

# Planetary Health Report Card (Medicine):

## Spencer Fox Eccles School of Medicine at the 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.

2022-2023 Contributing Team:

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## **Summary of Findings**

Overall		
Curriculum		
<ul> <li>Planetary health is lacking in the Spencer Fox Eccles School of Medicine (SFESOM) core currine Preclinical lectures that discuss implications of climate change on health are rare. Beyond one curring sustainability and medicine (MDID 6400), planetary health is rarely integrated into elective courses and the second statistical sustainability incorporate planetary health content into the core curriculur clinical years. Integrate sustainability-related topics into existing material. Appoint faculty to in these topics in the current comprehensive revision of the curriculum.</li> </ul>	course on Irsework. m, including	
Interdisciplinary Research	В-	
<ul> <li>SFESOM has multiple research teams focused on air quality's effects on respiratory health, reus medical devices, and the impact of recreational therapy on mental health. There is no department planetary health, and there are no centralized locations to find sustainability-related research for online. No events are specifically held to showcase planetary health and sustainability research.</li> <li>Recommendations: Build on existing research projects by hosting a planetary health research sto showcase ongoing work, recruit medical students for projects, and invite community member concerns about planetary health. Develop a dedicated web page for research, events, and green is a specific project.</li> </ul>	nt focused on r the school symposium rs to share	
Community Outreach and Advocacy	D	
<ul> <li>SFESOM is lacking in community outreach, advocacy, and patient education on planetary healt institution has hosted outreach events through community and campus-wide organizations. They have been valuable to foster conversations within our institution and in the community, but these been hosted by SFESOM specifically, and have been almost entirely student-led.</li> <li>Recommendations: Connect with community organizations focused on planetary health, as is a being implemented with free clinics in the new curriculum. Provide education about environme exposures via pamphlets and community-facing publications. Support advocacy efforts with stumentorship in legislative efforts and internship opportunities.</li> </ul>	se events se have not currently ntal health	
Support for Student-Led Initiatives	В	
<ul> <li>SFESOM is supportive of student efforts for planetary health, and has instituted specific grants dedicated faculty. There is a hospital committee to manage these topics with student representat are ample projects, presentations, organizations, and mentors that allow for student involvemen</li> <li>Recommendations: Appoint a liaison from the administration to advertise and support student and provide a database of planetary health resources that students can access to find projects and</li> </ul>	tion. There t. initiatives	
<u>Campus Sustainability</u>	D+	
<ul> <li>Last year, the creation of the Hospital Green Team improved sustainability efforts in the main h there are few guidelines within SFESOM. There are no guidelines for procurement of goods, for spaces. Support for divestment and carbon neutrality goals by 2050 is less than ambitious.</li> <li>Recommendations: Development of clear guidelines for sustainable procurement, increasing o plant-based and locally sourced foods, and lab sustainability. Additionally, increasing accessibil transit and planning for the new building to be bike-friendly. We continue to recommend more a carbon neutrality goals as well as a commitment to fully divest from fossil fuel corporations.</li> </ul>	ods, or lab fferings for lity of public	

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

## **Planetary Health Curriculum**

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

#### Curriculum: General

1. 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 <b>more than one</b> elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does <b>not</b> have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a <b>lecture</b> on planetary health.
0	No, the medical school has <b>not</b> offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
Score explanation: The Spencer Fox Eccles 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. No additional courses have been added since the 2021-22 academic year.	

#### Curriculum: Health Effects of Climate Change

2. Dver 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 reviewed in depth in the elective course MDID 6500: Intro to Global

Score explanation: 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.

This topic is also 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." It discussed heat waves, droughts, increased dust, extreme weather events, and wildfires as results of climate change.

## **3.** Does your <u>medical school curriculum</u> 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 relationship between extreme heat, health, risks, and climate change is discussed in the lecture "Health Consequences of Global Warming." The topic of flash floods and ways to prepare is also discussed as part of INTMD 7982 Virtual Wilderness Medicine.

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

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

Score explanation: 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.

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

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

Score explanation: During the second year core course, Circulation Respiration & Regulation (CRR), the lecture "Air Pollution and Health" discusses the impacts of air quality, locally and globally, on human health and society. It introduces the science of air pollution particles and their impact on multiple body systems and patient populations. Numerous studies and their findings are presented.

Further, during the first year course, Molecules, Cells and Cancer (MCC), during a lecture "Lung Cancer," the lecturer discussed the impact of air pollution on respiratory health. The lecture addressed specific sources of air pollution in Utah, including industrial sources, transportation sources, and residential sources.

6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?

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

0 This topic was **not** covered.

Score explanation: In the second year core course, Circulation Respiration & Regulation (CRR), the lecture "Air Pollution and Health" discusses the impacts of air pollution on human health. It touches on the long and short term effects of particulate matter on cardiovascular diseases and mortality, and briefly mentions the role of weather extremes and wildfires on air quality.

7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
Score explanation: In the second year core course, Circulation, Respiration, & Regulation (CRR), the	

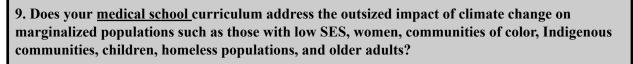
Score explanation: In the second year core course, Circulation, Respiration, & Regulation (CRR), the lecture "Air Pollution and Health" mentions how cognitive impairment can occur in adults and children by exposure to air pollution.

This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective. In the lectures "Environmental Health and Environmental Toxicology" as well as "Health Disparities in Relation to Sustainability," the effects of microplastics, heavy toxins, and poor air quality are discussed with respect to both neurodevelopmental delay in children and effects on adults.

8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?

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

Score explanation: In the elective course MDID 6500: Intro to Global Health, the topics of malnutrition and food accessibility are discussed throughout the course, most specifically in the lecture "Malnutrition and Food Insecurity Throughout the Globe." The purpose of this lecture and other discussions in the course were to understand the causes of malnutrition in different regions of the world, how climate change and displacement have affected food stability in these regions, and why many global health initiatives focus on food distribution.



3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
Score explanation: This topic is covered in the MDID 6004: Sustainability, Medicine & Health elective.	

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. A broad discussion on communities of color, women, or Indigenous communities is not included. This is unchanged from last year.

10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?

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

Score Explanation: This topic is covered a few times in the MDID 6004: Sustainability, Medicine & Health elective. The unequal regional health impacts of climate change globally are discussed in the lecture "Health Consequences of Global Warming" and "Climate Change." It was also included in the lecture "Climate Change and Health" in the elective course MDID 6500, Intro to Global Health. This is unchanged from last year.

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

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

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

0 This topic was **not** covered.

Score explanation: In the MDID 6004: Sustainability, Medicine and Health elective, there is a lecture discussing the health effects of industry-related environmental toxins, such as arsenic, lead, mercury, pesticides, and insecticides. These topics are addressed during a lecture on "Environmental Health and Environmental Toxicology" given by the MD-director of Utah Physicians for a Healthy Environment. This is unchanged from last year.

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.

Score explanation: During the second year core course, Circulation, Respiration, & Regulation (CRR), the lecture "Air Pollution and Health" discusses the impacts of air quality, locally and globally, on human health and society. It provided 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 <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 <b>integrated throughout</b> the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included <b>briefly</b> in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
Score Explanation: This topic is not currently addressed in either core curriculum or elective courses. <u>The Tribal, Rural, Underserved Education Pathway</u> plans to incorporate indigenous knowledge and	

value systems as they relate to planetary health next year, but this integration does not apply to the 2022-2023 report card.

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

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

Score Explanation: 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."

This topic is covered in MDID 6500: Introduction to Global Health Principles. The disproportionate impact of climate change on vulnerable populations is discussed in a lecture given by the Department of Pediatric Global, Rural and Underserved Child Health.

#### Curriculum: Sustainability

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.

Score explanation: During the second year 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.

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

This topic was **not** covered.

0

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 "Green Buildings (Green Hospitals & Healthcare Purchasing/Waste)." This is unchanged from last year.

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 <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment.	
2	The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfill this metric.	
1	The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.	
1	Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated	
1	The impact of <b>anaesthetic</b> 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 <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.	
1	<b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting).	
	Score explanation: 1. There is no discussion in the preclinical years on the health and environmental co-benefits of avoiding over-medicalization and over-treatment 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.	
	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.	

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.

7. In the preclinical years, there are no lectures on waste production within healthcare clinics, nor a discussion on how to minimize waste.

#### **Curriculum: Clinical Applications**

18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?

- 2 Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum.
- 1 Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework.
- 0 No, there are **not** strategies introduced for having conversations with patients about climate change

Score explanation: No, strategies for having conversations with patients about climate change are not currently addressed in the Spencer Fox Eccles School of Medicine's Clinical Skills and Decision Making course curriculum.

	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 <b>core</b> curriculum includes strategies for taking an environmental history.	
1	Only elective coursework includes strategies for taking an environmental history.	
0	No, the curriculum does <b>not</b> include strategies for taking an environmental history.	
Score explanation: During the second year course, Circulation Respiration & Regulation (CRR) a lecture "Occupational and Environmental Lung Disease" discusses, in detail, the components of occupational history and how to take an appropriate history. Strategies for taking an environmental and exposure history are not currently addressed in the Spencer Fox Eccles School of Medicine's Clinical Skills and Decision Making course curriculum.		

#### Curriculum: Administrative Support for Planetary Health

20. Is your <u>medical school</u> 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: Per the foundational science and clinical curriculum deans, there are currently no efforts within the Spencer Fox Eccles School of Medicine to implement or improve Education for Sustainable Healthcare/planetary health.

**21.** How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?

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

Score explanation: As in years past, planetary health/ESH is mentioned very briefly in the core curriculum. There is one dedicated lecture during the second year course Circulation, Respiration, & Regulation on "Air Pollution and Health" that focuses on the impacts of air quality on human health and society. The effect of climate change on vector-borne diseases is covered briefly in the Host and Defense course. More in-depth coverage on planetary health is offered in the elective class MDID 6004, but is not required for all students.

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

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

Score explanation: There is no faculty member who specifically oversees incorporation of planetary health and sustainable healthcare into the longitudinal curriculum. The medical school is about to implement major curriculum overhaul which provides a good opportunity to institute a faculty member focused on planetary health integration.

Section Total (26 out of 72)

36.1%

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**Interdisciplinary Research** 

<u>Section Overview:</u> 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 <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.

Score explanation: There are a number of researchers at SFESOM on interdisciplinary projects related to Planetary Health. Faculty members are 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. For instance, Dr. John Pearson is an anesthesiologist at the SFESOM who researches impacts of air pollution and wildfires on perioperative outcomes, among other sustainability projects. See <u>Global Change and Sustainability Center</u> for a list of faculty engaged in planetalry health research.

## 2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?

3	There is <b>at least one</b> dedicated department or institute for interdisciplinary planetary health research.
2	There is <b>not currently</b> a department or institute for interdisciplinary planetary health research, but there are <b>plans</b> to open one in the next 3 years.
1	There is an <b>Occupational and Environmental Health department</b> , but no interdisciplinary department or institute for planetary health research.
0	There is <b>no</b> dedicated department or institute.
Score explanation: The <u>Sustainability Office</u> runs the <u>Global Change and Sustainability Center</u> 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	

<u>Department</u>, but no specific interdisciplinary department for planetary health research. This has not changed from last year.

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

- <sup>3</sup>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.
- <sup>2</sup> 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: There is a process to get community feedback and identify community goals with the hospital, but it doesn't directly mention research. In community sessions they did find that air quality was a concern in the community. <u>University of Utah Health Hospitals and Clinics Community Health</u> <u>Needs Assessment 2021 - 2023</u> and <u>University of Utah Health Hospitals and Clinics Community Health</u> <u>Needs Assessment 2023 - 2026</u>.

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

- There is an **easy-to-use**, **adequately comprehensive** website that **centralizes** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
- 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 University of Utah Center for Global Change and Sustainability has a <u>webpage</u> which centralizes research, news, and seminars for the institution. However it lacks information on all campus events and funding opportunities. The hospital system also has a <u>website</u> with sustainability goals and initiatives in the hospital system, but lacks information on events, funding, and research.

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

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.

Global Change and Sustainability Center:

• <u>Research Symposium</u>:

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.

• <u>Global Change Seminar Series</u>:

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:

<u>Wallace Stegner Center Annual Symposium:</u>

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.

## 6. Is your <u>medical school</u> 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: As of 2019, the school has an active Practice Greenhealth membership in association with University of Utah Health. Additionally, while University of Utah as an institution has historically participated in the STARS reporting initiative, the medical school is not specifically evaluated in this scoring system.

Section Total (11 out of 17)

64.7%

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## **Community Outreach and Advocacy**

<u>Section Overview:</u> 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 <u>medical school</u> partner with community organizations to promote planetary and environmental health?

- <sup>3</sup> Yes, the **medical school** meaningfully partners with **multiple** community organizations to promote planetary and environmental health.
- 2 Yes, the **medical school** meaningfully partners with **one** community organization to promote planetary and environmental health.
- 1 The **institution** partners with community organizations, but the medical school is not part of that partnership.
- 0 No, there is **no** such meaningful community partnership.

Score explanation: SFESOM does not currently partner with any community organizations to address 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 the School of Medicine. The School of Medicine'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.

2. Does your <u>medical school</u> 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 <b>medical school</b> 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 <b>institution</b> has offered community-facing courses or events, but the <b>medical school</b> 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 hosts a community read/journal club discussion titled "Climate Changes Health and Health Equity." 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 <u>seminar series</u> with sustainability and climate change researchers from around the country, many of which touch on environmental health and justice. The U also has a sustainability podcast, "<u>Sustain</u>," that addresses the climate's effect on health in several episodes.

**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.

Score explanation: There is a student-driven initiative from the Sustainability in Medicine Student Interest Group within the Spencer Fox Eccles School of Medicine that coordinates with the Student Body Officers to provide one sustainability fact and/or tip in the weekly newsletter which is sent out to all students.

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

Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.

- 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 Graduate Medical Education (GME) does not offer any courses relating to planetary health and sustainable healthcare, according to the GME office.

# 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.

Score explanation: The University of Utah has some educational resources, such as the <u>Healthfeed</u> <u>blog</u> and a podcast "<u>The Scope</u>" 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. No new information was found this year as compared to last year.

6. Does your <u>medical school</u> or its <u>primary affiliated hospital</u> 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.

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. No new information was found this year as compared to last year.

#### Section Total (4 out of 14)

28.6%

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Additional community engagement and advocacy resources:

The University of Utah recently announced the Wilkes Center for Climate Science and Policy, with its stated goals to provide "transformative, integrative, and cutting-edge science, education, entrepreneurship, and practical solutions to tackle climate change in Utah, the United States, and the globe."

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

Score explanation: The Global Change and Sustainability Center at the University of Utah offers the <u>Sustainable Campus Initiative Fund</u>. Students, faculty, and staff can apply for up to \$10,000 to enact a sustainability project on campus. This is open to and <u>has been utilized by medical students</u>. Additionally, the <u>Seed2Soil Grant</u> encourages "any event to capture ideas for projects that would improve University operations in relation to sustainability" and is open for graduate students to apply.

**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.
- 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: There are opportunities for students to be involved in research and receive funding, such as the <u>Medical Student Research Program</u> and the <u>Rural and Underserved Utah Training</u> <u>Experience</u>, however these are not specific to planetary health or sustainable healthcare. Interested students are able to conduct relevant research, but they would need to seek out faculty working on those projects.

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 <b>medical school</b> 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 <b>medical school</b> 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 <b>no medical-school</b> specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation: The School of Medicine does not have a specific website for finding research projects or mentors. The University of Utah Global Change and Sustainability Center has a <u>website</u> with affiliated faculty across multiple schools and departments, including SFESOM. It is easy to find faculty in the School of Medicine and there is a brief description of research projects, however there is no contact information or information about ongoing initiatives.

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

- 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 with support from both the Green Team at the main hospital as well as faculty members within the School of Medicine.

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

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: <u>The Green Team</u> at the university hospital has one to two student liaisons representing each medical school class 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 2022-23 academic year.

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

2. The <u>Spencer S. Eccles Health Sciences Library</u> hosts multiple presentations throughout the year with varied topics relating to climate health and sustainability as well as social health and health equity.

3. There are currently no events in which students can learn directly from members of a local environmental justice community.

4. The Spencer S. Eccles Health Sciences Library has been the location of multiple environmentally-focused displays and events in the past year. "During Earth Week, April 18 – 22, we invite visitors of the Eccles Health Sciences Library to come and explore our seed library with an accompanying book display on topics related to health, sustainability, and growing food. The Sustainability in Medicine Interest Group will be displaying an interactive Earth Day exhibit highlighting the impacts of climate change on health, featuring art created with recycled medical waste."

The Marriott Library has also hosted artistic displays such as "<u>Embodied Ecologies</u>", which was the focus of intersecting disability with environmental justice and how our responses to climate change should be rooted in community equity.

5. The University of Utah offers a long list of local volunteer opportunities through the <u>Environmental</u> and <u>Sustainability Studies</u> 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 <u>Bennion Center Alternative Breaks</u> <u>Program</u>. 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 <u>Wilderness Medicine in the Alps</u> 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 <u>Parks, Recreation, and Tourism</u> department. The courses are led by professional instructors and include backcountry skiing, canyoneering, kayaking, and many more.

Another University of Utah organization, <u>Outdoor Adventures</u>, hosts similar, one-off activities to the Parks, Recreation, and Tourism department with little expense. These experiences are only available to U of U students.

#### Section Total (11 out of 15)

73.3%

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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 <b>at least one designated staff member</b> 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 <b>no specific staff member</b> in charge of medical school and/or hospital sustainability.	
1	There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee	
0	There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability	
the in humo now syste	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 humanbuilt systems. Moreover, with the recent creation of the U of U Health Green Team, the hospital now has salaried faculty members focused specifically on sustainability efforts related to 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. This has not changed from last year.	

2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?	
5	The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>
3	The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>
1	The institution/medical school has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b>
0	The institution/medical school does <b>not</b> meet any of the requirements listed above
	Score explanation: The University of Utah hospital system has taken the Health and Human Services Climate Pledge with the goal of carbon neutrality by 2040. <u>The 2010 Climate Action</u> <u>Plan</u> also provides descriptions of existing research, goals, and efforts across campus. The

University of Utah is currently in the process of updating and developing a <u>new climate action</u> <u>plan</u> to build on the efforts from 2010. The hospital system is collaborating with the broader university community to work toward this goal by reducing emissions on campus and with supply chain systems, as well as improving sustainability education and research. However, there is not a medical school-specific plan.

	<b>3.</b> Do buildings/infrastructure used by the <u>medical school</u> for teaching (not including the hospital) utilize renewable energy?	
3	Yes medical school buildings are 100% powered by renewable energy	
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.	
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.	
0	Medical school buildings source $<20\%$ of energy needs from off-site and/or on-site renewable energy.	
Score explanation: With the completion of the Castle Solar Project, at the end of 2022, <u>71% of the</u> <u>University of Utah's electricity usage</u> comes from renewable sources. Previously, around 53.7% came from renewable resources which is an exciting step forward. As part of the greater University of Utah		

campus, medical school buildings currently exceed over 20% usage of renewable energy.

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

- <sup>3</sup> 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 School of Medicine building has also elicited feedback from students about sustainability.

5. Has the <u>medical school</u> 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.

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. This is unchanged from last year.

6. Does your <u>medical school</u> 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 School of Medicine 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 the School of Medicine campus, however the student gardens on the main U of U campus has composting facilities.

Reusable aluminium water bottles are handed out by Wellness Services at the School of Medicine in order to reduce the need for disposable cups and plastic water bottles.

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

Score explanation: The Spencer Fox Eccles School of Medicine does not have any sustainability guidelines for food or beverages, either for choosing environmentally friendly food or reducing waste. Efforts focus mostly on buying in bulk or using pitchers to reduce plastic waste at the discretion of the purchaser.

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 <b>adequate</b> sustainability requirements for supply procurement <b>and</b> is <b>engaged</b> in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The medical school is <b>engaged</b> in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The medical school is <b>not engaged</b> in efforts to increase sustainability of procurement.
0	There are <b>no</b> 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 does not follow these guidelines when purchasing and there have been no efforts to implement	

them. This has not changed since last year.

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

10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?		
2	Yes, the medical school has <b>programs</b> and <b>initiatives</b> to assist with making lab spaces more environmentally sustainable.	
1	There are <b>guidelines</b> on how to make lab spaces more environmentally sustainable, but not programs or initiatives.	
0	There are <b>no</b> efforts at the medical school to make lab spaces more sustainable.	

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

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

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 are pending review and will likely also achieve at least LEED Silver Certification. No new information has been found since the completion of the last report card.

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

#### Section Total (12 out of 32)

2

37.5%

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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
А	80% - 100%
В	60% - 79%
С	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%)	$(26/72) \ge 100 = 36.1\%$	D+
Interdisciplinary Research (17.5%)	(11/17) x 100 = 64.7%	B-
Community Outreach and Advocacy (17.5%)	(4/14) x 100 = 28.6%	D
Support for Student-led Planetary Health Initiatives (17.5%)	(11/15) x 100 = 73.3%	В
Campus Sustainability (17.5%)	(12/32) x 100 = 37.5%	D+
Institutional Grade	(36.1%x0.3 + 64.7%x0.175 + 28.5%x0.175 + 73.3%x0.175 + 37.5%x0.175) = 46.5%	С

## **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.

