



Planetary Health Report Card (Medicine):

*Washington State University
Elson S. Floyd College of Medicine*



Elson S. Floyd
College of Medicine

WASHINGTON STATE UNIVERSITY

2023-2024 Contributing Team:

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Summary of Findings

Overall	B-
<u>Curriculum</u>	B
<ul style="list-style-type: none"> The Washington State University Elson S. Floyd College of Medicine has implemented a new pre-clerkship Planetary Health Curriculum in the past two years. This includes an introductory lecture, six specific topic modules, and a health systems lecture. Two of the modules and the health systems lecture were delivered for the first time this year, and a live lecture has been added to accompany one module. Recommendations: There should be a purposeful integration of planetary health into required core curriculum. Next steps could include adding planetary health learning objectives to established threads and Case Based Learning (CBL), or inclusion of environmental history taking in the Art and Practice of Medicine (APM). Planetary health integration into the clerkship years should also be considered. 	
<u>Interdisciplinary Research</u>	B-
<ul style="list-style-type: none"> 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. 	
<u>Community Outreach and Advocacy</u>	D+
<ul style="list-style-type: none"> 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. 	
<u>Support for Student-Led Initiatives</u>	A
<ul style="list-style-type: none"> 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 several co-curricular events. Opportunities through WSU Pullman campus include a Student Green Fund, CEREO, and many events. The new Presidential Sustainability Task Force does include student input. Recommendations: University-wide events and funding (i.e, Student Green Fund) should be more clearly advertised and accessible to the College of Medicine, and be included on the new Sustainability website. 	
<u>Campus Sustainability</u>	C-
<ul style="list-style-type: none"> 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 is a new small-scale composting option. 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 analyzing and addressing the impacts of human disruptions to Earth’s natural systems on human health and all life on Earth.” This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanization, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment, and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change “the greatest threat to global health in the 21st century,” many medical school’s institutional priorities do not reflect the urgency of this danger to human health.

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

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

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilization 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 minimizes use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 1. Describe how the environment and human health interact at different levels.
 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Medical School vs. Institution:** When “medical school” is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more

broadly. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions providers are taught to ask during medical encounters that elicit patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mold after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

- If there are more than one "tracks" at your medical school with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples).

Added to our resources in 2022, the Planetary Health Report Card [Literature Review by Metric](#) collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

Section Overview: This section evaluates the integration of relevant planetary health topics into the medical school curriculum. Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation:</i> The Washington State University (WSU) Elson S. Floyd College of Medicine offers the summer elective course FMS 509 called Comparative Medicine, which focuses on the One Health initiative between human medicine, veterinary medicine and environmental health. Taught by Dr. Rachel Larson, the course includes a specific lecture on zoonotic diseases which includes the effects of climate change on global spread of zoonoses and their impact on public health. 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's report.</p>	

Curriculum: Health Effects of Climate Change

1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: The “Planetary Health Curriculum” runs throughout the required 2 years of Foundations of Medicine pre-clerkship courses, and includes a new module for second year students (MS2’s) on “Climate Change and Heat Impacts” that details the health impacts to extreme heat. The WSU College of Medicine has a new first-year lecture “Planetary Health and Health Equity”. 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. Lastly, as part of MS1’s first Clinical Campus Week two of the learning objectives in the “Teach and Learn” assignment for that week include describing the impact of climate change and extreme heat 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?

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

Score explanation: The 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. This is unchanged from last year.

1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?

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

Score explanation: The Planetary Health Module “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. This year a live lecture was given by Dr. Joanna Breems to accompany this module, which covered many of these topics and included patient cases to work through.

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

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

Score explanation: The Planetary Health Curriculum has a new module entitled “Degraded Air Quality” included in the 1st year curriculum which covers how the climate change effects of ozone, PM2.5, and other ambient respiratory irritants impact respiratory diseases such as asthma, COPD, chronic lung disease, cardiovascular disease, cerebrovascular, and allergic diseases. It also identifies vulnerable patient populations health professionals should be able to identify to teach about risk mitigation during poor air quality days. In addition, the lecture “Planetary Health & Health Equity” includes three slides regarding toxic air pollutants.

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

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

Score explanation: The new Planetary Health Module “Climate Change and Heat Impacts discusses the cardiovascular impacts of increasing heat, including heat stroke and heat exhaustion as well as the diagnosis and treatment of these conditions. The Planetary Health Module “Extreme Weather Hazards” contains one slide discussing the increase in cardiovascular related deaths tied to climate change. The lecture “Planetary Health and Health Equity” includes one slide discussing the impact of climate change on increasing heat including cardiovascular effects.

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

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.

1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: The Planetary Health Module “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. In the second-year lecture "History Gathering in the Adolescent Patient", Dr. Jennifer Troiano included a slide discussing the many stressors impacting adolescent mental health including "distressing issues such as climate change", and another slide featured Xiuhtezcat Roske Martinez, a youth environmental activist. This lecture is particularly important as it was a part of our “Art and Practice of Medicine” class, which is mandatory, rather than optional as the majority of pre-clerkship lectures are. This is unchanged from last year.

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

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

Score explanation: The Planetary Health Module “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 mainly on the water cycle, especially in relation to algal blooms and water-borne pathogens. This year a new section has been added to the module, “Mini Lesson: Food and Water Scarcity”, which has a link to the Rx Brick Exchange Planetary Health Brick on Food and Water Security, which covers in depth the connection between agriculture, poor food and water, nutrition, associated diseases, land-systems, climate change, and pollution.

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

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

Score explanation: Each Planetary Health Module 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. This is unchanged from last year.

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

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

Score explanation: The Planetary Health Module “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 at both the national and global level, including the “Vector-Borne Diseases” Planetary Health Module, and the new live lecture that accompanies the module.

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)?

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

Score explanation: 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?

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

Score explanation: The new Planetary Health Module “Climate Change and Heat Impacts” contains a discussion of the 2021 Pacific Northwest Heat Dome, and climate change specifically threatens Washington State with extreme heat. As part of MS1’s first Clinical Campus Week, two of the learning objectives in the “Teach and Learn” assignment address 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.

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

3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.

Score explanation: 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](#) 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 2023-2024 academic year have included a "Plant Medicine " lecture and a "Native American Health Sciences Lunch & Learn" entailing a discussion around traditional plant-based foods and a lunch made up of these foods.

1.14. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?

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

Score explanation: The 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. This is unchanged from last year.

Curriculum: Sustainability

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

3	This topic was explored in depth by the core curriculum.
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2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation:</i> The medical school curriculum does not currently address the environmental benefits of a plant based diet, but does cover the health benefits of a plant-based diet in its nutrition courses such as the MS1 lecture on “Fundamentals of Nutrition”	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation:</i> The new lecture “Climate Change and Health Systems” addresses in depth the impact of the healthcare sector on the environment. This includes discussion of the carbon footprint of healthcare, particularly in the USA, as well as specific contributing factors to that impact, and how to help mitigate it. In addition, the “Planetary Health and Health Equity” lecture addresses healthcare’s ecological footprint both in the US and globally on 1 slide. This concept was prioritized by the assessment team as it was assessed using an exam question during the month this lecture was delivered.	

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)	
2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfill this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.

1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	<p><i>Score explanation:</i> Though the medical benefits of avoiding over-medicalization, trying to deprescribe, and encouraging non-pharmaceutical management were all covered in the core curriculum, these concepts were never linked to environmental co-benefits.</p> <p>The new live lecture “Climate Change and Health Systems” covered many healthcare related planetary health topics, including impacts from surgery, anesthesia, inhalers, and waste. In addition the lecture "Planetary Health and Health Equity" included information on how the healthcare system contributes directly to planetary health, also mentioning anesthetic gasses and inhalers and their negative impacts on the environment.</p>

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
<i>Score explanation:</i> 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?	
2	Yes, the core curriculum includes strategies for taking an environmental history.
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.
<i>Score explanation:</i> 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. This is unchanged from last year.	

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?	
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4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<p><i>Score explanation:</i> 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 and one on the healthcare system contributing to climate change. A new module has been implemented since the 2023 PHRC, “Climate Change and Heat Impacts,” as well as a new live lecture on “Vector-Borne Diseases” to accompany the previously implemented module. The six asynchronous modules for the Planetary Health Curriculum have undergone some revision, including the addition of linked Scholar Rx Bricks planetary health subtopics. Additionally, staff continue to work with students to find ways to improve the planetary health curriculum, identifying goals such as including planetary health in case-based learning.</p>	

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s) .
0	There is minimal/no education for sustainable healthcare.
<p><i>Score explanation:</i> The Planetary Health Curriculum consists of three live lectures and six asynchronous lectures designed as self-paced modules on sub-topics. The placement of some lectures has been moved to better align with concurrent topics in the overarching curriculum (i.e. Climate Change and Heat Impacts now aligns with the cardiology unit). 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.</p>	

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	Yes , the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	No , the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Score explanation: The Planetary Health Curriculum was created in large part by the Population and Community Health Director, Dr. Anne Grossman, and she is currently still the faculty member responsible for the curriculum and adjusting it going forward. However, Dr. Grossman does not have the power to integrate planetary health topics into some of the other core curriculum courses such as Case-Based Learning (CBL), the Art and Science of Medicine (APM), or our Leadership course.

Section Total (52 out of 72)

72.22%

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

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u> ?	
3	Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation:</i> The Center for Environmental Research, Education and Outreach (CEREO) at Washington State University has created and maintains a list of all climate-related research occurring at the institution, in all ten of its colleges. Two colleges (the School of Nursing and the School of Agriculture, Human, and Natural Resource Science) had current research on planetary health. The School of Nursing has one researcher who is studying multiple issues of planetary health including health outcomes, and another who is studying social policies related to planetary health. Further information is not publicly available. In addition to these efforts, a Public Health Collaborative has been formed to share opportunities for collaboration and grow WSU’s impact on the region, especially underserved communities. WSU continues to explore ways to increase student engagement in these opportunities through undergraduate and graduate research opportunities, as well as partnerships with non-WSU entities. This is unchanged from last year.</p>	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u> ?	
3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years.
1	There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research.

0	There is no dedicated department or institute.
<p><i>Score explanation:</i> 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.</p> <p>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.” This is unchanged from last year.</p>	

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your <u>medical school</u> ?	
3	Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda.
1	No , but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.
0	There is no process, and no efforts to create such a process.
<p><i>Score explanation:</i> 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.” At this time, the Partnership for Native Health does not appear to be conducting any research on planetary health. This is unchanged from last year.</p>	

2.4. Does your <u>institution</u> have a planetary health website that centralizes ongoing and past research related to health and the environment?	
3	There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
2	There is a website that attempts to centralize various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.

1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.

Score explanation: There is a newly renovated institutional website for [WSU Sustainability](#), which centralizes many resources, including a page related to [Research](#). The website also includes some information on upcoming events and leaders at our institution, however it is currently missing contact information for those leaders and comprehensive listings of upcoming events. There is not information on relevant funding opportunities.

2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?	
4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

Score explanation:
 Various colleges at the institution host symposiums throughout the state and offer education and training opportunities at Extension Centers through the Extension Program with the College of Agriculture, Human, and Natural Resource Science (CAHNRS) as part of WSU's land grant mission. This year, WSU Extension Office in Everett hosted a family-friendly [Climate Carnival](#) Conference including Climate Change presentations in Spanish, activities, games, prizes, etc on 10/28/2023 from 10am-1pm.
 The new [Public Health Collaborative](#) will be hosting an annual symposium to share current and future opportunities for expanding public health to underserved communities.

In previous years, the following symposiums and/or conferences have been held:

- The WSU School of Nursing and Spokane Health Sciences Campus held a symposium on 4/12/22 called *Our Global Climate Crisis - What Can and Should Healthcare Do?* A Keynote event for the Inaugural Butterfield Endowment Lecture by Dr. Elizabeth Schenk, Executive Director of Environmental Stewardship at Providence.
- CAHNRS hosted a conference called *Extension Action in a Changing Climate* on 7/12/22 covering WA state climate change topics, local outreach programs, and climate research.

2.6. Is your medical school a member of a national or international planetary health or ESH organization?

1	Yes, the medical school is a member of a national or international planetary health or ESH organization
0	No, the medical school is not a member of such an organization
<i>Score explanation:</i> The WSU Elson S. Floyd College of Medicine is a member of the Global Consortium on Climate and Health Education.	

Section Total (11 out of 17)	64.71%
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Are there additional research resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Community Outreach and Advocacy

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

3.1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.

Score explanation: The school has [student-led groups](#) that are partnered with community-based, environmental organizations, but there are no direct partnerships between the medical school and any local or national groups. Additionally, 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.

In an effort to engage more with the community, a [Public Health Collaborative](#), a predominantly faculty based group, has been established to increase community relationships in Spokane, statewide, and globally, focusing on expanding public health education and services. Additionally, WSU 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. This is unchanged from last year.

3.2. Does your medical school offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.

1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
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0	The institution/medical school have not offered such community-facing courses or events.
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Score explanation: Washington State University has several community-facing educational opportunities (see the [events page](#) for the CSEJ, as mentioned above; see also the [Agriculture and Natural Resources Program Unit](#), and the [Climate Analogs Academy](#)) regarding environmental justice spread across the multiple campuses. However, these programs are neither conducted nor organized through the medical school. While these opportunities may exist for the community, the medical school does not largely contribute to their development, so the focus of these courses and programs may not always be based in health and healthcare. This is unchanged from last year.

3.3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
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1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
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0	Students do not receive communications about planetary health or sustainable healthcare.
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Score explanation: The College of Medicine has a “Weekly Update” newsletter that is sent to all students which has occasionally included climate change and planetary health topics. In April 2023 they included an update about the [2023 PHRC](#). Also in April 2023 they also included information on how a [study on c. elegans](#) informed aging during a time of global warming. In March 2024 there was an update on the [sustainability co-benefits](#) of plant based foods.

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?

2	Yes, the institution or main affiliated hospital trust offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
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1	Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
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0	There are no such accessible courses for post-graduate providers
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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. This is unchanged from last year.

3.5. Does your medical school or its affiliated teaching hospitals have accessible educational

materials for patients about environmental health exposures?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated medical centers have accessible educational materials for patients.
<p><i>Score explanation:</i> 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. For example, there are articles available that discuss the effects of air pollution on memory, pregnancy outcomes, and respiratory health. Providence 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. This is unchanged from last year.</p>	

3.6. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation:</i> 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 “Confronting Climate to Protect Health” and “5 Ways to Protect Your Health During a Climate Crisis”. These articles provide patients with actionable steps to take to protect their health, from researching types of environmental disasters in their region to packing emergency supplies, including prescriptions, in case of a disaster. There are also mental-health related articles for those experiencing climate change anxiety and related mental health challenges, such as “For some, depression deepens as temperatures rise”. Additionally, there are informational resources on how the environment may be affecting their current health, including “Why your seasonal allergies are getting worse” which discusses the changes in plant blooming patterns and extended pollen season. Providence offers many great resources, but not all of WSU’s affiliated hospitals do. This is unchanged from last year.</p>	

Section Total (5 out of 14)	35.71%
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Are there additional community engagement and advocacy resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Support for Student-Led Planetary Health Initiatives

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

4.1. Does your <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the medical school or institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	The medical school or institution encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available and there is no requirement to participate.
0	No, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

Score explanation: 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 <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.

Score explanation: 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); [Clean Plant Center](#); and the [Smart Environments Research Center](#), to name a few. However, these opportunities do not include projects directly related to planetary health or sustainable healthcare, and are geared more towards undergraduate students or graduate students pursuing environmental studies or related degrees. There are no research opportunities related to planetary health and/or sustainable healthcare targeted specifically for medical students. This is unchanged from last year.

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

2	The medical school has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	There is a medical school webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
0	There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation: While the WSU Office of Sustainability has a [website](#) with research projects, and the School of Medicine has a public [website](#) and an internal website with research projects, there is no direct overlap. If the medical school had projects and mentors involved in planetary health research, those opportunities would be available to students. WSU is currently revising the Sustainability website to better communicate sustainability opportunities, current and future projects, and programs.

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

2	Yes, there is a student organization with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it lacks faculty support .
0	No, there is not a student organization at my institution dedicated to planetary health or sustainability in healthcare.

Score explanation: WSU College of Medicine has two student organizations dedicated to planetary health and/or sustainability in healthcare. The [Environmental Justice Interest Group](#) (faculty advisor: Dr. Carlton Heine) and the Environmental Health Action Team section of the [Health Equity Circle](#) (faculty advisor: Dr. Luis Manriquez) 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. Finally, there is scholarly involvement to evaluate the efficacy and need for such curriculum for students and faculty. These efforts have been largely supported by the Health Equity Circle advisor, Dr. Luis Manriquez, as well as the Community and Population Health Director, Dr. Anne Grossman.

4.5. Is there a student liaison representing sustainability interests who serves on a medical school

or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?

1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.

Score explanation: WSU Pullman has previously had a student liaison on the [Sustainability and the Environment Committee](#). An Associated Students of WSU (ASWSU) nominated undergraduate student and a Graduate and Professional Student Association (GPSA) nominated graduate student were eligible to vote on the committee. The College of Medicine did not have a dedicated student liaison. This Committee will be expanding to include system-wide responsibility.

WSU has created a [Presidential Sustainability Task Force](#) which is charged with [establishing updated goals](#) and benchmarks to track progress around sustainability. Student representatives from each campus were given the opportunity to be on this Task Force, and one student from the College of Medicine is currently on it.

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)

1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)

Score explanation: Over the past year (March 2023 to March 2024), the Environmental Justice Interest Group and the Health Equity Circle Environmental Action Team, or the Health Sciences Campus have put on the following events:

- *Volunteering for the Spokane Extreme Heat Risk Intervention Stakeholder Synthesis Symposium.* Students volunteered as part of this research study in the Spokane community with the goals of fostering relationships among community organizations, characterize practice-relevant heat-health research priorities and to identify perceived efficacious heat-health interventions, particularly for at-risk groups facing systemic barriers. (5/1-6/6/2023)

- *Volunteering with Spokane Riverkeeper*. Students volunteered with Spokane Riverkeeper for a river cleanup event in the local community. (6/10/2023)
- Volunteering to plant trees with *SpoCanopy* (10/3/2023)
- *Planetary Health - Building Solidarity for a Better Future*. Annual Butterfield Lecture followed by panel discussion on Climate Change and Planetary Health topics, lecture given by Dr. Teddie Potter, PhD, RN, FAAN, FNAP. (4/28/2023)

Over the past year, the Wilderness Medicine Interest Group has held the following events:

- Chimney Rock Hike at Kaniksu National Forest (9/26/2023)

WSU as an institution has many further events and programs, however most of these are unknown to students in the College of Medicine due to poor advertising, regarding online events, or lack of accessibility, for events held in person away from the campuses hosting medical students.

- The [WSU Eggert Family Organic Farm](#) provides multiple events and opportunities for students on the Pullman campus throughout the year.
- The [Extension Forestry Program](#) offers educational opportunities throughout the state on sustainable agriculture.
- Many departments and programs host monthly lecture series including [Center for Environmental Research, Education and Outreach](#) and [School of the Environment](#) showcasing researchers and hot topics.
- [ASWSU Environmental Sustainability Alliance](#) hosts annual events with community partners around climate and environmental challenges. WSU additionally co-hosts an annual water symposium on water conservation in partnership with Avista WSU's primary utility.
- [ASWSU Student Entertainment Board](#), [Fine Arts Department](#), and [Common Reading Program](#) bring cultural events throughout the year highlighting Earth Day, Native American wisdom, and many other events.
- [WSU Center for Civic Engagement](#) works with community partners primarily within Whitman County on stream and habitat restoration projects.
- [WSU University Recreation](#) offers many outdoor excursions using Leaving No Trace principles.

Section Total (13 out of 15)

86.67%

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

Campus Sustainability

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

5.1. Does your <u>medical school</u> and/or <u>institution</u> have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.
1	There are no salaried sustainability staff , but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation:</i> 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; however, there are no specific staff dedicated only to sustainability either at the institutional level or at the College of Medicine.</p> <p>There is also a Sustainability and the Environment Committee, though none of the committee members are salaried sustainability staff. WSU has implemented 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, however all members are faculty, staff, and student volunteers.</p>	

5.2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?	
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate

0	The institution/medical school does not meet any of the requirements listed above
	<p><i>Score explanation:</i> 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.”</p> <p>Notably, WSU has implemented 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, including reducing greenhouse gas emissions to 95% of 1990 levels or net zero emissions by 2050. WSU is pursuing this goal 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.</p>

5.3. Do buildings/infrastructure used by the <u>medical school</u> for teaching (not including the hospital) utilize renewable energy?	
3	Yes medical school buildings are 100% powered by renewable energy
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.
<p><i>Score explanation:</i> WSU Spokane Campus, which houses the College of Medicine pre-clinical campus, sources about 50% of its energy from onsite natural gas steam boilers. The other half is purchased from Avista whose portfolio consists of 59% renewable energy and the remaining is non-renewable energy. This would mean that about 29.5% of energy for the Spokane campus comes from renewables. WSU is also part of the Pacific Northwest Smart Grid Demonstration project which looks at ways to reduce energy consumption without impacting consumers’ needs. There are also some solar panels at the Spokane Campus, feeding into a solar microgrid. However, we were unable to get information on what exact percentage of energy these solar panels supply for the campus, though we were told it was minimal. 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 has about 75% renewable energy.</p>	

5.4. Are sustainable building practices utilized for new and old buildings on the <u>medical school</u> campus, with design and construction of new buildings and remodeling of old buildings conforming to a published sustainability rating system or building code/guideline?

3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the majority of old buildings have been retrofitted to be more sustainable.
2	Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have not been retrofitted .
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.

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. There is a newly completed building remodel on the Spokane Health Sciences Campus which is consistent with LEED Silver benchmarks, though will not go through the official authorization process to obtain LEED Silver certification.

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

2	Yes, the medical school or 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-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school or institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school or institution has not implemented strategies to encourage and provide environmentally-friendly transportation options.

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](#). 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, there are many off-campus clinical sites where 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. This is unchanged from last year.

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

2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
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1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.
<p><i>Score explanation:</i> This year there is a newly implemented small scale organics recycling (composting) program for the Spokane Campus Cafe and medical student lounge. However, these are the only two locations for the whole campus with composting, so it is not widely accessible or comprehensive. There are also recycling bins across the Spokane campus, but there are only one or two conventional recycling bins available on each floor of the medical school buildings. These bins are located inside a select few classrooms and hallways, and thus less readily accessible by students. There are small recycle bins in offices and staff work rooms for easy access for faculty and staff.</p>	

<p>5.7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?</p>	
3	Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<p><i>Score explanation:</i> Sustainability guidelines for food and beverages on the Spokane campus do exist; however, they are not publicly available nor required. There are attempts by the one campus cafe, Fresh Plate, to serve locally sourced foods and provide vegan and vegetarian options; Fresh Plate has made additional efforts in the past to increase sustainability, though these efforts are largely those of the small business and not dictated by the medical college. The WSU Pullman dining services do have clear and publicly available sustainability guidelines. Coca Cola is the beverage contractor for WSU as an institution, and as a company they are transitioning all water bottles (Aquafina brand) to plant based. This is unchanged from last year.</p>	

<p>5.8. Does the <u>medical school</u> or <u>institution</u> apply sustainability criteria when making decisions about supply procurement?</p>	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is not engaged in efforts to increase sustainability of procurement.

0	There are no sustainability guidelines for supply procurement.
<p><i>Score explanation:</i> 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. This is unchanged from last year.</p>	

5.9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u>?	
2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required .
0	There are no sustainability guidelines for medical school events.
<p><i>Score explanation:</i> 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. This is unchanged from last year.</p>	

5.10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.
<p><i>Score explanation:</i> 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, chemicals are evaluated for proper disposal including the potential to recycle, minimization of amount purchased, and evaluation of potential chemical substitutes. This is unchanged from last year.</p>	

5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?	
4	The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.
3	The institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.

1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.

Score explanation: WSU does not have any investments directly in fossil fuel companies; all investments are indirect via inclusion in index and mutual funds. There has been a student [campaign](#) advocating for WSU’s fossil-fuel [divestment](#). In addition, there have 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 along with the creation of the President’s Sustainability Task Force, and the revised sustainability goals it is developing.

Section Total (14 out of 32)	43.75%
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Back to Summary Page [here](#)

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

Grading

Section Overview

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

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

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%)	$(52/72) \times 100 = 72.22\%$	B
Interdisciplinary Research (17.5%)	$(11/17) \times 100 = 64.71\%$	B-
Community Outreach and Advocacy (17.5%)	$(5/14) \times 100 = 35.71\%$	D+
Support for Student-led Planetary Health Initiatives (17.5%)	$(13/15) \times 100 = 86.67\%$	A
Campus Sustainability (17.5%)	$(14/32) \times 100 = 43.75\%$	C-
Institutional Grade	62.06%	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.

Planetary Health Report Card Trends for Washington State University Elson S. Floyd College of Medicine

