



Planetary Health Report Card:

University of Utah School of Medicine



2021-2022 Contributing Team:

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We acknowledge that this land, which is named for the Ute Tribe, is the traditional and ancestral homeland of the Shoshone, Paiute, Goshute, and Ute Tribes. The University of Utah recognizes and respects the enduring relationship that exists between many Indigenous Peoples and their traditional homelands. We respect the sovereign relationship between tribes, states, and the federal government, and we affirm the University of Utah's commitment to a partnership with Native Nations and Urban Indian communities through research, education, and community outreach activities.

Summary of Findings

Overall	C-
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<u>Curriculum</u>	D
<ul style="list-style-type: none"> Some planetary health education is taught in the basic science curriculum throughout the first two didactic years, however it is limited to several stand alone lectures. There is one elective course which covers topics from environmental justice to local environmental health. Despite recognition of climate change as a societal problem by the curriculum committee in 2019, there has been little action within the past year to develop a plan to incorporate planetary health in core education. Recommendations: Overall, planetary health content at the University of Utah School of Medicine (UUSOM) is lacking and action should be taken to incorporate it into the core curriculum. With the initiation of MedEdMorphosis, a program focused on developing sweeping curricular changes, the medical school is well poised to take action. Appointing a faculty member dedicated to overseeing implementation of planetary health topics would be beneficial in achieving this goal. 	
<u>Interdisciplinary Research</u>	C
<ul style="list-style-type: none"> There are UUSOM faculty who conduct research related to planetary health or healthcare sustainability, but it is not their primary focus and is focused on air quality and pollution. There are currently no opportunities for community feedback regarding planetary health research. There is no dedicated group at UUSOM, however the institution has a Global Change and Sustainability Center which compiles researchers and hosts an annual symposium on sustainability-related research. Recommendations: Due to institution size and the volume of research related to planetary health, UUSOM would benefit from a database to compile research across the campus to encourage accessibility and interdisciplinary collaboration. UUSOM would also benefit from a stand alone department (or designated staff member) that could provide scholarships and facilitate planetary health research efforts within the medical school and in conjunction with the broader university. 	
<u>Community Outreach and Advocacy</u>	D-
<ul style="list-style-type: none"> Through the Global Change and Sustainability Center, there are opportunities and resources for community outreach and advocacy. UUSOM should use this support to develop educational and volunteer experiences to educate the public about the effects of climate change on health. There have been excellent planetary health outreach events led by faculty and students to foster conversations at our institution and in the community and we hope these events and related projects continue. Recommendations: We recommend planetary health updates via the weekly student body email. Partnerships can also be formed with community organizations focused on planetary health. We also recommend increased education about environmental health exposures through pamphlets for patients and community-facing publications such as Scope. 	
<u>Support for Student-Led Initiatives</u>	B
<ul style="list-style-type: none"> Overall, UUSOM is supportive of student efforts for planetary health, but has not instituted specific grants or hired dedicated faculty. There is a hospital committee to manage these topics and it has recently expanded to include student representation. There are ample projects and mentors that have potential for student involvement but these are not well advertised. Recommendations: We recommend research grants dedicated to planetary health research as well as an online database that students can use to connect them with mentors and projects within the institution that involve planetary health topics. 	
<u>Campus Sustainability</u>	D+
<ul style="list-style-type: none"> UUSOM and the Hospital are increasing sustainability efforts with the new U of U Health Green Team. There are guidelines for new buildings but there are none for lab spaces, food options, and events. There is student support for fossil fuel divestment and campus-wide initiatives to become carbon neutral by 2050 but these goals are less ambitious than necessary. Recommendations: We recommend green lab initiatives to improve sustainability in existing and new lab spaces as well as required guidelines for more sustainable medical school events and food options. We also recommend more ambitious carbon neutrality goals as well as a commitment to fully divest from fossil fuel corporations. 	

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as “a field focused on characterizing the human health impacts of human-caused disruptions of Earth's natural systems.” 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.

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. 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?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<i>Score explanation: The University of Utah School of Medicine offers one elective related to planetary health titled MDID 6004: Sustainability, Medicine & Health. The elective is offered through the RUUTE (Rural & Underserved Utah Training Experience) program and is taught by course director and pediatrician Lucy Hansen, MD.</i>	

Curriculum: Health Effects of Climate Change

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.
0	This topic was not covered.

Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. The relationship between extreme heat, health, risks, and climate change is discussed in the lecture Health Consequences of Global Warming.

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

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

Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. The impacts of extreme weather events on individual health and healthcare systems is discussed in the lecture 'Health Consequences of Global Warming'.

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

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

Score explanation: During the first-year core course, Host & Defense (H&D), one lecturer briefly discusses the impact of climate change and rising global temperatures on vector life cycles. Additionally, graphs are provided which predict that elevated greenhouse gas production will likely correlate with increased prevalence of various vector borne diseases.

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

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

0	This topic was not covered.
<p><i>Score explanation: During the second year core course, Circulation Respiration & Regulation (CRR), Dr. Robert Paine discusses the impacts of air quality, locally and globally, on human health and society. He introduces the science of air pollution particles and their impact on multiple body systems and patient populations. Numerous studies and their findings are described.</i></p>	

6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: During the second year core course, Circulation Respiration & Regulation (CRR), Dr. Robert Paine discusses the impacts of air quality, locally and globally, on human health and society. He briefly touches on the long and short term effects of air pollution on cardiovascular disease as well as an increased risk for cardiovascular events.</i></p>	

7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The current University of Utah School of Medicine curriculum does not include any information or education on the mental health and neuropsychological effects of environmental degradation and climate change. This topic is not discussed in any elective coursework.</i></p>	

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.
<p><i>Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. The relationships between health, individual patient food and water security, ecosystem health, and climate change are addressed in a lecture on food justice given by the Sustainability Education Director at the University of Utah's Global Change and Sustainability Center.</i></p>	

9. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. There are specific lectures devoted to homelessness and environmental justice, food justice and effects on low SES populations, and poor air quality effects on children. However, no discussion on communities of color, women, or Indigenous communities is specifically mentioned.</i></p>	

10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. The unequal regional health impacts of climate change globally are discussed in a lecture focused on environmental injustice given by sociologist Sara Grineski, PhD. Climate refugees and the unequal burden of the climate crisis are also discussed in a lecture titled Health Consequences of Global Warming. It was also included in the lecture Climate Change and Health in the elective course MDID 6500, Intro to Global Health. This lecture was given by a geography professor and covered how climate change will exacerbate existing inequities in access to health care and health outcomes.</i></p>	

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

11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?

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

Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. The reproductive health effects of industry-related environmental toxins are discussed in a lecture about environmental toxins given by Brian Moench, MD-director of Utah Physicians for a Healthy Environment.

12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?

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

Score explanation: During the second year core course, Circulation Respiration & Regulation (CRR), Dr. Robert Paine discusses the impacts of air quality, locally and globally, on human health and society. He provides evidence from studies examining air quality and cardiovascular risk conducted within Salt Lake City as well as data from emissions reports and ozone analysis from Salt Lake County agencies.

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

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

Score explanation: Although we would like to see this, the University of Utah School of Medicine does not currently have any integration of Indigenous knowledge and value systems in its planetary health education.

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

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

Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. The outsized impact of anthropogenic environmental toxins on marginalized populations is covered in this course in the lecture Environmental Health & Environmental Toxicology by Dr. Brian Moench.

Curriculum: Sustainability

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

3	This topic was explored in depth by the core curriculum.
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 current University of Utah School of Medicine curriculum does not include any information or education on the environmental and health co-benefits of a plant based diet. This topic is not discussed in any elective coursework.

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

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

0	This topic was not covered.
<i>Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. The carbon footprint of healthcare systems is addressed in the lecture Buildings, Health and Climate Change.</i>	

17. Does your medical school curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (1 point each)	
1	Waste production within the healthcare system and strategies for reducing waste in clinical activities, such as in the operating room
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
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 anaesthetic gas options with reduced greenhouse gas emissions
1	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 for obesity. This is commonly known as social prescribing in the UK.
1	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
<i>Score explanation: During the second year core course, Brain and Behavior (B&B), one lecturer briefly mentions the contribution of inhaled anesthetic on greenhouse gas production and climate change.</i>	

Curriculum: Clinical Applications

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?
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2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
<i>Score explanation: No, strategies for having conversations with patients about climate change are not currently addressed in the University of Utah School of Medicine's Clinical Skills and Decision Making course curriculum.</i>	

19. In training for patient encounters, does your medical school's curriculum introduce strategies for taking an environmental history or exposure history?	
2	Yes, the core curriculum includes strategies for taking an environmental history.
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.
<i>Score explanation: No, strategies for taking an environmental and exposure history are not currently addressed in the University of Utah School of Medicine's Clinical Skills and Decision Making course curriculum.</i>	

Curriculum: Administrative Support for Planetary Health

20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<i>Score explanation: At the University of Utah School of Medicine, climate change was accepted by the curriculum committee as a societal problem submitted to the LCME in 2019. Since then, there has been little to no progress with planetary health teaching in the longitudinal curriculum. The school has begun a curriculum revamp, entitled Med Ed Morphosis, with the goal of overhauling the didactic</i>	

curriculum used in the first two years of medical school education. This is an opportune time to incorporate planetary health education into the University of Utah School of Medicine's curriculum.

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.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).
0	There is minimal/no education for sustainable healthcare.

Score explanation: Planetary health/ESH is mentioned very briefly in core curriculum lectures on anesthesia (B&B) and vectors (H&D). There is one dedicated lecture during the second year course Circulation, Respiration & Regulation on Air Pollution and Vaping taught by Dr. Paine that focuses on the impacts of air quality, locally and globally, on human health and society. More detail is offered in the elective course MDID 6004, but is not required for all students.

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?

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

Score explanation: There is no faculty member who specifically oversees incorporation of planetary health and sustainable healthcare into the longitudinal curriculum. As above (see metric 20) the medical school is currently undergoing a major curriculum overhaul and we as students are pushing for such efforts to be a part of the process. A sustainable healthcare lead would be a great step in that direction.

Section Total (21 out of 69)

D

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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.*

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
3	Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the School of Medicine who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation: There are a number of researchers at the University of Utah School of Medicine working on interdisciplinary projects related to Planetary Health. While there are no individuals whose primary research focus is planetary health, there are faculty members involved in research ranging from air quality's impacts on respiratory disease, to the utility of reusable medical devices and the impacts of outdoor therapy on mental health. Air quality and air pollution are big research subjects at the institution with many faculty members contributing to interdisciplinary projects.</i></p>	

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

Score explanation: The [Sustainability Office](#) runs the [Global Change and Sustainability Center](#) which coordinates, promotes, and accelerates interdisciplinary research and training on natural and human-built systems, the dynamic interactions and interconnections that exist in those systems, and the role of humans in the environment. The university has an [Environmental Health and Safety Department](#), but no specific interdisciplinary department for planetary health research.

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 medical school?

3	Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda.
1	No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.
0	There is no process, and no efforts to create such a process.

Score explanation: While we as students would love to see this happen, there is not currently any such process.

4. Does your institution have a planetary health website that centralizes ongoing and past research related to health and the environment?

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

Score explanation: The institution has a Global Change and Sustainability Center with a research website accessible to all students; however, it is not specific to research regarding health and the environment. <https://environment.utah.edu/research/>

5. Has your institution recently hosted a conference or symposium on topics related to planetary health?

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

Score explanation:

While none of these are directly hosted by the medical school, the institution at large has multiple such events.

Eccles Health Sciences Library - Climate Changes Health and Health Equity Series:

- *LibGuide:* <https://campusguides.lib.utah.edu/CommunityReads/ClimateChangesHealth>
- *Series Recordings:* <https://library.med.utah.edu/publishing/collection/climate-changes-health-and-health-equity/#tab-2021-series>

Global Change and Sustainability Center:

- *Research Symposium:* <https://environment.utah.edu/events/symposium/>
Held every spring, the annual Environment and Sustainability Research Symposium celebrates interdisciplinary student research related to the environment and/or sustainability. The symposium provides a great opportunity for graduate students working with GCSC faculty affiliates from across campus to synthesize and present their research in a poster session in a friendly and fun atmosphere. Like other GCSC events, the Symposium helps to cultivate relationships across the U of U community, and can serve as a catalyst for new research ideas and collaborations.

Law School:

- *Wallace Stegner Center Annual Symposium:* <https://squinney.utah.edu/stegner-center/annual-symposium/>
The Wallace Stegner Center annually holds a symposium during the spring semester on an environmental or natural resources topic of regional, national, and international importance. The symposium is interdisciplinary in nature, and includes speakers from the sciences and social sciences, academia, government, industry, and the legal profession.
- *Wallace Stegner Center Green Bag Events:* https://law.utah.edu/events/category/highlighted-events/?tribe_paged=1&tribe_event_display=list&tribe-bar-date=2020-11-23&tribe-bar-search=green+bag

Hinckley Institute of Politics:

- *Events: Can You Afford Clean Air?*
<https://www.hinckley.utah.edu/calendar/2021/10/27/cleanair>
The quality of air the people are allowed to breathe varies dramatically, even within one city. This panel explores the local and global inequities around clean air, and the compounding effects the lack of clean air has on peoples' lives.

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

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

Score explanation: The school has an active Practice Greenhealth membership in association with University of Utah Health but has not yet joined either the Planetary Health Alliance or the Global Consortium on Climate and Health Education.

Section Total (8 out of 17)

C

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Community Outreach and Advocacy

Section Overview: *This section evaluates medical school engagement in community outreach and advocacy efforts associated with planetary health. Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of 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.*

1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation: The medical school does not currently partner with any community organizations to promote planetary and environmental health. There are a number of organizations that have the potential for the medical school to partner with for this purpose. This includes Utah Physicians for a Healthy Environment and HEAL Utah, among others. The University partners with Utah Climate Action network and this partnership could expand to include the School of Medicine.</i></p>	

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.
0	The medical school has not offered such community-facing courses or events.

Score explanation: The library hosts an event titled [Climate Changes Health and Health Equity](#)- a community read/journal club discussion. This has been very successful and well-received by the community. Members of the medical school have been involved as speakers of the event and attendees.

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

2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not regularly receive communications about planetary health or sustainable healthcare.

Score explanation: Currently university update communications do not include regular coverage of these topics.

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

2	Yes, the institution or main affiliated hospital trust offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
1	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: The University of Utah offers a course in Climate Change and Public Health as part of the Global and Rural Health Scholars Program for medical trainees (residents and fellows). Trainees apply for this course and average about 30 per class. The Climate Change and Public Health module consists of 3 hours of synchronous material and approximately 3 hours of asynchronous material.

5. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.

0	No affiliated medical centers have accessible educational materials for patients.
<p><i>Score explanation: The University of Utah has some educational resources (the Healthfeed blog https://healthcare.utah.edu/healthfeed) and a podcast (The Scope https://healthcare.utah.edu/the-scope) that cover environmental health exposures, mainly covering air quality which is a major health issue in the valley. However, these materials are not directly intended for patient education, are not well advertised, and are not connected to the patient portal. These materials could be made more accessible by adding them to the patient portal.</i></p>	

6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?	
2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation: The University of Utah has online resources (the Healthfeed blog) that cover some health impacts from wildfires, air quality and excessive heat.. However, these materials are not directly intended for patient education, are not well advertised, and are not connected to the patient portal. These materials could be made more accessible by adding them to the patient portal.</i></p>	

Section Total (3 out of 14)	D-
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Support for Student-Led Planetary Health Initiatives

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

1. Does your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	The medical school encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available and there is no requirement to participate.
0	No, the institution does not offer opportunities or support for sustainability initiatives or QI projects.
<p><i>Score explanation: The Global Change and Sustainability Center at the University of Utah offers the Sustainable Campus Initiative Fund. Students, faculty, and staff can apply for up to \$10,000. This is open to and has been used by medical students.</i></p>	

2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.
<p><i>Score explanation: The University of Utah School of Medicine sponsors the NIH-funded summer Medical Student Research Program. This program offers a stipend for students to engage in research approved by the program and under an advisor of their choice. Planetary health projects are considered eligible as long as they relate to NIDDK topics.</i></p>	

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

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

Score explanation: The School of Medicine does not have a dedicated webpage for planetary health activities and mentors. The [University of Utah's Global Change and Sustainability Center page](#) has up-to-date information on sustainability activities on campus and possible mentors for research, some of which are affiliated with the medical school. However, this site is not linked on the medical school's website and is not highly healthcare-focused.

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

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

Score explanation: The Sustainability in Medicine Interest Group is a student organization run by medical students dedicated to planetary health, advised by Dr. Lucy Hansen, in the University of Utah School of Medicine.

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

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

Score explanation: The newly-formed Green Team at the university hospital has a student liaison from each medical school class that will be represented at their monthly meetings. These students have the opportunity to participate in discussions regarding healthcare sustainability as it pertains to University of Utah Health. <https://attheu.utah.edu/facultystaff/humans-of-the-u-robert-armstrong-alexis-lee-and-smitha-warrier/>

6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)

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

Score explanation:

1. The institution has community gardens (including one at the medical school), farm apprenticeships, fishery programs and urban agriculture projects - for example, ENVST 3280: Organic Gardening & Sustainable Agriculture.

2. The [Climate Changes Health and Health Equity](#) speaker series is offered to students and takes place at the health sciences library.

5. The University of Utah offers a long list of local volunteer opportunities through the [Environmental and Sustainability Studies](#) department. While not all of the opportunities are specifically run by the University, it stands as a resource for students to find environmental volunteer opportunities both at the University and in the surrounding community.

The University of Utah also offers multiple local, national, and international volunteer experience through the [Bennion Center Alternative Breaks Program](#). The Environmental Stewardship alternative break is a weekend long experience near Moab, UT. "Within this scope, we will hyperfocus on the history of indigenous stewardship, the transformation of land/water by human interaction to understand the present state of these climates, and current water conservation projects."

6. The University of Utah offers a course called [Wilderness Medicine in the Alps](#) in Chamonix, France. "This program will offer certification in Advanced Wilderness Life support (AWLS) as well as

backpacking, hiking and trekking medicine. This program is designed to prepare medical students and physicians who have no formal medical training, how to prevent and treat injuries and medical problems that might occur in the back country where no medical help is available.”
The University of Utah also offers 37 separate courses that focus on outdoor recreation and engagement with the environment through the [Parks, Recreation, and Tourism](#) department. The courses are led by professional instructors and include backcountry skiing, canyoneering, kayaking, and many more.

Section Total (10 out of 15)

B

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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.*

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
<p><i>Score explanation: The University of Utah has a Global Change and Sustainability Center that serves the institution as a whole in promoting interdisciplinary research and training on natural and human-built systems. Moreover, with the recent creation of the U of U Health Green Team, the hospital now has staff focused specifically on sustainability efforts related to the medical system. Alexis Pearl Lee serves as the Director of Environmental and Social Sustainability and Dr. Smitha Warriier serves as the Medical Director of Environmental and Social Sustainability for U of U Health.</i></p>	

2. How ambitious is your medical school/institution’s plan to reduce its own carbon footprint?	
4	The institution has a stated goal of carbon neutrality by 2030 or earlier and the medical school / institution has a well-defined and adequate plan in place to achieve this goal.
3	Yes, there is a stated carbon neutrality goal by at least 2040 and the medical school/institution has a well-defined and adequate plan in place to achieve this goal.
2	Yes, there is a stated carbon neutrality goal by at least 2040, but the medical school/institution has not created a plan to reach that goal or the plan is inadequate.
1	There is a CO2 emission reduction goal, but it is not one of carbon neutrality.
0	There is no stated goal for reduction of CO2 emissions.

Score explanation: The University of Utah has set a goal to be 100% carbon neutral by the year 2050. While this goal is not as timely as we believe is necessary, significant changes are being made throughout the university to accomplish this goal. This carbon neutral goal includes the medical campus.

3. Do buildings/infrastructure used by the medical school for teaching (not including the hospital) utilize renewable energy?

3	Yes medical school buildings are 100% powered by renewable energy
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.

Score explanation: As part of the greater University of Utah campus, medical school buildings currently source 53% of their electricity from renewables. When talking about all energy, including natural gas and fuel oil, this number is not quite 53% but definitely exceeds 20%. Major changes are expected in the coming years with establishment of a solar farm in central Utah. This will bring the total electricity sources from renewables to above 70%.

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

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

Score explanation: Student input about sustainability was included for the construction of the new School of Medicine building and most old medical buildings have been retrofitted to campus-wide sustainable building guidelines.

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

2	Yes, the medical school has implemented strategies to encourage and provide environmentally-friendly transportation options such as safe active transport, public transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.
<i>Score explanation: The School of Medicine provides free transit passes to all students and there are bike racks and bike paths available for students. However, it is difficult to access off-campus clinical sites without a car and in the third year and beyond most students drive. Information about environmentally-friendly transportation is also not emphasized in orientation.</i>	

6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?	
2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.
<i>Score explanation: The School of Medicine has recycling available in its buildings but no compost program. There is a citywide compost program that the university could potentially partner with.</i>	

7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
3	Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<i>Score explanation: There are no sustainability guidelines for food or beverages, either for choosing environmentally friendly food or reducing waste.</i>	

8. Does the medical school or associated institution apply sustainability criteria when making decisions about supply procurement?

3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.

Score explanation: University of Utah Health has a membership to Practice Greenhealth managed by the hospital's Green Team. The University of Utah has 'Environmentally Preferable Purchasing Guidelines' for supply procurement. The guidelines are detailed and comprehensive though the medical school has been slow to implement these guidelines.

9. Are there sustainability requirements or guidelines for events hosted at the medical school?

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

Score explanation: The medical school does not currently have any required guidelines for school events. Green Sustainability Checklist and Sustainability Tips provided by the Event Management on main campus can be found here: <https://conferences.utah.edu/resources/Sustainability.php>. However, neither is strongly recommended by the SOM.

10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?

2	Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.

Score explanation: There are no programs or initiatives for lab spaces in the School of Medicine, for either teaching labs or research labs. Lab spaces in a new School of Medicine building will follow some sustainability guidelines but this is still in the planning stages. The University is also beginning a Seeds2Soil initiative to improve sustainability practices in research labs, however this has not yet involved the School of Medicine.

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	No, 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.
<p><i>Score explanation: In 2016 the Board of Trustees rejected the University of Utah Academic Senate resolution calling on divestment from fossil fuels. However, there is renewed and active advocacy by students and faculty for divestment. The Senate Ad Hoc Committee for Divestment and Reinvestment Investigation (SAHCDRI) was assembled to make recommendations about divestment to the Academic Senate, through which the resolution passed. Final approval is pending the Board of Trustees decision.</i></p>	

Section Total (12 out of 31)	D+
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Grading

Section Overview

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

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

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

Planetary Health Grades for the University of Utah School of Medicine

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

Section	Raw Score	Letter Grade
Planetary Health Curriculum (30%)	$(21 / 69) \times 100 = 30\%$	D
Interdisciplinary Research (17.5%)	$(8 / 17) \times 100 = 47\%$	C
Community Outreach and Advocacy (17.5%)	$(3 / 14) \times 100 = 21\%$	D-
Support for Student-led Planetary Health Initiatives (17.5%)	$(10 / 15) \times 100 = 67\%$	B

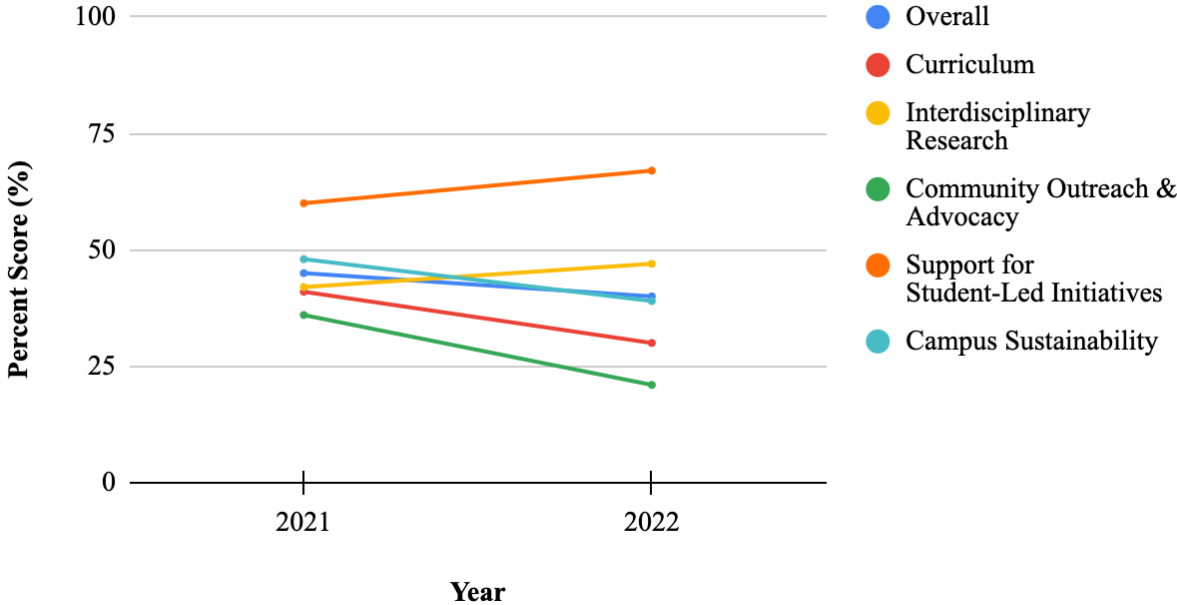
Campus Sustainability (17.5%)	$(12 / 31) \times 100 = 39\%$	D+
Institutional Grade	$(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 39.6\%$	C-

Report Card Trends

Section Overview

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

PHRC Trends for the University of Utah School of Medicine



*Score changes compared to 2021 the report card may be partially attributed to changes in scoring of metrics and removal of bonus points.