# Planetary Health Report Card (Medicine):

## *University of British Columbia*

2024-2025 Contributing Team:

- Students: *Garshana Rajkumar, Stephanie Quon, Vivian Wu, Sara Niyyati*

*Primary Contact: Garshana Rajkumar, garshana@student.ubc.ca

Land acknowledgment: We would like to acknowledge that the land that UBC is located on is the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) People.

# Summary of Findings

| Overall Grade | C+ |
|---|---|

| Curriculum | C |
|---|---|

- UBC offers comprehensive elective modules that cover a variety of topics in planetary health such as sustainable healthcare, impacts on health, population health, and much more.
- However, in the core curriculum, planetary health and education for sustainable healthcare is only touched on briefly and lacks in-depth coverage. There are many instances where lecturers bring up these topics but usually only include one to three slides at most as these topics are not the main discussion. As well, there are some topics listed in the report card that are not covered at all such as reproductive health effects of industry related environmental toxins, strategies for having conversations with patients about climate change, and the impact of surgical healthcare on planetary health and the climate crisis.
- **Recommendations:** UBC could benefit from having more in-depth coverage of these topics by including lectures that exclusively cover planetary health. As well, UBC could benefit from incorporating mandatory modules or including multiple learning goals on exams directly related to planetary health or sustainable healthcare.

| Interdisciplinary Research | C |
|---|---|

- UBC lacks a central interdisciplinary department or institute dedicated to planetary health research, though related efforts exist within the Occupational and Environmental Health Division in the School of Population and Public Health.
- There is no formal process for communities disproportionately impacted by climate change to advise or influence UBC's research agenda, though individual projects may include community engagement.
- UBC does not have a centralized planetary health website and has not hosted a recent planetary health-focused conference, despite strong sustainability initiatives.
- **Recommendations:** UBC should establish formal membership in planetary health organizations like the Planetary Health Alliance, develop a centralized planetary health hub or website, and host conferences or symposiums to advance interdisciplinary collaboration and community engagement in planetary health research.

| Community Outreach and Advocacy | C |
|---|---|

- UBC’s planetary health efforts are limited, with few dedicated courses, inconsistent community engagement, and limited post-graduate education opportunities.
- Educational resources for patients regarding environmental health and climate change impacts exist but are sparse, with some hospitals providing materials but not all being actively involved.
- **Recommendations:** UBC could improve by systematically integrating more accessible and standardized educational materials related to planetary health and sustainable healthcare across all affiliated hospitals, and by expanding post-graduate educational opportunities focused on these areas.

| Support for Student-Led Initiatives | A- |
|---|---|

- UBC and its medical school support student groups dedicated to planetary health. Two student groups under the Medical Undergraduate Society (MUS) focus on planetary health (UBC Medical Students for Climate Action & Enviromed), receiving MUS funding and faculty support.
- Students can engage in co-curricular planetary health initiatives through the MEDD 419/429/449 courses, through the student-driven project component of the course.
- The medical school has a designated VP Planetary Health who represents students in council meetings and advocates for sustainability within the program.

- The UBC Sustainability website provides information on sustainability-related faculty, groups, and initiatives, but lacks details on active student involvement opportunities.
- **Recommendations:** UBC could update the "UBC Sustainability" webpage to feature a section highlighting active and recruiting sustainability and planetary health-focused labs and projects, helping students connect with potential mentors and opportunities. Additionally, the university could broaden the range of sustainability-focused events.

| **Campus Sustainability** | **B** |
|---|---|

- The University of British Columbia (UBC) is committed to net-zero carbon emissions by 2035, with a Climate Action Plan in place, and has implemented renewable energy sources across campus, including for medical school buildings.
- The medical school supports eco-friendly transportation through a free inter-hospital shuttle, discounted transit passes, and bike racks, though some students face challenges with off-campus clinical site access.
- UBC promotes sustainable purchasing and waste management practices across campus, with guidelines for sustainable food and beverage choices and a Green Labs Program for lab sustainability.
- UBC has partially divested from fossil fuels and aims to fully divest by 2030.
- **Recommendations:** UBC could appoint a full-time staff member dedicated to sustainability within the Faculty of Medicine. Additionally, the university could set more ambitious carbon-neutral targets and prioritize sourcing a greater share of campus energy from renewable sources. Efforts to enhance food and beverage sustainability remain insufficient, and UBC could push for more sustainability-focused food options. The university could mandate sustainable measures for on-campus events.

# Statement of Purpose

*Planetary health is human health.*

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

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

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

# Definitions & Other Considerations

**Definitions:**

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

    1. Describe how the environment and human health interact at different levels.
    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Medical School/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is

specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

- **Core Curriculum:** This refers to taught material that is develiered 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.

- **Extractivisim:** 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: | 3 |
| The University of British Columbia (UBC) medical school offers 5 modules totaling 2.5 hours in second year before clerkship called “Climate Health and Healthcare”. These modules were made by the “UBC Medical Students for Climate Action group”. These modules are evidence-based and discuss the intersection of climate change and health, answer critical questions related to climate change and planetary health.This curriculum, created by students for students, is divided into the following sub-modules: Population Health, Health Threats, Impacts on Health, Sustainable Healthcare, and Connecting with Nature. Students are provided with flexible curricular time if they want to complete these modules.<br><br>Modules: https://www.ubcmedicalstudentsforclimateaction.com/impacts-on-health | |
| *Score explanation:* While UBC does offer elective modules to engage students in planetary health, these modules are only offered for second year students. One suggestion could be to provide more opportunities for 1st, 3rd, and 4th year students to engage in the material. | |

***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: | 2 |
| UBC offers lectures that mention topics such as climate change related to respiratory health, food security and "climate refugees", climate changes impact on CKD and vascular disease, and neonatal global health. However these lectures offer a few slides on these topics and do not cover the topics in depth. There is one 50 minute lecture that is dedicated to planetary health offered during transition to clinical education/clerkship called "The Climate Crisis, Planetary Health and Medical Practice - A Call to Action", however this lecture does not appear to be testable. | |
| *Score explanation:* While climate change and health risks are briefly touched upon throughout the curriculum, there is a lack of depth to the coverage of these topics. The curriculum could benefit from having a required or testable lecture dedicated to climate change or planetary health. | |

| **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: | 1 |
| UBC does not cover the effects of extreme weather events on individual health or the healthcare system. There is a module within the "Climate Health and Healthcare" module called "Extreme Weather" that does cover this topic in depth but it is elective course work and not a required part of the curriculum. This module discusses heat waves and extreme cold effects on health as well as what populations are vulnerable such as the elderly, those with chronic illnesses, homeless populations, and women. | |
| *Score explanation:* There are no lectures or lecture slides dedicated to this topic aside from the elective module. | |

| **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: | 1 |
| UBC does not cover the topic of climate change on the changing patterns of infectious diseases. There is a module within the "Climate Health and Healthcare" module called "Zoonotic Disease" that does cover this topic in depth but it is elective course work and not a required part of the curriculum. | |
| *Score explanation:* In the curriculum there are no lectures or lecture slides that cover this topic. | |

| **1.5. Does your <u>medical school</u> 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: | 2 |
| UBC offers a lecture in the first year during Asthma week called "Environmental and Occupational Lung Disease" that briefly covers the effects of climate change on air pollution and respiratory health. There is a module within the "Climate Health and Healthcare" module called "Air Pollution" that covers how particle pollution, and aeroallergens affect respiratory and cardiovascular health. This module is elective. | |
| *Score explanation:* This lecture briefly talked about respiratory health and climate change but the curriculum could benefit from more in depth coverage such as covering the topic again when talking about COPD or other respiratory conditions. Or making the module required instead of elective. | |

| **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 |
| As part of a lecture on chronic kidney disease, "Approach to CKD Epidemiology and Staging Lecture", the lecture briefly talks about the effects of climate change on CKD and vascular disease. There is an elective module within the "Climate Health and Healthcare" module called "Impacts of Climate Change on Specific Disease Entities" that covers the pathophysiology of air-pollution mediated cardiovascular morbidity and mortality. It also discusses the impacts of climate change on cardiovascular risk factors such as type 2 diabetes, hypertension, and reduced physical activity. | |
| *Score explanation:* There is only one lecture that briefly covers the topic with a few lecture slides. | |

| **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: | 1 |
| There is an elective module within the "Climate Health and Healthcare" module called "Climate Change and Mental Health" that covers how disaster, displacement and climate anxiety affects mental health. As well, the module talks about how patients with mental health concerns may be more likely to suffer adverse mental health as a result of extreme weather events and/or climate change. | |
| *Score explanation:* This topic has not been addressed in the curriculum and is only covered in elective coursework. | |

| **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 |
| During first year in the Lower GI week of the curriculum, the lecture “Weight Loss and Malnutrition", the topic is briefly discussed and topics such as food security and “climate refugees” are also touched upon. | |
| *Score explanation:* There are only a few slides on the topic within this lecture and it is not comprehensively talked about outside of this lecture. | |

| **1.9. Does your medical school curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?** | |
|---|---|
| This topic was explored **in depth** by the **core** curriculum. | |
| This topic was **briefly** covered in the **core** curriculum. | |
| This topic was covered in **elective** coursework. | |
| This topic was **not** covered. | |
| Score Assigned: | 1 |
| Throughout the elective module “Climate Health and Healthcare”, the impacts of climate change on marginalized populations are discussed. As well, there are points to talk about who are most vulnerable to climate change such as the children, LGBTQ2S+ people, indigenous people, people living in poverty, people living in northern and remote communities, the elderly, those with chronic illnesses, homeless populations, and women. There are many sub-modules under “Population Health” that cover this in detail for example:<br><br>There is a module called “Indigenous Peoples” that talk about the systemic consequences that talks about how Canada’s colonial history, intergenerational trauma, and loss of land and language are responsible for the increased vulnerability.<br><br>There is a module called “Women” that discusses climate change and the gender gap. | |
| *Score explanation:* The score was given based on the topic only being covered in elective coursework and not being discussed in the curriculum lectures. | |

| **1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?** |
|---|
| This topic was explored **in depth** by the **core** curriculum. |
| This topic was **briefly** covered in the **core** curriculum. |
| This topic was covered in **elective** coursework. |

| | |
|---|---|
| This topic was **not** covered. | |
| Score Assigned: | 1 |
| Throughout the elective module "Climate Health and Healthcare", the unequal regional health impacts of climate change are discussed. This topic is not discussed in curriculum lectures. | |
| *Score explanation:* The score was given based on the topic only being covered in elective coursework and not being discussed in the curriculum lectures. | |

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

| **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: | 0 |
| This topic was not covered. | |
| *Score explanation:* Neither the curriculum or elective material covered this topic. | |

_____Viv starts!

| **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 |
| At the University of British Columbia, the environmental impact of health is mentioned especially during the "Environmental and Occupational Lung Disease" lecture. However, it's not explored in depth and it wasn't emphasized in any other topics. | |
| Score explanation: This selection is awarded 1 point due to covered in briefly in core curriculum | |

| **1.13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?** | |
|---|---|
| This topic was explored **in depth** by the **core** curriculum. | |
| This topic was **briefly** covered in the **core** curriculum. | |
| This topic was covered in **elective** coursework. | |
| This topic was **not** covered. | |
| Score Assigned: | 0 |
| Not covered | |
| Score explanation: Although UBC medical school covers indigenous health in depth, it does not emphasize the importance of learning through indigenous traditions to help alleviate environmental planetary health solutions. | |

| **1.14. Does your medical school 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: | 0 |
| Not covered | |
| Score explanation: The topic of anthropogenic environmental toxins was discussed but not in the context of marginalized population | |

***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: In the CKD week lectures, we covered the importance of plant based protein diet and it's impact on kidney health. Environmental impacts were not directly mentioned however implied. | |
| Briefly covered in core curriculum. | |

| **1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?** | |
|---|---|
| This topic was explored **in depth** by the **core** curriculum. | |
| This topic was **briefly** covered in the **core** curriculum. | |
| This topic was covered in **elective** coursework. | |
| This topic was **not** covered. | |
| Score Assigned: | 1 |
| In 4th year, there are electives that mention the resources of single use medical devices. However, it's not covered in the core curriculum. | |
| *Score explanation:* This topic is not covered in the core curriculum but in electives. | |

| **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) | 2 |
| The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would 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) | 1 |
| Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point) | 0 |
| The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing | 1 |

| | |
|---|---|
| less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point) | |
| The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point) | 1 |
| **Waste production** within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point) | 1 |
| At UBC, during clerkship we're taught to reduce waste through not ordering excessive testing and the importance of non-pharmaceutical prescriptions for patient outcome. We also explored the harmful outcomes of anesthetic gases as well as single use items. | |
| *Score explanation: There was some discussion around these topics.* | |

***Curriculum: Clinical Applications***

| **1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?** | |
|---|---|
| Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points) | |
| Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points) | |
| No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points) | |
| Score Assigned: | 0 |
| There were brief conversations during COPD week where we touched on the impact of heat waves on respiratory illnesses during CBL sessions; however, we were not taught how to have conversations about the health effects of climate change. | |
| Score explanation: No real strategies are introduced, but there was brief conversation | |

| **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 |

| |
|---|
| We've been taught in our clinical skills to take a strategic environmental history that includes asking about exposure through travel, home, environment, and in addition to occupational exposure during Foundation of clinical skills. |
| *Score explanation: At University of british Columbia our clinical skills teach us to ask about environmental exposures during patient interviews.* |

***Curriculum: Administrative Support for Planetary Health***

| **1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?** | |
|---|---|
| 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: | 2 |
| UBC medical school is making minor changes to planetary health education with the feedback provided from the PHRC enviromed report card. Students are initiating implementation of planetary health into CBL cases. There's a Planetary health curriculum integration project in the process starting from 2023. | |
| *Score explanation: Minor improvements are being made.* | |

| **1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> 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: | 4 |
| At UBC, ESH and Planetary Health is covered in both Year 1 and Year 2 of the new curriculum. In the old curriculum topics such as environmental and occupational hazard exposure are well integrated throughout the curriculum but those topics alone aren't enough coverage of ESH/Planetary Health to award 6 points. | |

| |
|---|
| *Score explanation: Integration but not sufficient for 6 points* |

| **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 |
| The planetary health curriculum integration project is supervised by Drs. Adrian Yee, Angela Towle, Videsh Kapoor, Sarah Bartlett, Brett Schrewe, Rakel Kling, Caroline Stigant who are all overseeing the integration of planetary health and sustainable healthcare into the curriculum. | |
| *Score explanation: There's an ongoing project which involves many members of faculty who are overseeing this process.* | |

| **Section Total (36 out of 72)** | **50%** |
|---|---|

Back to Summary Page here

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

# Interdisciplinary Research

***Section Overview:*** ***This section evaluates the quality and quantity of interdisciplinary planetary health research at the 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 |
| Dr. Andrea MacNeill is a surgical oncologist and researcher focusing on the environmental impacts of healthcare delivery. She leads the Planetary Healthcare Lab at UBC, which aims to transform healthcare systems to mitigate their environmental footprint. Her work aligns with planetary health and healthcare sustainability research.<br><br>Dr. Nav Persaud explores sustainable practices in healthcare, specifically research on integrating sustainability into clinical practice, including reducing waste and assessing the environmental impacts of medications.<br><br>Dr. Michael Brauer conducts research in environmental health, including the effects of air pollution and climate change on health. Dr. Trevor Hancock is a public health physician and health promotion consultant who conducted research in public health, planetary health, and sustainable healthcare systems. These faculty members are within the School of Population and Public Health. | |
| *Score explanation:* UBC has faculty members within the Faculty of Medicine whose primary research focus is on planetary health and healthcare sustainability. For example, Dr. Andrea MacNeill leads efforts in sustainable healthcare through the Planetary Healthcare Lab. Additionally, other faculty members, such as Dr. Michael Brauer, conducts research directly related to planetary health. UBC also participates in interdisciplinary research initiatives within the School of Population and Public Health, which further emphasize planetary health topics. | |

| **2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?** | |
|---|---|
| There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points) | |
| There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points) | |
| There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points) | |
| There is **no** dedicated department or institute. (0 points) | |
| Score Assigned: | 1 |
| While UBC demonstrates a strong commitment to sustainability and environmental health research, it does not currently have a central interdisciplinary department or institute explicitly dedicated to planetary health research. Existing efforts are spread across various faculties and initiatives, such as the Occupational and Environmental Health Division within the School of Population and Public Health, which addresses environmental exposures and their impacts on human health.<br><br>These initiatives align with some principles of planetary health, such as understanding and mitigating the effects of environmental factors on public health. Additionally, UBC hosts the Planetary Healthcare Lab, which focuses on reducing healthcare's environmental footprint, reflecting a growing interest in healthcare sustainability. Despite these efforts, the absence of a dedicated interdisciplinary institute limits the integration of planetary health research across disciplines at the institutional level. | |
| *Score explanation:* UBC does not have a dedicated department or institute explicitly focused on interdisciplinary planetary health research at this time. However, it does have an Occupational and Environmental Health Division within the School of Population and Public Health. This division focuses on the impact of environmental exposures on human health, which partially aligns with planetary health principles. | |

| **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 <u>institution</u>?** |
|---|
| 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 |
|---|---|

UBC does not currently have a formalized process by which communities disproportionately impacted by climate change and environmental injustice have decision-making power or direct advisory roles in shaping the university's climate and environmental research agenda. However, there are efforts and initiatives that engage with these communities to some extent. For example:

1. Indigenous Engagement in Research: UBC has ongoing efforts to incorporate Indigenous perspectives into research through programs like the Indigenous Research Support Initiative (IRSI), which aims to facilitate respectful and reciprocal research relationships between Indigenous communities and researchers. While this initiative is not specific to climate change, it demonstrates UBC's commitment to engaging with communities impacted by systemic injustices.
2. Community-Engaged Research Practices: Various research projects at UBC, such as those undertaken by the School of Population and Public Health (SPPH) and the Institute for Resources, Environment, and Sustainability (IRES), employ community-engaged research practices. These efforts often include stakeholder consultations and partnerships with marginalized groups to ensure culturally appropriate and relevant research outcomes.

*Score explanation:* While some initiatives indicate a move toward greater inclusivity in research, there is no formal, institution-wide process empowering impacted communities to advise or make decisions on the research agenda. Establishing a framework could strengthen UBC's leadership in addressing environmental justice and climate impacts.

**2.4. Does your <u>institution</u> 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: | 1 |
|---|---|

UBC does not currently have a centralized planetary health website that comprehensively compiles resources such as ongoing and past research, relevant funding opportunities, upcoming events, and leaders in planetary health. However, resources related to sustainability and environmental health can be found on the UBC Sustainability website and its related platforms:

1. UBC Sustainability: The UBC Sustainability website serves as a central hub for general sustainability initiatives, events, programs, and campus engagement. While it does provide resources and some information on environmental health, it is not specific to planetary health or health-environment research.

2. UBC Climate Hub: The Climate Hub, a student-led initiative supported by UBC, connects students, staff, and faculty in climate action and research. It highlights climate-focused events, projects, and interdisciplinary collaborations but lacks a focus on planetary health as it relates to human health.
3. Research Platforms: Research centres like the Institute for Resources, Environment, and Sustainability (IRES) and the School of Population and Public Health (SPPH) showcase work on sustainability and environmental health. However, these websites are decentralized and do not collectively serve as a single resource for planetary health.

*Score explanation:* While UBC demonstrates significant engagement with sustainability and environmental health research, there is no comprehensive, easy-to-use, and centralized planetary health website at the institutional level. A dedicated planetary health portal would provide greater visibility and accessibility to related research, events, and opportunities.

**2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?**

Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)

Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)

Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)

The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

| Score Assigned: | 2 |
|---|---|

While UBC has not hosted a dedicated planetary health or sustainable healthcare conference in the past year, it has hosted events in the past three years that are relevant to planetary health and sustainability. Examples include:

1. UBC Climate Change Research Symposium (2021): This symposium was part of UBC's Climate Emergency Response, featuring discussions, workshops, and panels on the intersection of climate change, health, and sustainability. It served as a platform for students, faculty, and community members to engage in climate action and research.
2. UBC Faculty of Medicine's Interdisciplinary Health Conferences (Ongoing): These events have explored topics related to public health and environmental health, touching on climate change, its impacts on human health, and planetary health-related research.
3. Other Sustainability-Focused Events: UBC hosts regular workshops, speaker series, and public lectures under its Sustainability Initiative and related programs. While these events are not full-scale conferences, they often include planetary health-adjacent discussions.

*Score explanation:* Although UBC demonstrates ongoing engagement with sustainability, climate, and health-related topics, it has not hosted a major planetary health or sustainable

| |
|---|
| healthcare-focused conference in the past year. Past events, such as the Climate Change Research Symposium, highlight efforts to promote dialogue and action on planetary health, warranting a score of 2 points. |

| **2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation?** | |
|---|---|
| Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points) | |
| No, the institution is **not** a member of such an organisation. (0 points) | |
| Score Assigned: | 0 |
| Currently, the University of British Columbia (UBC) is not listed as a member of major planetary health or environmental sustainability in healthcare/veterinary (ESH/ESV) organizations, such as:<br><br>● Planetary Health Alliance (PHA)<br>● Global Consortium on Climate and Health Education (GCCHE)<br>● UK Health Alliance on Climate Change<br><br>While UBC has some sustainability initiatives and climate-focused research, there is no formal institutional membership in the specified global organizations specifically advancing planetary health education, research, and advocacy. | |
| *Score explanation:* UBC's faculty and students may participate in related initiatives and collaborate on global planetary health projects, but these efforts are not reflected as institutional membership. | |

| **Section Total (8 out of 17)** | **47%** |
|---|---|

Back to Summary Page here

# Community Outreach and Advocacy

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

| **3.1. Does your 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 has participating in community focused events relating to planetary health. (1 point) | |
| No, there is **no** such meaningful community partnership. (0 points) | |
| Score Assigned: | 1 |
| UBC engages in community-focused events related to sustainability and environmental health, but does not have formal, sustained partnerships specifically centered on planetary and environmental health. While UBC participates in broader sustainability initiatives and collaborates with local environmental organizations, there is limited evidence of integration into the medical school curriculum or structured partnerships with community organizations directly focused on planetary health. This limits the depth of involvement in promoting planetary health through community engagement. | |
| *Score explanation:* UBC has made strides in sustainability and environmental health through community-focused events, but lacks formal, meaningful partnerships with community organizations specifically dedicated to planetary health. While there are some collaborations with environmental organizations, these efforts are not integrated into the medical school's core programming or credit-bearing initiatives focused solely on planetary health. | |

| **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/medical school** have not offered such community-facing courses or events. (0 points) |

| | |
|---|---|
| Score Assigned: | 2 |

UBC promotes sustainability and environmental health initiatives through various events and courses, some of which are open to the community. While these events are accessible to the public, they are not consistently offered annually or specifically designed with a community audience in mind. For example, The UBC Climate Solutions Research Collective ran a "Climate Emergency: Tipping Points for Planetary Health" workshop in October 2024, which was open to the public but more geared toward a university audience.

UBC has engaged in community-oriented activities related to planetary health, such as workshops and lectures on environmental and health-related topics, but these efforts are not as frequent or specifically tailored for community engagement.

*Score explanation:* UBC offers courses and events that are open to the community, but they are not consistently offered every year, nor are they primarily designed with a community audience in mind. While sustainability-related events exist, they lack the specific focus on community/patient engagement

| **3.3. Does your <u>institution</u> 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 |

UBC has some coverage of issues related to planetary health and sustainable healthcare in university update communications. While these topics are not consistently included in all communications, they are occasionally featured in newsletters and updates for certain courses. There is a partial emphasis on sustainability in healthcare, though it is not yet a regular, widespread focus across all communications.

*Score explanation:* UBC partially meets the criteria for regular coverage of planetary health and sustainable healthcare issues in university update communications. While not all students receive dedicated updates, select courses and newsletters include topics related to sustainability and healthcare.

| **3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?** | |
|---|---|
| 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: | 1 |
| UBC currently provides limited opportunities for post-graduate providers to engage in professional education activities focused on planetary health and sustainable healthcare. While there are some continuing education opportunities available, they do not meet the criteria of offering multiple in-person or online courses with a primary focus on planetary health. UBC's Continuing Professional Development department offers a variety of courses, but none are specifically dedicated to planetary health. There are a few articles under the "This Changed My Practice" initiative that highlights planetary health resources and content.<br><br>There may be isolated courses or workshops related to sustainability in healthcare, but these are not comprehensive or designed exclusively to equip post-graduate providers with in-depth knowledge and skills in planetary health. | |
| *Score explanation:* While there are some professional education activities addressing sustainability in healthcare, they do not offer multiple courses dedicated specifically to planetary health and sustainable healthcare for post-graduate providers. The courses provided may touch on relevant topics, but they lack a primary focus on planetary health. | |

| **3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?** | |
|---|---|
| Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients. (2 points) | |
| **Some** affiliated hospitals have accessible educational materials for patients. (1 point) | |
| **No** affiliated medical centres have accessible educational materials for patients. (0 points) | |
| Score Assigned: | 1 |
| UBC and its affiliated hospitals currently lack a comprehensive set of accessible educational materials for patients about environmental health exposures. While some hospitals may have isolated resources addressing specific environmental health issues, there is no centralized or | |

| |
|---|
| consistent effort across affiliated hospitals to provide patient-facing materials linking environmental exposures to health outcomes.<br><br>These resources, when available, tend to be limited in scope and not systematically integrated into hospital practices or online platforms. |
| *Score explanation:* While some affiliated hospitals may offer isolated educational materials regarding environmental health exposures, there is no consistent, comprehensive approach across all hospitals. This limits the accessibility of relevant educational materials for patients. The absence of a centralized initiative for planetary health and sustainable healthcare education contributes to the lower score. |

| **3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?** | |
|---|---|
| Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients. (2 points) | |
| **Some** affiliated hospitals have accessible educational materials for patients. (1 point) | |
| **No** affiliated hospitals have accessible educational materials for patients. (0 points) | |
| Score Assigned: | 1 |
| UBC and its affiliated hospitals currently do not have a consistent and comprehensive collection of accessible educational materials for patients about the health impacts of climate change. While some hospitals may have isolated resources, such as articles or blog posts addressing climate-related health concerns, these are not systematically integrated into patient care or made easily accessible across all affiliated hospitals. For example, the BC Centre for Disease Control has a page on Climate Change and Health.<br><br>There is a lack of a unified approach or dedicated educational materials that systematically address the health impacts of climate change in a way that is accessible to all patients. | |
| *Score explanation:* There are limited or no centralized, accessible educational resources on the health impacts of climate change provided by its affiliated hospitals. Although some hospitals may offer sporadic resources, they do not constitute a comprehensive or integrated effort across all hospitals. | |

| **Section Total (7 out of 14)** | **50%** |
|---|---|

Back to Summary Page here

# Support for Student-Led Planetary Health Initiatives

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

| **4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?** | |
|---|---|
| Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points) | |
| The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point) | |
| No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points) | |
| Score Assigned: | 2 |
| *The University of British Columbia provides funding opportunities for students, staff, faculty, and residents to support initiatives that promote environmental and social sustainability.*<br><br>*A key funding source is the AMS Sustainability Projects Fund (SPF), which finances student-led projects aimed at reducing the campus community's ecological footprint and fostering an environmentally conscious culture. Past projects have received up to $15,000 in funding, and all students are encouraged to apply. Each student contributes $1.60 annually from their tuition to the fund, supporting environmental, social, and economic sustainability efforts across the university.*<br><br>*Additionally, the Green Labs Fund at UBC helps researchers adopt sustainable practices and technologies to minimize the environmental impact of laboratory activities. Open to researchers from both the Vancouver and Okanagan campuses, as well as all university staff, faculty, and students, the fund provides up to $4,000 per project. In 2024, the Green Labs Fund supported four projects with a total of $13,055 in funding.* | |
| *Score explanation: The University of British Columbia provides grants for students to implement sustainability initiatives and QI projects that advance environmental and social sustainability, including the AMS Sustainability Projects Fund (SPF) and the Green Labs Fund.* | |

| **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 |

*The University of British Columbia offers a research program for medical students through the core curricular course MEDD 419/429/449, known as the Foundations of Scholarship course.*

*This course provides dedicated time for students to engage in research or other projects of their choice. Those interested in planetary health, sustainable healthcare, or veterinary care research can independently connect with faculty working in these areas or explore opportunities listed in the course catalog.*

*Score explanation: The University of British Columbia provides opportunities for medical students to engage in projects as part of the curriculum, allowing them to focus on planetary health, sustainable healthcare, or veterinary care research.*

| |
|---|
| **4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.** |
| The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points) |
| There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information. (1 point) |
| There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points) |

| | |
|---|---|
| Score Assigned: | 1 |

*The University of British Columbia's UBC Sustainability website features a catalog of sustainability-related research projects and mentors, with filters available to focus on topics such as planetary health or sustainable healthcare.*

*However, the catalog primarily highlights researchers, mentors, and research groups rather than providing detailed information on current or ongoing initiatives. Students interested in these areas may need to explore each listed entity further to find relevant and up-to-date information.*

*Score explanation: UBC Sustainability maintains a webpage with a general catalog of projects and mentors, which can be filtered to highlight those focused on planetary health or sustainable healthcare. However, it does not include details on current or ongoing initiatives by these groups.*

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

| |
|---|
| Yes, there is a student organisation **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare. (2 points) |
| Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point) |
| No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points) |

| | |
|---|---|
| Score Assigned: | 2 |

*The University of British Columbia has at least two student groups dedicated to fostering a culture of planetary health engagement, scholarship, and advocacy on campus, with support from faculty advisors.*

*Two groups affiliated specifically with the Faculty of Medicine include:*

1) *UBC Medical Students for Climate Action, a student-led group focused on raising awareness and providing educational resources on planetary health and sustainability in medicine.*
2) *UBC Enviromed, a group of medical students working to mitigate the health impacts of climate change by promoting awareness and organizing environmentally friendly initiatives within the Faculty of Medicine and for medical students and the public.*

*Both groups receive support from faculty members.*

*Score explanation: The University of British Columbia has two student organizations at the medical school, supported by faculty, that are dedicated to planetary health or sustainability in healthcare.*

| |
|---|
| |
| 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 |

*The Medical Undergraduate Society (MUS) at the University of British Columbia has a medical student representative, the VP Planetary Health, who is responsible for promoting planetary healthcare within the medical school, representing students at MUS meetings, and coordinating with faculty members.*

*Score explanation: The VP Planetary Health is a student representative for medical students who serves on a department or institutional decision-making council or committee.*

| **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. | 1 |
| Panels, speaker series, or similar events related to planetary health that have students as an intended audience. | 1 |
| Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts. | 0 |
| Cultural arts events, installations or performances related to planetary health that have students as an intended audience. | 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 |

*UBC Sustainability hosted a workshop on February 14th, 2024, titled "A Beginner's Guide to Growing a Sustainable Herb Garden," which focused on teaching students the basics of creating a sustainable herb garden. They also provided kits with supplies to help students get started.*

*UBC CPD organized a panel event on October 26th, 2024, called "Climate Emergency: Tipping Points for Planetary Health," where health professionals discussed local planetary healthcare initiatives.*

*UBC AMS hosts an annual waste audit at the Nest, the student union building, where volunteers are recruited to help sort waste, manage weights, prepare a report, and present educational infographics to passers-by.*

*The Faculty of Medicine organizes a yearly retreat for first-year medical students, Camp Make Friends, where students stay in cabins at a remote forest location. The retreat itinerary includes various outdoor and wilderness activities, such as hiking and kayaking.*

*Score explanation: The University of British Columbia has hosted programs and initiatives in the following categories:*

- *Organic Agriculture/Sustainable Food Systems, focusing on gardening and farms*
- *Panel or speaker series events*
- *Volunteer opportunities to build community resilience*
- *Wilderness/outdoor programs as part of the yearly retreat for first-year medical students.*

| | |
|---|---|
| **Section Total (12 out of 15)** | **80%** |

Back to Summary Page here

# Campus Sustainability

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

| **5.1. Does your 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: | 2 |
| *The University of British Columbia has a well-established UBC Sustainability Office with multiple full-time staff dedicated to campus sustainability and advocacy; however, no specific staff member is assigned to the medical school.* | |
| *Score explanation: The University of British Columbia's Office of Sustainability has one or more full-time staff dedicated to campus sustainability; however, there is no specific staff member responsible for hospital sustainability.* | |

| **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/medical school does **not** meet any of the requirements listed above (0 points) | |
| Score Assigned: | 3 |

| |
|---|
| *The University of British Columbia is committed to achieving net-zero carbon dioxide emissions by 2035, including within the medical school. Its Climate Action Plan, UBC Climate Action Plan 2030, outlines the necessary steps to reach this goal and highlights progress made so far.* |
| *Score explanation: The University of British Columbia has committed to achieving net-zero carbon dioxide emissions by 2035.* |

| **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: | 2 |
| *At the University of British Columbia, energy for building operations comes from multiple sources: 47% from renewable electricity, 6% from renewable biomass, and 4% from renewable natural gas. UBC's Bioenergy Research Demonstration Facility (BRDF) processes renewable biomass to generate thermal energy, accounting for 6% of total energy use and 30% of campus heating.*<br><br>*This data reflects campus-wide energy use, while specific energy sources for medical school buildings are unavailable.* | |
| *Score explanation: The University of British Columbia's institutional buildings source less than 80% of their energy needs from on-site and off-site renewable energy.* | |

| **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 |
| *Since 2008, all new campus construction and major renovations at the University of British Columbia (UBC) must achieve at least Leadership in Energy and Environmental Design (LEED) Gold certification.*<br><br>*The Life Sciences Institute, a key facility for UBC's medical school, holds LEED Gold certification. In contrast, the Gordon and Leslie Diamond Health Care Centre, another major site for the medical school, does not have publicly available sustainability ratings. Built in 2006, it predates UBC's sustainability mandate. However, the building has undergone sustainable upgrades, including the installation of energy-efficient heating systems and lighting.* | |
| *Score explanation: The University of British Columbia implements sustainable building practices for new construction, while older buildings have been retrofitted to improve sustainability.* | |

| | |
|---|---|
| **5.5. Has the <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?** | |
| Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points) | |
| The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point) | |
| The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points) | |
| Score Assigned: | 2 |
| *The University of British Columbia's medical school offers a free inter-hospital shuttle system for all students. Additionally, students benefit from a discounted transit pass included in their tuition, providing access to the greater Vancouver area through the public transit system. Bike racks and bike paths are also available to support environmentally-friendly commuting options.*<br><br>*Despite these initiatives, accessing off-campus clinical sites can be challenging due to their widespread distribution across the city. As a result, many students choose to drive during their third year and beyond. Nevertheless, the medical school emphasizes the use of public transit and other sustainable transportation options, providing students with information to support eco-friendly travel choices.* | |
| *Score explanation: The University of British Columbia has implemented strategies to promote environmentally friendly transportation, including public transit and a free inter-hospital shuttle system, both of which are widely used by students.* | |

| **5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?** | |
|---|---|
| Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points) | |
| The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point) | |
| There is **no** compost or recycling program at the medical school. (0 points) | |
| Score Assigned: | 2 |
| *The University of British Columbia's medical school buildings are equipped with multiple waste bins for trash, recycling (hard and soft plastics), and composting. These 4-in-1 bins are conveniently placed near dining tables, in hallways outside of labs, and near main entrances, making them accessible to students and faculty.* | |
| *Score explanation: The University of British Columbia offers composting and recycling programs that are accessible to both students and faculty.* | |

| **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: | 1 |
| *The University of British Columbia has informal sustainability guidelines for food and beverage selections, but the medical school does not have formal guidelines or goals.*<br><br>*The food options at the primary medical school location are provided by tertiary vendors, who are not formally required by the medical school to offer foods and beverages with a reduced climate impact. However, these vendors are mandated by provincial and university legislation to use sustainable packaging and to provide financial incentives for students to bring their own containers.* | |
| *Score explanation: There are sustainability guidelines for food and beverages mandated by provincial and broader university legislation. However, the medical school is not formally involved in efforts to enhance food and beverage sustainability.* | |

| **5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?** | |
|---|---|
| Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points) | |
| There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points) | |
| There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point) | |
| There are **no** sustainability guidelines for supply procurement. (0 points) | |
| Score Assigned: | 2 |
| *The University of British Columbia's medical school adheres to the sustainability guidelines established by the university. The UBC Sustainable Purchasing Guide was developed to help staff, faculty, and students make sustainable purchasing decisions. It includes resources for a wide range of goods and services, an eco-label glossary, and information on UBC's ongoing efforts to advance sustainable purchasing both on campus and beyond.*<br><br>*Additionally, UBC has created the UBC Scientific Supplies Purchasing Guide specifically for lab consumables and equipment purchases, which includes a Green Products List with recommended products and vendors.*<br><br>*However, it is important to note that these guides offer recommendations, and sustainable procurement is not mandated for each individual entity. For the university as a whole, financial operations evaluate vendors based on their sustainable practices when reviewing procurement applications. As a result, suppliers responding to a UBC request for proposal (RFP) must demonstrate their commitment to sustainability and circular economy practices.* | |
| *Score explanation: The University of British Columbia has established guidelines for supply procurement but they are optional for individual entities.* | |

| **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 |
| *UBC Sustainability has developed the "Green Your Events" initiative on the main campus, which provides guidance on how to plan more sustainable events, including checklists and additional* | |

| |
|---|
| *resources. Currently, medical school students — or any other students — are not required to follow this criteria.* |
| *Score explanation: The University of British Columbia strongly recommends sustainability measures and has developed resources to help events implement them, but adherence to these measures is not mandatory.* |

| **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: | 2 |
| *The University of British Columbia has developed a Green Labs Program to promote sustainable practices in labs affiliated with the university. The program hosts conservation campaigns, sustainability workshops, events, newsletters, and digital signage to engage with labs. Additionally, 40 Lab Sustainability Coordinators are working to advance sustainability in their departments, with the Green Labs Program providing support through training, virtual resources, and funding opportunities.* | |
| *Score explanation: The University of British Columbia has developed the Green Labs Program to help make lab spaces more environmentally sustainable.* | |

| **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 |

| |
|---|
| *As of 2020, the University of British Columbia had invested 2.2% of its total endowment fund and 2.6% of its staff pension fund in companies primarily focused on fossil fuel extraction. However, UBC has committed to fully divesting from fossil fuel companies by 2030, and has already made partial progress in this direction.* |
| *Score explanation: The University of British Columbia has committed to fully divesting from fossil fuel companies by 2030 and has made partial progress in this effort. However, the university still holds investments in fossil fuel companies.* |

| | |
|---|---|
| **Section Total (22 out of 32)** | **68.8%** |

Back to Summary Page here

# Grading

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

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

**Within each grade bracket, a score in the top 5% (_5 to_9%), receives a "+", and a score in the bottom 5% (_0-_4%) receives a "--". For example, a percentage score of 78% would be a B+.*

[Please input your scores HERE]

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

| Section | Raw Score % | Letter Grade |
|---|---|---|
| **Planetary Health Curriculum (30%)** | (36/72) x 100 = 50% | C |
| **Interdisciplinary Research (17.5%)** | (8/17) x 100 = 47% | C |
| **Community Outreach and Advocacy (17.5%)** | (7/14) x 100 = 50% | C |
| **Support for Student-led Planetary Health Initiatives (17.5%)** | (12/15) x 100= 80% | A- |
| **Campus Sustainability (17.5%)** | (22/32) x 100 = 69% | B |
| **Institutional Grade** | **(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 57%** | **C+** |