers with a focus on improving sustainability within clinical settings. As of 2023, the lab has already received two small grants from The Ottawa Hospital Academic Medical Organization (TOHAMO) for sustainability projects relating to metered-dose inhalers and surgical trays. In 2024, the lab received another TOHAMO grant for a project looking into reducing the blood testing of folate, and a CIHR grant to evaluate the carbon footprint involved in virtual vs. in-person anesthesia consultations. In coming years, the Planetary Health Lab is intended to act as a hub for multidisciplinary research influencing policies both within the medical school and throughout The Ottawa Hospital's (TOH) network.*	

Dr. Curtis Lavoie also has a primary focus of planetary health and healthcare sustainability. He is the chair of the CHEO Hospital Green Team, and his biography on the uOttawa Faculty of Medicine Website lists "environmental sustainability in health care" among his clinical and research interests.

Dr. Mathilde Gaudreau-Simard in the internal medicine department has a focus of planetary health in her research. She has recently published several papers, on topics including Choosing Wisely recommendations, planetary health education, and metered-dose inhalers.

Dr. Salmaan Kanji in the pharmacy department also conducts planetary health research, such as sustainability in pharmacy education. Additionally, he hosts and moderates the Planetary Health Lab meetings and discussions.

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?	
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
Score explanation: In January 2024, Dr. Husein Moloo founded the Planetary Health Research Lab, bringing together like-minded trainees, staff, and researchers working on projects related to sustainability within healthcare settings. Some of these projects include investigating the use of tap water instead of sterile water during endoscopies and colonoscopies, the environmental impact of metered-dose inhalers, and the optimization of surgical trays. The lab is also involved in advocacy work surrounding virtual residency interviews and the implementation of new educational modules on sustainability for both undergraduate medical students and residents. The current aim is to publish 5-8 articles in high-impact journals over the next two years. So far, the lab has published a scoping review on International Planetary Health Education and a resident-driven initiative aimed at improving sustainability efforts in late 2024. The Planetary Health Research Lab has over 15 members contributing to its work, and is continuing to grow as it establishes itself in the planetary health space.	

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:	1
Score explanation: There is no process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at the medical school. *The social accountability mandate for undergraduate medical education does not mention communities disproportionately affected by climate change and environmental injustice. Their priorities lie in Indigenous health and Francophone health.* *However, efforts are currently underway to have an Indigenous advisor for research activities. The main barrier to implementing this change is that potential candidates who have been contacted for this position do not have the time or availability to take this on.*	

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
Score explanation: The International and Global Health Office (IGHO) created a planetary health website in 2022 for the Faculty of Medicine. It includes upcoming events, news, resources, leaders in planetary health but not funding opportunities. Resources listed are extensive, including research journals, local organizations, and uOttawa publications on planetary health. However, it is not updated frequently and does not include a comprehensive list of current ongoing projects related to planetary health.	

The uOttawa Sustainability Office website attempts to centralize campus resources. Although the News section is not updated frequently, it does mention some planetary health leaders and their activities. Funding is not specified. *There is currently no website dedicated to the Planetary Health Research Lab.*

2.5. Has your institution 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
Score explanation: The CASCADES Summer Institute on Sustainable Health Systems was created to provide trainees with the opportunity to increase awareness of sustainable health systems and current action in Canada. The organization holds this event each summer at universities across Canada, with uOttawa hosting the event annually since 2022. In 2024, the event took place from June 10-13 at the Peter Morand building and was hosted by Dr. Husein Moloo. As detailed on the CASCADES website, "through guided learning activities, meetings with local sustainability leaders and nation-wide panel discussions, the Summer Institute aims to develop trainee knowledge, leadership skills and capabilities, and build professional, interdisciplinary networks of trainees and professionals with shared interests." This event is open to all uOttawa trainees in the Faculty of Medicine, bringing together an interdisciplinary group of residents and medical students, as well as pharmacy and graduate students. The conference is set to run from June 9-12, 2025 this year. Other specialty-focused conferences, such as those for Family Medicine and Radiology, have also integrated planetary health discussions into their program. There are plans for a future conference on planetary health in November 2025 which spans all departments.	

2.6. Is your institution 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

Score explanation: The University of Ottawa FoM has joined the Global Consortium on Climate and Health Education. Planetary Health Director Dr. Moloo currently sits on their medical working group.

Section Total (14 out of 17)	**82.35%**

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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 institution 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 participates in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	1
Score explanation: Up until 2023, through the TD Environmental Leaders program, the University of Ottawa partnered with community organizations to support environmental projects in the National Capital Region focusing on habitat restoration, environmental education or community gardens. Students have the opportunity to work in multidisciplinary teams to address an environmental issue of their choice and can apply for up to $5000 of funding from the school. It is unclear if the project will be continued in future years. *The uOttawa Office of Sustainability runs several initiatives throughout the year, but only one is with a community partner: Ferme aux pleines saveurs. This organization offers weekly or biweekly delivery of organic, local produce to students. We are unable to say whether this relationship has a meaningful impact on campus, and since it is associated with a cost, it is likely unavailable to many students.* *The medical school is not directly involved in the aforementioned partnerships. In past years, the Climate Change and Health Lecture in year 2 of the curriculum was co-presented by one of the founders of MOMS4HealthyRecovery, a climate-related advocacy group. Since then, no community organizations were involved with this lecture, likely because these partnerships depend on networking and availability of staff which varies from year to year. When present, they also do not represent a meaningful partnership between the Faculty and a specific community organization.*	

3.2. Does your institution 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** has not offered such community-facing courses or events. (0 points)	
Score Assigned:	2

Score explanation: From November 2022 to April 2023, the Faculty of Medicine's International and Global Health Office (IGHO) hosted a 6-session Planetary Health Community of Practice and Webinar Series. Although this series is targeted towards staff and learners at the Faculty of Medicine, sign-up is available on the public-facing IGHO website and recordings of the webinars are published to YouTube. Recordings of the sessions were made available on the IGHO Youtube channel, providing an ongoing resource for those interested in the topic.

The Faculty of Medicine's International and Global Health Office (IGHO) hosted the Climate Fresk Workshop on January 15th, 2025, and will host again during Earth Week on April 24th, 2025. As detailed in the promotions, "The Climate Fresk workshop is an engaging and participatory event aimed at raising awareness about the causes and consequences of climate change. Through collaborative activities, participants will explore the interconnectedness of various factors affecting our planet. The workshop is based on the IPCC (Intergovernmental Panel on Climate Change) reports on climate change and translates it into a series of 42 cards which participants organize in a cause and consequence pattern." The workshop was facilitated by Lea El Korh from IGHO. The 3 hour event was geared towards students interested in deepening their understanding of climate issues and included hands-on activities to promote understanding of the climate system, discussions and brainstorming sessions with experts and peers and Learning resources and tools to help students take action in the community.

This year, Dr. Husein Moloo, who is the Director of Planetary Health in the Faculty of Medicine, will be giving a talk about sustainability and planetary health at the Mini Medical School program in April 2025.

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)	
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	1
Score explanation: In 2021, the Faculty of Medicine created a newsletter for students and staff called MedFlash. While this publication is not specifically dedicated to planetary health or sustainable healthcare, it is used to advertise events and opportunities related to planetary health (such as the CASCADES Summer Institute on Sustainable Health Systems) to learners, faculty and support staff at the Faculty.	

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
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)	
Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)	
There are **no** such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	2
Score explanation: The CASCADES Summer Institute on Sustainable Health Systems was created to provide trainees with the opportunity to increase awareness of sustainable health systems and current action in Canada. The organization holds this event each summer at universities across Canada, with uOttawa hosting the event annually since 2022. In 2024, it occurred from June 10-13 in a hybrid format at the Peter Morand building, and was hosted by Dr. Husein Moloo. As detailed on the CASCADES website, "through guided learning activities, meetings with local sustainability leaders and nation-wide panel discussions, the Summer Institute aims to develop trainee knowledge, leadership skills and capabilities, and build professional, interdisciplinary networks of trainees and professionals with shared interests." This event is open to all uOttawa trainees in the Faculty of Medicine, bringing together an interdisciplinary group of residents and medical students, as well as pharmacy and graduate students. In 2025, the event will take place from June 9-12. *From November 2022 to April 2023, the Faculty of Medicine's International and Global Health Office (IGHO) hosted a 6-session Planetary Health Community of Practice and Webinar Series. Recordings of the sessions were made available on the IGHO Youtube channel, providing an*	

ongoing resource for those interested in the topic. The series included 6 sessions on topics including planetary health lessons from Indigenous communities, integration of planetary health with clinical and research activities, and greening healthcare settings. The series is designed for Faculty members, learners and support staff of the Faculty of Medicine and features expert speakers from across Canada. It is accredited by the Royal College of Physicians and Surgeons of Canada and College of Family Physicians of Canada and is approved by University of Ottawa's Office of Continuing Professional Development.

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?	
Yes, the **institution** 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:	0
Score explanation: The Bruyere Hospital provides online patient education resources on preventing ulcers and falls. However, we could not find anything on environmental health exposures. *The Ottawa Hospital provides a page on Education and Learning for patients and their families, however, there are no educational materials on environmental health exposures. There is also a website on prevention of infectious diseases, but no educational materials. The same applied to Montfort Hospital.*	

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 **institution** 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:	0
Score explanation: The Bruyere Hospital, Ottawa Hospital and Montfort Hospital did not have any accessible patient education resources on climate change and health impacts.	

Section Total (6 out of 14)	**42.86%**

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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, the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	1

Score explanation: The University of Ottawa currently does not offer any grants to medical students specifically for sustainability initiatives, or specifically geared towards planetary health projects. However, there are clear examples of the Faculty of Medicine encouraging medical students to get involved with sustainability initiatives and supporting those that do.

The recent launch of the Planetary Health Lab in January 2024 provides a dedicated space for students to pursue sustainability QI projects. Several such projects are underway, such as one relating to metered-dose inhalers, another to paracentesis / thoracentesis trays, and one to sterile water use in endoscopy. The Ottawa Hospital Academic Medical Organization (TOHAMO) provides grant funding specifically for QI research. In 2023, TOHAMO made planetary health research a priority area for their grants, enabling the Planetary Health Lab to secure funding for those two projects. Currently, there are 5 medical students involved with the lab, however there is no discrete funding available to support them in doing sustainability QI work.

Moreover, the University of Ottawa also offers non-clinical electives including a leadership elective, a patient safety and quality improvement elective as well as a research elective. Sustainability related initiatives are not specifically encouraged through these electives. However, students can potentially utilize these opportunities to pursue such projects if they choose. All projects must secure the support of a supervisor. This is the only form of official support offered to students pursuing projects.

In 2022, a fourth-year medical student (Nathan Chiarlitti) has used this non-clinical elective opportunity to pursue a project in healthcare sustainability, supervised by Dr. Curtis Lavoie, with significant assistance from Dr. Moloo. In 2024, fourth-year medical student Allison Williams used this elective opportunity to conduct a project on the use of tap water in lieu of sterile water during endoscopies. This project was supervised by Dr. Moloo.

Additionally, residency programs at The Ottawa Hospital now include teaching about sustainability, in collaboration with the Quality Improvement department at the hospital. Following this education, some residents have been motivated to take on sustainability initiatives, such as an inventory on the carbon footprint of interviews in medicine, and a publication led by a medical student (Nièvе Séguin) on the importance of planetary health education in all medical school curricula. The projects have generally received significant support and assistance from the Planetary Health Director, Dr. Moloo.

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:	2

Score explanation: The FoM's International and Global Health Office offers the Advancements in Global Health Studentship program which financially "support[s] projects that advance global health through innovative approaches to global health challenges and improvements in global health education", including those related to planetary health. However, students must independently identify a project and supervisor.

The FoM also provides research funding through the Summer Studentship Program. The program provides $5000 for up to 54 first- and second-year medical students to participate in 10-week summer research projects. However, research supervisors must submit their project for the grant and this list of projects is distributed to the medical students. Therefore, a research supervisor must submit a proposal for a planetary health project for a student to be able to participate in such an opportunity. In summer 2022, a second-year student (Alexie Leclerc) and the Planetary Health Director (Dr. Husein Moloo) collaborated on multiple planetary health education and sustainable healthcare research projects. In the summer of 2024, a survey of sustainability in French postgraduate programs was conducted through the Summer Studentship Program.

The Planetary Health Lab has secured funding for 2 student projects in sustainability for summer 2025. Outside of the Summer Studentship Program, the Planetary Health Lab provides opportunities for students to conduct research related to sustainability in healthcare throughout the school year. These opportunities are circulated to students via faculty newsletters or through program-specific communication (e.g. the Summer Studentship Program). The students must take initiative to apply to these programs, but otherwise all the necessary infrastructure is in place for them to execute the projects.

4.3. Does the institution have a web page 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 web page 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 web page that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, 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:	1
Score explanation: A Planetary Health website was created by the International and Global Health Office (IGHO) to centralize Planetary Health initiatives and news in 2022. It includes links to the new Planetary Health Community of Practice and Webinar Series and lists names of speakers scheduled for upcoming events throughout the year. It also lists resources for learners and completed projects, including the aforementioned paper published by Nièvе Séguin. A portion of the page is also dedicated to ongoing planetary health projects, although there are currently none listed. Students are directed to contact the IGHO by email with queries, and the IGHO has connected several students with Planetary Health Director Dr. Moloo for mentorship. However, it does not yet include information regarding the new Planetary Health Lab, or other specific research projects that are ongoing at the University of Ottawa. *Although not directly affiliated with the University of Ottawa, Trainee-led Research and Audit for Sustainability in Healthcare Canada (TRASH-CAN) is an initiative founded in Ottawa by a uOttawa general surgery resident, Dr. Gordie Best. This initiative aims to connect students with mentors currently conducting Planetary Health projects, and lists possible healthcare projects and mentors on their website. While they do not directly list contact information, interested trainees can fill out a contact form directly on the site to be connected with potential mentors. It was inspired by TRA2SH, a similar initiative based in Australia and New Zealand.*	

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 institution dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my institution 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 Sustainability and Climate Change Committee (SACC) is a student-run committee dedicated to "to inspire a shift within the uOttawa Faculty of Medicine's culture towards more sustainable and waste-reduction practices and increase planetary health and climate justice awareness". It was founded in the Fall of 2019 and became an Aesculapian Society Committee in March 2020. Unfortunately, the group receives no formal funding from the faculty. However, the group receives generous support and mentorship from Dr. Moloo, as well as members of the IGHO.

SACC runs several sustainability initiatives, but conducts three main projects each year. Firstly, the PHRC is completed to assess the current state of planetary health at the medical school. Secondly, SACC organizes Earth Week programming. This includes a movie screening, trivia night, and river cleanup, among many other activities. Lastly, and most importantly, SACC devised, and now enforces, the Aesculapian Society's Sustainable Events Guideline (SEG), which clubs and interest groups must follow in order to receive funding and reimbursements for their events. SACC also collects data on the SEG and revises it as necessary.

In September 2020, the Planetary Health Interest Group (PHIG) was created to promote Planetary Health within the student population. This student-led group was supported by Dr Curtis Lavoie and has received funding from the faculty via the Aesculapian Society. PHIG organized multiple events throughout the school year. They invited experts in the field to discuss topics such as Climate Change and Health, Public Health within the Climate Crisis, Sustainable Healthcare, and they also organized discussions on Environmental Racism and Advocacy challenges. Unfortunately, this group was no longer running as of the 2023-2024 academic year, likely due to lack of interest amongst students in leading the group.

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

Score explanation: As part of the Faculty's curriculum renewal, multiple working groups have been formed. The Phase 2 working group included medical student Nièvе Séguin, who advocated for the inclusion of planetary health topics in the curriculum. As a direct result of her efforts, the faculty formed a Phase 3 group, which also included medical students Liam Quartermain and Sherry Tan, who further advocated for curriculum reform and sustainable practices at the FoM. As of February 2024, the plans for the new curriculum have been completed and approved. As this new material has now been integrated into the curriculum, the working group's efforts are now completed and has thus been dissolved. Another medical student, Zoe Tsai, is working with the Assistant Dean of Curriculum to collect evaluations on this new curriculum, and will be one of the presenters delivering a workshop on this topic at the International Congress on Academic Medicine (ICAM) in April 2025.

While there are two student council representatives who sit on the Undergraduate Curriculum Committee with faculty, they do not specifically advocate for sustainability-related curricular reform.

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	**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.	0
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.	0
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

Score explanation:

1. *The institution did not host any related events this year.*

2. *The CASCADES Summer Institute on Sustainable Health Systems was created to provide trainees with the opportunity to increase awareness of sustainable health systems and current action in Canada. The organization holds this event each summer at universities across Canada, with uOttawa hosting the event annually since 2022. In 2024, the event was hosted from June 10-13 in a hybrid format at the Peter Morand building and was hosted by Dr. Husein Moloo. As detailed on the CASCADES website, "through guided learning activities, meetings with local sustainability leaders and nation-wide panel discussions, the Summer Institute aims to develop trainee knowledge, leadership skills and capabilities, and build professional, interdisciplinary networks of trainees and professionals with shared interests." This event is open to all uOttawa trainees in the Faculty of Medicine, bringing together an interdisciplinary group of residents and medical students, as well as pharmacy and graduate students. In 2025, the event will take place from June 9-12*

3. *In November 2022, the Planetary Health Webinar welcomed Dr. Nicole Redvers, a member of the Deninu K'ue First Nation in Denendeh (NWT), and an Associate Professor and Director of Indigenous Planetary Health at the Schulich School of Medicine & Dentistry at Western University. Dr. Redvers' talk was titled "Lessons of Planetary Health and Healing from Indigenous Communities" and was open to all faculty members and learners. Although the series is not being continued, the webinar recordings are available to the public on the IGHO Youtube channel.*

4. *The institution did not host any related events this past year, though a movie screening (movie TBD) is being planned for Earth Week in April 2025.*

5. *Based on the recommendations of last year's PHRC, medical students advocated for the inclusion of 2 Community Service Learning (CSL) placements dedicated to planetary health opportunities. First year medical students at uOttawa have a 30 hour mandatory community volunteering requirement. The creation of these placements under the supervision of Dr. Moloo and SACC ensure that students have the opportunity to engage in local sustainability efforts. This year, students will be involved in planning events for Earth Week, such as a local river cleanup effort and clothing donation drive.*

6. *The Faculty of Medicine does not currently have an outdoors club. However, medical students can join the wider University of Ottawa Outdoors Club. The club confirmed that they promote Leave No Trace principles.*

Section Total (10 out of 15)	**66.67%**

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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 institution 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:	3
Score explanation: The University of Ottawa has a well-established Office of Campus Sustainability with multiple full-time staff dedicated to sustainability and advocacy. The Faculty of Medicine is located at Roger Guindon Hall, away from the Main Campus where the Office of Sustainability is located. While there is no specific staff member in charge of the medical school, the Office of Sustainability services the medical school in addition to the main uOttawa campus. *Additionally, the Ottawa Hospital, which is the main teaching hospital associated with the Faculty of Medicine, has taken steps to hire two new staff members dedicated to sustainability at the hospital this year.*	

5.2. How ambitious is your institution's 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 does **not** meet any of the requirements listed above (0 points)	
Score Assigned:	3
Score explanation: The University of Ottawa has officially stated their goal of becoming carbon neutral by the year 2040. This would specifically apply to direct emissions (scope 1) produced by burning natural gas and fuel. The institution adopted Policy 72 Environmental Management and Sustainability in 2017, which led to the Campus Sustainability Plan. Under this policy, each faculty, including the Faculty of Medicine, is required to create a sustainability plan. *The broad plan to reach carbon neutrality, according to the Office of Campus sustainability, is to reduce campus emissions as much as possible, followed by offsetting whatever emissions cannot be eliminated. However, a well-defined plan has not been created, possibly because an inventory of the university's greenhouse gases has not been completed and priorities have not been set. The University is in the process of completing a greenhouse gas inventory, with two categories remaining. Currently, the inventory is planned to be fully completed by Spring 2025 and documented in the 2025 uOttawa Climate Report. The Office of Campus Sustainability also noted that the biggest areas of focus for emissions reductions is building retrofits and electrifying the campus.* *As of March 2025, the plan is still under development. The Office of Campus sustainability states that deep energy retrofits, fuel switching, and offsets for remaining areas will be investigated and included in the plan.*	

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:	1
Score explanation: The electricity used by medical school buildings and its associated hospitals is supplied by the province of Ontario. According to official snapshot data from 2023, just over 34% of the electricity supplied by the Ontario electric grid comes from renewable sources. This year, a	

new solar photovoltaic system was also installed at the Faculty of Health Sciences building. The Office of Campus Sustainability notes that electric vehicle chargers are planned to be incorporated into the new Advanced Medical Research Centre, which is currently under construction. This building is targeting LEED platinum certification.

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:	3

Score explanation: The University of Ottawa has introduced a series of energy retrofits on campus designed to reduce energy consumption, and greenhouse gas emissions in 2024 have continued to decrease in comparison to previous years. Currently, as of March 2025, estimated savings totalling 804,000 kWh/yr, ~1,540 GJ/year thermal, and 900 m³/yr of domestic water, and the uOttawa Energy Team continues with small scale tuning to the buildings on campus to further reduce emissions. Roger Guindon Hall, the medical school's building, is an older construction at the university. However, efforts have been made to renovate the institution in 2016 which led to saving 5 million kilowatt hours of electricity a year. the University of Ottawa, all new university buildings must now be built to a LEED silver certification standard. There is also a requirement to consider (or add) a green roof to new constructions or in the retrofitting process (weight permitting). The Office of Sustainability is investigating the addition of more electric vehicle charging stations on existing campus grounds.

The new University of Ottawa Faculty of Health Sciences (200 Lees Campus) is seeking LEED platinum certification, the highest rating available. This certification has not yet been finalized as of March 2025. Additionally, the new Advanced Medical Research Centre building will have electric vehicle chargers and also target LEED platinum certification after its completion.

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:	1
Score explanation: Our medical school building provides some bike racks, but no electric vehicle charging stations. The Office of Campus Sustainability has plans to install electric chargers at the new Advanced Medical Research Centre, which is currently under construction as of March 2025. The Office of Sustainability has also expressed their desire to add solar panels after construction if space permits. *The University of Ottawa Students' Union advocated for student bus passes, so students have unlimited use of both the city bus system (OC Transpo) and light rail (O-Train). However, city public transit is not sufficient, accessible or regular enough for most students to rely on it for commuting to campus. There is a bus stop located right on campus, but it is serviced only by one bus route, which only comes every 15 minutes. Moreover, the route of this bus is relatively limited, and makes commuting to many areas of the city impractical (especially in directions away from downtown). There are also shuttle buses between the medical campus and main campus, as well as between the two university affiliated hospitals, yet these come only every 30 minutes. Most medical students find their own way to campus, with a large portion of them driving.* *The members of the Sustainability and Climate Change Committee have also promoted the use of the intercampus shuttle, which runs between the Civic, General, and Riverside campuses of The Ottawa Hospital. Students are encouraged to use the service, as it offers an efficient and sustainable way to travel between RGN and the Civic campus, where many students have electives and clinical placements. It cannot be determined how widely used the service is by medical students, and it may be beneficial for the route to be further promoted.*	

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 institution. (0 points)	
Score Assigned:	2

Score explanation: The Faculty of Medicine building, Roger Guindon Hall, has numerous waste bins around campus, sorted by compost, recycling, and garbage. These are readily accessible in high-traffic locations for faculty and students. The Office of Sustainability has been receptive to adding more compost stations throughout the building.

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 a**dequate s**ustainability 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: A new cafeteria was recently completed at Roger Guindon Hall and the following sustainability initiatives will be incorporated: the menu has mainly made-to-order items instead of pre-packaged food, no bottled water will be sold, packaging and cutlery will be a mix of recyclable and compostable products, and all equipment is EnergyStar rating.

The uOttawa Dining Hall located on the main campus has been certified as a three-star facility by the Green Restaurant Association since 2018, which has been elevated to the top, 4-star certification since 2023. There are several initiatives at the uOttawa Dining all that promote sustainability, including: reusable cup discounts, biodegradable plates and cutlery, diversion of used cooking oil to biofuel, leftover food recycling, local food sourcing, and using environmentally green cleaning materials. Currently, the uOttawa Dining Hall continues to serve red meat and does not have red meat free days. A new food services carbon reduction plan is currently planned for the future.

The university campus has also implemented Friendlier containers around the main campus and medical school building to reduce single-use plastics. The development of a Community Fridge program is in progress to support food sharing and donating in the local community, with estimated implementation in Fall 2025. Additionally, the university has implemented the Free Food Alert app (the first institution in Canada to do so) and it is on target to be used over 50 times this semester. This app notifies students of leftover food from conferences, ceremonies, events and meetings held at uOttawa, which can then be taken.

Some food sustainability criteria are requested to externally franchised food vendors (such as Tim Hortons, Starbucks, etc.), or external caterers of campus events. For example, external food suppliers are often asked to offer compostable packaging, and external groups are asked to donate their leftover food. However, there is no enforcement of these requests. According to the Office of Campus Sustainability, although there is a strong desire to increase the sustainability of on-campus catering, no formal policies have been introduced to address this and none are planned.

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:	3
Score explanation: Score explanation: In early 2021, two Faculty members under the Administrative Services Modernization Program reached out to the Sustainability and Climate Change Committee (SACC) to begin a Sustainable Supply Chain Committee. Their first project was to implement PPE recycling boxes across the Faculty of Medicine which was a successful initiative. They are continuing their work in sustainable supply procurement and collaboration with the Faculty's Executive Leadership Team, but progress has been slow during the COVID-19 pandemic. Furthermore, the university has a policy regarding ethical purchasing and mentions sustainability in its procurement policy. The Procurement team at uOttawa does sit on a social procurement roundtable for the City of Ottawa. *The Ottawa Hospital (TOH), the main hospital associated with the uOttawa Faculty of Medicine, has staffed 2 new roles relating to sustainability efforts. As of 2024, there is a new supply procurement committee at TOH, and there has been implementation of Environmentally Preferable Purchasing policies as well as a new Sustainable Construction Standard which focuses on procuring environmentally friendly products. A new approval score for procurement of hospital products now includes sustainability criteria as 10% of the score, and this has become a key decision-making factor for supply procurement at TOH.*	

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: The Aesculapian Society (medical student council) has adopted sustainability guidelines as policy for student-lead events. These guidelines were created by students involved with the Sustainability and Climate Change Committee and will be implemented for the 2021-2022 school year and onwards. *However, the Sustainability and Climate Change Committee guidelines are only encouraged, but not enforced for faculty-run and student-led events. Additionally, no guidelines are enforced when*	

campus groups/events seek services from external organizations, with food catering being perhaps the most notable example. There is no enforcement of what foods can be served, or how they can be served (i.e., with single use plastics). As of February 2025, there is also a separate sustainable events guide being developed by the uOttawa faculty, which hopefully will provide more sustainability regulations for campus community members.

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

Score explanation: There are no formal guidelines or programs to make Faculty of Medicine lab spaces more sustainable, aside from a PPE recycling program that is promising and allows for recycling of gloves, masks, safety glasses and several other forms of PPE. However, this program does not constitute a guideline and is not enforced. Moreover, the boxes allowing for PPE disposal are primarily located at main building entrances and not around lab facilities, meaning many students dispose of their PPE in more accessible garbage cans. This recycling program has had further difficulties with usage especially because each lab is run independently, and inter-lab communication is scarce. The Office of Sustainability is currently considering integrating sustainability criteria into the procurement process for lab equipment.

The research arm of the Ottawa Hospital, the Ottawa Hospital Research Institute (OHRI), has made strides to introduce planetary health initiatives within their lab spaces. For example, the OHRI is in the process of converting their ultra-low freezers to high efficiency, with nearly half already converted. Lab spaces, such as within the Cancer Therapeutics Program, have Green Teams which have made changes to their space to be more sustainable. This includes switching to glass media bottles, using restockable pipette tips, reducing annual shipments, reducing water consumption, and working towards My Green Lab Certification.

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: On February 17th, 2022, the University of Ottawa announced that it will divest all of its direct equity in fossil fuel holdings by 2023, followed by all indirect holdings by 2030. Moreover, since the University signed the Montreal Carbon Pledge in 2015, requiring them to measure and publicly share the carbon footprint of their investment portfolio, the University has reported a $94 million increase in sustainable investments ($19 million in renewable energy, $64 million in low carbon equities, and $11 million in "green" bonds). The University has also set the target of having 10% of its long-term investment portfolio in sustainable investments by the end of 2025. Fossil fuel companies currently make up 2% of the University's equity portfolio. The investment team has reported that they are still on track to meet their targets and there will be an update in the uOttawa Climate Report coming Spring 2025. *The University has further announced that it will be matching a $2 million investment from the Jarislowsky Foundation to create the new Jarislowsky Chair in Clean Economy and Innovation. This research Chair will work to further our understanding of the role that humans play in climate change, as well as the resulting impact on communities, economies, Canadian ecosystems, and Canadian species.*	

Section Total (22 out of 32)	**68.75%**

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(43/72) x 100 = 59.72%	C+
Interdisciplinary Research (17.5%)	(14/17) x 100 = 82.35%	A-
Community Outreach and Advocacy (17.5%)	(6/14) x 100 = 42.86%	C-
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	B
Campus Sustainability (17.5%)	(22/32) x 100 = 68.75%	B
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 63.53%**	**B-**

Report Card Trends

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