

Planetary Health Report Card (Medicine):

Mayo Clinic Alix School of Medicine -Arizona



2024-2025 Contributing Team:

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Land acknowledgment: We acknowledge that the Mayo Clinic in Phoenix, Arizona, is located on the ancestral lands of the Akimel O'odham, O'odham Jewed, and Hohokam peoples who have stewarded this land for generations. We honor and respect the enduring relationship these communities have with their traditional territories. We also recognize the sovereignty of the many Indigenous Nations of Arizona and commit to fostering relationships that reflect mutual respect and understanding.

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Summary of Findings

Overall Grade	D+
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Curriculum F+

- Currently there are no sustainability or planetary health topics included in the core curriculum at Mayo
 Clinic Alix School of Medicine Arizona (MCASOM AZ). Course materials are focused on medical
 pathophysiology in alignment with national medical education topics. However, last year's introduction of
 the Sustainability in Medicine elective course means that students can now choose to supplement their
 education with planetary health topics.
- **Recommendations**: We recommend each organ block within the core curriculum include a discussion of sustainability and environmental health, connecting the medical pathologies affecting that organ system to the world around it. This lecture should incorporate considerations of public health, environmental justice, climate change, sustainability, or other interdisciplinary topics relevant to the organ block.

Interdisciplinary Research

D

- Because Mayo Clinic primarily engages in clinical research, opportunities for research with
 interdisciplinary lenses of sustainability or environmental health are limited. Groups such as the Office for
 Sustainability work to showcase sustainability research from outside researchers and to support
 institution-based sustainability initiatives, but there is minimal to no planetary health research happening
 within the institution for students to engage in.
- **Recommendations**: MCASOM AZ could appoint a physician interested in planetary health within the groups mentioned above as a research mentor for students. Mayo could also consider hiring a research assistant in these departments to evaluate sustainability and planetary health efforts, lead projects, and collaborate with interested students.

Community Outreach and Advocacy

B+

- MCASOM AZ has community outreach through student initiatives from Medical R.E.N.E.W.A.L. and the Sustainability Interest Group, but lacks institutional support. While Mayo Clinic as an enterprise hosts many community events, a focus on the environment is lacking.
- **Recommendations**: Incorporate more planetary health partnerships, supported institutionally by appointing dedicated faculty/staff in the medical school to help build and maintain these relationships.

Support for Student-Led Initiatives

 \mathbf{C}

- MCASOM AZ supports student-led sustainability aims but requires students to take initiative to seek out such opportunities.
- **Recommendations**: Strengthen faculty-student relationships through mentorships programs to boost sustainability involvement. Include direct links to Mayo's sustainability efforts and research opportunities on the medical school webpage.

Campus Sustainability

D

- Mayo Clinic has taken steps to enhance campus sustainability, notably by reducing energy use and waste, but lacks investment in renewables and plans for carbon neutrality, with no dedicated staff for sustainability in the medical school.
- **Recommendations:** Appoint a sustainability representative within the medical school, create specific sustainability guidelines, and urge the institution to adopt ambitious climate goals, including carbon neutrality, while advocating for divestiture from oil and gas.

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

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

specifically targeted for medical students, can meet this metric.

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

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

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

Other considerations:

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

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

Planetary Health Curriculum

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

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?

Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)

Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)

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. (1 points)

No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)

Score Assigned:

Score explanation: The "Sustainability in Medicine" elective course was first offered in 2023 at MCASOM AZ. While it started as a longitudinal course, this year it was offered as a week-long virtual course with the following ESH/planetary health lectures: 1. OR Sustainability, 2. Environmental Impacts of Anesthesia, 3. Wildfires, Heat, and Malaria, 4. The Cancer Cost of Climate Change, 5. Forcing Partnerships for Community Adaptation to Escalating Wildfire Smoke Events, 6. Food as Medicine, 7. Drug Repository, and 8. Sustainability at Stanford. The remaining hours of the elective are dedicated to topic-specific lightning talks and completion of a Bronze Level Quality Improvement Certification.

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?

This topic was explored in depth by the core curriculum. (3 points)

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

This topic was covered in **elective** coursework. (1 point)

This topic was not covered. (0 points)	
Score Assigned:	1
Score explanation: This topic was discussed in the Wildfires, Heat, and Malaria lecture of the "Sustainability in Medicine" elective course.	

1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned: 1	
Score explanation: This topic was discussed within multiple lectures of the "Sustainability in	

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?		
This topic was explored in depth by the core curriculum. (3 points)		
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	1	
Score explanation: This topic was discussed within multiple lectures of the "Sustainability in Medicine" elective course.		

$1.5.\ Does\ your\ \underline{medical\ school}\ curriculum\ address\ the\ respiratory\ health\ effects\ of\ climate\ change\ and\ air\ pollution?$

This topic was explored in depth by the core curriculum. (3 points)

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

Medicine" elective course.

This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	1	
Score explanation: This topic was discussed within multiple lectures of the "Sustainability in Medicine" elective course.		

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	0
Score explanation: This topic is not addressed in any form at MCASOM AZ.	

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?		
This topic was explored in depth by the core curriculum. (3 points)		
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	0	
Score explanation: This topic is not addressed in any form at MCASOM AZ.		

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

This topic was explored in depth by the core curriculum. (3 points)

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

This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	0
Score explanation: This topic is not addressed in any form at MCASOM AZ.	

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

This topic was explored in depth by the core curriculum. (3 points)

This topic was briefly covered in the core curriculum. (2 points)

This topic was covered in elective coursework. (1 point)

This topic was not covered. (0 points)

Score Assigned:

1

Score explanation: This topic was discussed in the Sustainability in Medicine elective in the context of evaluating which groups of people are most exposed to climate change events - particularly wildfire smoke - in our society.

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned: 0	
Score explanation: This topic is not addressed in any form at MCASOM AZ.	

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

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

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

This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned: 0		
Score explanation: This topic is not addressed in any form at MCASOM AZ.		

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

This topic was explored in depth by the core curriculum. (3 points)

This topic was briefly covered in the core curriculum. (2 points)

This topic was covered in elective coursework. (1 point)

This topic was not covered. (0 point)

Score Assigned:

0

Score explanation: There is no planetary health curriculum at MCASOM AZ that specifically focuses on the surrounding areas.

1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?		
This topic was explored in depth by the core curriculum. (3 points)		
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	1	
Score explanation: The longitudinal "Investigating Native Health" elective explores food sovereignty and the cultural significance of water and the ways these intertwine with Native American identity and health.		

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

adults?		
This topic was explored in depth by the core curriculum. (3 points)		
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	0	
Score explanation: This topic is not addressed in any form at MCASOM AZ.		

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?								
This topic was explored in depth by the core curriculum. (3 points)								
This topic was briefly covered in the core curriculum. (2 points)								
This topic was covered in elective coursework. (1 point)								
This topic was not covered. (0 points)								
Score Assigned:	0							
Score explanation: Though the health benefits of plant-based diets were discussed in the Lifestyle Medicine presentation of Health Systems Sciences Foundations course, no mention was made about the environment or food systems. The "Food as Medicine" lecture of the Sustainability in Medicine elective also discussed the health but not environmental benefits of a plant-based diet.								

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?								
This topic was explored in depth by the core curriculum. (3 points)								
This topic was briefly covered in the core curriculum. (2 points)								
This topic was covered in elective coursework. (1 point)								
This topic was not covered. (0 points)								
Score Assigned: 1								
Score explanation: This topic was discussed within multiple lectures of the "Sustainability in Medicine" elective course.								

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	Score
The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points)	0
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 fulfil this metric. (2 points).	0
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 point)	0
Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	1
The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0
The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1

Score explanation:

- At MCASOM AZ, the Health Systems Sciences Foundations core curriculum presentation on High Value Care discussed how high value care involves both efficiency and avoiding waste (waste of equipment, supplies, ideas, energy).
- In the Blood and Blood Vessel lecture of the Histology course, one slide discusses waste of both blood and discarded plastic tubes amounting to roughly 238 L annually.
- Such topics are further addressed in the Sustainability in Medicine elective course

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?

Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)

Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points)

No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)

Score Assigned:

Score explanation: This topic is not covered in any form at MCASOM AZ.

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?

Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)

Only **elective** coursework includes strategies for taking an environmental history. (1 point)

No, the curriculum does **not** include strategies for taking an environmental history. (0 points)

Score Assigned:

2

Score explanation: Throughout the preclinical years at MCASOM AZ, in both the Basic and Advanced Doctoring courses, students are taught to take comprehensive histories including environmental and occupational exposures and practice applying these skills in simulated patient encounters. There was particular emphasis placed on gathering an exposure history during the Doctoring sessions corresponding with the Pulmonology course, as these simulated patient encounters often had notable military, natural, or built environment exposures relevant to the patient's presenting symptoms.

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?

Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)

Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)

No, there are **no** improvements to planetary health education in progress. (0 points)

Score Assigned:

0

Score explanation: There are no known improvements being made to MCASOM AZ's planetary health education.

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

Planetary health/ESH topics are **well integrated** into the core medical school curriculum. (6 points)

Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)

Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s). (2 points)

There is minimal/no education for sustainable healthcare. (0 points)

Score Assigned:

0

Score explanation: There is no integration of planetary health education into the core curriculum at MCASOM AZ.

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

Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)

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

0

Score Assigned:

Score explanation: There is no staff member responsible for integration of planetary health curriculum at MCASOM AZ.

Section Total (13 out of 72)	18.06%
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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary	health research and healthcare sustainability
research at your institution?	

Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)

Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)

There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)

No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)

Score Assigned:

Score explanation: There is no record of MCASOM faculty conducting sustainability research. There are faculty with interest in sustainability who are connected to the College of Medicine and Science more broadly but do not have involvement with the School of Medicine.

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

There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)

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. (2 points)

There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points)

There is **no** dedicated department or institute. (0 points)

Score Assigned: 1

Score explanation: While MCASOM AZ does have Occupational Health, it operates in a clinical and administrative capacity without any research groups. There are no planetary health or healthcare sustainability research initiatives listed in the research division of Mayo Clinic. The Office of Sustainability and the AZ Sustainability Subcommittee function to support sustainability initiatives rather than to conduct research in planetary health.

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

Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)

Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)

No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 points)

There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:

1

Score explanation: Mayo Clinic's <u>Community Engagement website</u> allows staff and community members to request a grant to fund ongoing research or volunteer efforts in the community at any of the three campuses, but the grant application appears to only be available for submission at the Rochester campus at this time.

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

There is an **easy-to-use**, **adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)

There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)

The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)

There is **no** website. (0 points)

Score Assigned:

2

Score explanation: Mayo Clinic has a page on their Community Engagement website titled "Environmental Stewardship" which broadly discusses aims of reducing waste, building for sustainability, and using water wisely. There is a website available on the Mayo Clinic Intranet entitled "Green at Mayo Clinic", which discusses Mayo Clinic's sustainability and program aims in greater detail. It also offers ways in which staff can become involved with environmental sustainability, including becoming a Green Avocate and joining the Green social media groups. This website is not specific to MCASOM initiatives nor geared towards students specifically.

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

Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)

Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)

Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)

The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

Score Assigned:

Score explanation: We found no evidence of planetary health conferences hosted at MCASOM AZ. The Office of Sustainability hosts Sustainability Grand Rounds about every other month but there has been no symposium organized with the primary topic of planetary health within the last three years.

2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation?

Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)

No, the institution is **not** a member of such an organisation. (0 points)

Score Assigned:

Score explanation: MCASOM is listed as a member of the Global Consortium on Climate and Health Education. The listing has Rochester, MN as the school's location. Because MCASOM is considered as one institution with three campuses, the Phoenix, AZ campus is assumed to also be a member of this organization.

1

29.41%

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Community Outreach and Advocacy

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

3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?

Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)

Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)

'The institution does not partner with community organisations, but **participates** in community focused events relating to planetary health. (1 point)

No, there is **no** such meaningful community partnership. (0 points)

Score Assigned:

3

Score explanation: MCASOM AZ has several medical school level collaborations with the community including via the Medical Re-allocating Equipment is Necessary to Eliminate Waste and Amplify Leadership (R.E.N.E.W.A.L.) Program which works with the community to gather and reduce waste of medical supplies through reallocation to community partners in need such as Phoenix Allies for Community Health, Refugee Education and Clinic Team, etc. Additionally, the Sustainability Interest Group partners with the city of Phoenix for a biannual Adopt-A-Road cleanup to beautify the Scottsdale community and to reduce trash in the area. Other partnerships which address health disparities which include the role of environmental influences include Feed My Starving Children, St. Mary's Food Bank, St. Vincent de Paul, Circle the City Respite Facility for the Homeless, and Arizona State University (ASU) for collaborative master's courses and week-long electives such as "Community Table," a course on evidence-based foods to advise patients on. Although not always directly related to climate change, principles throughout emphasize health disparities, local environments, and sustainability.

3.2. Does your <u>institution</u> offer community-facing courses or events regarding planetary health?

The **institution** offers community-facing courses or events at least once every year. (3 points)

The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)

The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)

The **institution** has not offered such community-facing courses or events. (0 points)

Score Assigned:

1

Score explanation: Mayo Clinic as an institution has hosted a couple of virtual events open to the public through the Office of Sustainability. Both of these events focused on ways in which Mayo is working to reduce its environmental impact. One describes how Mayo has joined the Better Climate Challenge, an initiative to reduce greenhouse gas emissions, and the other highlights sustainability efforts at a newly built hospital in the Mayo system. The medical school does not organize community-facing events regarding planetary health.

3.3. Does your <u>institution</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)

Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)

Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)

Score Assigned:

1

Score explanation: Students do receive regular communications about planetary health or sustainability through the Sustainability Grand Rounds which target all medical staff including medical students. The Sustainability Interest Group also sends out emails occasionally to include students specifically in community/ healthcare events and updates. Students can elect to join other email communications from the channels on sustainability such as the Green Committee or the Sustainability Interest Group.

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

Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)

Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)

There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:

2

Score explanation: As of April 2021, Mayo began hosting Sustainability Grand Rounds every other month. Every lecture is recorded and added to video exchange, which allows health professionals to view the videos at any time. Some of the previous topics include "Climate Change, Health and Health Care: How Health Professionals can Help," information on sustainability in food services, and energy conservation in the healthcare setting. Not all topics apply to the Arizona campus specifically, such as a webinar on the Rochester Air Network, but applicable lectures conducted in 2024 included "Genomics, Environmental Exposures and Health" and "Rooted in Wellness: Trees as Partners and Health and Healing." Additionally, the entire Mayo Clinic enterprise was invited to join the Drawdown Ecochallenge in 2023 and 2024 which was a fun and social way to connect the dots between climate solutions and climate actions to help reverse climate change.

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

Yes, the **institution** or <u>all</u> affiliated hospitals have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated medical hospitals have accessible educational materials for patients. (0 points)

Score Assigned:

0

Score explanation: Mayo has created disease-specific handouts that mention the effects of environmental exposures. One patient education handout entitled "Seven Strategies for Cancer Prevention" includes limiting exposure to second-hand smoke and pesticides on produce. Another handout entitled "Healthy Nutrition and Cancer" mentions organic foods but states they have not been definitively associated with lower cancer risk. "Instructions for Men to Maximize Sperm Quality for Fertilization" recommends avoiding environmental exposures such as herbicides and pesticides. These handouts are available online for use at all Mayo campuses.

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

Yes, the **institution** or <u>all</u> affiliated hospitals have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned: 0

Score explanation: There is no single comprehensive article on the link between planetary and human health as a whole. However, there are several articles, such as one on the exposome and another titled "Mayo Clinic Minute: Healthy environment leads to healthy life." Other accessible information for patients includes resources like a podcast Q&A about the effects of climate change on global childhood health and a news article about climate change and tick-borne infections. These are both online resources available to patients at all campuses.

Section Total (11 out of 14)	78.57%	
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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your <u>institution</u> offer support f	for students interested i	in enacting a su	ıstainability
initiative/QI project?			

Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)

The **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. (1 point)

No, the institution **does not** offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

Score explanation: MCASOM encourages sustainability related projects and there are grants available at an institutional level for QI projects. However, none of these grants are specifically targeted towards sustainability, and there are no sustainability-related QI projects mandated as part of the core curriculum, although it is mandated as part of the Sustainability in Medicine elective.

1

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

The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)

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. (1 point)

There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Assigned:

Score explanation: Although students are able to create their own research projects related to climate change and planetary health, there are no specific programs or fellowships available for these projects outside of elective courses.

1

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

The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)

There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)

There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:

0

Score explanation: Although the Mayo Clinic as an institution has a green webpage, this page is only accessible via the internal intranet and is not linked through the public medical school webpage. The webpage does not offer connection to mentors or opportunities for involvement in student initiatives such as the Sustainability Interest Group or the Medical R.E.N.E.W.A.L. Group.

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

Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)

No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)

Score Assigned:

2

Score explanation: The MCASOM AZ Sustainability Interest Group is a student-led initiative which has a faculty advisor for support and puts on events such as clothing swaps and donations, as well as biannual Adopt-A-Road cleanups. The Medical R.E.N.E.W.A.L. Group is a student-led initiative that reallocates unexpired medical waste to clinics and communities in need. There is also a Lifestyle Medicine group which has strong faculty and resident support and intersects topics of sustainability and how they relate to diet, exercise, and healthy living.

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

Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)

No, there is no such student representative. (0 points)

Score Assigned:

Score explanation: The Mayo Clinic has a student advocate on the Green Committee.

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score
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.	0
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.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1

Score explanation: The Wilderness Selective course teaches medical students about wilderness medicine and includes a camping trip for field practice. Mayo Clinic offers Sustainability Grand Rounds, which medical students are able to attend if they wish but they are not the primary intended audience of the event.

Section Total (7 out of 15)	46.67%
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Campus Sustainability

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

5.1. Does your institution have an Office of Sustainability?

Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)

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 hospital sustainability. (2 points)

There are **no salaried sustainability staff**, but there is a sustainability task force or committee. (1 point)

There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)

Score Assigned:

2

Score explanation: Mayo Clinic has had an Office of Sustainability since 2018 and there is currently one salaried Sustainability Director overseeing efforts enterprise-wide (Minnesota, Arizona, and Florida campuses). There are also several staff who hold a Green Committee Chair position, but they are not full-time sustainability staff. No person specifically represents the medical school in sustainability.

5.	2.	H	[ow	am	bit	iou	s is	s ye	our	<u>inst</u>	<u>itu</u>	<u>tioı</u>	<u>n's</u>	pl	an	to	red	luce	its	own	car	bon :	foot	priı	nt?	

The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)

The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)

The institution has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate** (1 point)

The institution does **not** meet any of the requirements listed above (0 points)

Score Assigned:

0

Score explanation: There is no proposed or written plan to achieve carbon neutrality. Mayo Clinic only has written plans to reduce emissions. As part of the <u>Better Climate Challenge program</u>, Mayo Clinic has achieved 9% emissions reductions from a 2019 base year. They have committed to reduce their greenhouse gas emissions 50% by 2032, but again not any focused on carbon neutrality.

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?

Yes, institution buildings are 100% powered by renewable energy. (3 points)

Institution buildings source >80% of energy needs from off-site and/or on-site renewable energy. (2 points)

Institution buildings source >20% of energy needs from off-site and/or on-site renewable energy. (1 point)

Institution buildings source <20% of energy needs from off-site and/or on-site renewable energy. (0 points)

Score Assigned:

0

Score explanation: Mayo Clinic Arizona utilizes less than 1% renewable energy, and does not currently have solar power implemented. Most sustainability initiatives focus around energy efficiency rather than utilizing renewable energy. Mayo Clinic was the recipient of a 2023 Practice Greenhealth environmental excellence award (Emerald Award and Greening the OR award) for these efforts.

5.4. Are sustainable building practices utilised for new and old buildings on the <u>institution's</u> campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?

Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)

Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)

Sustainability is **not considered** in the construction of new buildings. (0 points)

Score Assigned:

3

Score explanation: Mayo Clinic Alix School of Medicine - Arizona first opened in 2017, taking over a retrofitted space in a building in the Scottsdale location which was first opened in the 1980s. In 2025, the medical school moved to a newly constructed <u>building</u> adjacent to Mayo Clinic Hospital

at the Phoenix campus. Mayo Clinic also participates in the Better Buildings Alliance through the Department of Energy, and new buildings must comply with institutional sustainability guidelines modeled off of LEED, however they are not LEED certified.

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

Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)

The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)

The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)

1

Score Assigned:

Score explanation: <u>Students</u> have access to a free intercampus shuttle, which transports staff and students from the Mayo Clinic Hospital in Phoenix to the Mayo Clinic Alix School of Medicine in Scottsdale. There are currently bike routes to access the Scottsdale medical school campus, but no feasible way to access the Phoenix hospital via bicycle. Additionally, it can be extremely difficult to access off-campus clinical locations without a car, particularly partner student clinics and hospitals such as <u>St. Vincent de Paul</u>, <u>Refugee Education and Clinic Team</u>, and <u>Phoenix Children's Hospital</u>. Overall, Phoenix and Scottsdale are cities that essentially require a personal vehicle with very little public transportation infrastructure anywhere but downtown.

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

Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)

The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)

1

There is **no** compost or recycling program at the institution. (0 points)

Score Assigned:

Score explanation: Information on waste management is included on a community engagement page that dives deeper into <u>environmental stewardship</u>. Food waste on an institutional level is composted or repurposed into animal feed. There is no composting program within the medical school and no organic waste containers in any of the medical school buildings. Recycling is available in all medical school buildings.

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

Yes, the institution has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability. (3 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)

There are **no** sustainability guidelines for food and beverages. (0 points)

Score Assigned:

0

Score explanation: The medical school does not apply any sustainability criteria around food or beverage selection. There are only individual student efforts to reduce waste and eat local, meat-free food options through the Lifestyle Medicine Interest Group or the Sustainability Interest Group.

5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement?

Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)

There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:

1

Score explanation: There are <u>institutional sustainability guidelines</u> for supply procurement, and Mayo Clinic became a founding member of Greenhealth Exchange (a marketplace for sustainable purchasing) in 2017. However, the medical school is not engaged in efforts to increase procurement sustainability. Only items purchased through Mayo Clinic institutional channels are required to comply with Mayo Clinic guidelines.

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?

Every event hosted at the institution must abide b	y sustainability criteria. (2 points)							
The institution strongly recommends or incentivizes sustainability measures, but they are not required. (1 point)								
There are no sustainability guidelines for institution events. (0 points)								
Score Assigned:	Score Assigned: 0							
Score explanation: The medical school has no recommendations, incentives, or rules around sustainability of events.								
5.10. Does your <u>institution</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?								
Yes, the institution has programs and initiatives to assist with making lab spaces more environmentally sustainable. (2 points)								

Score Assigned:

Score explanation: There are institutional initiatives to make the lab spaces more sustainable, but no guidelines, programs, or initiatives from the medical school.

There are guidelines on how to make lab spaces more environmentally sustainable, but not

There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?

The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)

The institution is **entirely divested** from fossil fuels. (3 points)

programs or initiatives. (1 point)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)

Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

Score Assigned: 0

Score explanation: Mayo Clinic has several investments in fossil-fuel in <u>Oklahoma and Texas</u>. Oil and gas interests were originally donated to the Mayo Clinic in the 1990s and have since been expanded under the company <u>Latigo</u>. As of 2023, Mayo Clinic had <u>\$1.45 billion</u> holdings and investments in fossil fuels. Cumulatively, Mayo Clinic has made \$190 million in royalty income from these donated oil fields. There have been efforts to increase investments in ESGs, but no current initiative to divest from fossil-fuels.

Section Total (8 out of 32)	25%
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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%	
В	60% - 79%	
С	40% - 59%	
D	20% - 39%	
F	0% - 19%	

Planetary Health Grades for the Mayo Clinic Alix School of Medicine AZ

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(13/72) \times 100 = 18.06\%$	F+
Interdisciplinary Research (17.5%)	$(5/17) \times 100 = 29.41\%$	D
Community Outreach and Advocacy (17.5%)	(11/14) x 100 = 78.57%	B+
Support for Student-led Planetary Health Initiatives (17.5%)	(7/15) x 100= 46.67%	С
Campus Sustainability (17.5%)	(8/32) x 100 = 25%	D
Institutional Grade	(18.06x0.3 + 29.41x0.175 + 78.57x0.175 + 46.67x0.175 + 25x0.175) = 36.86%	D+

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which Mayo Clinic Alix School of Medicine AZ has participated in the Planetary Health Report Card initiative.

Planetary Health Report Card Trends for MCASOM AZ

