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# **Planetary Health Report Card**

## **(Medicine):**

***Creighton University School of  
Medicine - Omaha Campus***

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Creighton  
UNIVERSITY

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School of Medicine

2024-2025 Contributing Team:

- Students: Jenna Lehn\*, Abigail Jacobi\*, Taylor Low, Harper Hill, Clare Delmore, Robert Brock, Madeline Torbenson, Naomi Lin, Vikram Murugan, Stephen Sanders, Cole Melton
- Faculty Mentors: Patrick Swanson, PhD; Thomas Svolos, MD

\*Primary Contacts: Jenna Lehn, [jennalehn@creighton.edu](mailto:jennalehn@creighton.edu), Abigail Jacobi, [abigailjacobi@creighton.edu](mailto:abigailjacobi@creighton.edu)

## **Land Acknowledgment**

We want to take the time to acknowledge the territory of Omaha and Oceti Sakowin (Sioux) people as well as the Ponca, Pawnee, Otoe-Missouria, and Lakota Sioux peoples, who have lived on this land for generations. We want to recognize these nations' historical and ongoing struggles as we work towards a more just and equitable future. We honor their powerful relationship with the land and their wisdom in caring for and cultivating it. For the opportunity to work, learn, and grow on this land, we are thankful.

## Summary of Findings

Overall Grade	B
<u>Curriculum</u>	B
<ul style="list-style-type: none"> <li>The two Planetary Health lectures within the M1 year provide most of the environmental education at Creighton School of Medicine (SOM). This could be covered in greater depth and extended to all blocks.</li> <li><b>Recommendation:</b> The SOM can improve this category by ensuring that planetary health topics are integrated into all core curriculum and extends to clerkship years. In addition, planetary health and sustainability topics may be discussed in lectures, electives, or case based learning. Pharmaceutical waste, plant-based diets, and sustainability in clinical practice are largely absent in the curriculum.</li> </ul>	
<u>Interdisciplinary Research</u>	B+
<ul style="list-style-type: none"> <li>Creighton SOM's involvement in hosting the Global Health Conference Midwest allows for student involvement in Planetary Health and healthcare sustainability research.</li> <li><b>Recommendation:</b> Creighton University SOM is increasing its emphasis on interdisciplinary research and actively encourages initiatives in planetary health and healthcare sustainability. We would encourage a streamlined process, possibly through the facilitation of Creighton SOM research chairs, to match faculty in the School of Medicine with those interested in such research. Furthermore, a formal mechanism for community input would help appropriately direct research agendas to ensure the needs of society are met.</li> </ul>	
<u>Community Outreach and Advocacy</u>	B-
<ul style="list-style-type: none"> <li>Creighton maintains meaningful partnerships with community organizations that promote planetary and environmental health. However, the SOM does not directly facilitate their involvement. The SOM offers community-facing events regarding planetary health and educational events for post-graduate healthcare providers, yet students do not receive communications about sustainable healthcare from the SOM.</li> <li><b>Recommendation:</b> Establish partnerships with community organizations that promote environmental and planetary health. Additionally, the SOM should distribute regular updates regarding existing sustainability efforts to medical students.</li> </ul>	
<u>Support for Student-Led Initiatives</u>	A
<ul style="list-style-type: none"> <li>Creighton University does a good job of supporting students that are committed to sustainable healthcare and planetary health. The institution has a Student Sustainability Action Fund and a Planetary Health and Sustainability Task Force that focus efforts on helping students initiate research projects. Despite these research avenues, the SOM has a lack of sustainability and planetary health focused research mentors.</li> <li><b>Recommendation:</b> Cultivate a list of planetary health and healthcare sustainability interested mentors that is easily accessible via Creighton University's website to advance current and future PH initiatives.</li> </ul>	
<u>Campus Sustainability</u>	C
<ul style="list-style-type: none"> <li>Creighton University's campus sustainability has improved since last year, driven by the completion of goals outlined in the Sustainable Creighton Initiative by the Office of Sustainability. With campus-wide composting and free public transit for students, faculty, and staff, both administration and students demonstrate a strong commitment to sustainability.</li> <li><b>Recommendation:</b> Retrofitting older buildings, establishing concrete deadlines and measurable consumption goals, and increasing public transportation utilization are key areas for improvement. Additionally, continued progress on the Sustainable Creighton Initiative will help further enhance Creighton's campus sustainability score and overall impact.</li> </ul>	

# Statement of Purpose

*Planetary health is human health.*

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

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

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

# Definitions & Other Considerations

## Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
  1. Describe how the environment and human health interact at different levels.
  2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
  3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Medical School/Department vs. Institution:** When “Medical school” is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is

specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word "elective" refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to taught material that is delivered to the entire cohort of students in one year.
- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.
- **Extractivism:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

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

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

**Other considerations:**

- If there are more than one “tracks” at your institution with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples). Where possible please indicate the proportion of students that are on each track.

Completed in 2022 a [Literature Review by Metric](#) is available for the 2022 medicine report card metrics. We are in the process of updating this review and making it more applicable to all the disciplines. However the review serves as a rough collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

# Planetary Health Curriculum

***Section Overview:*** This section evaluates the integration of relevant planetary health topics into the medical school curriculum. Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum. The Creighton School of Medicine offers a series of lectures referred to as "Gold Track," which highlight different topics and the social context of care, several related to climate change or sustainability.

## Curriculum: General

<b>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?</b>	
Yes, the medical school has offered <b>more than one</b> elective whose primary focus is ESH/planetary health in the past year.	
Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year.	
The medical school does <b>not</b> have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a <b>lecture</b> on planetary health.	
No, the medical school has <b>not</b> offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.	
Score Assigned:	2
<p><i>Score explanation:</i> Creighton University School of Medicine offers a 5-week Student Interest Selective titled "Intersections Between Food Security, Climate Change, and Public Health" to both M1s and M2s, which covers the impact of climate change on food insecurity, the decreasing biodiversity of our planet, and the effects on agriculture. The course also addresses sustainable food practices that would aim to diminish the effects of the corporate food industry on the planet. Along with this course, CUSOM offers "Restorative Recreation" to both M1 and M2s. This elective covers <a href="#">Laudato Si</a> and how it relates to care for our common home and also explores the benefits of nature in relation to human health. While the main focus of the course is the effects of nature on mental and physical health which lies outside the primary scope of planetary health, the course does contain a lecture on advocacy and restorative practices to repair our ecosystems.</p>	

## 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 <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	3
<p><i>Score explanation:</i> Creighton University School of Medicine provides various lectures that explore this relationship. In a lecture called “Planetary Health: Existential Threats and Clinical Opportunities,” multiple slides show the links between heat, climate change, and the effects that this has on human health. The lecture also emphasizes the interplay of heat on infectious disease, respiratory disease, heat stroke, mental health, and chronic diseases. Additionally, various Case Based Learning (CBL) activities provide students with knowledge on these topics. The M1s are given a CBL on severe burns which includes information on climate change and wildfires. It includes the learning objective “Describe the role of climate change in risk of wildfires and the health consequences of smoke exposure.” The M2s are provided a CBL on kidney stones with the learning objective “Understand how climate change affects kidney health, particularly the pathophysiology of and risk factors for rhabdomyolysis, kidney stones, and acute kidney injury (AKI) during heat waves.” The M2s are given another CBL on heat stroke and hypothermia which covers the relationship between extreme heat and health risks, but this is not directly connected to increased global temperatures due to climate change.</p>	

<b>1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	3
<p><i>Score explanation:</i> Creighton University has a lecture for M1s titled “Introduction to Planetary Health,” which includes the effects of extreme weather on healthcare and the healthcare system. In a lecture called “Planetary Health: Existential Threats and Clinical Opportunities,” the impact of extreme weather events on health and economic loss are discussed. The effects of heat and wildfires are additionally covered in the M1 CBL on severe burns and the M2 CBL on hypothermia and heat stroke.</p> <p><b>Recommendations:</b> For Creighton students in Omaha, more information or lectures could be provided on the health effects of hurricanes, earthquakes, or other natural disasters. Additionally, it would be beneficial to focus on health presentations following cold weather, and flooding exposures. It is imperative to integrate this metric into multiple lectures and CBLs to increase longitudinal learning. Additionally, we recommend addressing the impacts of extreme weather events on the healthcare system as a whole by emphasizing, for example, the cost of treating</p>	

increased incidence of heat stroke or hypothermia as well as the cost of damages from storms and flooding.

**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.

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:* An M2 CBL on infectious diarrhea contains the learning objective “Understand the mechanisms by which climate change leads to increased risk of water-borne GI illnesses.” This topic was briefly covered in multiple lectures throughout the Infectious Disease block. The block included a lecture about the increasing incidence of Chagas disease further North due to climate change. There was also a CBL about Lyme disease that discussed the living patterns of ticks in relationship to climate change. This was also generally discussed in relation to vector-borne diseases in a lecture titled “Infectious Disease with Multisystem Consequences.”

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

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

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

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

This topic was **not** covered.

Score Assigned:

3

*Score explanation:* Through a CBL on Asthma and COPD, M2s learn about the various particles that change the atmosphere from climate change and their effects on respiratory health. The learning objective for this CBL is, “Understand how climate change influences levels of ground-level ozone, fine particulate matter (PM<sub>2.5</sub>), coarse particulate matter (PM<sub>10</sub>), and aeroallergens, and how these affect respiratory diseases.” Additionally, air pollution was covered in a Gold Track Lecture on “Planetary Health: Existential Threats and Clinical Opportunities,” where a focus was on understanding current health policies and health effects. This lecture also placed an emphasis on understanding coarse particulate matter, ozone disturbances, household air pollution, and exposure pathways for environmental toxins.

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

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

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 M1 CBL on severe burns and the M2 CBLs on hypothermia and heat stroke address the effects of extreme heat and cold. While the Cardiology block itself does not directly address the effect of climate change on the organ system, these two CBLs discuss the increase in temperatures from climate change and relate that to the prevalence of cardiovascular health concerns. The M2 CBL specifically examines heat stroke, addressing the exacerbating effects on cardiovascular health caused by changes in the climate. In the M1 Gold Track Lecture “Planetary Health: Existential threats and clinical opportunities,” the topics of cardiovascular disease, kidney disease, and mental health were addressed in connection with climate change and increased 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:

3

*Score explanation:* The School of Medicine provides a Service Learning Planetary Health lecture that links the increased global temperatures due to carbon emissions with changes to mental health. She includes studies showing correlations between heat and violent behaviors. Another lecture, titled “Introduction to Planetary Health,” also mentions the direct psychological benefits from residential green spaces. Further, this topic is covered extensively in the selective “Restorative Recreation.” This elective emphasizes the impacts of an “increasing disconnectedness to nature on human health” and focuses on how reestablishing a physical connection with earth through nature immersion can ameliorate these effects. Finally, a new M4 elective on planetary health and ecopsychology was introduced 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?**

This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation:</i> This topic was covered in a Gold Track Lecture discussing lead poisoning and disparities in access to safe environments. The lecturer emphasized that Omaha's high caseload of children presenting with lead poisoning was and continues to be due to The American Smelting and Refining Company, Inc. In South Omaha, there are many active factories releasing carbon monoxide in the air. Further, a new elective titled "Intersections between food security, climate change, and public health" is being offered to M1s and M2s. In the M1 Gold Track Lecture "Planetary Health: Existential threats and clinical opportunities", the topics of healthy ecosystems were discussed, with particular focus on air pollution, environmental toxin, and their connection to health.</p>	

<b>1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation:</i> In the M1 Gold Track Lecture "Introduction to Planetary Health", a video assigned as prework mentioned communities that are disproportionately impacted by climate change. During the lecture, students were given time in small groups to discuss how climate change impacts the health of vulnerable and marginalized groups. In the M1 Gold Track Lecture "Planetary Health: Existential threats and clinical opportunities", the topic of the disproportionate effects of climate change on marginalised populations is addressed, and case studies are used. This topic is addressed in more detail through the new elective titled "Intersections between food security, climate change, and public health" which is offered to M1s and M2s.</p>	

<b>1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	

This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation:</i> A lecture titled, “Planetary Health: Existential Threats and Clinical Opportunities,” addressed the disproportionate effects of pollution on lower-income countries. Creighton medical students have the opportunity to attend <a href="#">medical mission trips</a> to locations such as the Dominican Republic. Through these experiences, the students learn and see firsthand how climate change affects the availability and effectiveness of health treatment.</p> <p><b>Recommendations:</b> We recommend providing additional information on how different biomes both affect population health and are impacted by climate change.</p>	

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

<b>1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation:</i> In a lecture titled “Adverse Drug Reactions, Drug-Drug Interactions, Overdose &amp; Toxicity”, the topic of industrial-related environmental toxins and their teratogenic effects is briefly mentioned. Furthermore, this topic is briefly discussed in the “Introduction to Planetary Health” lecture through a discussion of home air pollution and environmental toxins.</p>	

<b>1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university’s surrounding community?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	3
<p><i>Score explanation:</i> This is covered in a Gold Track Lecture titled “Academic Service Learning” as well as CBL cases during M1 and M2 in the Musculoskeletal (MSK), Respiratory, and Renal blocks. The lecturer emphasizes that Omaha’s high caseload of children presenting with lead</p>	

poisoning was and continues to be due to The American Smelting and Refining Company, Inc. In South Omaha, there are many active factories releasing carbon monoxide in the air. In a CBL named “Dante’s Inferno,” the risk of wildfires from climate change is discussed in relation to populations they traditionally impact, health risks from wildfire/wildfire smoke, and the potential reinforcing feedback loop of climate change, wildfires, and health risks. These are taught under the learning objective “Describe the role of climate change in risk of wildfires and the health consequences of smoke exposure.” This topic is revisited in regards to respiratory diseases through the Respiratory CBL objective “Understand how climate change influences levels of ground-level ozone, fine particulate matter, coarse particulate matter, and aeroallergens, and how these affect respiratory diseases.” Air pollution and climate change was examined once again in the Renal Case Based Learning objective “Understand how climate change affects kidney health, particularly the pathophysiology of and risk factors for rhabdomyolysis, kidney stones, and acute kidney injury (AKI) during heat waves.” Compared to last year, Creighton SOM has encouraged students to learn about air pollution in Omaha, as well as its effects on its population, and has thoroughly incorporated this information regarding air quality into the curriculum.

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

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

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

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

This topic was **not** covered.

Score Assigned:

2

*Score explanation:* A Service Learning Planetary Health lecture mentions the importance of learning from Indigenous communities by using the Swinomish Indian Tribal Community as an example. Creighton University SOM also sponsors the [Great Plains Native American Health Symposium](#) as part of the Global Health Conference. Attendance is not required, but IPE credit is offered as encouragement.

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

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

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

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

This topic was **not** covered.

Score Assigned:	3
<p><i>Score explanation:</i> A lecture titled “Academic Service Learning” covers the effects of lead and other toxic chemicals historically released by The American Smelting and Refining Company, Inc and how this remains a justice issue that disproportionately affects children, immigrants, communities of color, and those with low SES based on proximity to where the factories operated. Another lecture, “Planetary Health: Existential Threats and Clinical Opportunities,” addresses the disproportionate effects of pollution on lower-income countries. In the MSK CBL Case Based Learning session on "Dante's Inferno," the focus is on exploring human-induced wildfires and those exacerbated by climate change. These are analyzed in terms of their impact on vulnerable populations, such as pregnant women, who face heightened risks of preterm birth and low birth weight. Additionally, the wildfires are shown to disproportionately affect low-income communities. This question is addressed in two Gold Track Lectures and briefly in an MSK CBL, and</p> <p><b>Recommendations:</b> We could continue to incorporate this topic in greater depth across the various curricular tracks.</p>	

*Curriculum: Sustainability*

<b>1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	1
<p><i>Score explanation:</i> In the lecture “Nutrition for Medical Students,” the presenter highlights the benefit of a plant-based diet on the human body. However, the lecture does not relate the plant-based diet with environmental benefits. In the Selective titled “Intersections Between Food Security, Climate Change, and Public Health,” there is extensive discussion of plant-based diets and the benefits and drawbacks for human health and environmental health.</p>	

<b>1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2

*Score explanation:* In the Service Learning Planetary Health lecture, waste generated by hospitals and the idea of the circular economy is covered. It emphasizes the goals of preservation of natural capital and optimization of resources through reuse and recycling. It also touches on ensuring effective design of the health system in order to limit pollution, greenhouse gas emissions, and toxic materials. Additionally, another lecture entitled “Sustainability in Laboratory Practice” is given to the SOM graduate IDC601 cohort (a group that has taken the SOM’s Responsible Conduct of Research course), but this is focused on ways to reduce energy consumption and materials in a research lab without emphasis on how to do this in a hospital or clinic setting.

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	Score
The health <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment.	0
The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfil this metric.	0
The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> 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.	0
Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated.	0
The impact of <b>anaesthetic</b> gases on the healthcare carbon footprint and ways to reduce anaesthesia’s environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions.	0
The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.	0
<b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting).	0
<i>Score explanation:</i> Creighton curriculum does not cover these aspects. While the Service Learning Planetary Health lecture emphasized the amount of waste that the healthcare system creates, few resources or strategies are given to mitigate this waste production. Creighton SOM curriculum does not address the pharmaceutical effect on climate change nor give avenues to mitigate this. The benefits of green spaces and walkable cities to a person’s health are mentioned in a few lectures; however, there is no connection to the environmental benefit of social prescribing.	

### *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 <b>core</b> curriculum.	
Yes, there are strategies introduced for having conversations with patients about climate change in <b>elective</b> coursework.	
No, there are <b>not</b> strategies introduced for having conversations with patients about climate change.	
Score Assigned:	0
<i>Score explanation:</i> Creighton SOM does not introduce strategies to have conversations with patients about the health effects of climate change.	

<b>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?</b>	
Yes, the <b>core</b> curriculum includes strategies for taking an environmental history.	
Only <b>elective</b> coursework includes strategies for taking an environmental history.	
No, the curriculum does <b>not</b> include strategies for taking an environmental history.	
Score Assigned:	2
<i>Score explanation:</i> During the Pulmonology block, students are taught how to take a thorough occupational and household exposure social history. Students discuss how this relates to increased risk for certain diseases – for example, how asbestos and silicone can impair alveolar macrophage function. Students are also taught to take a detailed social history during the Clinical Skills Experiences, including occupational history, smoking, and recent traveling history. <b>Recommendations:</b> We recommend expanding these lessons to include exposures to air pollution and vector-borne diseases.	

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

<b>1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?</b>	
Yes, the medical school is currently in the process of making <b>major</b> improvements to ESH/planetary health education.	
Yes, the medical school is currently in the process of making <b>minor</b> improvements to ESH/planetary health education.	
No, there are <b>no</b> improvements to planetary health education in progress.	
Score Assigned:	4
<i>Score explanation:</i> Creighton University School of Medicine has a task force composed of faculty/staff as well as a subset of students whose primary focus is on integrating Education for	

Sustainable Healthcare/planetary health education into the curriculum. Students have continued to add planetary health content in CBLs/TBLs for M1s and M2s, and now there are 6 CBL cases that incorporate planetary health learning objectives. These cases are Asthma [CIB115] and COPD [CIB115], Lyme disease [CIB103] and Burns [CIB107]), Kidney Stones [CIB204] and Infectious Diarrhea [CIB202]. A course titled “Intersections Between Food Security, Climate Change, and Public Health” [SIS559] was fully offered this year to both M1 and M2 students. A Laudato Si lecture is in the works for next fall and plans to bring in a leading expert in Nature Prescription. Faculty/staff along with the [Kingfisher Institute](#) are working on inviting speakers who have done notable work in ESH/planetary health to speak during Grand Rounds. Students compiled a list of potential speakers and sent it to the Kingfisher Institute for review. Efforts in creating planetary health electives for M4s have succeeded with the new “Planetary Health/Ecopsychology” elective as well as the upcoming “Climate Justice for Clinicians” elective. Instructor interest and willingness to incorporate these topics and the initiative to make these changes is apparent. Outreach to clinical affiliates involved in topics such as waste reduction, surgical sustainability, and heat related injuries are being explored. While these improvements have been gradual, there have been many changes over the past year and noticeable interest from the school outside of the task force in addressing planetary health in the curriculum.

**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.

**Some** planetary health/ESH topics are appropriately integrated into the core medical student curriculum.

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

There is **minimal/no** education for sustainable healthcare.

Score Assigned:

4

*Score explanation:* At Creighton SOM, Planetary Health receives attention during the M1 and M2 years through standalone lectures as part of the Humanities track and through several cases in our Case Based Learnings seen during our M1 and M2 years. However, incorporation directly into the organ system blocks outside of these cases is currently minimal.

**Recommendations:** Enhancing Planetary Health Education could involve lectures that take time to highlight the impact of environmental factors on each organ system, thereby fostering a more comprehensive understanding of the interplay between human health and the environment

**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.

**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Score Assigned:

1

*Score explanation:* The SOM's Planetary Health and Sustainability Task Force is responsible for curricular integration of planetary health and sustainable healthcare.

**Section Total (49 out of 72)**

**68.06%**

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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.

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.

There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare.

No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time.

Score Assigned:

3

**Score explanation:** In January 2022, Creighton's [Master of Public Health program](#) became part of the School of Medicine. There are several [faculty members](#) with a primary research focus in [planetary health](#) or [sustainable healthcare](#). Specifically, one professor in the MPH school is researching environmental health and the risks associated with certain environments, such as flood plains. However, there is no centralized resource for students to identify and connect with Creighton University School of Medicine faculty engaged in planetary health and healthcare sustainability research.

**Recommendations:** We encourage the School of Medicine to recognize faculty members open to conducting or mentoring MD students in Planetary Health research. We also encourage better communication of the projects these researchers are doing with the SOM.

## 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.

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.

There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research.

There is **no** dedicated department or institute.

Score Assigned:

1

*Score explanation:* There are chances to collaborate with planetary health researchers in the Creighton School of Medicine's Masters of Public Health program. Nevertheless, no formal structure makes it easier for students to access multidisciplinary planetary health research.

**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.

Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda.

**No**, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda.

There is **no** process, and **no** efforts to create such a process.

Score Assigned:

1

*Score explanation:* Although there are no current efforts to establish a process for community members to advise or make decisions on the research agenda at our institution, students in the School of Medicine consistently interact with communities disproportionately impacted by climate change and environmental injustice and have opportunities to address these issues through the [Creighton Student Sustainability Action Fund](#). There are also current efforts in the School of Medicine to develop a new [strategic plan](#), which include discussions about promoting health equity in the community through engagement, advocacy, research, and environmental sustainability.

**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.

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.

The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment.

There is <b>no</b> website.	
Score Assigned:	3
<i>Score explanation:</i> Creighton University has a <a href="#">sustainability webpage</a> that identifies campus sustainability efforts. One of these efforts is the Sustainable Creighton Initiative that outlines Creighton’s comprehensive strategy and commitment to care for our common home. The webpage also includes information about student engagement opportunities, upcoming events, leaders in planetary health at the institution, and additional resources that guide sustainable practices and programs on campus. The project and reporting coordinator and director <a href="#">pages</a> have listed research projects.	

2.5. Has your <b><u>institution</u></b> recently hosted a conference or symposium on topics related to planetary health?	
Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.	
Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year.	
Yes, the <b>institution</b> has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years.	
The <b>institution</b> has not hosted any conferences directly, but they have provided financial support for a local planetary health event.	
No, the <b>institution</b> has not hosted a conference on topics related to planetary health in the past three years.	
Score Assigned:	4
<i>Score explanation:</i> Creighton’s <a href="#">Global Health Conference Midwest</a> includes both keynote and breakout speakers dedicated to planetary health. In 2025, the conference included a keynote presentation titled “Planetary Health: the Urgency of Now” and breakout presentations titled “Lead Poisoning Prevention in the Nation’s Largest Lead Residential Superfund Site” and “Climate Solutions Offer Health-Promoting Interventions.” This conference is hosted in partnership with multiple schools within the University.	

2.6. Is your <b><u>institution</u></b> 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 <b>or</b> ESH/ESV organisation.	
No, the institution is <b>not</b> a member of such an organisation.	
Score Assigned:	1

*Score explanation:* Creighton School of Medicine joined the [Global Consortium on Climate and Health Education](#) in Fall 2021. We encourage Creighton SOM to actively participate in this effort and other climate-health organizations.

**Section Total (13 out of 17)**

**76.47%**

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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 institutional 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.

<b>3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?</b>	
Yes, the <b>institution</b> meaningfully partners with <b>multiple</b> community organisations to promote planetary and environmental health.	
Yes, the <b>institution</b> meaningfully partners with <b>one</b> community organisation to promote planetary and environmental health.	
The <b>institution</b> does not partner with community organizations, but <b>participates</b> in community focused events relating to planetary health. (1 point)	
No, there is <b>no</b> such meaningful community partnership.	
Score Assigned:	3
<p><i>Score explanation:</i> As an institution, Creighton University maintains meaningful partnerships with <a href="#">community organizations</a> to promote planetary and environmental health through the <a href="#">Schlegel Center for Service and Justice</a>. This center, along with Creighton's Office of Sustainability, gives students opportunities to serve with organizations around Omaha that promote conservation and sustainability.</p> <p><b>Recommendations:</b> We recommend that the School of Medicine promote and distribute news of service opportunities from existing partners Creighton University that promote environmental and planetary health.</p>	

<b>3.2. Does your <u>institution</u> offer community-facing courses or events regarding planetary health?</b>	
The <b>institution</b> offers community-facing courses or events at least once every year.	
The <b>institution</b> offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.	
The <b>institution</b> has promoted community-facing courses or events, but was not involved in planning those courses or events.	



The <b>institution</b> has not offered such community-facing courses or events.	
Score Assigned:	3
<i>Score explanation:</i> Creighton University School of Medicine is the host of the annual <a href="#">Global Health Conference Midwest</a> . This event features multiple lectures and discussions surrounding planetary health. In 2025, the conference was held on January 31st & February 1st, 2025 in the Mike & Josie Harper Center at Creighton University. This event is open to the community for a fee of \$15-\$40. Alternatively, virtual attendance via Zoom is available for free. In addition, a zoom lecture for the Creighton campus was titled the “ <a href="#">Health Professional Action in the Climate Crisis</a> ” on February 20, 2024.	

3.3. Does your <b>institution</b> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students <b>regularly</b> receive communication updates dedicated to planetary health and/or sustainable healthcare.	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to <b>some courses</b> .	
Students <b>do not</b> receive communications about planetary health or sustainable healthcare.	
Score Assigned:	0
<i>Score explanation:</i> Creighton School of Medicine does not directly distribute coverage of issues related to planetary health or sustainable healthcare to its students. The institution provides coverage of sustainability initiatives and meetings via university-wide emails. However, these emails do not contain any information related to sustainable healthcare. Medical students may opt-in to receive emails from the Office of Sustainability. However, these emails rarely mention specific news or initiatives related to sustainable healthcare. <b>Recommendations:</b> We recommend that the School of Medicine promote the option to join the Office of Sustainability mailing list to incoming students each year. Additionally, we recommend that the School of Medicine distribute updates regarding existing sustainability efforts and Planetary Health Task Force meetings to medical students on a quarterly basis.	

3.4. Does the <b>institution</b> or <b>main affiliated hospital trust</b> 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 <b>institution</b> or <b>main affiliated hospital trust</b> 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 <b>institution</b> or <b>main affiliated hospital trust</b> offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider.	
There are <b>no</b> such accessible courses for post-graduate providers.	

Score Assigned:	1
<p><i>Score explanation:</i> The School of Medicine offers CME credit to participants of the <a href="#">Global Health Conference Midwest</a>. This annual event features multiple lectures and discussions that educate attendees about sustainable healthcare and planetary health.</p> <p>The School of Medicine currently offers <a href="#">CME events</a> that include a distinguished lecture series, one of which was titled “<a href="#">Health Professional Action in the Climate Crisis</a>” on February 20, 2024.</p> <p><b>Recommendations:</b> We recommend that the School of Medicine invites lecturers to present material related to planetary health and sustainable healthcare practices.</p>	

3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?	
Yes, the <b>institution</b> or <b><u>all</u> affiliated hospitals</b> have accessible educational materials for patients. (2 points)	
<b>Some</b> affiliated hospitals have accessible educational materials for patients.	
<b>No</b> affiliated hospitals have accessible educational materials for patients.	
Score Assigned:	1
<p><i>Score explanation:</i> One of the School of Medicine’s clinical sites, Children’s Nebraska, offers accessible educational materials for their patients to learn about risks and assessment of environmental health exposures. Outside of this clinical site, materials on this topic are infrequently available to patients.</p> <p>The Catholic Health Initiatives (CHI) is the regional healthcare network where Creighton SOM students rotate in its hospitals, and is part of the larger, national health system CommonSpirit health. CHI offers multiple <a href="#">health risk assessment tools</a> to patients through their website.</p> <p><b>Recommendations:</b> We recommend that an environmental health exposure risk assessment tool is added for patients to use. Additionally, we recommend that physical copies of educational materials on environmental health exposures be available for patients at all CHI clinics.</p>	

3.6. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?	
Yes, the <b>institution</b> or <b><u>all</u> affiliated hospitals</b> have accessible educational materials for patients. (2 points)	
<b>Some</b> affiliated hospitals have accessible educational materials for patients.	
<b>No</b> affiliated hospitals have accessible educational materials for patients.	
Score Assigned:	1

*Score explanation:* CommonSpirit Health, the regional healthcare network that includes many of the School of Medicine's affiliated teaching hospitals, has educational materials for patients regarding the health impacts of climate change. Their website contains articles such as "[CommonSpirit's pledge to decarbonize health care sector](#)" that details a climate action plan for the health network in order to achieve goals such as eliminating harmful chemicals in their used products and supporting renewable energy research projects. These articles detail the dangers of climate change such as extreme heat waves, wildfires, flooding, vector-borne diseases and other factors that worsen chronic health conditions. They have an [Eco Stewardship webpage](#) with their sustainability goals and resources, including water and carbon calculators that detail each person's direct impact on climate change and their health. Other affiliated clinical sites do not have accessible educational materials on this topic.

**Recommendations:** We recommend that physical and online educational materials are made more accessible to patients at these clinical sites.

<b>Section Total (9 out of 14)</b>	<b>64.29%</b>
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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 **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.

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.

No, the institution **does not** offer opportunities or support for sustainability initiatives or QI projects

Score Assigned:

2

*Score explanation:* Creighton University established the Office of Sustainability in 2021, which prompted the launch of the [Creighton Student Sustainability Action Fund \(CSSAF\)](#). The mission of the CSSAF is to provide students with both the financial means and avenue to explore projects that combine environmental, social, and economic issues. The CSSAF encourages all university students, including medical students, to submit initiatives that will contribute to the overall mission of creating a more sustainable culture at Creighton University. The CSSAF Governance Committee members hold monthly meetings to review and vote on the submitted proposals.

Creighton University School of Medicine (SOM) has a [Summer Research Program](#) for M1 students that provides funding for students to engage in 6-week or 9-week long research projects during the summer before M2 year. Students are encouraged to seek out their own mentors to explore research of interest, including quality improvement (QI) initiatives. The program was expanded in 2024-2025 to accommodate all M1 applicants.

## 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.

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.

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

Score Assigned:

2

*Score explanation:* Creighton University School of Medicine is enrolled in the [Students & Trainees Advocating for Resource Stewardship \(STARS\) program](#). Creighton University has STARS Ambassadors in each class, who applied and were selected for the program. A local faculty member provides mentorship to students in the STARS program who have the unique opportunity to design and implement high value care initiatives into the curriculum or collection of extra-curriculars. The goal of these initiatives is to educate students on the importance of maximizing resource stewardship and minimizing unnecessary interventions. These initiatives are aimed at reducing medical waste and lowering costs of care.

The School of Medicine additionally has an [M1 Summer Research Program](#) that allots funding for student-led projects. Students are encouraged to seek out their own mentors to engage in research of interest. Although there are no mentors specifically dedicated to researching Planetary Health, mentors will support students in pursuing quality improvement research focused on sustainability.

**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.

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

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

Score Assigned:

1

*Score explanation:* Creighton University has a [webpage](#) accessible to medical students which outlines current sustainability initiatives underway and points of contact within the Office of Sustainability who are available to discuss sustainability project ideas. The webpage, however, is not specific to sustainable healthcare, or more broadly health sciences.

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

Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare.

Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it <b>lacks faculty support</b> .	
No, there is <b>not</b> a student organisation at my institution dedicated to planetary health or sustainability in healthcare.	
Score Assigned:	2
<p><i>Score explanation:</i> Creighton University School of Medicine coined a Planetary Health and Sustainability Task Force, which established a student branch in 2021. This branch fosters student contributions to planetary health and healthcare sustainability initiatives. Additionally, students on the task force are responsible for updating the Planetary Health Report Card annually, which promotes transparency about areas within the institution that need improvement. This task force is officially recognized within the School of Medicine but does not receive funding from the larger institution.</p> <p>The School of Medicine has several other student organizations that are centered around planetary health engagement and are formally recognized by the larger institution. These organizations include Justice in Medicine and the Medical Innovation, Collaboration, and Entrepreneurship (MICE) club. While planetary health and sustainable healthcare are not explicitly stated within the mission statements of these student groups, these groups have integrated sustainable healthcare initiatives into their cause.</p> <p>The larger institution has additional student groups that aim to increase awareness of environmental sustainability and empower students to take planetary health into their own hands, including Green Jays and Environmental Science Club. These clubs are formally recognized by Creighton University.</p>	

<b>4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?</b>	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee.	
No, there is no such student representative.	
Score Assigned:	1
<p><i>Score explanation:</i> <a href="#">The Planetary Health and Sustainability Committee</a>, as mentioned in the catalog, is a sustainability co-curricular group of medical student liaisons who are tasked with attending meetings each semester with the Sustainability Across the Curriculum (SATC) subcommittee and The Office of Sustainability Programs (OSP) to devise new ways of incorporating sustainability-focused topics into the medical school curriculum.</p>	

<b>4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)</b>	<b>Score</b>
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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 organise hiking, backpacking, kayaking, or other outings for students)	1
<p><i>Score explanation:</i></p> <ul style="list-style-type: none"> <li>• The <a href="#">Schlegel Center for Service and Justice</a> at Creighton University makes available service opportunities that aim to improve sustainability efforts, including <a href="#">City Sprouts Omaha</a> which is a nonprofit organization whose mission is to educate on agricultural practices and the role it plays in sustainable food systems. City Sprouts Omaha offers weekly recurring service for students every Friday morning. Another service opportunity available to students is <a href="#">No More Empty Pots</a>, a non-profit organization that incorporates three pillars - education, stewardship, and sustainability - into its goal of promoting food security in urban and rural communities.</li> <li>• Creighton University hosts speaker series related to planetary health with students as the intended audience. For example, in Spring of 2024, there was a three-part speaker series titled: “Global Climate Security and Diplomacy,” “Large Scale Solutions: Geo-Engineering on the Global Stage,” and “Who Speaks for the Earth.” This speaker series was a call-to-action and explored topics of climate change, sustainability, and environmental stewardship.</li> <li>• Creighton University hosted the <a href="#">Omaha Climate Resiliency Summit</a> on April 2, 2024. This summit featured local speakers such as the Omaha Public Power District, and had topics that focused on climate resiliency in Omaha and what community members can do in their communities. Creighton’s <a href="#">Global Health Conference Midwest</a> includes both keynote and breakout speakers dedicated to planetary health, with presentations such as “Lead Poisoning Prevention in the Nation’s Largest Lead Residential Superfund Site” addressing local environmental challenges.</li> <li>• Creighton University is participating in the <a href="#">Envisioning Population Health Photo Contest</a> organized by the Institute for Population Health (IPH) and the Kingfisher Institute. Planetary health is one of the three topic areas being highlighted in the photo contest.</li> <li>• The <a href="#">Schlegel Center for Service and Justice</a> at Creighton University makes available service opportunities that aim to improve sustainability efforts. The Habitat for Humanity Creighton chapter helps build habitat homes to restore communities while Keep Omaha Beautiful, Inc. helps clean up debris and litter around storm drains in selected neighborhoods.</li> <li>• The Wilderness Medicine Interest Group hosts Wilderness Medicine Skills Workshops. The Student Government Wellness Chairs organized a class hike. Medical students can participate in the Restorative Recreation selective, which emphasizes the benefits of being outdoors.</li> </ul>	

Section Total (14 out of 15)	93.33%
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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 institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.

5.1. Does your <u>institution</u> have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is <b>at least one designated staff member</b> for sustainability at the hospital.	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but <b>no specific staff member</b> in charge of hospital sustainability.	
There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee.	
There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability.	
Score Assigned:	2
<p><i>Score explanation:</i> Creighton University has a campus-wide <a href="#">Office of Sustainability</a> composed of three full-time team members dedicated to sustainability and advocacy. The office is supported by student liaisons and a governance committee that oversee its initiatives and monitor progress on the <a href="#">Sustainable Creighton Initiative</a>. Additionally, the Office of Sustainability collaborates with each college across the university, holding monthly meetings with college leaders to assess and advance sustainability efforts.</p>	

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>	
The institution has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b>	
The institution does <b>not</b> meet any of the requirements listed above	
Score Assigned:	0
<p><i>Score explanation:</i> Creighton University receives a score of zero because its campus-wide plan does not establish a carbon neutrality goal. Instead, the <a href="#">Sustainable Creighton Initiative</a> sets a target</p>	

of reducing carbon output by 50% by 2028 and aims for “carbon neutrality well before 2050.” However, without a specific target year for neutrality, the plan does not meet the criteria for scoring.

**Recommendations:** Establishing a clear deadline would improve this rating.

### 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.

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

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

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

Score Assigned:

1

*Score explanation:* In its [latest report](#), the Office of Sustainability highlighted that Creighton University has installed over 100 kW of solar electric panels on the rooftops of two new buildings. Additionally, Creighton is the first location in North America to implement a solar hot water heating system from ELM Solar. The university also sources a substantial portion of its energy from renewable sources, primarily wind-generated energy, and continues to collaborate with its local utility provider, OPPD, to expand renewable energy use.

### 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.

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

Sustainable building practices are **inadequately or incompletely** implemented for new buildings.

Sustainability is **not considered** in the construction of new buildings.

Score Assigned:

2

*Score explanation:* Creighton University School of Medicine is primarily housed in the [CL and Rachel Werner Center for Health Sciences Education](#), a state-of-the-art facility that opened in 2024. This building exemplifies sustainable design through several key features. A 90 kW photovoltaic array installed on the rooftop harnesses renewable energy, significantly reducing the facility's carbon footprint. Innovative stormwater management is achieved via underground rainwater storage tanks capable of capturing and retaining the entire volume of a 100-year storm, thereby

preventing runoff into the city's stormwater system and promoting groundwater recharge. Water conservation measures include efficient fixtures and sensor-operated faucets to minimize water usage. Additionally, advanced mechanical and electrical systems, such as variable air handling units with demand control ventilation and energy recovery ventilation units, enhance energy efficiency and indoor comfort. While the building does not have LEED certification, these sustainable practices reflect a strong commitment to environmental stewardship. Currently, there is no established process for retrofitting older buildings on campus to meet similar sustainability standards. We recommend that Creighton University continue this process of renovation to meet the criteria of the majority of old buildings being renovated in a sustainable manner.

**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.

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

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

Score Assigned:

1

*Score explanation:* Creighton University now offers [free transit passes](#) to all students, faculty, and staff for the local Omaha Metro bus system. The university also provides bike racks across campus and at select clinical sites. However, due to the city's layout and the nature of clinical rotations, a car remains necessary for all medical students. Additionally, Creighton has [expanded its shuttle system](#), improving connectivity across campus and linking neighborhoods where students commonly live, enhancing its utility for commuting. As these programs expand, and Omaha's public transportation offerings expand, its utilization may increase, especially with the [completion of the streetcar](#) in 2028.

**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.

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

There is **no** compost or recycling program at the institution.

Score Assigned:

2

*Score explanation:* Single stream recycling for plastic, aluminum, and paper is available across campus including the Werner Center for Health Sciences Education. There are also accessible [recycling drop-off bins](#) on campus for both glass and paper. The main campus has initiated a [compost program](#) with [six convenient locations](#) along the center mall. There is no conventionally placed composting available at the buildings utilized by CUSOM.

**Recommendations:** We encourage CUSOM to advertise the currently available campus locations to their students and for the university to expand this program to the Werner Center.

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

Yes, the institution has **adequate** sustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.

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.

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.

There are **no** sustainability guidelines for food and beverages.

Score Assigned:

2

*Score explanation:* Creighton University as an institution does have sustainability guidelines for food and beverages on campus. The university affiliated caterer Flavours by Sodexo provides sustainable catering options using products that are local and pesticide, hormone, and antibiotic-free. Creighton dining has a [sustainability webpage](#) that details efforts such as becoming tray-less to reduce energy and water use, using Ecolab Green products, and locally sourcing dairy, produce, and beef. Vegan and vegetarian dishes are served daily, but there is no evidence of completely meat-free days on campus.

**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.

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

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.

There are **no** sustainability guidelines for supply procurement.

Score Assigned:

2

*Score explanation:* Creighton University does have [sustainability procurement guidelines](#) which were written in 2009. Those guidelines state that “products and packaging materials contain a prescribed minimum post-consumer recycled content and be minimized and/or substituted with more environmentally appropriate alternatives whenever possible.” It also states that sustainable options are chosen only when “quality, function and cost are equal or superior” or when deemed practical. Strategic sourcing at Creighton uses these guidelines to appraise the sustainability messaging, identification for sustainable products, and availability of sustainable products in preferred vendors. During 2014-15, the University also published a [study on green purchasing](#) with the U.S. Environmental Protection Agency (EPA) and UNO’s Nebraska Business Development Center, which outlines current sustainable purchasing data and makes recommendations.

**Recommendations:** We encourage that the University continue to utilize these guidelines when strengthening policy purchasing and hiring vendors.

#### 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.

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

There are **no** sustainability guidelines for institution events.

Score Assigned:

1

*Score explanation:* Creighton strongly recommends sustainability measures but it is not required for events. There is a [checklist](#) and green event guide for campus meetings and events. These included suggestions such as reduced paper and plastic use, reusing event items at future meetings, and working with the office of Sustainability at Creighton to provide composting for events with food and drink.

**Recommendations:** We recommended that the medical school collaborates with the student government to require sustainability criteria for waste reduction, specifically for on campus events.

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

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

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

There are **no** efforts at the institution to make lab spaces more sustainable.

Score Assigned:

2

*Score explanation:* There is a sub-committee under The School of Medicine Planetary Health Task Force focused on making lab spaces more sustainable. This sub-committee has encouraged personal investigators at Creighton to use Fisher Scientific, which is Creighton’s preferred vendor

for lab supply procurement. Creighton's online purchasing program (CUBuyPlus) identifies when an item has a sustainable "Ready to Go" designation from Fischer or when it is from a "Trusted Sustainability Partner." There is also a digital chemical inventory between labs to encourage resource sharing.

**Recommendations:** We recommend that this sub-committee continues to encourage campus efforts to buy sustainable products for all campus labs, specifically geared towards water conservation, energy efficiency and reducing lab waste.

#### 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.

The institution is **entirely divested** from fossil fuels.

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

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

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

Score Assigned:

2

*Score explanation:* On December 31, 2020, President Hendrickson [announced](#) that Creighton has committed to "withdraw from ownership of public securities of fossil fuel companies within the next five years, exit from its holdings in private fossil fuel investments within the next 10 years and seek investments that target a market rate of return in renewable energy and energy efficiency."

**Recommendations:** There have been no public updates on Creighton's progress towards this goal since President Hendrickson's original statement, we recommend that Creighton's administration publish an updated divestment goal with a renewed timeline.

**Section Total (17 out of 32)**

**53.13%**

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*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 Creighton University School of Medicine Omaha Campus

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

Section	Raw Score %	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(49/72) \times 100 = 68.05\%$	B
<b>Interdisciplinary Research (17.5%)</b>	$(13/17) \times 100 = 76.47\%$	B+
<b>Community Outreach and Advocacy (17.5%)</b>	$(9/14) \times 100 = 64.29\%$	B-
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(14/15) \times 100 = 93.33\%$	A
<b>Campus Sustainability (17.5%)</b>	$(17/32) \times 100 = 53.13\%$	C
<b>Institutional Grade</b>	<b>70.68%</b>	<b>B</b>

# Report Card Trends

## Section Overview

This graph demonstrates trends in overall and section grades for the years in which the Creighton University School of Medicine Omaha Campus has participated in the Planetary Health Report Card initiative.

Planetary Health Report Card Trends for Creighton University School of Medicine - Omaha

