

Planetary Health Report Card (Medicine):

University of Nebraska Medical Center



2023-2024 Contributing Team:

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Summary of Findings

Overall	
Curriculum	C

- The UNMC College of Medicine integrates discussion of extreme heat and climate change interplay with health risk, the impacts of extreme weather on health, and changes to infectious disease in response to climate change extensively, with some other climate topics covered lightly. The curriculum fails to discuss the impact of climate change on cardiovascular health, health effects of industrial products (such as pesticides), and human-caused threats to the surrounding community. Further, the majority of climate change education is covered in a single lecture during the first block of pre-clinical education.
- **Recommendations:** While the medical school curriculum covers a broad range of topics related to climate change, they could improve by integrating the aforementioned topics into the curriculum longitudinally.

Interdisciplinary Research

B-

- UNMC hosts many highly talented and motivated faculty who strive to make changes in the community through environmental research in a dedicated organization, the Water, Climate, and Health Program.
- **Recommendations**: While UNMC as an institution has strong environmental interdisciplinary research, discussions could be held about the benefit of such programs specific to the College of Medicine.

Community Outreach and Advocacy

D+

- The UNMC College of Medicine and its institution Nebraska Medicine do not have any meaningful community partnerships with sustainability organizations and do not have accessible educational materials for patients regarding health impacts of climate change. UNMC has some community-facing events and postgraduate education activities regarding planetary health and sustainable healthcare.
- Recommendations: The UNMC College of Medicine could benefit from partnering with community groups interested in sustainability, as well as organizing events regarding planetary health and sustainable healthcare. Additionally, Nebraska Medicine and UNMC can work to increase information regarding sustainability and health impacts of climate change in student communications and patient education.

Support for Student-Led Initiatives

A

- UNMC and the College of Medicine have broad support for student initiatives dedicated to planetary health. The interdisciplinary student group, Healthy Earth Alliance, is supported by a faculty advisor and receives funding for various initiatives. Medical students have the opportunity to participate in the Climate Change and Health track, a longitudinal education and research track, or engage in planetary health research.
- **Recommendations:** While there is strong support for student-led initiatives, we recommend the College of Medicine offers specific research funding for students engaging in research related to planetary health. We also recommend that the College of Medicine incorporate volunteer opportunities that support climate resilience within the local community into community involvement days for pre-clinical medical students.

Campus Sustainability

B+

- UNMC has made good progress to become a more sustainable campus with a plan to achieve carbon neutrality by 2030, a green labs program, a recycling program, a carpooling program, and e-bike rentals.
- **Recommendations**: UNMC should continue to pursue renewable sources of energy in order to meet their goal of carbon neutrality. We recommend offering more plant-based food in the cafeteria, through vendors, and at events. UNMC should enforce current and introduce new sustainable guidelines for events.

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable
 healthcare involves ensuring the ability to provide good quality care for future generations by
 balancing the economic, environmental, and social constraints and demands within health
 care settings. A sustainable healthcare system maintains population health, reduces disease
 burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 - 1. Describe how the environment and human health interact at different levels.
 - 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 - 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Medical School vs. Institution: When "medical school" is specified in the report card, this
 only refers to curriculum and resources offered by the School of Medicine and does not
 include offerings from other parts of the university (e.g. undergraduate departments (USA),
 other related departments (e.g. Public Health, Population Health departments). In contrast,
 when "institution" is specified in the report card, we are referring to the university more

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

- Environmental history (Metric #19 in Curriculum Section): This is a series of questions providers are taught to ask during medical encounters that 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 mold after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- Clerkship: This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year? Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year. Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year. The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health. No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.

Score explanation: The University of Nebraska Medical Center College of Medicine offers a "Climate Change and Health" enhanced medical education track. This is a longitudinal program that students can apply for during their first semester and if accepted, continues throughout their medical education. This program exposes students to different types of research related to climate change and health and culminates with a final capstone project in their final year of medical school.

Curriculum: Health Effects of Climate Change

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

Score explanation: The University of Nebraska Medical Center College of Medicine Phase 1 curriculum includes a lecture in the Fundamentals block titled: "Climate Change and Medicine" which

features extensive discussion on historical temperature change, the health effects of extreme heat, and defines at-risk populations.

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

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

Score explanation: The University of Nebraska Medical Center College of Medicine Phase 1 curriculum includes a lecture in the Fundamentals block titled: "Climate Change and Medicine." This lecture discusses extreme weather events, such as heavy downpours, floods, droughts, and major storms and their various health impacts. The lecture includes discussion of the 2019 flood of the Missouri River and its impact on hospitals, long term care facilities, and access to care. This lecture also discusses the mental health effects of drought on farmers.

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

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

Score explanation: The impacts of climate change on infectious disease is introduced in the "Climate Change and Medicine" lecture in the Fundamentals block in Phase 1 of the University of Nebraska Medical Center College of Medicine's curriculum. In the Blood, Defenses, and Invaders Block during Phase 1 of the curriculum, lectures such as "Protozoan Parasitic Infectious Diseases" and "Fungal Pathogens" incorporate discussion of the effect climate change has on wildlife habitats and geographic exposures to disease-causing microorganisms.

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?

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

Score explanation: The impacts of heat on respiratory health are briefly discussed in Phase 1 of the core curriculum at the University of Nebraska Medical Center College of Medicine. Several lectures in the Respiratory block, including "Asthma and Allergy" and "Obstructive Lung Disease," discuss the association between climate change and increased incidence of environmental allergies and asthma exacerbation. In the Blood, Defenses, and Invaders block, the "Hypersensitivity Type 1" lecture lists exposure to air pollutants as a factor that impacts allergy development.

	1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?	
3	This topic was explored in depth by the core curriculum.	
2	This topic was briefly covered in the core curriculum.	
1	This topic was covered in elective coursework.	
0	This topic was not covered.	

Score explanation: The medical curriculum at the University of Nebraska College of Medicine does not cover the relationship between cardiovascular health and climate change.

1.7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change? 3 This topic was explored in depth by the core curriculum. 2 This topic was briefly covered in the core curriculum. 1 This topic was covered in elective coursework. O This topic was not covered.

Score explanation: The "Climate Change and Medicine" lecture in the Fundamentals block of Phase 1 at the University of Nebraska College of Medicine discusses how the increased frequency and severity of extreme weather events can affect mental health, providing the example of how drought causes increased stress in farmers. Air pollution was also listed as a non-traditional stroke risk factor in a lecture titled "Stroke Syndromes" in the Neurosciences block.

1.8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change? 3 This topic was explored in depth by the core curriculum. 2 This topic was briefly covered in the core curriculum. 1 This topic was covered in elective coursework. 0 This topic was not covered.

Score explanation: The "Climate Change and Medicine" lecture in the Fundamentals block of Phase 1 at the University of Nebraska College of Medicine briefly discusses the relationships between health, food and water access, and ecosystem health and climate change.

mar	1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?	
3	This topic was explored in depth by the core curriculum.	
2	This topic was briefly covered in the core curriculum.	

0 This topic was **not** covered.

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

Score explanation: In the Health System Sciences Coil of Phase 1 at the University of Nebraska Medical Center College of Medicine, the lecture titled "Introduction to Structural Competency: Redlining, Racism, and Health Inequities" briefly addresses the relationship between segregation and environmental health risk by discussing disparities in exposures and food and water security.

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: The unequal regional health impacts of climate change globally is not covered in the University of Nebraska Medical Center College of Medicine Curriculum.

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

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: The medical curriculum at the University of Nebraska Medical Center College of Medicine does not address the effect of environmental toxins on reproductive health.

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community? 3 This topic was explored in depth by the core curriculum. 2 This topic was **briefly** covered in the **core** curriculum. 1 This topic was covered in **elective** coursework. 0

Score explanation: The University of Nebraska Medical Center medical school briefly discussed the 2019 Missouri flood and the effect this had on the surrounding community as part of the curriculum.

This topic was **not** covered.

This topic was **not** covered.

1.13. To what extent does your medical school emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions? Indigenous knowledge and value systems are **integrated throughout** the medical school's 3 planetary health education Indigenous knowledge and value systems as essential components of planetary health solutions are included **briefly** in the core curriculum. Indigenous knowledge and value systems as essential components of planetary health solutions 1 are included in **elective** coursework. 0

Score explanation: The medical school curriculum at the University of Nebraska Medical Center does not address the importance of Indigenous knowledge and value systems as essential components of planetary health solutions.

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

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

Score explanation: The "Climate Change and Medicine" lecture in the Fundamentals block of Phase 1 at the University of Nebraska College of Medicine discusses the disproportionate impact of

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

- This topic was explored **in depth** by the **core** curriculum.
- 2 This topic was **briefly** covered in the **core** curriculum.
- 1 This topic was covered in **elective** coursework.

environmental toxins on marginalized populations. This is also discussed in the Acute Care block of Phase 1 "Systemic Racism" lecture.

Curriculum: Sustainability

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

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

Score explanation: The medical school curriculum briefly discusses the health benefits of a vegetarian diet in a Nutrition lecture in the Endocrine block of Phase I; however, the curriculum does not discuss the environmental benefits of a vegan or vegetarian diet.

1.16. Does your medical school curriculum address the carbon footprint of healthcare systems?

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

2

Score explanation: The University of Nebraska Medical Center College of Medicine curriculum does not discuss the carbon footprint of healthcare systems.

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)

The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment

2	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfill this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	Score explanation: The medical curriculum does not integrate strategies to decrease waste generated as a result of clinical care.

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
Score explanation: The medical curriculum does not integrate strategies to have conversations with patients about climate change and health effects.	

	1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
2	Yes, the core curriculum includes strategies for taking an environmental history.	
1	Only elective coursework includes strategies for taking an environmental history.	
0	No, the curriculum does not include strategies for taking an environmental history.	

Score explanation: The medical curriculum includes strategies for taking environmental and occupational histories in the Respiratory block when discussing exposures that can cause lung pathologies. This was discussed in the lectures titled "Restrictive Lung Diseases" and "Dyspnea Evaluation."

Curriculum: Administrative Support for Planetary Health

1.20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education? Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education. Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education. No, there are no improvements to planetary health education in progress.

Score explanation: At the University of Nebraska Medical Center College of Medicine, there was a student-led initiative to integrate planetary health education into the medical school curriculum. After review of the curriculum, students wrote a proposal that indicated where topics of climate change and its health impacts can be incorporated into each block of the Phase 1 education. This proposal was well received by school administrators and approved by the curriculum committee. Some blocks have incorporated the changes; however, others are still in the process of making these changes. Progress with planetary health education continues to be advocated for and monitored by students, with continued support from faculty. A "Climate Change and Health" enhanced medical education track was created and is now in its third year.

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum? 6 Planetary health/ESH topics are well integrated into the core medical school curriculum. 8 Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. 2 Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s). 1 There is minimal/no education for sustainable healthcare.

Score explanation: At the University of Nebraska Medical Center College of Medicine, there is a stand-alone lecture that covers the majority of planetary health topics, along with sparse integration of planetary health discussions throughout some of the organ system blocks, such as the Respiratory block.

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?

- 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 explanation: The medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

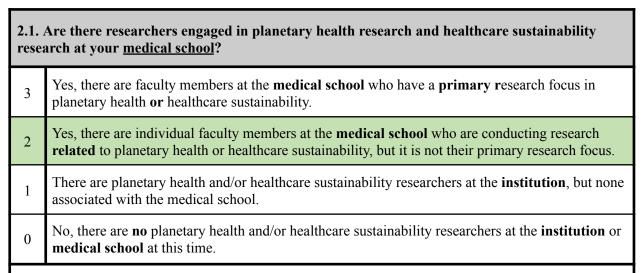
Section Total (x out of 72)	37
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Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Interdisciplinary Research

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



Score explanation: There are several faculty members at the University of Nebraska College of Medicine who have conducted research related to planetary health and its correlation with patient outcomes. One such example is research conducted by members of the College of Medicine in the Allergy and Immunology Department. Doctors Jennilee Luedders, Jill Poole, and Andrew Rorie have authored a publication in the Immunology and Allergy Clinics of North America journal, focused on climate change and allergy. This publication focused on extreme weather events and asthma.

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 explanation: The Water, Climate, and Health Program at UNMC is a part of the College of Public Health. It is an organization dedicated to addressing issues related to planetary health and healthcare sustainability. Research is aimed at addressing water quality and quantity issues in

Nebraska. This includes climate related issues such as drought and flooding, and well as quality issues such as nitrates, lead, and pesticides in drinking water. This program utilizes research, training, education, and various outreach strategies to achieve their goals. Program overview and recently featured publications can be found here.

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your <u>medical school</u>?

- 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 explanation: While programs do exist for disproportionately impacted community members of climate change to make their voices heard at UNMC, this program appears to be in the form of an advisory committee for the Water, Climate, and Health program which is part of the College of Public Health at UNMC, not the medical school itself. This group meets twice a year to share findings and receive feedback and suggestions from the community. There also exists a working group dedicated to issues with extreme heat on human health in Douglas and Lincoln/Lancaster counties. This working group is made of various members and groups representative of the community.

2.4. Does your <u>institution</u> have a planetary health website that centralizes ongoing and past research related to health and the environment?

- There is an **easy-to-use**, **adequately comprehensive** website that **centralizes** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
- There is a website that **attempts to centralize** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
- The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment.
- 0 There is **no** website.

Score explanation: The College of Public Health at UNMC hosts the Water, Climate, and Health Program. Their website serves as a centralized location where one can easily find recently released publications related to environmentally relevant publications. Their seasonal <u>newsletter</u> provides a well-organized synopsis of upcoming events and leaders in this field at UNMC.

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

planetary health?		
4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.	
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.	
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.	
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.	
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.	
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Score explanation: In 2021, the Water, Climate, and Health program hosted a Water and Health Summit.

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

- Yes, the medical school is a member of a national or international planetary health **or** ESH organization
- 0 No, the medical school is **not** a member of such an organization

Score explanation: The University of Nebraska Medical Center, College of Medicine, is a part of the Global Consortium on Climate and Health Education.

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

Community Outreach and Advocacy

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

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

Score explanation: There are currently no listed community organizations that promote planetary and environmental health partnered with the UNMC College of Medicine. To the author's best knowledge, no such meaningful partnership exists. Current intermittent volunteer work with sustainability community organizations including Keep Omaha Beautiful and the Blue Bucket Project have been facilitated by UNMC Office of Sustainability and student groups.

3.2. Does your medical school offer community-facing courses or events regarding planetary health? 3 The medical school offers community-facing courses or events at least once every year. 2 The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. 1 The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events. O The institution/medical school have not offered such community-facing courses or events.

Score explanation: In October of 2023, UNMC Office of Sustainability partnered with community organizations in an event that was open to the public at the new community wellness collaborative. Sessions and speakers included:

- -Health care and sustainability Jerrod Bley, UNMC Office of Sustainability
- -Lead poisoning prevention program Anita Whitney, Douglas County Health Department
- -Home repair program Sara Zinvy, Habitat for Humanity
- -Natural gas safety and conservation Julie Thacker and Ernie Bless, MUD
- -Residential energy efficiency and energy efficiency assistance program Eric Bensalah and Eddie Clark, OPPD

Additionally, recordings of numerous interprofessional events regarding planetary health events are publicly accessible via the UNMC College of Public Health website.

3.3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications? Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare. Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates. Students do not receive communications about planetary health or sustainable healthcare.

Score explanation: Planetary health and sustainability healthcare issues are often mentioned and the focus of several articles of the University of Nebraska College of Medicine daily newsletter UNMC Today and activity update UNMC VITALS.

3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?

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

Score explanation: Planetary healthy and sustainable health care has been the topic of postgraduate education in some individual departments: Examples:

- 1) Internal Medicine Grand Rounds on 1/19/24 Air Pollution Effects in Allergies and Asthma in Underserved Populations.
- 2) Internal Medicine Grand Rounds on 6/16/24 The Impacts of Climate Change on Human Health in Nebraska Dr. Jesse Bell
- 3) Pediatric Grand Rounds on 12/16/22 Safe and Sustainable: Balancing Infection Control and Environmental Health.

4) The Water, Climate, and Health symposium will be hosted again this year (Fall 2024) which will be available for postgraduate students/faculty to claim for CME credit.

The UNMC CME office was able to confirm that there is no overarching requirement to include topics of planetary health and sustainable healthcare in postgraduate education materials, and that there are no available courses/modules regarding planetary health or sustainable healthcare beyond individual departments.

Previous UNMC Internal Medicine Grand Rounds can be viewed <u>here</u>. Previous Children's Nebraska Grand Rounds can be viewed <u>here</u>.

3.5. Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?

- Yes, the **medical school** or <u>all</u> **affiliated hospitals** have accessible educational materials for patients.
- 1 **Some** affiliated hospitals have accessible educational materials for patients.
- No affiliated medical centers have accessible educational materials for patients.

Score explanation: The UNMC College of Public Health Water, Climate, and Health website lists informational materials regarding nitrite contamination of drinking water. These materials can be found here. However, besides this resource, the UNMC medical school and the Nebraska Medicine health system do not currently provide accessible educational materials for patients regarding environmental health exposures.

3.6. Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?

- Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients.
- 1 **Some** affiliated hospitals have accessible educational materials for patients.
- No affiliated hospitals have accessible educational materials for patients.

Score explanation: UNMC affiliated colleges and the Nebraska Medicine health systems do not currently offer accessible educational materials for patients regarding health impacts of climate change.

Section Total (x out of 14)	5
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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

<u>Section Overview:</u> 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.

$4.1. \ Does \ your \ \underline{medical \ school} \ or \ your \ \underline{institution} \ offer \ support \ for \ medical \ students \ interested \ in enacting \ a \ sustainability \ initiative/QI \ project?$

- Yes, the **medical school** or **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum.
- The **medical school** or **institution** encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate.
- No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

Score explanation: The UNMC Healthy Earth Alliance has developed a seminar series on human health and climate change with speakers on topics such as lead on children's health, effects of climate change on kidney health, effects of heat on health, associations of occupational exposures on human health within the Agricultural Health Study, and effects of climate change on allergies. For this seminar series HEAL is able to utilize College of Medicine Alumni funding, BOSS funding from student senate, and funding from the water, climate, and health program. Also, HEAL was able to utilize College of Medicine Alumni Student funding to host a "Clothing Swap": a sustainability-focused event to recycle gently used clothes among students. Medical students can also secure funding to participate in full-time research during the summer between their first and second year, which they can choose to complete with a faculty member of their choosing, some of whom have research focuses in planetary health.

4.2. Does your <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?

- The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare 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 explanation: UNMC offers a longitudinal environmental program entitled Climate Change and Health Enhanced Medical Education track. This program supports students to complete a research project on a chosen environmental health or sustainability topic and present their work at national meetings. Students also participate in presentations, speaking engagements, and clinical shadowing in the community, as well as attend events put on by the Water, Climate, and Health program through the UNMC College of Public Health. Throughout the experience students will be guided by their faculty mentor who will provide the support and expertise necessary to provide a rich learning experience on the topic of climate change and health.

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

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

Score explanation: The University of Nebraska Medical Center has a <u>website</u> that includes details of recent publications and faculty members engaged in research on topics of sustainability and environmental health. There are also hyperlinks to faculty members engaged in this research that students can use to connect with faculty and get involved.

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

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

Score explanation: University of Nebraska Medical Center Healthy Earth Alliance (HEAL) is an interdisciplinary student group supported by a faculty member. HEAL hosts educational and community outreach events in addition to advocating for institutional and local sustainability initiatives.

4.5. Is there a student liaison representing sustainability interests who serves on a <u>medical school</u> or <u>institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?

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

Score explanation: University of Nebraska Medical Center has two student representatives on the Executive Sustainability Council. This council sets sustainability goals for the institution and is responsible for enacting policy changes and allocating campus resources to achieve these goals.

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)

- 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.
- Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
- 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.
- Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
- Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
- Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)

Score explanation:

- 1. University of Nebraska Medical Center has a student-run garden that helps provide fresh produce to local food banks. Students also have the opportunity to volunteer at a garden with Clair Cares Food Pantry in Omaha, NE, which provides fresh produce for community members as part of their monthly drive-up food pantry.
- 2. At the University of Nebraska Medical Center, multiple speaker events for students are offered throughout the year on a variety of environmental topics. Recent speakers have discussed environmental lead exposure in Omaha, NE and extreme heat and urban heat islands.
- 3. The Healthy Earth Alliance student group at UNMC hosts a variety of speakers, including from local leaders in environmental justice. They recently hosted an expert from the local health department to discuss disparities in lead exposure in our community.
- 4. Climb. Relax. Adventure. Gather. is a student organization that hosts local hiking events and occasional overnight trips to climbing destinations.

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

Campus Sustainability

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

5.1. Does your medical school and/or institution have an Office of Sustainability?		
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.	
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.	
1	There are no salaried sustainability staff , but there is a sustainability task force or committee	
0	There are no staff members or task force responsible for overseeing campus sustainability	

Score explanation: The University of Nebraska Medical Center/Nebraska Medicine has a well-established Office of Sustainability. As UNMC is an exclusively health focused university and not associated with an undergraduate campus, there is one full-time sustainability staff member.

5.2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?		
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030	
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040	
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate	
0	The institution/medical school does not meet any of the requirements listed above	
	Score explanation: UNMC is committed to net-zero carbon emission by 2030 as explained here. This goal is to achieve an overall balance between greenhouse gas emissions produced and greenhouse gas emissions removed from the atmosphere with a focus on minimization of carbon offsetting. To meet this goal, UNMC has an executive sustainability council and focus team on emissions scope 1&2 and emissions scope 3.	

5.3. Do buildings/infrastructure used by the medical school for teaching (not including the hospital) utilize renewable energy? Yes medical school buildings are 100% powered by renewable energy Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy. Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy. Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.

Score explanation: UNMC purchases electricity from OPPD which is roughly 30% carbon free. UNMC also produces its own renewable energy with the <u>largest rooftop array of solar panels in Nebraska</u> including on the main building used for medical school teaching, the Michael F. Sorrell Center for Health Science Education.

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

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

Score explanation: UNMC has published a <u>Design Guidelines</u> document that architects, project managers, planners and external partners use when considering work on new construction or renovations. UNMC also has developed and used a Sustainability Tool (<u>click here</u> to find and download the spreadsheet tool) which is intended to be used as supplemental guidance for the Design Guidelines. Old buildings have been renovated through the lens of the Design Guideline and Sustainability Tool with the aim of increased energy efficiency and sustainability.

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

Yes, the medical school or institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.

- The medical school or institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised.
- The medical school or institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options.

Score explanation: Currently 40% of students, faculty, and staff walk, bike, transit, carpool, or work from home. UNMC has a program called <u>TravelSmart</u> to promote environmentally-friendly transportation to and from campus. This program is promoted at orientation and has a booth at the beginning of academic year events. People who choose to carpool receive a free parking pass. UNMC offers free bus passes, bike racks, e-bike rentals, lockers, and shower facilities.

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

- Yes, the medical school has **both** compost **and** recycling programs accessible to students and faculty.
- The medical school has **either** recycling **or** compost programs accessible to students and faculty, but not both.
- There is **no** compost or recycling program at the medical school.

Score explanation: UNMC offers a recycling program for paper, cardboard, plastics, and metals. While UNMC does not offer glass recycling, there are programs for recycling of many non-conventional materials including aerosol cans, alkaline batteries, lab coats, toner cartridges, pens, mechanical pencils, dry-erase markers, and sharpies as explained here. UNMC piloted a composting program in several buildings across campus in Spring of 2023 including the main building for medical student education, the Michael F. Sorrell Center for Health Science Education, however, it was cost prohibitive to move forward with further implementation for the rest of the university/hospital.

5.7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

- Yes, the medical school has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.
- There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The medical school **is engaged** in efforts to increase food and beverage sustainability.
- There are sustainability guidelines for food and beverages, but they are **insufficient or optional.**The medical school is **not** engaged in efforts to increase food and beverage sustainability.
- There are **no** sustainability guidelines for food and beverages.

Score explanation: In 2016, UNMC <u>passed a ban</u> on styrofoam use for campus food and beverage resulting in <u>cospostable to-go containers</u> replacing styrofoam clamshells in the cafeteria and paper

coffee cups replacing styrofoam cups at departmental seminars. Additionally, some departments encourage people to bring their own coffee cups to seminars. However, a few onsite food vendors and departments do not follow this sustainability requirement and still serve coffee in styrofoam cups at department seminars. Plant-based food options through onsite vendors and at the cafeteria are limited. However, active conversations with Sodexo, our cafeteria food provider, are ongoing, and tofu quinoa and rice bowls, veggie ramen, and veggie burritos have recently been added as new plant based options in the cafeteria.

$\textbf{5.8. Does the} \ \underline{\textbf{medical school}} \ \textbf{or} \ \underline{\textbf{institution}} \ \textbf{apply sustainability criteria when making decisions} \\ \textbf{about supply procurement?}$

- Yes, the medical school 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 medical school is **engaged** in efforts to increase sustainability of procurement.
- There are sustainability guidelines for supply procurement, but they are **insufficient or optional.**The medical school is **not engaged** in efforts to increase sustainability of procurement.
- There are **no** sustainability guidelines for supply procurement.

Score explanation: Target 4 of the University of Nebraska System <u>sustainability goals</u> is to reinforce a culture of sustainable procurement. One pillar of the UNMC green labs program is procurement and purchasing as explained <u>here</u>.

5.9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u>?

- 2 Every event hosted at the medical school **must** abide by sustainability criteria.
- The medical school **strongly recommends or incentivizes** sustainability measures, but they are **not required.**
- There are **no** sustainability guidelines for medical school events.

Score explanation: UNMC hosts a campus wide BBQ at the beginning of the semester, and there are efforts to make this a zero waste event. There is also information on UNMC's website to create a zero waste event. However, the only required sustainability measure of campus events is for them to be styrofoam free, which some events still do not follow.

5.10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?

- Yes, the medical school 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 medical school to make lab spaces more sustainable.

Score explanation: At UNMC, there is a <u>Green Labs program</u> to provide a common-sense and obtainable approach for laboratory and research spaces to achieve excellence in innovation and safety by driving meaningful reductions in energy, water, and waste, and promoting responsible lab purchasing.

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?			
4	The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.		
3	The institution is entirely divested from fossil fuels.		
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.		
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.		
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.		
Score explanation: University of Nebraska has no direct investments in fossil fuel companies. After a			

campaign led by students, the University of Nebraska divested its endowment from the fossil fuel industry.

Section Total (x out of 32)	25
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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%	
В	60% - 79%	
С	40% - 59%	
D	20% - 39%	
F	0% - 19%	

^{*}Within each grade bracket, a score in the top 5% ($_5$ to $_9\%$), receives a "+", and a score in the bottom 5% ($_0$ - $_4\%$) receives a "--". For example, a percentage score of 78% would be a B+.

Planetary Health Grades for the University of Nebraska School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(37/72) \times 100 = 51.39\%$	C
Interdisciplinary Research (17.5%)	$(11/17) \times 100 = 64.71\%$	В-
Community Outreach and Advocacy (17.5%)	(5/14) x 100 = 35.71%	D+
Support for Student-led Planetary Health Initiatives (17.5%)	(13/15) x 100= 86.67%	A
Campus Sustainability (17.5%)	$(25/32) \times 100 = 78.13\%$	B+
Institutional Grade	(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 62.25%	В-