Planetary Health Report Card (Medicine):

Washington State University
Elson S. Floyd College of Medicine

2024-2025 Contributing Team:

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Land acknowledgment: Acknowledgement of America's First Peoples
Washington State University acknowledges that its locations statewide are on the homelands of Native peoples, who have lived in this region from time immemorial. Currently, there are

42 tribes, 35 of which are federally recognized that share traditional homelands and waterways in what is now Washington State. Some of these are nations and confederacies that represents multiple tribes and bands. The University expresses its deepest respect for and gratitude towards these original and current caretakers of the region. As an academic community, we acknowledge our responsibility to establish and maintain relationships with these tribes and Native peoples, in support of tribal sovereignty and the inclusion of their voices in teaching, research and programming. Washington State University established the Office of Tribal Relations and Native American Programs to guide us in our relationship with tribes and service to Native American students and communities. We also pledge that these relationships will consist of mutual trust, respect, and reciprocity.

As a land grant institution, we also recognize that the Morrill Act of 1862 established land-grant institutions by providing each state with “public” and federal lands, which are traced back to the disposition of Indigenous lands. In 1890, Washington State received 90,081 acres of Indigenous Lands designated to establish Washington State University. Washington State University retains the majority of these lands to this day. We acknowledge that the disposition of Indigenous lands was often taken by coercive and violent acts, and the disregard of treaties. For that, we extend our deepest apologies. We owe our deepest gratitude to the Native peoples of this region and maintain our commitment towards reconciliation.

Summary of Findings

Overall Grade	B-

Curriculum	C+

- The Washington State University Elson S. Floyd College of Medicine has made significant improvements to the planetary health pre-clerkship curriculum in the past year. This includes an introductory lecture, six specific topic modules, and a health systems lecture. Planetary health topics are not yet integrated into the required elements of the curriculum.
- **Recommendations**: There should be a purposeful integration of planetary health into required core curriculum instead of optional lectures. Next steps could include adding planetary health learning objectives to established threads and case-based-learning, and inclusion of planetary health or environmental health history taking. Planetary health specific elective integration into the clerkship years should also be considered.

Interdisciplinary Research	A

- The WSU College of Medicine is a member of the Global Consortium on Climate and Health Education. WSU has the Center for Environmental Research, Education, and Outreach (CEREO) and the Center for Sustaining Agriculture and Natural Resources. However, there is minimal planetary health research in the College of Medicine, and no process for communities affected by climate injustice to influence research.
- **Recommendations**: The WSU College of Medicine could host a planetary health symposium, recruit researchers and projects that examine the health impacts of climate change, or create a system for communities affected by environmental injustice to influence research.

Community Outreach and Advocacy	D+

- The WSU College of Medicine does partner with some community hospitals which have patient education materials on planetary health impacts. There are also student groups which partner with community organizations promoting environmental health. Unfortunately, the College of Medicine itself does not have meaningful community outreach relating to planetary health.
- **Recommendations**: There should be more community partnerships relating to planetary health, including community-facing events, regular sustainability communications, or CME courses.

Support for Student-Led Initiatives	B

- Continuing to be the area of greatest strength for the WSU College of Medicine is the support given to student-led planetary health initiatives. There are two faculty-supported student groups, which have held many co-curricular events. Opportunities through WSU Pullman campus include a Student Green Fund, CEREO, and many events. The new Presidential Sustainability Task Force will include student input.
- **Recommendations**: University-wide student opportunities should be more clearly advertised and accessible to students in the College of Medicine and included on the new Sustainability website.

Campus Sustainability	C

- The WSU College of Medicine has some sustainable practices, such as recycling and LEED certification. However, there are insufficient carbon reduction goals, and minimal or unpublicized guidelines for campus dining, supplies, lab spaces, or events. There are plans to start a small-scale composting option at the campus cafe. Discussions have begun around divesting from fossil fuels, but no goals have been set.
- **Recommendations**: There should be a campus-wide composting program, and clear guidelines should be publicized and required for campus activities. The new Presidential Sustainability Task Force should

prioritize updating goals for carbon neutrality. Finally, discussions around divestment should continue.

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:	1
Score explanation: The Washington State University Elson S. Floyd College of Medicine offers an elective called Comparative Medicine, focusing on veterinary medicine and taught by Dr. Rachel Larson, which has a lecture on zoonotic diseases which includes the effects of climate change on global spread of zoonoses. There is also an elective on Community Organizing, taught by Dr. Luis Manriquez, which utilizes Environmental Health as one of four lenses to practice organizing principles. This is unchanged from last year. There is a new Global Health elective being offered by Dr. Joanna Breems for 4th year clerkship students with some planetary health content but not the primary focus.	

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
Score explanation: The WSU College of Medicine has a new first-year lecture “Planetary Health and Health Equity” given by Dr. Anne Grossman. This introductory lecture includes two slides discussing the impact of climate change on increasing heat and the health consequences. In addition, there is a lecture on "Health Equity and Population Health" in the first-year curriculum, which has a slide referencing redlining’s effect on overall life expectancy. Limitations on access to green space, and the associated excess heat, was noted during this conversation as one of the factors leading to lower life expectancy. There is a Planetary Health Module VI - “Climate Change and Heat Impacts”. Lastly, as part of MS1’s 1st Clinical Campus Week two of the learning objectives in the “Teach and Learn” assignment for that week includes describing the impact of climate change on migrant farm workers in Washington State and what resources in our clinical campus region are available for management of medical needs of migrants given these conditions.	

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:	3
Score explanation: The new Planetary Health Curriculum includes a Planetary Health Module I - “Extreme Weather Hazards”, which covers short-term and long-term health threats to patients impacted by extreme weather events and steps that health professionals can take to reduce these risks. In addition, it addresses how extreme weather events affect vulnerable communities in varying ways. Lastly, as part of MS1’s 3rd Clinical Campus Week one of the learning objectives in the “Teach and Learn” was focused on extreme weather conditions impacting health in local communities.	

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:	3
Score explanation: The new Planetary Health Module IV- "Vector-Borne Disease" addresses in depth how climate change impacts the prevalence, incidence, and distribution of these diseases. There are several slides on the changing distribution of Lyme disease, Dengue fever, Malaria, Hantavirus, and West Nile virus. It makes a clear point to address shifting geographic burdens of vector-borne disease, as well as discussing surveillance and early warning systems in place. There are also several lectures as part of the Microbiology and Infectious Disease curriculum thread that address climate change. These include the first-year lecture "Micro-ID Review", and second year lecture "Spirochetes" given by Dr. Joanna Breems as well as a second-year lecture from Dr. Niranjan Bhat titled "Rickettsia and Arthropod-Borne Viruses". Therefore, this is the planetary health topic best integrated throughout the curriculum.	

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
Score explanation: The new "Planetary Health and Health Equity" lecture by Dr. Anne Grossman introduces 3 slides regarding toxic air pollutants. In addition, a new "Planetary Health Module II - Degraded Air Quality", has been added to the curriculum discussing the respiratory health effects of climate change.	

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:	3

Score explanation: The new Planetary Health Module I - “Extreme Weather Hazards” contains one slide discussing the increase in cardiovascular related deaths tied to climate change. The new lecture “Planetary Health and Health Equity” includes one slide discussing the impact of climate change on increasing heat including cardiovascular effects. There is a new Planetary Health Module VI - “Climate Change and Heat Impacts” this year; this module discusses the cardiovascular impacts of increasing heat.

1.7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
This topic was explored **in depth** by the **core** curriculum.	
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: There is Planetary Health Module V - “Climate Change and Mental Health” speaks in depth about how environmental disasters resulting from climate change impact the mental health of a population. It also emphasizes the inequitable burden of climate-related mental health disorders.	

1.8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	2
Score explanation: The new Planetary Health Module III - “Water and Food Related Illness” is designed to help students develop an understanding of the human health impacts of climate change on the hydrologic cycle, and to consider various adaptation strategies to mitigate disease risk. The module focuses on the water cycle, therefore the only description of patient food security in the curriculum is in relation to algal blooms.	

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	3
Score explanation: Each new Planetary Health Module I-VI contains a segment discussing impacts of planetary health on different communities by applying concepts of vulnerability, resilience, and adaptive capacity. The lecture "Planetary Health and Health Equity" also includes an in depth discussion of disproportionately affected communities.	

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	2
Score explanation: The new Planetary Health Module V - "Climate Change and Mental Health" has multiple slides focusing on displacement due to severe weather events as well as their long-lasting mental health impacts. Several lectures discussing vector-borne illness also touched on the changing regional impacts from climate change.	

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

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	2

Score explanation: There is a second-year lecture from Dr. Ken Roberts on "Spermatogenesis and Male Infertility" which has a slide on risk factors mentioning toxins, and another slide emphasizing the importance of asking about occupational exposures, and chronic heat exposure. This is unchanged from last year.

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	0
Score explanation: This topic was not covered in our curriculum. Future assignment will have a piece on climate driven wildfires in WA.	

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:	1
Score explanation: In the 3rd week of Fall classes, pre-clinical medical students attended a presentation from the director of WSU Spokane's Native American Health Sciences (NAHS) program, for an "Introduction to the Center for Native American Health." This lecture emphasized opportunities available to medical students including workshops, trainings, and seminars they could attend to increase cultural indigenous knowledge and practices towards care. Some of the lectures and workshops available to students for Professional Development credit over the 2022-2023 academic year have included: an "Indigenous Clinical Simulation" event, "Integrative Medicine and Indigenous Ways of Healing" lecture that included an optional salve making workshop utilizing PNW plants, and lastly a lecture on "Integrating Indigenous Plant Medicines and Food Teachings in Real Life Clinical Settings Workshop."	

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	2
Score explanation: The new lecture "Planetary Health and Health Equity" includes two slides on the impact of toxins on marginalized populations, for example there is discussion of "cancer alley" disproportionately impacting communities of color.	

Curriculum: Sustainability

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

Score explanation: The new “Planetary Health and Health Equity” lecture in the first-year curriculum addresses healthcare’s ecological footprint both in the US and globally on 1 slide. Significantly, this fact was prioritized by assessment to be a question on the exam correlating to the month of curriculum in which it was delivered. In addition, a lecture on “Climate Change and Health Systems” is planned to be introduced later this year, and will provide an in-depth look at the carbon footprint of the healthcare system.

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core curriculum? (points for each)	**Score**
The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	0
The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	0
The health **and** environmental **co-benefits** of **non-pharmaceutical management** of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	0
Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anaestheisa’s environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	1
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)	0
Score explanation: This year curriculum added the lecture "Planetary Health and Health Equity", provided to second-year medical students. The lecture was broad in its coverage and included information on how the healthcare system contributes directly to planetary health. Information on anesthetic gasses and inhalers and their negative impacts on the environment were discussed, along with potential solutions.	

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your medical school’s 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
Score explanation: This topic was not covered in our curriculum.	

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:	0
Score explanation: A few lecturers, particularly in the respiratory unit, have mentioned the impact of pollutants and toxins, and the importance of asking about exposures to them while taking a history. However, during our "Art and Practice of Medicine" class, which introduces history taking components and strategies, environmental and exposure histories are not covered.	

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:	4
Score explanation: Following the implementation of the PHRC in 2022, students and staff worked together to create major changes in the medical school curriculum, in order to prepare medical students to incorporate planetary health into their practice. These changes included multiple core lectures being added to cover specific aspects of planetary health, as well as a lecture dedicated to the effects of planetary health on health equity. Additionally, staff continue to work directly with students to find ways to improve the planetary health curriculum, with goals of, for example, including planetary health in case-based learning and art-and-pratice of medicine.	

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?	
Planetary health/ESH topics are **well integrated** into the core medical school curriculum. (6 points)	
Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)	
Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).** (2 points)	
There is **minimal/no** education for sustainable healthcare. (0 points)	
Score Assigned:	4
Score explanation: Significant improvements were made to the curriculum this year, including six standalone lectures on planetary health topics. Topics such as infectious diseases and environmental toxins have been and continue to be integrated into the curriculum and are covered under relevant systems. There are ongoing efforts to integrate this information into the curriculum, and this remains a primary goal in regards to planetary health curriculum.	

1.22. Does your medical school employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	1
Score explanation: The WSU College of Medicine does have specific faculty/staff responsible for curricular integration of planetary health, though several faculty/staff are actively involved in aiding efforts to do so, and have helped to make substantial curriculum changes. Dr. Anne Grossman, email: anne.grossman@wsu.edu and Dr. Kimberly Beine, email: kimberly.beine@wsu.edu.	

Section Total (41 out of 72)	**56.94%**

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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your institution?	
Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)	
No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)	
Score Assigned:	3
Score explanation: The institution keeps a list of sustainability-related research on its WSU Sustainability page. The page includes a list of associated centers, institutes, and labs, such as the Center for Environmental Research, Education and Outreach (CEREO) at Washington State University, which has created and maintains a list of all climate-related research occurring at the institution, in all ten of its colleges. The sustainability webpage also includes a list of Extensions and Research Centers, which lists research stations of interest throughout the state; these various stations focus on sustainability in natural resources, agriculture, and public health, among others. A particular research strength of WSU is in the College of Veterinary Medicine, where there are several researchers focusing on vector-borne diseases.	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?
There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)
There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)

There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points)
There is **no** dedicated department or institute. (0 points)

Score Assigned:	3

Score explanation: The Center for Environmental Research, Education and Outreach (CEREO) at Washington State University "is a progressive network of 350+ faculty, staff, students, and industry leaders working to resolve the ever-growing challenges of environmental sustainability and climate change through collaborative partnerships." CEREO maintains a list of climate research happening across all ten colleges.

CEREO invites affiliates who belong to one of three major categories regarding climate change research. Of these, one is related to the mission of planetary health - Sustainability and the Environment: "WSU will draw on faculty with interest in human and natural systems, environmental justice, environmental entrepreneurship, and sustainable agriculture, as well as urban design and public health. The Center is committed to the support of research on interrelationships between culture, society and the environment. CEREO's mission includes environmental education and outreach, as well as understanding the challenges of ecological literacy and environmental citizenship."

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?
Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)
Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)
No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 points)
There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:	3

Score explanation: Within the College of Medicine, the Institute for Research and Education to Advance Community Health (IREACH) collaborates with community leaders to advance community health. Among these, the Partnerships for Native Health reports, "We conduct community-centered research, training, education, and outreach to improve the health and quality of life of American Indian and Alaska Native populations."

Currently, there is one researcher who is also an assistant professor at the College of Medicine who is principle investigator of several research projects related to climate change and health, of which at least two are community-based participatory research projects. Her research focus "centers on social and environmental justice to optimize health equity in underrepresented youth and pediatric populations facing adversity."

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?	
There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)	
There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)	
The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)	
There is **no** website. (0 points)	
Score Assigned:	2
Score explanation: The institution keeps a list of sustainability-related research on its WSU Sustainability page. The page includes a list of associated centers, institutes, and labs, such as the Center for Environmental Research, Education and Outreach (CEREO) at Washington State University, which has created and maintains a list of all climate-related research occurring at the institution, in all ten of its colleges. The WSU Sustainability page provides links to the office of research; the centers, institutes, and labs performing sustainability research; and to research stations performing sustainability research, some of which is planetary health research. This information is therefore all centralized through the sustainability website, but requires much additional navigating through various webpages to get accurate and up-to-date information on current research.	

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?	
Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)	
Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)	
Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)	
The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)	
No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)	
Score Assigned:	4

Score explanation: Washington State University Vancouver Native American Programs and Collective for Social and Environment Justice hosted a three-day conference entitled, SJCon: Health and Environmental Justice: Constructing Coalitions at the Intersections of Extraction, Militarism, and Climate Collapse in April of 2024. This was the only symposium in 2024 that focused directly on topics of planetary health.

2.6. Is your institution a member of a national or international planetary health or ESH/ESV organisation?	
Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	1
Score explanation: The WSU Elson S. Floyd College of Medicine is a member of the Global Consortium on Climate and Health Education.	

Section Total (16 out of 17)	**94.12%**

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Community Outreach and Advocacy

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

3.1. Does your institution partner with community organisations to promote planetary and health?	
Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)	
Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)	
The **institution** does not partner with community organisations, but 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
Score explanation: There are no direct partnerships between the medical school and any local or national groups. While the institution participates in outreach-based, environmental work (see the Vancouver-based Collective for Social and Environmental Justice (CSEJ), WSU's work in Shellfish Protection Districts, and CEREO), these programs are not conducted through the school of medicine itself. Additionally, many of these programs are primarily built on research-based partnerships with environmental organizations with minimal outreach. WSU also has installed particulate monitors through the state to help measure air quality, especially during wildfire smoke events. This information is shared with the National Weather Service and health departments to support public notifications.	

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

Score explanation: Washington State University has several community-facing educational opportunities (see the CSEJ, as mentioned above; see also the Agriculture and Natural Resources Program Unit) regarding environmental justice spread across the multiple campuses. These programs are neither conducted nor organized through the medical school, and planetary health is usually one component of many within these organizations.

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)

Score Assigned:	0

Score explanation: There are some issues related to planetary health and sustainability in the College of Medicine newsletter. However, this newsletter is not emailed to students, and it is not easy to filter this information to find issues specific to planetary health.

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 provider. (1 point)
There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:	0

Score explanation: The WSU College of Medicine offers live and virtual Continuing Medical Education courses for providers, but does not currently have any courses or classes regarding the environment or climate change and 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
Score explanation: The WSU College of Medicine does not currently provide patients with informational resources on environmental exposures, but one of the school's main affiliated hospital systems/residency program, Providence, offers many articles to patients on these topics. Patients can navigate to the hospital's blog, which offers information on pollutants and patients' health. Recent articles include information on improving indoor air quality, understanding climate justice as a health issue, and information on the hospital's stewardship practices. As a community-based medical school, ESFCOM has many affiliated hospitals. Providence (the largest of these) offers many great resources, but not all of WSU's affiliated hospitals do. Notably, PeaceHealth offers a blog to patients, similar to that of Providence, but materials on climate-related health conditions are hard for patients to locate.	

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
Score explanation: The WSU College of Medicine does not currently provide patients with informational resources on their health and the environment, but one of the school's main affiliated hospital systems/residency program, Providence, offers many articles to patients on these topics. Patients can navigate to the Providence blog, which offers relevant articles such as "How climate change impacts your health" and "Curbing the impacts of climate on health". These resources provide both information and actionable steps to patients. Providence offers many great resources, but not all of WSU's affiliated hospitals do.	

Section Total (5 out of 14)	**35.71%**

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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)	
The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)	
No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	2
Score explanation: Washington State University Pullman, where the undergraduate campus is located, has a Student Green Fund that is accessible to all WSU students. The Student Green Fund is not advertised at the Spokane Health Sciences campus, where the pre-clerkship College of Medicine is located, nor at the clerkship campuses in Everett, Vancouver, or Tri-Cities, but the fund is accessible to those who look for it. There are efforts to expand advertising to all campuses highlighting this opportunity.	

4.2. Does your institution offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?	
The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)	
There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time. (1 point)	
There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	1
Score explanation: WSU Pullman has a list of centers, institutes and labs on their sustainability website. This includes research groups such as Center for Environmental Research, Education and Outreach (CEREO); and the Clean Plant Center, to name a few.	

Changes in the 2024-2025 school year include an initiative by the Office of Research to send out regular updates of current research opportunity projects to all medical students. Among the listed opportunities include one researcher performing infectious disease surveillance globally. This opportunity is available to any interested medical student; however, students must pursue this opportunity outside of a dedicated research program or fellowship.

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
Score explanation: While the WSU Office of Sustainability has a website with research projects, and the School of Medicine has an internal website with research projects, though there is no direct overlap. Students are welcome to do research through either avenue, though the internal list of research projects is sent directly to students, and may not always have planetary health-related projects (with researcher/mentor contact information) available. The Office of Sustainability website hosts research information, but it does not have a direct list of potential mentors, and students must filter through current research to find a potential mentor.	

4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
Yes, there is a student organisation **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)	
No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	2

Score explanation: WSU College of Medicine currently has only one student organizations dedicated to planetary health and/or sustainability in healthcare. The Environmental Justice Interest Group (faculty advisor: Dr. Carlton Heine) is currently active. In the past, the school has also had the interdisciplinary and intercollegiate Environmental Health Action Team, a subset of the Health Equity Circle. The later is currently dorman, but available to be reinstated with appropriate student interest. Both explore the intersection of environment, health, and social justice. Students from these groups have advocated for increased sustainability within the medical school and WSU Spokane Health Sciences which was met with enthusiasm from campus leadership and staff. Members and student leaders have advocated for increased materials related to planetary health and were successful in creating a new Planetary Health Curriculum that launched in the 2022-2023 school year, and continues to be updated annually. Finally, there is scholarly involvement to evaluate the efficacy and need for such curriculum for students and faculty. Efforts to design the curriculum were supported by the Health Equity Circle advisor, Dr. Luis Manriquez, and efforts to refine curriculum continue with the Community and Population Health Director, Dr. Anne Grossman.

4.5. Is there a student liaison representing sustainability interests who serves on a department or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	0
Score explanation: WSU recently created a Sustainability Executive Committee which is charged with establishing updated goals and benchmarks to track progress around sustainability. This new Task Force affects all WSU campuses and WSU outreach locations as part of the institution's land grant mission. Currently, the only student representative is the ASWSU Deputy Director of Sustainability at the institutional level, in Pullman, WA, but they do not represent the medical school directly, and therefore do not provide direct input on curriculum reform nor on sustainability best practices on the main campus of the medical school.	

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

Score explanation: Washington State University employs the following, related to the co-curricular planetary health programs or initiatives, as listed above:

- Many projects focused on the intersection of food systems/agriculture and planetary health, which are organized through the Center for Sustaining Agriculture and Natural Resources (CSANR).
- Washington State University Vancouver Native American Programs and Collective for Social and Environment Justice hosted a three-day conference entitled, SJCon: Health and Environmental Justice: Constructing Coalitions at the Intersections of Extraction, Militarism, and Climate Collapse in April of 2024. This was the only symposium in 2024 that focused directly on topics of planetary health.
- WSU Student Engagement Services provide opportunities for student-led programs and projects. Among the opportunities currently advertised on their webpage include the Palouse Food Project, which aims to provide food and basic supplies to those who need it. The institution also has a dedicated website for volunteer opportunities, advertised on GivePulse. Within this website, students can filter opportunities related to "Environment" or "Environmental education", which helps students find opportunities related to planetary health.
- ESFCOM does have a Wilderness Medicine student interest group, which plans outdoor events for students.

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

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Campus Sustainability

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

5.1. Does your institution have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of hospital sustainability. (2 points)	
There are **no salaried sustainability staff,** but there is a sustainability task force or committee. (1 point)	
There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	1
Score explanation: WSU Pullman does have an Office of Sustainability and Environmental Management with staff for both sustainability and other campus environmental management. There are multiple staff members charged with sustainability as part of their job duties. There is also a Sustainability and the Environment Committee, though none of the committee members are salaried sustainability staff. WSU is transitioning to a new Presidential Sustainability Task Force that has been charged with establishing goals and benchmarks to monitor progress toward sustainability across all WSU campuses and outreach locations as part of our land grant mission. *Score explanation unchanged from last year.*	

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

Score Assigned:	0

Score explanation: WSU does have several stated goals for CO2 emissions and one of carbon neutrality. A 2011 Climate Action Plan states 3 goals of CO2 emission reduction from 2005 levels: 15% reduction by 2020, 36% reduction by 2035, and 57.5% reduction by 2050. The plan also states, "As a signatory to the American College and University President's Climate Commitment, WSU has pledged to work towards net climate neutrality. Given the long time line for this commitment, the technological advances that will occur, and an uncertain budgetary future, WSU cannot, at this time, predict or commit to a specific date to achieve net climate neutrality."

Notably, WSU is currently in the process of creating a Presidential Sustainability Task Force which will update sustainability goals; there will be a focus on decarbonization and reducing WSU's carbon footprint through internal conservation efforts, technological advances, and coordination with local utilities. The State of Washington has established emission reduction goals which WSU is actively pursuing as funding and other resources are made available. However, as currently written, the institution's carbon emissions goals are inadequate to meet the rising threat of climate change. *Score explanation unchanged from last year.*

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?
Yes institution buildings are **100%** powered by renewable energy. (3 points)
Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)
Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)
Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)

Score Assigned:	1

Score explanation: Per the WSU sustainability website: "WSU Facilities Services operates two natural gas steam plants to create building heat and hot water as well as other vitally important campus processes such as sterilization in veterinary medical facilities and humidification of libraries and greenhouses. The rest [around 50%] of our energy is purchased from Avista whose portfolio consists of 48 percent renewable energy and 35 percent natural gas. WSU is also part of the Pacific Northwest Smart Grid Demonstration project which looks at ways to reduce energy consumption without impacting consumers' needs."

It should be noted that the College of Medicine does have four clerkship sites throughout Washington, in Spokane, Everett, Vancouver, and the Tri-Cities. The latter three sites may have slightly different energy utilization profiles than the Spokane Campus. For example, the Everett campus had about 75% renewable energy in 2023.

5.4. Are sustainable building practices utilised for new and old buildings on the institution's campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?	
Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)	
Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)	
Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)	
Sustainability is **not considered** in the construction of new buildings. (0 points)	
Score Assigned:	3
Score explanation: The WSU College of Medicine has some sustainable building practices in place. WSU is a member of the U.S. Green Building council (USGBC), and follows the Leadership in Energy and Environmental Design (LEED) green building rating system for new construction as well as remodels, designed towards meeting a minimum Silver standard. The most recent remodel on the Spokane Health Sciences Campus was consistent with LEED Silver benchmarks, though did not go through the official authorization process to obtain LEED Silver certification.	

5.5. Has the institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?	
Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)	
The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)	
The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)	
Score Assigned:	1
Score explanation: WSU Spokane Health Sciences campus does have resources and strategies for students to practice sustainable transportation, such as free bus passes and carpool lists; however, these resources are poorly advertised and are generally unknown to students. WSU Tri-Cities campus also does provide free bus passes. The wider institution also provides free bus passes for students studying in Pullman, WA. There is an active effort from the institution to increase advertising of alternative transportation options, as well as working with ASWSU across campuses to disseminate this information. In addition, ESFCOM does have a rural medicine focus, and there are many off-campus clinical sites that students must rotate through in the third and fourth year, which are far apart and are only readily accessible by car. Clinical campus weeks in the	

pre-clerkship years also necessitate travel across the state either by car or plane, without coordination of buses or carpool lists.

5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?	
Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)	
The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)	
There is **no** compost or recycling program at the medical school. (0 points)	
Score Assigned:	2
Score explanation: WSU operates a full-scale composting facility on it's Pullman campus to recycle organic wastes as well as provide research opportunities. They also utilize WSU Surplus Stores and do have a local recycling program. On the main campus for the medical school, there are recycling bins, but there is not an organics recycling program with compost bins available for students or faculty. The Facilities continues to work toward implementing a small composting program for the Spokane campus cafe.	

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:	3
Score explanation: The WSU Pullman dining services do have clear and publicly available sustainability guidelines, as well as engagement in efforts to increase food and beverage sustainability. Of note, "Dining Services has made a Forward Food pledge to make our menus 40% plant-based by 2025. This initiative has made vegetarian and vegan meals the default options at many of our stations." Sustainability guidelines for food and beverages on the Spokane campus do exist; however, they are not publicly available nor required.	

5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?	
Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)	
There are **no** sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	2
Score explanation: WSU as an institution does have procurement guidelines that considers sustainable purchasing criteria on certain products including recycled paper, electronics, vehicles, etc. Although cost is the largest criteria considered, other factors such as take-back programs for packaging, energy efficiency, and gas mileage are also taken into account. *Score explanation unchanged from last year.*	

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?	
Every event hosted at the institution **must** abide by sustainability criteria. (2 points)	
The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)	
There are **no** sustainability guidelines for institution events. (0 points)	
Score Assigned:	1
Score explanation: WSU as an institution utilizes the Presence Event request system within Student Involvement. All events are reviewed by multiple departments including Facilities which helps manage waste and recycles when feasible. Unfortunately, medical school events do not always pass through this system, or do not get input on sustainability guidelines when they do. WSU is looking to coordinate efforts to better address event sustainability. *Score explanation unchanged from last year.*	

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

There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)
There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

Score Assigned:	1

Score explanation: WSU's facilities, including lab space, use smart grid principles. Energy conservation occurs by controlling HVAC systems and lights when spaces are not occupied. Additionally, hazardous materials are evaluated for proper disposal including the potential to recycle, minimization of amount purchased, and evaluation of potential chemical substitutes. *Score explanation unchanged from last year.*

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:	1

Score explanation: WSU does not have any investments directly in fossil fuel companies; all investments are indirect via inclusion in index and mutual funds. Advocacy for divestment include student protests and additional divestment campaigns through the Vancouver campus.

There have, in the past, been institutional meetings to determine how to best progress toward fossil free investments, taking into consideration the companies working toward clean energy and research partnerships that exist with WSU. These discussions continue to develop.

Section Total (16 out of 32)	**50.00%**

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Grading

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

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

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

Planetary Health Grades for the Washington State University Elson S. Floyd College of Medicine
The following table presents the individual section grades and overall institutional grade for the Washington State University Elson S. Floyd College of Medicine on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(41/72) x 100 = 56.94%	C+
Interdisciplinary Research (17.5%)	(16/17) x 100 = 94.11%	A
Community Outreach and Advocacy (17.5%)	(5/14) x 100 = 35.71%	D+
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	B
Campus Sustainability (17.5%)	(16/32) x 100 = 50%	C
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 60.22%**	**B-**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which Washington State University Elson S. Floyd College of Medicine has participated in the Planetary Health Report Card initiative.