Planetary Health Report Card (Medicine) 2026:

Mayo Clinic Alix School of Medicine

2025-2026 Contributing Team:

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Land acknowledgment: Mayo Clinic Alix School of Medicine - Minnesota acknowledges that the land on which we gather in is the territory of the Wahpeton tribe who were a part of the alliance called Oceti Ŝakowiŋ — The Seven Council Fires. Within the Seven Council Fires, the Wahpeton people were a part of the Santee or Eastern Dakota tribe (mnhs.org). Anishinaabe and other Indigenous people also live in this area (nativegov.org).
These homelands are sacred to Indigenous Peoples throughout the region. We acknowledge their past, present, and future generations who forever call this place home. (Citation: https://native-land.ca/, https://rochesterlocal.com/land-acknowledgement/)

Summary of Findings

Overall Grade	B-

Curriculum	C-

- The Mayo Clinic Alix School of Medicine in Rochester, Minnesota (MCASOM) provides resources for students to understand the changing epidemiology and burden of various diseases affected by climate change, but connections to planetary health are not currently an explicit and emphasized part of the core curriculum. Planetary health is emphasized through two main modalities. One is a climate change-focused lecture given to M4 students as they approach graduation, which provides a comprehensive overview of the ways planetary health has affected public health outcomes. There are also a variety of planetary health and sustainability-informed week-long electives, which give medical students optional opportunities to explore topics in medical sustainability, nutrition, indigenous health, etc.
- **Recommendations:** Existing infrastructure in the MCASOM curriculum provide two main ways to integrate planetary health education. First, existing longitudinal courses on ethics, inclusive care, and psychology offer a platform to discuss health inequities and ongoing challenges driven by worsening planetary health. Second, pre-clerkship coursework could explicitly describe mechanisms by which environmental factors are affecting the morbidity and incidence of disease.

Interdisciplinary Research	C+

- Mayo Clinic has engaged in some research activities pertaining to planetary health and hosted conferences that included discussion of the subject in 2020. However, there is not a sustained focus on planetary health research or an organized database for collaborative opportunities.
- **Recommendations**: Mayo Clinic could organize a conference directly related to Planetary Health, and the Alix School of Medicine may consider joining the Planetary Health Alliance. Research on human-environment interaction, particularly pertaining to human health and medical sustainability, may be collated within the institution's Green Initiatives website.

Community Outreach and Advocacy	A+

- Mayo Clinic Alix School of Medicine has little community planetary health outreach. However, as an institution, Mayo Clinic has organized a handful of community-facing events about environmentalism and there are some patient education handouts that are marginally related to this topic. The Sustainability Grand Rounds is one key effort. Students have also independently supported community outreach in related areas. Combined, these efforts constitute a substantial effort to provide outreach and advocacy related to planetary health.
- **Recommendations**: Mayo Clinic could support more community partnerships and opportunities related to planetary health, specifically at the medical school level. MCASOM could organize events that allow students to learn about the Well-Living Lab and engage in discussion on planetary health topics.

Support for Student-Led Initiatives	B

- The Mayo Clinic Alix School of Medicine provides little support for student-led sustainability related initiatives. There are institutional programs such as the Green Advocate program for employees/staff of the Mayo Clinic, including medical students, to become involved in sustainability efforts across the institution, though public awareness about this opportunity is relatively limited.
- **Recommendations:** MCASOM could distribute an email at the beginning of the academic year informing new and current students about the Green Advocate program. Additionally, the school could include links to Mayo's sustainability efforts and research opportunities directly on the medical school webpage.

Campus Sustainability	C

- The Mayo Clinic institution has adopted several initiatives for improved campus sustainability, primarily focused around reducing energy consumption and unnecessary waste. However, there is limited investment in renewable energy and no current plans for carbon neutrality, even with future development plans. No staff represent the medical school specifically in the area of sustainability.
- **Recommendations:** Mayo Clinic Alix School of Medicine could appoint a sustainability representative within the medical school and establish medical school specific sustainability guidelines for events and procurement. We recommend that Mayo Clinic adopt more aggressive climate goals, including goals for carbon neutrality and encourage movement toward oil and gas divestiture.

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, and 4) community outreach centred on environmental health impacts 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 (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 the 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.

- **Extractivism:** 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).

Scoring Matrix

- Elective coursework (1 point): This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.
- Brief coverage in the core curriculum (2 points): This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. At minimum brief inclusion would qualify as inclusion in a single lecture slide in a single year.
- In depth coverage in the core curriculum (3 points): This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats.

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.

Updated in 2025, a complete literature review by metric is available for the 2024/25 Medicine Report Card Template. This largely translates across disciplines although we are hoping to expand this process across all of our covered disciplines. A link to the 2025 literature review by metric is available here.

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (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 point)	
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:	2

Score explanation: The Mayo Clinic Alix School of Medicine (MCASOM) offers a virtual Selective, 'Sustainability in Medicine' to medical students from both Arizona and Minnesota campuses. The course focuses on health burdens of climate change and sustainability efforts in greenhouse gas emissions and waste management among healthcare institutions. This elective coursework includes online modules and hour-long discussions throughout a week in November. Students participating in the course are anticipated to complete a sustainability improvement project, which may further involve the Mayo Clinic Green Committee to become a quality improvement project. Selected lecture topics include: 1. Environmental Impact of Anesthesia, 2. OR Sustainability - Going green in the operating room, 3. Wildfires, Heat, and Malaria: The Old and the New, 4. The Cancer Cost of Climate Change, 5. Forging Partnerships for Community Adaptation to Escalating Wildfire Smoke Events, 6. Food as Medicine, 7. Drug Repositories: Drug Recycling/Medication Re-Dispensing, 8. Sustainability on Campuses / Other Medical Institutions.

Other enrichments / selectives / interest groups that briefly cover topics related to planetary health include the 'Global Health Online Learning' Selective, the Global Health Equity Scholars Distinction Track, the 'Culinary Medicine' Selective, and the Lifestyle Medicine Interest Group.

Recommendations: *We recommend further integration of Education for Sustainable Healthcare (ESH) into popular existing optional enrichment course opportunities. Coursework with explicit Additional selectives pertaining to planetary health may also be of interest. Sample resources from the Planetary Health Alliance include the Medical Students for a Sustainable Future 2022 Curriculum Guide.*

Curriculum: Health Effects of Climate Change

1.2. Does your medical school 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:	2
Score explanation: MCASOM MN discusses extreme heat, wildfires, and air pollution briefly in the M4 course 'Transitions to Residency' under the lecture "Contemporary Topics in Health System Science: Climate Change." Several slides discuss potential links between climate change and kidney diseases in the pre-clerkship course 'Nephrology.' MCASOM continues to support education on such topics in 'Sustainability in Medicine,' an elective course (see 1.1). *These topics are not extensively covered elsewhere in the medical school's core curriculum. MCASOM no longer emphasizes EHS in an M1 longitudinal course, 'Inclusive Clinical Care' (ICC, formerly 'Inclusion, Diversity, Anti-Racism, and Equity (I-DARE)'). Previous iterations of the course discussed various climate change phenomena as a public health crisis, such as the lecture: "Case Study: Pacific NW Heat Wave June, 2021."* ***Recommendations:*** *We recommend introducing curricula specific to extreme heat and its associated health risks. We suggest inclusion of more explicit discussions regarding planetary health as a field and relevant topics. MCASOM students have contributed to resources that can introduce climate health in organ blocks, such as those on the Climate Resources for Health Education (CRHE) website. This resource may be best integrated into courses such as 'Cardiology,' 'Pulmonology,' 'Psychiatry,' and 'Inclusive Clinical Care'.*	

1.3. Does your medical school 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:	2

Score explanation: Extreme weather is briefly discussed in the M4 course 'Transitions to Residency' under the lecture "Contemporary Topics in Health System Science: Climate Change." MCASOM continues to support education on such topics in 'Sustainability in Medicine,' an elective course (see 1.1).

Recommendations: *Students may receive exposure through a session in longitudinal core curricula, such as 'Inclusive Clinical Care' or 'Disruptions in Development.' Discussions in this course may include how climate change causes supply chain disruption, infrastructure disruption, and financial instability. We also recommend inclusion of extreme weather events in existing climate change related lectures.*

1.4. Does your medical school 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:	2

Score explanation: Climate change is not explicitly covered in MCASOM's infectious disease curriculum. Connections between C. immitis spread and climate change were mentioned in passing in 'Microbiology,' but are not explicitly part of the curriculum. The increased risk and range of various meningitis/encephalitis-causing infectious diseases are mentioned in multiple slides in 'Neuroscience' coursework. Changing epidemiology of infectious disease attributed to climate change is discussed in the 'Sustainability in Medicine' selective (see 1.1).

Recommendations*: Pre-clerkship coursework, particularly 'Microbiology,' may include climate change impacts on the spread of infection disease. Foci include climate change-related increase in zoonosis risk, increasing transmission of mosquito-borne diseases, anthropogenic climate change ecosystem disruption and parasitic transmission of diseases.*

1.5. Does your 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)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation: Air pollution and respiratory health issues are briefly covered in the M4 course 'Transitions to Residency' under the lecture "Contemporary Topics in Health System Science: Climate Change." One slide deck available to the Contributing Team includes estimated reductions to premature death, asthma attacks, and lost workdays following investments in greenhouse gas reductions. MCASOM continues to support education on such topics in 'Sustainability in Medicine,' an elective course (see 1.1).

Recommendations: *Curriculum may integrate resources involving brief active participation such as a discussion about air quality in Rochester, MN. Further dedicated time in organ blocks such as 'Pulmonology' may include resources from CRHE.*

1.6. Does your medical school 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:	2

Score explanation: Cardiovascular health effects are mentioned as associated risks of mental health impact and air pollution due to climate change in the M4 course 'Transitions to Residency' under the lecture "Contemporary Topics in Health System Science: Climate Change" in two slides found by previous MCASOM MN Contributing Teams.

Recommendations: *Cardiology curriculum may include climate change effects, and this topic may be further developed in existing lectures.*

1.7. Does your medical school 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:	2

Score explanation: The Contributing Team found several slides in 'Transition to Clerkship' lectures acknowledging mental health climate impacts. One longitudinal course, 'Disruptions in Development,' addresses mental healthcare and neuropsychological aspects of medicine in a variety of topics; however, the effects of environmental degradation and climate change on mental health was not one of them. Topics that were addressed involved the legalization of recreational

drugs, discussions of obesity in medicine, thoughts and feelings around anatomic dissection and body donation, and disability justice.

Recommendations: *Integration of the relevance of climate anxiety and also environmental impacts on mental health broadly into the 'Psychiatry' and 'Psychology' blocks, as well as 'Disruptions in Development,' may greatly benefit students. Inviting impacted speakers to discussion sessions would be an intriguing avenue or opportunity.*

1.8. Does your medical school 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:	1

Score explanation: At MCASOM MN, 'Transitions to Residency' curriculum includes a slide mentioning food security connections to extreme weather, and highlights its impact on indigenous and farming communities in MN. However, limited information explores clean water scarcity, and the relationship between the four select topics in 1.8 is not explicitly identified. The relationships are more clearly discussed in elective coursework only.

These topics are explored in depth in elective coursework (see 1.1), and MCASOM offers elective coursework connecting to food insecurity, including 'Food Insecurity,' 'Connecting with the Community: Preventative Health Screenings at Bridges Health LifeGate Food Shelf,' 'Rural Outreach and Opportunities to Serve,' and 'Rural Medicine.' In addition, this topic is covered in 'Investigating Native Health Through Documentary,' a selective which explores topics in Native health through watching various documentary films. The topics covered include:

- *Stereotypes of Native American populations in film*
- *Social determinants of health & policy*
- *Food sovereignty*
- *Significance of water*
- *Substance use and mental health*
- *Traditional medicine*
- *The impact of pipelines*
- *The consequences of polluted water on indigenous communities*

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:	2
Score explanation: This topic is extensively covered through elective opportunities focused on sustainability (see 1.1) and indigenous community health (see 1.8). In core curricula, 'Transitions to Residency' covers health disparities experienced by racial, indigenous, and low SES groups. In 'Nephrology,' farming communities are mentioned as an at-risk group for chronic kidney disease of unknown etiology, with potential links to toxin exposures and climate change. ***Recommendations:*** *Linkages between climate change and marginalized populations could come from existing discussions of social determinants of health throughout longitudinal aspects of the MCASOM curriculum.*	

1.10. Does your medical school 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:	1
Score explanation: Health impacts of environmental degradation and climate charge are focused in local contexts at MCASOM MN in the core curriculum, as such, global unequal impacts are not a focus of the curriculum. Global inequities in the health impacts of climate change are primarily covered in elective coursework (see 1.1). Students may also further explore these unequal health impacts through a variety of global health resources available to the student body. ***Recommendations:*** *Foundational coursework and health equity-related lectures can provide a global health perspective in addition to existing education on climate health in local contexts.*	

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

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides, microplastics)?
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 'Rural Medicine' selective offered at MCASOM MN discusses common health issues affecting rural populations in the Midwest and Southeastern Minnesota, who have a close connection to the natural environment. This elective course includes a session discussing occupational hazards of raising livestock and farming leading to exposures to pesticides, zoonotic diseases, injuries, and infections. Reproductive-specific health effects were briefly mentioned in the curriculum. Reproductive health is not a focus of current sustainability-oriented elective coursework (see 1.1).

In pre-clerkship blocks – including 'Pathology,' 'Pharmacology,' and 'Microbiology' – MCASOM MN students become well acquainted with morbidities associated with industry-related environmental toxins like pesticides and air pollution (e.g., asbestos exposure and mesothelioma, aspergillosis, anticholinergic symptoms of pesticide exposure or toxicity), but reproductive health effects are not strong a strong focus of such discussions.

Recommendations: *Toxicology and toxidromes are well covered in various curricula, providing a strong platform to discuss reproductive health effects throughout early medical student education.*

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 points)

Score Assigned:	2

Score explanation: Students at MCASOM MN are well informed on health issues impacting their local community. In their M4 year, students receive lectures on public health issues in Minnesota and Olmsted County, where the Rochester, MN Mayo Clinic campus resides. Existing climate-related course content from the lecture "Climate & Health Policy Solutions to the Climate Crisis" provided to the Contributing Team discusses climate investments in Minnesota and their benefits. M4s also learn about state climate action policy and Minnesota-specific racial disparities are discussed in that same lecture.

Elective courses discuss climate health effects more extensively. The 'Rural Medicine' course discusses common health issues affecting rural populations in the Midwest and Southeastern Minnesota, who have a close connection to the natural environment. It includes a session discussing occupational hazards of raising livestock and farming leading to exposures to pesticides, zoonotic diseases, injuries, and infections. Local impacts are also discussed in the cross-campus course 'Sustainability in Medicine."

Recommendations: *Existing coursework on local health issues and working with local communities can provide an environmental context to students explicitly to strengthen core curricula.*

1.13. To what extent does your medical school 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: Indigenous knowledge and value systems are provided as part of the core curriculum at MCASOM, such as in 'Inclusive Clinical Care.' They are increasingly acknowledged in the school's coursework. However, their ties to planetary health solutions are more heavily covered in elective coursework (see 1.1 and 1.8). *There is additionally a selective rotation with Winslow Indian Healthcare in Winslow, AZ, which allows students to "learn about Native American health, family medicine, rural medicine and/or neurology at the Winslow Indian Healthcare Center (WIHCC), which. proudly serves eight-chapter communities in the Southwest region of the Navajo Nation, caring for an estimated 190,000 Native Americans." These opportunities are offered to both AZ and MN students alike. However, these selective opportunities do not directly educate students on the importance of Indigenous knowledge and value systems as essential components of planetary health solutions.*	

1.14. Does your medical school 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:	1
Score explanation: This topic is extensively covered through elective opportunities focused on sustainability (see 1.1) and indigenous community health (see 1.8). However, inequities experienced by marginalized populations are not a major focus of core curricula covering anthropogenic environmental toxins.	

Curriculum: Sustainability

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

This topic was explored **in depth** by the **core** curriculum. (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:	1
Score explanation: Sustainability elective courses cover this topic (see 1.1). There is a Lifestyle Medicine interest group which involves community gardening and discussions of the benefits of a whole-food, plant-based diet. There is also a 'Culinary Medicine' selective taught by a chef and registered dietitian. Additionally, the director of our GI curriculum is well-known as a plant-based diet advocate, however there are no core educational materials that tie together the environmental and health impacts of a plant-based diet. *There is also a 'Nutritional Medicine' selective offered, which "aims to narrow the gap [between the lack of nutrition education provided in the traditional medical school curriculum] by providing students a low-stress environment to complete online nutrition modules and in-person cooking sessions ... to better understand how culinary medicine is related to the areas of cardiovascular disease, diabetes, pediatrics, and cancer" However, this does not directly discuss the 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:	2
Score explanation: Slides provided to the Contributing Team from longitudinal courses describe how healthcare in the United States is responsible for 10% of the US's greenhouse gas (GHG) emissions and 27% of world's healthcare GHG emissions. To the Contributing Team's knowledge, most discussions on healthcare carbon footprints come from pre-clerkship lectures at MCASOM MN. A few slides mention the carbon footprint and water usage of dialysis and nephrology practice ("Nephrology" course). Some lectures in elective coursework, like 'Sustainability in Medicine,' further cover these topics (see 1.1).	

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 anaesthesia's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	1
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)	0

Score explanation:
1) The 'Disruptions in Development' course at MCASOM MN discusses the harms of over-prescribing, but environmental effects are not discussed. In addition, the benefits of lifestyle interventions on health are discussed but not in relation to their climate impacts.
2) M1 and M4 'Health Systems Science' (HSS) core curricula include sessions on high-value care which discuss the importance of utilizing resources effectively. Although they focus on cost savings and benefits to health, slides from sessions include the following discussions of environmental benefits of this approach:

- *"ORs produce 25-30% of total hospital waste. One routine surgery produces as much garbage as a family of 4 in one week."*
- *"The Environmental Footprint of Anesthesia / N2O Impact is 6x Worse than all VAs combined"*

3) These core curricular materials are also supplemented by the 'Sustainability in Medicine' Selective that discusses medication recycling/re-dispensing, going green in the operating room, electric ambulances, and energy-efficient hospitals/solar panels for hospitals.

Recommendations: *Pharmaceutical management is discussed heavily in the context of Pharmacology and geriatric care (Senior Sages). Environmental co-benefits of deprescribing, non-pharmaceutical health management, dry powdered inhalers, or waste reduction could be introduced as an additional consideration in either 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 point)
No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)

Score Assigned:	0

Score explanation: Strategies on how to discuss the health effects of climate change with patients are not taught in the current curriculum, per reported student experiences. Although students do not have formally taught strategies on discussing climate change with patients, simulated patient encounters include patients with concerns about environmental exposures.

Recommendations: *Two longitudinal courses, 'Foundations of Reasoning and Application in Medicine and Science (FRAMES)' and 'Inclusive Clinical Care,' offer opportunity to integrate physician-patient conversations about climate change.*

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: Score explanation: In the 'Foundations of Reasoning and Application in Medicine and Science (FRAMES)' curriculum at MCASOM, students are taught to take a full history, which includes asking about occupational exposures, pets, etc. Simulated patient encounters also include patients with concerns about environmental exposures and exposure-exacerbated asthma.

Recommendations: *FRAMES curriculum does not necessarily include explicit information and discussion about climate change exposures, such as wildfire smoke, and may familiarize students with these topics in a patient's history.*

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 have been discussions among students with some faculty members regarding the importance of climate change as a public health issue and efforts have been made to improve the curriculum. Continued development of the Sustainability in Medicine Selective is one positive outcome of previous dialogue. Students also have access to Sustainability Grand Rounds and recordings of ESH events held throughout the Mayo Clinic. Students who have participated in the "Sustainability in Medicine" selective have opportunities to discuss improvements with Mayo Clinic's Sustainability Committee. Additionally, presentations to the curriculum committee were receptive and meetings are scheduled to discuss ways of reviewing and incorporating climate change-related curricular elements. However, there are no explicitly identified curriculum action items on MCASOM's student feedback webpage related to planetary health education. Data inquiry by MCASOM admin also did not identify active core curriculum revision efforts related to planetary health on either campuses.

Recommendations: *As of 2026, the removal of key lectures in previous 'Inclusion, Diversity, Anti-Racism, and Equity' (I-DARE) – now 'Inclusive Clinical Care' (ICC) – curriculum iterations is of concern to us. Reintegrating planetary health reintegration into Inclusive Clinical Care and other curricula offers strong opportunities to improve ESH at MCASOM. We also recommend the Mayo Clinic to add education efforts to its strategic sustainability priorities.*

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core 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:	2

Score explanation: There is minimal coverage of ESH/Planetary Health in the core curriculum, primarily in standalone lectures and elective coursework. One ESH-focused lecture is provided in the M4 course "Transitions to Residency." In review of the curriculum, standalone lecture content (including ESH) may vary year-to-year, which increases difficulty in longitudinal ESH core curriculum integration.

Recommendation: *Regular integration of ESH into existing longitudinal courses taken during the pre-clerkship phase of medical school can provide longitudinal exposure to issues in planetary health and sustainability.*

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

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)

Score Assigned:	0

Score explanation: There is no dedicated faculty or staff member who is responsible for overseeing curricular integration of planetary health and sustainable healthcare, per MCASOM's website.

1.23. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?
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: MCASOM MN M1 students are extensively taught civic engagement and public advocacy through the "Inclusive Clinical Care" course. However, environmental advocacy is not a dedicated topic in the course. It is covered in elective coursework (see 1.1).

Recommendations: *Practical guidance may be provided to students using CRHE resources or Medical Schools Council (UK), Education for Sustainable Healthcare, A curriculum for the UK. These resources may supplement existing lectures provided to students.*

Section Total (33 out of 75)	**44.00%**

The Mayo Clinic Alix School of Medicine does not currently have any public-facing online curricular materials that reference planetary health, sustainable healthcare, or the intersections of climate change and health. The curriculum at a glance is available here, where course materials are broken down by each phase of the medical school curriculum. A review of available course material objectives did not identify areas where discussion about climate health is an explicit goal of core courses at MCASOM MN. The data used for this section of the PHRC reflects available course materials collected by the Contributing Team at a level of detail that is not always captured in the curriculum objectives. Future fact-finding efforts may more accurately capture available planetary health education and identify areas of improvement.

Mayo Clinic Alix School of Medicine does offer a number of student-led Selective Programs that explore various topics in healthcare. These are 20-hour "elective" opportunities that supplement the core curriculum. Students have also individually found opportunities to be involved in interest groups

which may delve into and/or teach topics indirectly related to planetary health -- for example, rural medicine, global health, and lifestyle medicine.

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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:	2
Score explanation: Though there are no specific planetary health or healthcare sustainability research initiatives listed in the general Mayo Clinic research division, there are faculty members at the institution who frequently conduct research related to planetary health/healthcare sustainability. There is a link to various sustainability-related web resources, including recent sustainability research conducted at the Mayo Clinic, under the Mayo Library website. *Additionally, new research on sustainability is presented regularly at the Mayo Sustainability Grand Rounds, accessible through the internal Mayo intranet to Mayo-affiliated employees and students. Many faculty members within the school of medicine also conduct sustainability and environmental exposure research in partnership with the Well Living Lab, with a mission to study the built environment and its impact on community and human health.*	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?
There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (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 point)
There is **no** dedicated department or institute. (0 points)

Score Assigned:	1

Score explanation: Though faculty are involved with research on planetary health through the Mayo Clinic's close collaboration with the Well Living Lab, there is no dedicated research department or institute within the Mayo Clinic that focuses on sustainability research.

The Mayo Clinic does have an Occupational and Environmental Health department.

***Recommendation:** Centralize current existing planetary health or healthcare sustainability research initiatives under one department or institute, allowing easier and comprehensive access to planetary health research opportunities for students or faculty who wish to get involved in sustainability work.*

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

Score Assigned:	2

Score explanation: There are opportunities for local community members to advise and give input on the Mayo Clinic's future research agendas and project decisions at the Research Information Center. Here, community members can help participate in and steer sustainability-related research decisions. However, this initiative covers all research happening at Mayo, and does not specifically emphasize environmental or sustainability-related topics.

2.4. Does your institution 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:	3

Score explanation: The Mayo Clinic school of medicine library contains a comprehensive compilation of sustainability-related web resources that range from broader sustainability research grant opportunities and books on sustainability to sustainability research and initiatives specifically within Mayo Clinic.

Additionally, Mayo Clinic has an Environmental Stewardship website that provides centralized information about the institution's overall current environmental goals and publicizes links related to needs assessment reports related to its goals.

There is another internal website, Green at Mayo Clinic, that lists sustainability programs, resources, and ways to get involved within the system via the Green Advocate Program, geared towards staff members who "have an interest or passion in sustainability, environmentalism, conservation or eco-friendly practices, habits and lifestyles who are helping promote a culture of environmental sustainability in their work units and engage their colleagues in working and living a more sustainable lifestyle".

2.5. Has your institution 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:	1

Score explanation: In 2025, Mayo Clinic collaborated with a local community clinic to hold a symposium + gala on topics related to planetary health, such as community wellness, plant-based diets, food addiction, mental health, and other similar topics. Though this was not hosted directly by the Mayo Clinic, the institution nonetheless provided financial and logistical support for the event.

The Mayo Clinic also regularly hosts CME courses, Grand Rounds, and specialty-specific conferences which frequently cover content closely related to planetary health, though none of these events have planetary health as the primary focus.

This institution has a strong history of collaborating with local community organizations and the city of Rochester to support sustainability-promoting events such as Rochester EarthFest, an Annual Waste and Recycling Fair, the One Healthcare Eco Challenge, and the Downtown Rochester Farmer's Market.

***Recommendation:** In coming years, organize and host a symposium focused on planetary health topics in order to continue furthering interdisciplinary planetary health research initiatives on top of pre-existing collaborations with community groups. Having such a symposium to present research at may also encourage more students and faculty within the institution to participate in planetary health research.*

2.6. Is your institution 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 point)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	1
Score explanation: Mayo Clinic is a publicly documented member of Practice Greenhealth, having collaborated with other members of the organization to conduct case studies and other planetary health-related planning. MCASOM is also listed as a member of the Global Consortium on Climate and Health Education.	

Section Total (10 out of 17)	**58.82%**

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Community Outreach and Advocacy

Section Overview: ***This section evaluates a school's 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 institution 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 collaborates closely with the Zumbro Valley Medical Society, a local society for physicians in southern Minnesota. One of Zumbro Valley Medical Society's core goals is to support environmental sustainability. Medical students have ample opportunity to join various committees, one of which is the Eco-Public Health Committee.

In 2024, MCASOM's lifestyle medicine student interest group began partnering with the Lotus Health Foundation's Farmacy Rx, an organization focused on providing healthy nutritious food and health information to the community and cultivating a community garden. Students are able to volunteer in the community gardens and help out with gardening tasks such as weeding, harvesting, and watering.

Since 2021, Mayo Clinic has partnered with the City of Rochester in developing bus rapid transit in downtown Rochester. Additionally, Mayo Clinic serves as a platinum sponsor Rochester's Annual EarthFest Expo, an event celebrating sustainability, environmental stewardship, and community connection.

In addition, MCASOM also collaborates with the Landing (Free Clinic) and Christ United Methodist Church (Culinary Medicine). Although not always directly related to climate change, principles throughout these organizations strongly emphasize health disparities, local environments, and sustainability practices.

3.2. Does your institution 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:	3
Score explanation: Mayo Clinic has participated in two virtual events currently available to the public online through the Office of Sustainability focused on ways that Mayo is attempting to minimize its environmental impact. Individuals representing Mayo Clinic presented "Better Climate Challenge – Mayo Clinic's Commitment & Strategies", describing how Mayo has joined the Better Climate Challenge, an initiative to reduce greenhouse gas emissions. This is now a seminar series held monthly and is open to the general public. The other presentation was titled "SI Chats - Mayo's New La Crosse Hospital" and highlighted sustainability efforts at a newly built hospital within the Mayo system.	

3.3. Does your institution 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:	2
Score explanation: Students are regularly included in email invitations to Sustainability Grand Rounds, which are held bimonthly and are open to all Mayo Clinic affiliated staff and students. Additionally, students have the opportunity to opt into internal broadcast channels on sustainability from the Green Committee or Mayo communications.	

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

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 providers. (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. Some topics for 2025 included "Addressing Climate Anxiety", "Active Commuting and Mindfulness Outdoors", "Recycling Operations", and "Environmental Impact x Cancer Care".

In 2022, Mayo also hosted a "Seminar for Nurse Anesthetists" for continuing education credits that included a lecture called "Code Blue, Location Earth: Climate Change, Health Impacts and how Anesthesia Professionals Can Make a Difference."

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)
Some affiliated hospitals have accessible educational materials for patients. (1 point)
No affiliated medical centres have accessible educational materials for patients. (0 points)

Score Assigned:	2

Score explanation: Mayo has created multiple disease-specific handouts that detail the effects of environmental exposures on health. 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 while stating 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. There are also several online educational resources about environmental exposure and human health. There are two video podcasts explaining how a lifetime of exposures impacts health and the exposome: 2020 and beyond." Additionally, there is a brief article explaining how environmental exposure contributes to human disease.

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

Yes, the **institution** or **all 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:	2
Score explanation: There are several articles, videos, and podcast episodes on environmental health impacts of climate change available online through the institution's webpages, Youtube, Spotify, and other social-media accounts. *There are several educational resources about environmental exposure and human health. There are two video podcasts explaining how a lifetime of exposures impacts health and the exposome: 2020 and beyond." Additionally, there are brief articles explaining how environmental exposure contributes to human disease and overviewing environmental health. There is also a podcast Q&A about the effects of climate change on global childhood health, another podcast episode on climate change and emergency medicine, and a news article about climate change and tick-borne infections. All of these resources are available to patients at all campuses.*	

Section Total (14 out of 14)	**100.00%**

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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your institution offer support for students interested in enacting a sustainability 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 fulfil 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:	2
Score explanation: MCASOM provides institutionally administered student funding mechanisms that explicitly support sustainability-focused QI and research initiatives. Students may apply for grants designated for projects addressing environmental sustainability, healthcare environmental impact, or related domains. Sustainability projects are not mandatory components of the curriculum, though students may choose to complete a sustainability project for the longitudinal research requirement.	

4.2. Does your institution 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 them 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:	1
Score explanation: Students in both the Rochester, MN and Jacksonville, FL campuses have opportunities to participate in research related to climate change and planetary health with select	

faculty advisors. However, there are no explicit distinction tracks, fellowship programs, or special concentrations specifically dedicated to sustainability.

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare 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:	1
Score explanation: The Mayo Clinic has an institutional webpage dedicated to highlighting current ongoing activities related to sustainability and planetary health, though mentors are not readily identifiable through the webpage. ***Recommendation:*** *Compile a list of current mentors that focus on or have a strong emphasis on planetary health and sustainable healthcare within the Mayo Clinic, and create a new section on the website listing these faculty as resources for students wishing to get involved in planetary health-related projects.*	

4.4. Does your institution 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: At Mayo Clinic, there is an Initiative for Medical Equipments Sustainability within the school. The Initiative for Medical Equipment Sustainability is a student group on the	

Rochester, MN campus that is dedicated to empowering healthcare professionals and technicians in developing countries through outreach focused on sustainable medical equipment and technology. *Additionally, there is an initially NIH-funded Lifestyle Medicine group with similar aims that approaches sustainability from a lifestyle perspective, with inclusion of discussion topics such as a whole, plant-based food diet and gardening as activities students can engage in. This group is primarily led by Mayo-affiliated Rochester Community Clinic through the Lotus Foundation, but MCASOM students have the opportunity to work closely with this group through selectives and volunteering activities.* ***Recommendation:** Integrate a climate-specific talk or session into volunteering activities and selectives offered through the Lifestyle Medicine group, specifically centering around how personal wellness and climate health are interconnected and how adopting interventions like a plant-based diet may benefit both personal health and environmental sustainability.*

4.5. Is there a student liaison representing sustainability interests who serves on a department or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative who serves on a department or institutional decision-making council/committee. (1 point)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
Score explanation: There is one position within the Mayo Clinic Sustainability subcommittee for a medical student. Students are welcome to partake in the Green Advocate program as well, which encourages initiatives to impact sustainability within different divisions of Mayo Clinic's workforce.	

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	**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.	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.	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.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1

Score explanation:

1. *The Lifestyle Medicine student interest group volunteers at the community garden led by the Rochester Community Clinic in order to gain experience in maintaining organic agriculture and sustainable food systems. This group also holds talks about environmental topics, such as the epigenetics of cancer and its linkages to diet, lifestyle, and other factors.*
2. *Mayo Clinic hosts the Sustainability Grand Rounds every other month for trainees and employees of the clinic to become more aware of sustainability efforts and issues around Mayo. Students are a welcome part of this audience.*
3. *N/A*
4. *N/A*
5. *Students may choose to partake in the Green Advocate program, where they can take initiative to best advocate for sustainability projects that may help the local community reduce its environmental footprint.*
6. *The Mayo Clinic allows students to participate in an institutionally organized camping trip via the Wilderness Medicine Selective, which allows students to immerse themselves in the wilderness through a camping and hiking excursion.*

Recommendations: *Consider incorporating a yearly talk on local environmental justice led by the community about the changing climate and environmental challenges that the community faces, especially by underserved or vulnerable populations within the city limits, into the Street Medicine selective, which most students choose to take prior to graduation.*

Section Total (11 out of 15)	**73.33%**

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Campus Sustainability

Section Overview: ***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 institutions, 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:	3
Score explanation: Mayo Clinic is exclusively health-focused with no associated undergraduate campus, thus there are currently only two salaried full-time sustainability staff member overseeing programs and efforts in healthcare sustainability programs enterprise-wide and for the hospital.There are physicians, technicians, and other full-time staff members involved in programs related to sustainability, including those chairing the Mayo Clinic Sustainability Committee, an energy engineer, and full-time staff members dedicated to running the recycling program on the Rochester campus.	

5.2. How ambitious is your institution's plan to reduce its own carbon footprint?	
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: The Mayo Clinic has made pledges for incremental progress to reduced carbon emissions, but does not have a commitment towards carbon neutrality. The Clinic is committed to a 50% reduction in greenhouse gas emissions and a 20% reduction in total energy use from 2022 levels by 2032; these commitments come after an initial 20% energy reduction from 2011-2017 through the United States Department of Energy Better Climate Challenge. Per Mayo Clinic's Energy Policy, over 90% of scope 1 & 2 emissions is greenhouse gas emissions.

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:	1
Score explanation: Rochester Public Utilities of the city of Rochester, MN, where MCASOM MN is located, met its 25% renewable energy by 2025 goal. Exact renewable energy accounting may be hard to ascertain. The 462 solar panels installed in a parking ramp used by Mayo Clinic (hospital and school) were removed as part of a larger demolition for Destination Medical Center / Bold. Forward. Unboard investments. These solar panels have been saved for potential future re-installation and use. These initiatives aim to improve sustainability for the Mayo Clinic. Most sustainability initiatives focus around energy efficiency rather than utilizing renewable energy. Mayo Clinic in Rochester was ranked a Top 25 hospital in sustainability by Practice Greenhealth in 2023. The health system is also a recipient of other Practice Greenhealth environmental excellence awards (Emerald Award, Greening the OR award, Circle of Excellence - Food) for these efforts at its smaller sites and for some of its efforts on the Rochester campus.	

5.4. Are sustainable building practices utilised for new and old buildings on the institution's 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: All older buildings in the Rochester campus have been retrofitted. According to a Mayo Clinic News Network publication, these changes have included "projects like:

- *Installing energy-efficient LED lighting in buildings and staff ramps*
- *Updating to more efficient computer workstations*
- *Recalibrating building automation systems that control a building's energy needs*
- *Resealing ducts"*

The Mayo Clinic also participates in the Better Buildings Alliance and Better Climate Challenge through the Department of Energy, and new buildings must comply with institutional sustainability guidelines modeled on LEED, though they are not LEED certified. With the Mayo Clinic Bold. Forward. Unbound project there is a commitment to have all new buildings as part of this project also supported by geothermal power, and will be pursuing LEED certification on its campus expansion project.

5.5. Has the institution 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)	
Score Assigned:	1

Score explanation: Students have access to a free intercampus shuttle and are eligible for free Rochester Public Transport bus passes. There are bike racks and protected bike rooms on both Rochester campuses, and the Mayo Clinic is recognized as a bronze level bicycle friendly business by the League of American Bicyclists. Active transportation modes are also emphasized during orientation, with a lecture and bike event. However, bicycle commuting is limited by poor bicycle infrastructure between campuses and in other parts of the city. There are safety concerns with this option, as three students were hit by cars during their active commute in 2022 and bikes have been stolen. Additionally, access to off-campus clinical locations can be challenging without a car.

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

Score Assigned:	1

Score explanation: Information on waste management is included on a community engagement page that dives deeper into environmental stewardship. Food waste on an institutional level is composted or repurposed into animal feed, and this primarily occurs from the hospital cafeterias. There is no traditional 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. There is now a Green Printing program available in the libraries and learning resource center at Mayo Clinic to reduce the accidental use of paper and printing.

5.7. Does the institution 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 a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability. (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:	2

Score explanation: Mayo Clinic as an enterprise contracts with Morrison/Compass Group which provides food service for the cafeterias which many employees as well as MCASOM students access. They have several guidelines regarding general purchasing policies for animal welfare and a sustainability report which does state an aim to reduce food waste, contribute to 9 of the UN Sustainable Development Goals, and a "Planet Promise" roadmap with a commitment to achieve climate net zero globally by 2050 for their company. Morrison/Compass group is a major caterer of campus events and many employees make use of their employee cafeterias on campus here in Rochester. From experience, students have been able to find a decent amount of food options within their dietary restrictions including gluten-free, halal, and so forth. Institutional food service sustainability goals do exist, including the discontinuation of styrofoam and increased selection of plant-based options and local foods (Revol Greens from Owatonna). The Rochester Food Service team did receive a Circle of Excellence award for Food from Practice Greenhealth last year for their great work purchasing local and sustainable food, reducing meat consumption, and reducing food waste. This award is given to the top 10 facilities of all applicants.

Recommendations: *Guidelines developed and published for on-campus events or local sourcing partners may increase sustainable practices for food and beverage services at Mayo Clinic. The clinic may also consider meat-free or red-meat-free days to reduce the carbon footprint of dining services.*

5.8. Does the institution 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:	2
Score explanation: The Mayo Clinic maintains an Environmentally Preferred Purchasing Policy (accessible to registered users only). Students are required to read through these policies at the start of onboarding in the medical school, though students do not regularly engage with these sustainability guides. The institution at large continues to operate by these policies. Mayo Clinic became a founding member of Greenhealth Exchange (a marketplace for sustainable purchasing) in 2017. Only items purchased through Mayo Clinic institutional channels are required to comply with these guidelines.	

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?	
Every event hosted at the institution **must** abide by 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:	1
Score explanation: Mayo Clinic continues to enforce environmental stewardship as part of its larger RICH TIES values framework, as stated in the institution's Code of Ethics and Conduct. Its environmental stewardship framework includes an Energy Policy, Energy Management Guidelines, and Environmentally Preferable Purchasing Policy, Waste Management and Recycling Policy. The institution also operates a Green Advocate program. However, events held by the medical school have not been required to seek more sustainable options. The impact of these policies and resources on medical school events has not been assessed by the Contributing Team.	

5.10. Does your institution 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)	
There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)	
There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)	
Score Assigned:	1
Score explanation: There are institutional guidelines, including a Green the Lab checklist (available only on the Mayo Clinic intranet on the Green @ Mayo Clinic page), to make the lab spaces more sustainable, but not necessarily programs or initiatives to assist with this. The checklist links to this external resource: My Green Lab.	

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)	
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 companies in Oklahoma and Texas. Oil and gas interests were originally donated to the Mayo Clinic in the 1990s and have since been expanded under the company Latigo. As of 2023, Mayo Clinic had $1.45 billion 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 Environmental Sustainability Goals (ESGs), but no current initiative to divest from fossil fuels.	

Section Total (15 out of 32)	**46.88%**

The Mayo Clinic Alix School of Medicine Minnesota campus primarily operates in the city of Rochester, MN. In November 2018, Rochester, MN became the first city in Minnesota to receive a LEED v4: Cities Gold rating. The city of Rochester has a pledge to reach 100% net renewable energy by 2030. The city reports reaching its 2025 target of 25% renewable energy through our local utility company, Rochester Public Utilities. The city has also reduced GHG emissions by 29% since 2007 (a 43% reduction per capita). The Mayo Clinic is listed as a potential partner in the city's Energy Action Plan, and the institution's Sustainability Director is a task force member of the city's Sustainability and Resiliency Community Work Plan. However, the city's mayor described difficulties in improving sustainability in the following note from a statement to the Minnesota House of Representatives:

> "*One of our biggest barrier to move to become a 100% renewable and carbon neutral city is that RPU is a long term contract with SMMPA. Times and technology have changed, but the contract does not. The contract makes it impossible financially to develop our own solar/wind resources as we would be required to sell the energy back to SMMPA at a rate so low as to not make it feasible…and we would then buy it back from them at the contracted rate. SMMPA is purchasing renewable power only in amounts to meet the state requirement, despite the low cost, making it impossible for us to make headway until the contract expires in 2030. RPU has committed to release a plan to meet the 100% renewable goal this year.*"

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Grading

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

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

Planetary Health Grades for the Mayo Clinic Alix School of Medicine – Minnesota.
The following table presents the individual section grades and overall institutional grade for the Mayo Clinic Alix School of Medicine – Minnesota on this Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(33/75) x 100 = 44.00%	C-
Interdisciplinary Research (17.5%)	(10/17) x 100 = 58.82%	C+
Community Outreach and Advocacy (17.5%)	(14/14) x 100 = 100.00%	A+
Support for Student-led Planetary Health Initiatives (17.5%)	(11/15) x 100= 73.33%	B
Campus Sustainability (17.5%)	(15/32) x 100 = 46.88%	C
Institutional Grade	**(44.00x0.3 + 58.82x0.175 + 100.00x0.175 + 73.33x0.175 + 46.88x0.175) = 62.03%**	**B-**

Report Card Trends

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