



Planetary Health Report Card (Medicine)

*Spencer Fox Eccles School of
Medicine at the University of Utah*



**SPENCER FOX ECCLES
SCHOOL OF MEDICINE**

UNIVERSITY OF UTAH

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.

2023-2024 Contributing Team

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Summary of Findings

Overall	C+
<u>Curriculum</u>	D+
<ul style="list-style-type: none"> • With this year seeing the change from the legacy curriculum to the Mission-Driven Core Curriculum, there is a lot of potential for planetary health and sustainability to be integrated into the school's practice. Unfortunately, there has yet to be significant strides in addressing this potential. • Recommendations: As the Mission-Driven curriculum continues to develop, see that planetary health content is integrated into preclinical and clinical lectures and teachings where appropriate. Appoint faculty to implement these topics in the current comprehensive revision of the curriculum. 	
<u>Interdisciplinary Research</u>	A
<ul style="list-style-type: none"> • There are several opportunities for students to join sustainability and planetary health research projects on the University of Utah campus, and this is growing in recent years. These projects are easily accessible to find online, are open to community input, and are showcased at a few conferences each year. • Recommendations: The SFESOM can become the center of these projects, in conjunction with the main campus, by hosting its own planetary health research symposium to showcase ongoing work, recruit medical students for projects, and promote more community engagement on planetary health. 	
<u>Community Outreach and Advocacy</u>	C
<ul style="list-style-type: none"> • SFESOM has minimal community outreach. The University of Utah institution holds community-facing courses and events, however, they are not specifically hosted by SFESOM. Further, the hospital has created materials such as podcasts, articles and pamphlets focused on educating the public on the impact of climate change on health, however these materials are relatively inaccessible to patients. • Recommendations: SFESOM's Rural & Underserved Utah Training Experience could partner with local schools in urban and rural areas to discuss the impact of climate change on health. Further, educational resources should be integrated into health record systems to increase accessibility for patients. 	
<u>Support for Student-Led Initiatives</u>	A-
<ul style="list-style-type: none"> • The University of Utah and SFESOM have multiple opportunities for students to start sustainability projects and receive institutional support. The University provides SCIF grants for new student projects and there are established projects in arts, service, and agriculture as well as seminar series. • Recommendations: SFESOM would benefit from medical school-focused projects to reach more students. A dedicated website and a symposium showcasing current initiatives, funding opportunities, student organizations, and research could connect mentors and interested students more easily. 	
<u>Campus Sustainability</u>	C
<ul style="list-style-type: none"> • The University of Utah institution and hospital have made major improvements in recent years in terms of sustainable procurement and energy goals. However, the SFESOM itself does not employ any sustainability-focused faculty or espouse their own guidelines outside of those from the larger institution. With construction of the new medical school building and curriculum implementation underway, the SFESOM is well poised to incorporate sustainability into the new changes. • Recommendations: Incorporation of sustainability guidelines and appointed staff during construction of the new medical school building. With a new mission-driven curriculum underway, incorporation of guidelines for sustainable procurement, plant-based and locally sourced foods, and lab sustainability. 	

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

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation:</i> As of 2023-2024, the SFESOM has implemented a new curriculum for the class of 2027. The medical school continues to offer the elective course MDID 6004: Sustainability, Medicine, and Health, which has been available since Spring 2022. It is unclear if this elective course will continue in the coming Mission-Driven Core Curriculum or if it will be integrated into the longitudinal curriculum. Occasional lectures in ongoing elective pathways and other elective courses from the “legacy curriculum” touch on planetary health topics, but these are not the main focus of these courses.</p>	

Curriculum: Health Effects of Climate Change

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

This topic is not covered by the core curriculum at SFESOM despite the need to understand heatstroke for USMLE Boards testing.

This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective in the lecture “Health Impacts of Climate Change.”

This topic is reviewed in depth in the elective course MDID 6500: Intro to Global Health, most specifically in the lecture topic “Climate Change and the Public’s Health.” Case studies of different regions being affected by increasing extreme heat events and their effects on the local population’s health were discussed thoroughly. Unfortunately, this year this lecture was not provided due to a canceled session.

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

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

Score explanation:

In the core course Interprofessional Education: Disaster Preparedness, didactic lectures briefly discuss the impacts of climate change on extreme weather events on individual health. Students then participate in simulations focused on disaster response in the setting of an acute heat event.

The elective course MDID 6500: Intro to Global Health covered this topic in detail during a lecture focused on humanitarian crises and disasters.

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

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

Score explanation:

This topic was briefly covered in Layers of Medicine (LOM), designed to introduce medical students to the socio-cultural and interdisciplinary complexities in health and healthcare delivery. In Layers of Medicine 3, there is a lecture entitled “Climate & Health,” during which a pulmonologist and president of the non-profit [Physicians for a Healthy Environment](#) lectures about the implications of climate change on health. One of the topics discussed is the impact of climate change on the changing pattern of infectious disease.

During the first-year core course, *Host & Defense (H&D)*, one lecture, “Basic Bacteriology 1 & 2,” briefly discusses main contributing factors in the emergence of bacterial infections due to an increase in human exposure from environmental change. Another lecture, “Vectors,” 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. This course is being discontinued next year.

This topic will not be taught in the [Mission-Driven Core Curriculum](#). However, the course directors plan to integrate discussion of these topics into weekly Problem Based Learning Sessions.

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

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

During the first year core course in Pulmonology, air pollution was listed as a major criteria for lung diseases, including some cancers and restrictive and obstructive pathologies. In addition, several maps of Salt Lake City were analyzed and presented to the student body that depicted the different levels of air pollution found across the valley, and its correlations to lung diseases, health outcomes, life expectancies, literacy rates, socioeconomic status, and ethnic populations. While the lecture did not include any specific focuses, it did clearly highlight the correlation between rising air pollution and rising respiratory health effects.

The previous core curriculum included more focus on air pollution and its effect on respiratory health, but those lectures are no longer being offered.

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

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

SFESOM core curriculum coursework includes risks of drug-induced hyperthermia on cardiovascular function, however the effects of climate change on increased heat and subsequent cardiovascular health is not covered in any significant manner.

This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective in the lecture “Health Impacts of Climate Change.”

The elective course MDID 6500: Intro to Global Health typically covers this topic in detail, however the lecture reviewing this topic was canceled during this year’s course.

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

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

Score explanation:

In the third year psychiatry clerkship course, the mental health effects from climate change are discussed in a dedicated lecture. Key learning points include the impact of climate change and extreme weather on mental health and eco-anxiety.

This topic is also covered in the MDID 6004: Sustainability, Medicine & Health elective in the lecture “Health Impacts of Climate Change.”

This topic was previously covered in the second year required course, Circulation, Respiration, & Regulation (CRR) in the lecture “Air Pollution and Health,” but it was not included this year.

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

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

Score explanation:

The new Mission-Driven MD curriculum emphasizes a holistic patient-first approach to medicine and takes new MSIs on a tour of an underserved neighborhood with local community health workers. The purpose of the tour is to understand what factors into the health of the neighborhood, as students identified food options, cost of living, transportation, green space, and community resources available. Although the tour did not broach ecosystem health or climate change, these topics are briefly covered in a lecture before the tour identifying air quality disparities, and the neighborhood’s proximity to Great Salt Lake dust storms which has currently unknown potential to impact residents’ health.

This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective in the lecture “Health Impacts of Climate Change.”

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

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

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

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

0 This topic was **not** covered.

Score explanation:

The elective MDID 6004: Sustainability, Medicine & Health addresses climate change impacts on children, people of low SES, and homeless communities.

The elective course MDID 6500: Intro to Global Health typically covers this topic in detail, however the lecture reviewing this topic was canceled during this year's course.

With the upcoming new curriculum, there is supposedly going to be a course on Native American health that will include a lecture with an environmental focus, but this has not occurred yet.

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

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

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

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

0 This topic was **not** covered.

Score explanation:

This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective in the lectures "Food Justice," "Homelessness and Environmental Justice," and "Health Disparities in Relation to Sustainability."

The elective course MDID 6500: Intro to Global Health typically covers this topic in detail, however the lecture reviewing this topic was canceled during this year's course.

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

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

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

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

1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation:</i> <i>The reproductive health effects of industry-related environmental toxins were addressed in the elective course MDID 6004: Sustainability, Medicine & Health elective in the lecture “Environmental Toxicology.”</i></p>	

1.12. Does your <u>medical school</u> 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.
<p><i>Score explanation:</i> <i>During the Mission-Driven Curriculum introductory course (SCoPE) in its pulmonology section, air pollution was discussed as a key threat to the university’s surrounding community. Several studies, such as this one, examining air quality and cardiovascular and pulmonary health, were presented. Emissions reports from Salt Lake County agencies were also shared that highlighted the unequal distribution of pollution in the Salt Lake Valley. Findings were presented that described the connections between air pollution, industry, poverty, and race around Salt Lake City.</i></p>	

1.13. To what extent does your <u>medical school</u> 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.
<p><i>Score explanation:</i> <i>At this time, there is minimal discussion of indigenous knowledge and value systems as they pertain to planetary health in the core curriculum. There were plans to incorporate this into the TRUE pathway, but this is not scheduled to happen until later this spring with the new curriculum changes. This is unchanged from last year.</i></p>	

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.
<p><i>Score explanation:</i> Students had the learning objective “Understand the historical significance of paint contaminated with lead and identify those at risk for lead exposure (i.e., living situation, socioeconomic status, immigration status)” during a Problem Based Learning (PBL) case in the core curriculum.</p> <p><i>With the upcoming new curriculum, there is supposedly going to be a course on Native American health that will include a lecture with an environmental focus, but this has not occurred yet.</i></p> <p><i>This topic is also covered in the elective MDID 6004: Sustainability, Medicine & Health, which addresses the impacts of environmental toxins on marginalized populations.</i></p>	

Curriculum: Sustainability

1.15. Does your <u>medical school</u> 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.
<p><i>Score explanation:</i> During the second year legacy curriculum course Metabolism & Reproduction, the nutrition self-study module on “Metabolic Stress & Starvation” discusses the environmental impact of diet by showing a graph comparing greenhouse gas emissions for different protein sources. In addition, the module on “Nutrition During Lactation” briefly mentions the environmental impact of breastfeeding.</p> <p><i>Plant-based diets are also extensively covered in the FP MD 7540: Culinary Medicine elective.</i></p>	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored in depth by the core curriculum
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.

0	This topic was not covered.
<p><i>Score explanation:</i> This topic was covered in a lecture entitled “Climate Change & Health” given to the Population Health Pathway, which addressed the carbon footprint of healthcare systems. This lecture was given by the director of environmental and social sustainability at University of Utah Health.</p> <p>This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective in the lecture “Green Buildings (Green Hospitals and Healthcare Purchasing/Waste).”</p>	

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfill this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce 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)
	<p><i>Score explanation:</i></p> <ol style="list-style-type: none"> 1. There is no discussion in the preclinical years on the health and environmental co-benefits of avoiding over-medicalization and overtreatment in healthcare. 2. There is no discussion in the preclinical years of pharmaceuticals and over-prescribing as a cause of climate health harm. 3. The core curriculum and elective courses that cover non-pharmaceutical management of conditions did not discuss the health and environmental co-benefits. 4. In the preclinical years, there are no lectures in the core curriculum mentioning the impact of surgical healthcare on planetary health and the climate crisis. In the core surgical clerkship during the third year, there are also no didactic sessions addressing this topic or how it can be mitigated.

	<p>5. The lecture on "Pharm: General and Local Anesthetics" did not discuss environmental impacts of anaesthetics. This is also not discussed elsewhere in the preclinical years.</p> <p>6. There was also no discussion of the impact of inhalers on the total healthcare carbon footprint, nor the environmental benefit of dry powdered inhalers.</p> <p>7. In the preclinical years, there are no lectures on waste production within healthcare clinics, nor a discussion on how to minimize waste.</p>
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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
<p><i>Score explanation:</i> This topic was covered in a lecture entitled "Climate Change & Health" given to the Population Health Pathway, which facilitated case based discussions surrounding addressing allergens, heat, and wildfire smoke with patients. This lecture was given by the director of environmental and social sustainability at University of Utah Health.</p> <p>This topic will not be taught in the Mission-Driven Core Curriculum, however, the course directors plan to integrate discussion of these topics into weekly Problem Based Learning Sessions.</p>	

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.
<p><i>Score explanation:</i> In the legacy curriculum, "Circulation, Respiration and Regulation," there is a lecture titled "Environmental and Occupational Lung Disease," which begins with a brief discussion of how to take an environmental and exposure history in the context of occupational lung diseases. Strategies for eliciting hazardous exposure history, workplace risks, and time intervals are discussed.</p> <p>In the new Mission-Driven Core Curriculum, there are several learning objectives focusing on environmental exposure and how to identify signs and symptoms of associated disease such as lead, aspergillus, radon, and CO exposure. The caveat here is that these are provided during the</p>	

problem-based learning modality, leaving it up to the students to research the corresponding mechanism of disease, systems affected, and treatment. The Doctoring portion of the curriculum, however, does emphasize asking patients about living situations and potential exposures when taking a history.

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?

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.

Score explanation:

Climate change was accepted by the curriculum committee as a societal problem in 2019; however, the medical school has not incorporated any additional planetary health into the curriculum. As of this year, many lectures in the legacy curriculum pertaining to planetary health such as those covering air quality have been removed and were not reinstated in the new curriculum. There have also been new standalone lectures incorporated into elective and core courses. Overall, while there remains discussion between students and faculty, as well as motivated faculty involved in the curriculum reform, actual implementation of planetary health education has been sparse.

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.
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:

Some planetary health topics are included in the curriculum in years 1 - 3. However, these topics are mainly covered in separate lectures and some are not covered at all. The SFESOM is in the process of redesigning its curriculum to center patient care and focus on longitudinal learning, and is well-poised to include these topics longitudinally throughout the curriculum.

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

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 not currently a faculty or staff member focused specifically on overseeing curricular integration of planetary health employed by the medical school; however, there have been discussions among the hospital green team and medical school administration about this topic. It has not been implemented as of this year, but may have a crucial impact on longitudinal incorporation of planetary health as the new curriculum is refined.

The Medical Director of Environmental & Social Sustainability is technically faculty in the SFESOM, however their role is primarily to facilitate clinical operations rather than to oversee curricular content or changes.

Section Total (28 out of 72)	38.89%
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Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u>?	
3	Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation:</i> <i>There are multiple SFESOM faculty members involved in planetary health research. There are studies focused on minimizing waste within the healthcare institution as well as projects that study how our local environment affects aspects of our health. Examples include impacts of poor air quality on asthma rates, analysis of waste in the perioperative period for orthopedic surgery, or effect of evolving climates on emergence of fungal diseases in the local area.</i></p> <p><i>The University of Utah has a faculty webpage centralizing planetary health research throughout the institution: Global Change & Sustainability Center.</i></p>	

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

Score explanation:

Founded in 2009, the [Global Change & Sustainability Center \(GCSC\)](#) is the University of Utah's forum for research and education surrounding the interaction between humans and their surrounding ecosystem. It is an extension of the [Sustainability Office](#) on campus and acts as the institution's interdisciplinary research department focusing on planetary health. "GCSC faculty have noted research strengths in water, air, climate, ecological dynamics, environmental change, humans and their environment, energy, food systems, and environmental policy and law."

The [Wilkes Center for Climate Science and Policy](#) is another research hub focused on practical, integrative, and solutions-oriented research that can translate into climate policy and action. It is a major source of funding, education, and seminars focused on climate change solutions. It also sponsors the Great Salt Lake Strike Team whose work has strove to provide timely, high-quality data in order to facilitate action to save the Great Salt Lake.

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 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:

The [Community Engagement Committee](#) is a group of both researchers and community members working within the school of medicine who seek to make connections with community partners, support health education efforts, and promote rigorous science research with local and global community impacts. Members of the committee include community health workers with years of experience working directly with groups that have been negatively affected by climate injustice. Focus on research endeavors towards identifying and developing solutions for the health effects of climate change has actively been targeted by these committee members.

The [Community Health Needs Assessment](#) is a resource developed by the U of U Hospital to identify deficits in health and negative environmental impacts to certain groups that exist in Utah. This summary is meant to focus attention on certain changes that can be made to alleviate health impacts to certain Utah communities in the timeframe of 2023-2026.

2.4. 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.
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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.
<p><i>Score Explanation:</i> <i>The University of Utah has a website devoted to its Global Change & Sustainability Center with links to monthly events including seminar series and research symposiums, news, research efforts, associated faculty, and the University's Sustainability Office. It is easy to use, comprehensive, and centralizes all available campus resources.</i></p>	

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.
<p><i>Score explanation:</i> <i>While none of these are directly hosted by the medical school, the institution at large has multiple such events.</i></p> <p><i>Eccles Health Sciences Library:</i> Climate Changes Health and Health Equity Series: <i>The Spencer S. Eccles Health Sciences Library hosts multiple presentations throughout the year with varied topics relating to climate health and sustainability as well as social health and health equity.</i></p> <p><i>Global Change and Sustainability Center:</i></p> <ul style="list-style-type: none"> • Research Symposium: <i>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.</i> • Global Change Seminar Series: 	

The GCSC seminar series presents some of the best researchers--from around campus and across the country--whose work sheds light on global change and sustainability. Some of these seminars are held via Zoom by presenters from other institutions.

Law School:

- [Wallace 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 Events](#):

Named after the Pulitzer Prize-winning author and conservationist, the Wallace Stegner Center for Land, Resources & the Environment offers students one of the top environmental and natural resources law programs in the United States. Many events and initiatives relating to environmental health are held by this center.

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

1	Yes, the medical school is a member of a national or international planetary health or ESH organization
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0	No, the medical school is not a member of such an organization
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Score explanation: SFESOM is not a member of such an organization. As of the writing of this metric, there has been no effort to involve itself with planetary health organizations such as the Planetary Health Alliance and the Global Consortium on Climate and Health Education

Section Total (15 out of 17)

88.24%

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

Community Outreach and Advocacy

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

3.1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation:</i> Similar to last year, SFESOM does not currently partner with any community organizations addressing climate change. However, the University Hospital has a variety of community partners, including Utah Clean Air (UCAIR), which is a statewide partnership focusing on providing education and grants to allow for individuals, businesses and communities to improve Utah's air. U of U Health also partners with Utah Climate Action Network (UCAN), which focuses on public engagement and policies aimed at reducing emissions and improving water resource management and social support regarding climate change. Both of these partnerships could expand to include SFESOM. SFESOM's Rural & Underserved Utah Training Experience could also partner with local schools in urban and rural areas to discuss the impact of climate change on healthcare and plans to explore this in coming years.</p> <p>According to the STARS report from 2023, the University of Utah institution more generally has a variety of sustainability-focused community partners, including the Hartland Community 4 Youth and Families, a college readiness program for underserved youth focused on environmental stewardship. Other climate-focused partners include the Green Urban Lunchbox, the Jordan River Community Initiative, the SLC Green, Salt Lake Community Action, Real Food Rising, and the Tracy Aviary. Finally, the institution partners with Wasatch Coop to help promote sustainable, local resilient food systems.</p>	

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.
0	The institution/medical school have not offered such community-facing courses or events.

Score explanation:

The Eccles Health Sciences Library and Office of Health Equity and Inclusion has been hosting a community read/journal club discussion since 2019 titled "[Climate Changes Health and Health Equity](#)." Lectures this year have included "Pursuing Green Health" and "Air Quality and Environmental Justice in Salt Lake County: lessons learned from researching local pollution through NASA and the University of Utah." 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.

The Global Change and Sustainability Center at the University of Utah main campus has a [seminar series](#) with sustainability and climate change researchers from around the country, many of which touch on environmental health and justice. The University of Utah main campus also has a sustainability podcast, "[Sustain](#)," that addresses the climate's effect on health in several episodes. Faculty from SFESOM speak at main campus events, including at the University of [Utah Global Change & Sustainability Center Seminar Series](#).

3.3. Does your <u>medical school</u> 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 receive communications about planetary health or sustainable healthcare.
<i>Score explanation:</i>	
<i>All students at Spencer Fox Eccles School of Medicine receive a weekly student-led newsletter. The Sustainability in Medicine Student Interest Group provides sustainability facts, resources, and relevant event information each week for this newsletter. This metric is unchanged from last year.</i>	

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?	
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
<p><i>Score explanation:</i> The University of Utah Health hosts a variety of Continuing Medical Education (CME) conferences and lectures ranging in topics to include global warming, pollution, and heat and cold weather injuries, according to the CME office. There are also resident professional education activities offered in Psychiatry and Pediatric Disaster Medicine. Further, the Department of Anesthesiology usually hosts at least one sustainability related Grand-Rounds each year.</p>	

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?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation:</i> The University of Utah institution has some educational resources, such as the Healthfeed blog and a podcast "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. Further, the University of Utah provides education on poison control and preventing carbon monoxide poisoning, available online.</p>	

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?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation:</i> The University of Utah Hospital provides patient educational materials via its website, https://healthcare.utah.edu/healthfeed, and in podcasts, https://healthcare.utah.edu/the-scope. Topics include how air quality, wildfires, and the spread of infectious diseases affect our health. However, patients would have to specifically search for these topics. The patient portal (MyChart) does not have direct links to these sites, but does have a search option for Medline Plus articles which include topics about climate change and health.</p> <p>The University of Utah Hospital has online resources (the Healthfeed blog) that cover some health impacts from wildfires, air quality and excessive heat, as well as a podcast discussing preparation for extreme heat. The University of Utah's Environmental & Social Sustainability Office has also created a variety of flyers aimed at increasing education around climate change resiliency, such as strategies to prevent heat-related illness, or protect children from wildfire smoke. The flyers are available in English,</p>	

Spanish, Farsi and Somali. These materials are not currently integrated into patient medical records (MyChart) and may not be accessible to patients at all hospitals and clinics.

Section Total (7 out of 14)

50%

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

Support for Student-Led Planetary Health Initiatives

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

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

Score explanation:
The University of Utah institution offers the Sustainability Campus Initiative Fund (SCIF) as a green grant program to encourage students to propose projects that improve the sustainability of the campus. \$2.50 per student at the University of Utah is added to the fund each semester. Small (less than \$1000) grants are available on a rolling basis, medium (\$1000-\$10000) grants are awarded three times a semester, and large (\$10,000) grants are awarded once a year. In 2021-2022, the most recent year with available data, the SCIF funded 19 projects that amounted to \$101,128 total funding for projects on a variety of topics such as protecting the Great Salt Lake, installing AQI sensors, implementing a clean water system for the Navajo Mountain community, and many others.

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

Score explanation:
The University of Utah institution has many opportunities for students to be involved in research departments that focus on sustainability research, such as the [Medical Student Research Program](#) and the [Rural and Underserved Utah Training Experience](#). However, these are not specific to planetary health or sustainable care. There is not a specific program at the medical school for students to be a

part of planetary health/sustainable healthcare research, but interested students can conduct relevant research by seeking out faculty working on those projects.

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

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

Score explanation:

There is no specific medical school webpage for locating planetary health and/or sustainable healthcare projects or mentors. Resources for the medical school are limited only to lists of mentors looking for students willing to engage in currently-established research projects. These projects may or may not be related to planetary health and sustainability.

The University of Utah institution has some web pages dedicated to global health and sustainability projects, such as the [Global Change and Sustainability Center](#) as well as [Research in the Office of Sustainability](#).

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

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

Score explanation:

The Sustainability in Medicine Interest Group is a medical school student group aimed at improving sustainability initiatives on campus and to educate and inspire future physicians to promote sustainability and minimize the burden that healthcare imposes on the environment. The interest group has a faculty advisor and is supported by the hospital Green Team.

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

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

Score explanation:

[The Green Team](#) at the University of Utah Hospital has one to two student liaisons from each class year that are a part of the Sustainability in Medicine Interest Group representing the students of the medical school at their monthly meetings. These students have the opportunity to participate in discussions regarding healthcare sustainability as it pertains to University of Utah Health. This initiative has continued in the 2023-24 academic year.

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

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

Score explanation:

1. The institution has community gardens, farm apprenticeships, fishery programs and urban agriculture projects - for example, ENVST 3280: Organic Gardening. Multiple bee boxes are stationed throughout the University of Utah campus, including one near the medical school. A student-led organization, the U of U Beekeepers Association, is responsible for maintaining them. This is unchanged from last year's report card.

2. The [Spencer S. Eccles Health Sciences Library](#) hosts multiple presentations throughout the year with varied topics relating to climate health and sustainability as well as social health and health equity. This is unchanged from last year's report card.

3. The Bennion Center, a community service center on campus, holds an Environmental Sustainability Saturday service project every April and many community partners come together to create projects

where students can give service to fulfill a community need while learning about the community and environmental justice.

4. The Spencer S. Eccles Health Sciences Library has been the location of multiple environmentally-focused displays and events in the past year.

5. The Natural History Museum of Utah opened a new permanent exhibition: "[Climate of Hope](#)" and has hosted many seminars focused on environmental justice.

6. The University of Utah institution offers many courses that integrate health and wilderness/outdoor programs. An example is the [Wilderness Medicine](#) courses. These courses are offered by the U of U Emergency programs in partnership with NOLS Wilderness Medicine.

Section Total (12 out of 15)	80%
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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
<p><i>Score explanation:</i> The University of Utah institution 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. U of U Health has established the Green Team, a task force with salaried faculty members focused specifically on sustainability efforts within the medical system, including a Director of Environmental and Social Sustainability and a Medical Director of Environmental and Social Sustainability for U of U Health. These remain largely the same for the last 2 years.</p>	

5.2. How ambitious is your institution/medical school 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
	<i>Score explanation:</i>

The University of Utah institution released its first [Climate Change Action Plan](#) in 2010 with a goal to achieve carbon neutrality by 2050. This remains the most up-to-date written plan and goal. The [Climate Resilience Assessment](#) was released in June 2021 to assess progress towards the goals outlined in the initial action plan. The Climate Action Plan was adopted at the end of 2023. Since this action plan is set to achieve carbon neutrality by 2050, this does not meet the requirements of this metric.

5.3. 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:
 According to the Energy and Sustainability Dept at the institution, buildings in the SFESOM are served by off-site geothermal electric sub-stations, which provide approximately 50% of energy. The institution as a whole is expected to reach up to [71% renewable energy](#) by mid-2024 as a contract with an off-site solar energy source is being finalized.

Additionally, newer buildings which house certain medical school courses such as the new Healthcare, Educators, Leaders & Innovators Complex (HELIX) do not utilize gas so the percentage of renewable energy is higher, though exact numbers are not provided.

5.4. 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:
 The state of Utah requires that all public buildings built after 2009 meet LEED (Leadership in Energy and Environmental Design) Silver Certification, this also applies to buildings utilized by the SFESOM for lectures and events. The steering committee planning the development of the new SFESOM building has also elicited feedback from students about sustainability. This is unchanged from last year.

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

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

Score explanation:

The SFESOM 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. This is unchanged from last year.

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

2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
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.

Score explanation:

The SFESOM has a conventional recycling program, with bins for separated categories including garbage, paper, plastics, and glass. No composting or organics-specific refuse is currently available on SFESOM's campus, however the student gardens on the main U of U campus has [composting facilities](#), with [new compost technology](#). These facilities could potentially form a partnership with SFESOM to create a compost program. Reusable aluminum water bottles are handed out by Wellness Services at SFESOM each year in order to reduce the need for disposable cups and plastic water bottles.

5.7. 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.
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2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<p><i>Score explanation:</i> The SFESOM does not have any written sustainability guidelines for food or beverages, although sustainability principles are informally followed.</p>	

5.8. Does the <u>medical school</u> or <u>institution</u> 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.
<p><i>Score explanation:</i> University of Utah Health has a membership to Practice Greenhealth managed by the hospital's Green Team. The University of Utah institution has 'Environmentally Preferable Purchasing Guidelines' for supply procurement. The guidelines are detailed and comprehensive, though the medical school does not follow these guidelines when purchasing and there have been no efforts to implement them. This has not changed since last year.</p>	

5.9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u> ?	
2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required .
0	There are no sustainability guidelines for medical school events.
<p><i>Score explanation:</i> The medical school does not currently have any required guidelines for school events. Green Event Checklist and Sustainability Tips are provided by Event Management on the main campus. However, neither is utilized by SFESOM. This is unchanged from last year.</p>	

5.10. 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.
<p><i>Score explanation:</i> There are no programs or initiatives for lab spaces in SFESOM, for either teaching labs or research labs. No new information has been found since the completion of the last report card. Lab spaces in a new SFESOM building, currently under construction, are pending review and will likely also achieve at least LEED Silver Certification.</p>	

5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?	
4	The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.
3	The institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.
<p><i>Score explanation:</i> 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 on April 26, 2021. On December 14, 2021 the University of Utah Board of Trustees released a statement acknowledging climate change as a threat to communities and ecosystems worldwide but does not outline exact plans on how to address it. No new information has been found since the completion of the last report card.</p>	

Section Total (14 out of 32)	43.75%
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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%

Planetary Health Grades for the Spencer Fox Eccles School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(28/72) \times 100 = 38.89\%$	D+
Interdisciplinary Research (17.5%)	$(15/17) \times 100 = 88.24\%$	A
Community Outreach and Advocacy (17.5%)	$(7/14) \times 100 = 50\%$	C
Support for Student-led Planetary Health Initiatives (17.5%)	$(12/15) \times 100 = 80\%$	A-
Campus Sustainability (17.5%)	$(14/32) \times 100 = 43.75\%$	C
Institutional Grade	$(37.5 \times 0.3 + 88 \times 0.175 + 50 \times 0.175 + 80 \times 0.175 + 53 \times 0.175) = 59.15\%$	C+

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which the Spencer Fox Eccles School of Medicine (formerly, University of Utah School of Medicine) has participated in the Planetary Health Report Card initiative.

