

# Planetary Health Report Card (Medicine):

# Icahn School of Medicine at Mount Sinai



Icahn School of Medicine at Mount Sinai

2024-2025 Contributing Team:

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Land acknowledgment:

We humbly acknowledge the land we occupy in New York City as being home to the Lenape nation. We honor the Indigenous people who protected this land as we strive to promote environmental stewardship and justice through the Planetary Health Report Card.

### **Summary of Findings**

#### **Overall Grade**

#### Curriculum

- The Icahn School of Medicine at Mount Sinai (ISMMS) has some climate curriculum in the pre-clinical years, but there is a lack of comprehensive coverage of climate-related topics. Sustained focus is required to ensure retention of existing content as the preclinical curriculum undergoes redesign.
- **Recommendations:** Climate change content should be further incorporated in the new curriculum through longitudinal integration throughout organ system blocks, increasing climate-related clinical opportunities, and discussing sustainable practices through partnerships with community organizations.

#### **Interdisciplinary Research**

- ISMMS is a member of the Global Consortium on Climate and Health Education, and is home to multiple hubs and departments dedicated to interdisciplinary planetary health research.
- **Recommendations**: While ISMMS has relationships with Community Based Organizations in East Harlem, community members can be given increased agency and decision-making power in the institution's ongoing research and projects relating to the environment.

#### **Community Outreach and Advocacy**

- ISMMS maintains partnerships with several community organizations relating to environmental health education and advocacy, promoting planetary health through public-facing brochures on environmental health and climate change topics and holding community events in which faculty spread awareness of environmental health issues.
- **Recommendations:** ISMMS should continue to integrate additional community partnerships, such as donation of used medical supplies to healthcare institutions in need, and increase their visibility to students and faculty through enhanced communication and expanding the programs' reach.

#### Support for Student-Led Initiatives

- Students contributed to the new curriculum by submitting environmental health content and serving on the Climate Change Selective Facilitators team, helping to develop and deliver climate change content. Several student groups relating to planetary health, sustainability, and/or wilderness appreciation remain active. Students can attend new environment and health webinars and ISMMS continues to have relevant webpages with resources.
- **Recommendations**: More funding and programming for medical student research and projects on planetary health are needed. Students could also benefit from more opportunities relating to food systems, art events about environmentalism, and environmental volunteering.

#### **Campus Sustainability**

- ISMMS has continued to improve on the campus' carbon footprint by constructing green buildings, retrofitting energy-intensive lighting and A/C systems, and introducing composting mandates to reduce food waste.
- **Recommendations**: Mount Sinai should consider adopting a more aggressive carbon neutrality target and increasing its renewable energy capacity. Expanding composting availability in cafeterias, implementing sustainability requirements for events, and ensuring sustainability practices are integrated into more areas of campus life would strengthen its overall environmental impact.

A

B

**C**-

Α

B-

**C**+

### **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 medical school's institutional priorities do not reflect the urgency of this danger to human health.

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

## **Instructions for Completing the PHRC**

**Thank you!** We are really pleased to have you and your team on board to complete the PHRC at your institution. Many of you will have already been part of a completed report card or even lead the team at your school but please take a moment to read the instructions below.

For a full comprehensive step-by-step guide to completing your report card please refer to the PHRC User Guide. This page serves as a brief overview of the important methodology.

#### **Completing the report card:**

The Planetary Health Report Card is a self assessment tool designed to identify an institution's strengths and areas in need of improvement in regards to its planetary health education. The metric-based report card consists of five sections; 1. Curriculum, 2. Interdisciplinary Research, 3. Community Outreach, 4. Support for Student-Led Initiatives and 5. Campus Sustainability.

• Metrics. There are roughly 55 metrics (depending on your discipline). Sections 2-5 are the same across all disciplines. Each metric has different criteria for either scoring 1, 2 or 3 points. Participants should read each metric carefully and answer the question with as much accuracy as possible, drawing upon multiple sources where possible. It is vital sufficient investigation is completed for each metric to give a fair and accurate representation of your institution.

Most of the Curriculum metrics are graded by inclusion in **elective** coursework, **brief** coverage in the **core curriculum** or **in depth** coverage in the **core curriculum**.

**Elective coursework:** 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**: 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. Brief inclusion would qualify as inclusion in a single lecture slide in a single year.

**In depth** coverage in the **core curriculum:** 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. Please consider amongst your team that this is the highest score awarded and a subjective decision must be made as to whether the topic should be awarded this score.

(A full list of definitions is provided on the below pages)

• **Types of evidence.** Acceptable forms of evidence include: lecture titles, learning objectives, module descriptions, descriptions of the intended learning, case titles, seminar titles, project titles, webpages, researcher profiles / biographies, news articles, publications, social media output, institutional policy documents. Please be as specific as possible.

It is essential that you have clearly justified the score for each metric, outlining in the box provided the specific content delivered in your curriculum and why you have assigned the score. Each report card is reviewed by a member of the leadership team for accuracy and consistency across report cards. An example of the sufficient level of evidence is provided below each metric.

Please do not include **lecturers' names** without permission. The title of the lecture or module with a brief description of the material will suffice.

Where material is publicly available via an institution's website, please include hyperlinks to the webpages.

• Evidence deadline. Any material from the previous academic year and the current academic year up to the draft deadline of the 17th February 2025 may be included in this report card. Any teaching planned after this date should not be scored in this report card but can be included in the 2025/26 report. You may wish to make a note of any such teaching for your colleagues producing next year's report card.

### **Definitions & Other Considerations**

#### **Definitions:**

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

specifically targeted for medical students, can meet this metric.

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

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

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

#### **Other considerations:**

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

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

### **Planetary Health Curriculum**

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

#### Curriculum: General

**1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?** 

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

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

The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health. (1 points)

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

Score Assigned:

3

Score explanation: The Icahn School of Medicine at Mount Sinai has a clinical elective course Environmental Pediatrics.

New from last year: The Icahn School of Medicine at Mount Sinai has an elective as part of its inquiry (THINQ) curriculum titled "Climate Change," which spans the course of a semester and has learning objectives related to climate change in medicine and environmental health research. Sessions include, for example: 1) Climate and Health Fundamentals, 2) Communicating about Climate & Health in Clinical Settings & with Healthcare Leaders, and 3) Climate Change in Public Health and Clinical Practice. The sessions included discussions with professionals working in the intersection of climate change and public health, didactic sessions, and cases.

Curriculum: Health Effects of Climate Change

**1.2.** Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?

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

This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was <b>not</b> covered. (0 points)		
Score Assigned:	1	

Score explanation: As part of the M2 InFocus 3 (a week dedicated to global and social health topics) curriculum at the Icahn School of Medicine at Mount Sinai, there were two climate-change specific lectures which addressed in-detail the relationship between extreme heat, health risks, and climate change. One group of students were also asked to engage with the topic and report back to the class.

New from last year: The ASCEND curriculum at the Icahn School of Medicine at Mount Sinai covers the topic of extreme heat and associated health risks in an elective class. This elective class discusses rising temperatures in depth, and it explores the many factors that make people vulnerable to climate change-related extreme heat, such as housing quality and energy security. There is also discussion of the heat vulnerability index and emphasis on resources to share and strategies to communicate with patients in a clinical setting.

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

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

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

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

This topic was **not** covered. (0 points)

Score Assigned:

Score explanation: As part of the M2 InFocus 3 (a week dedicated to global and social health topics) curriculum at the Icahn School of Medicine at Mount Sinai, there were two climate-change specific lectures which addressed in-detail the impact of extreme weather events on individual health and healthcare systems.

2

New from last year: In the new ASCEND curriculum, the Icahn School of Medicine at Mount Sinai briefly mentions extreme weather in the core curriculum. The relevant slides are clearly marked with "Climate Change Curriculum Infusion Project" and include discussions on how extreme weather is affecting food supplies (thus impacting nutrition and hunger) and thus contributing to immunodeficiency, diarrhea, and pneumonia morbidity.

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

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

This topic was <b>briefly</b> covered in the <b>core</b> curricu	lum. (2 points)
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	
Score Assigned:	2

Score explanation: As part of the M2 InFocus 3 (a week dedicated to global and social health topics) curriculum at the Icahn School of Medicine at Mount Sinai, there were two climate-change specific lectures which addressed in-detail the relationship between climate change and infectious disease.

New from last year: The Icahn School of Medicine at Mount Sinai addresses the impact of climate change on changing patterns of infectious disease through infographics on the projected changes in mosquito population ranges. There is also discussion of how changing mosquito distributions will put more people at increased risk for mosquito-borne illnesses.

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

This topic was explored in depth by the core curriculum.

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

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

This topic was **not** covered.

Score Assigned:

Score explanation: As part of the M2 InFocus 3 (a week dedicated to global and social health topics) curriculum at the Icahn School of Medicine at Mount Sinai, there was a climate-change specific lecture which addressed the respiratory health effects of climate change. Also during the InFocus 3 course, a subset of the M2 class participated in a community outreach session called "The Intersection between Environmental Justice & Health" facilitated by We ACT, which discussed climate justice and the effects of air pollution on school-age children in NYC. The M2 course Pulmonary Pathophysiology covered interstitial lung diseases, pneumoconioses, and occupational lung diseases in the "Occupational Lung Disease" and "Interstitial Lung Disease" lectures. While these topics are covered in depth, they were not explicitly connected to environmental health effects. Additionally, during the Pulmonary Pathophysiology course, a "Frontiers in Science" lecture was given on Epidemiology Research on Asthma and Lung Cancer, centered around research assessing various stove interventions in Africa.

2

New from last year: The ASCEND curriculum addresses the respiratory health effects of climate change in the elective class on climate change as part of its inquiry (THINQ) curriculum.

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

0

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

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

This topic was **not** covered.

Score Assigned:

Score explanation: No discussion of cardiovascular effects of climate change were in the curriculum.

New from last year: Nothing.

# **1.7.** Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

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

This topic was **not** covered.

Score Assigned:

Score explanation: As part of the M2 InFocus 3 (a week dedicated to global and social health topics) curriculum at the Icahn School of Medicine at Mount Sinai, there was a climate-change specific lecture which briefly addressed the mental health effects of climate change.

2

New from last year: Nothing.

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

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:	2
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Score explanation: As part of the M2 InFocus 3 (a week dedicated to global and social health topics) curriculum at the Icahn School of Medicine at Mount Sinai, there was one climate-change specific lecture which addressed in-detail the relationship between climate change and infectious disease. The talk centered specifically around biodiversity loss and pandemics, touching on ecosystem health and climate change. It did not address individual patient food and water security.

New from last year: A new addition to Mount Sinai, the ASCEND curriculum, offers an elective class on climate change as part of its inquiry (THINQ) curriculum. All three of the lectures given have covered the impact of climate on human health. However, its specific relationship with human health, patient food and water security, and ecosystem health was not covered.

1.9. Does your <u>medical school</u> 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.

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

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

This topic was **not** covered.

Score Assigned:

Score explanation: During the InFocus 3 course, a subset of the M2 class participated in a community outreach session called "The Intersection between Environmental Justice & Health" facilitated by We ACT, which discussed climate justice and the effects of air pollution on school-age children in communities of color within Harlem, NYC.

2

New from last year: The THINQ curriculum, an elective class on climate change, offered to M1s, addresses the outsized impact of climate change on marginalized populations. One of the lectures discusses the disproportionate impact of air pollution on marginalized populations, in the context of asthma diagnoses. Another lecture discusses how communities of color are more at-risk for negative consequences associated with climate change, such as extreme heat and increased flooding.

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

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

This topic was covered in elective coursework.

This topic was **not** covered.

I	Score Assigned:	0
	Score explanation: The Icahn School of Medicine regional health impacts of climate change globall	1

*New from last year: Nothing* 

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

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

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: In the Sexual and Reproductive Health course, there is a genitourinary lecture and lab that include material about the relationship between exposure to industrial toxins and bladder cancer, which can metastasize to the adjacent reproductive system. Another lecture mentions talc exposure as a potential risk factor for ovarian cancer.

2

New from last year: During InFocus 3 course, a subset of the M2 class participated in a community outreach session called "The Intersection between Environmental Justice & Health" facilitated by We ACT and within the lecture, there was a section devoted to the harmful effects of personal care products, including reproductive effects. The THINQ curriculum, an elective class on climate change, offered to M1s, discusses the negative impacts of global warming on pregnant women and their babies.

**1.12.** Does your <u>medical school</u> 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.

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

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

This topic was **not** covered.

Score Assigned:

Score explanation: During the Icahn School of Medicine InFocus 3 course, a subset of the M2 class participated in a community outreach session called "The Intersection between Environmental

1

Justice & Health" facilitated by We ACT, which discussed climate justice and the effects of air pollution on school-age children in communities of color within Harlem, NYC.

New from last year: The THINQ curriculum, an elective class on climate change, offered to M1s, also covers the impact of air pollution on school-age children in NYC. The curriculum also discusses climate health risks in NY, specifically increased mosquito-borne disease, inland flooding, tick-borne disease, harmful algae blooms, and coastal flooding.

**1.13.** To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: The Icahn School of Medicine at Mount Sinai did not cover the importance of Indigenous knowledge and value systems as essential components of planetary health solutions.

0

New from last year: Nothing

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

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: During the Icahn School of Medicine InFocus 3 course, a subset of the M2 class participated in a community outreach session called "The Intersection between Environmental Justice & Health" facilitated by We ACT, which discussed climate justice and the effects of air pollution on school-age children in communities of color within Harlem, NYC.

1

New from last year: Nothing

#### Curriculum: Sustainability

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

This topic was explored in depth by the core curriculum.

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

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

This topic was **not** covered.

Score Assigned:

Score explanation: As below.

New from last year: The benefits of plant-based diets for both the management of Type 2 diabetes and planetary health were included in optional reading materials accompanying the Molecular, Cellular Biology and Genetics Clinical Correlate Small Group Discussion 5 on Metabolism.

1

**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.

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

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: As below.

New from last year: The elective course on climate change offered to first year medical students as part of the THINQ curriculum addressed health care systems sustainability during the lecture 'Communicating About Climate Health in Clinical Settings and with Healthcare Leaders.' The carbon footprint of healthcare systems was no longer discussed during InFocus 3 (a week dedicated to global and social health topics during the second year curriculum).

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 <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment (2 points)	0	

The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfil this metric. (2 points).	0	
The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	0	
Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0	
The impact of <b>anaesthetic</b> gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0	
The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0	
<b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0	
Score explanation: As below. New from last year: The benefits of plant-based diets for both the management of Type 2 diabetes and planetary health were included in optional reading materials accompanying the Molecular, Cellular Biology and Genetics Clinical Correlate Small Group Discussion 5 on Metabolism. The other topics were not discussed.		

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

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

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

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

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

Score Assigned:

0

Score explanation: Strategies for having conversations with patients about climate change are not addressed in the core curriculum or elective curriculum.

New from last year: Nothing

**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: The Icahn School of Medicine at Mount Sinai discusses the Structural Vulnerabilities Checklist in the context of history-taking in the M1-M2 course the Practice of Medicine.

New from last year: Environmental history taking is also addressed in the clinical elective course Environmental Pediatrics. The climate change selective course offered through the THINQ curriculum addressed the use of a questionnaire to assess risk factors for health harms from heat or poor air quality.

#### 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:

Score explanation: Curriculum leadership seems open to incorporating more lecture-based content into the organ system blocks, but this effort is largely student driven and so far has not made significant progress.

2

New from last year: The Icahn School of Medicine at Mount Sinai is currently redesigning its preclinical curriculum. As part of this redesign, small amounts of climate change content have been integrated into small group discussion sessions and a new 4-hour minicourse focused on the intersection of climate change and health has been developed for first year students.

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

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

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

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

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

Score Assigned:

Score explanation: The initiative "The Climate Change Curriculum Infusion Project (CCCIP)" at the Icahn School of Medicine at Mount Sinai was completed in 2019 and introduced a longitudinal curriculum that spans throughout the preclinical years of undergraduate medical school education. Other than the topics mentioned in the In Focus 3 curriculum, all the climate content at the medical school has come from this initiative, which involves lecture slides incorporated longitudinally.

4

New from last year: Some of the CCCIP content has not been retained in the curriculum in subsequent years. The bulk of the planetary health-related content assessed in the report card was delivered within the standalone lecture during InFocus 3, which will be phased out as the curriculum is redesigned. The curriculum currently meets the criteria to receive 4 points, but further efforts will be needed to ensure we can maintain integration as the curriculum undergoes changes.

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

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

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

1

Score Assigned:

Score explanation: As below.

New from last year: Dr. Ravishankar Ramaswamy is the ASCEND Integrations Director responsible for integration of the Advocacy, Social Justice, and Anti-Oppression area of concentration during the process of redesigning the preclinical curriculum. This area of concentration includes a Climate Change sub-thread.

Section Total (31 out of 72)

43.1%

Back to Summary Page here

### **Interdisciplinary Research**

<u>Section Overview:</u> 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 <u>institution</u>?

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

3

Score Assigned:

Score explanation: The Icahn School of Medicine at Mount Sinai has an Institute for Climate Change, Environmental Health, and Exposomics, having one of the four core research at Center on Health and Environment Across the LifeSpan (HEALS), with a mission to "understand how environmental exposures in early life influence health, development, and risk of disease and dysfunction across the life span – in infancy, childhood, adolescence and beyond." 94 faculty members are listed to participate in this institute. Of these, several (e.g. Dr. Robert O Wright, Dr. Dania Valvi) conduct research in this domain as their primary focus.

New From Last Year: Reorganization and additional centres

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

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

There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)

3

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

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

Score Assigned:

Score explanation: The Icahn School of Medicine at Mount Sinai has three departments or institutes dedicated to interdisciplinary planetary health research: (1) Institute for Climate Change, Environmental Health, and Exposomics ("Our mission is to understand how environmental exposures affect health, disease, and development and to translate that knowledge into new strategies for prevention and treatment."), (2) The Icahn School of Medicine Center on Health and Environment Across the Life-Span (HEALS), ("our mission is to understand how environmental exposures in early life influence health, development, and risk of disease and dysfunction across the life span – in infancy, childhood, adolescence and beyond."). (3) Icahn School of Medicine Department of Environmental Medicine and Public Health ("Our department is deeply committed to the prevention of diseases with environmental origins, and we are shaping the future of environmental health research, clinical practice, and training the next generation of leaders in this field.")

New From Last Year: Reorganization

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 <u>institution</u>?

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

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

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

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

Score Assigned:

Score explanation: The Institute for Climate Change, Environmental Health, and Exposomics at Icahn School of Medicine has a few mechanisms by which disproportionately impacted communities can provide input. In addition to longstanding relationships with Community Based Organizations (CBOs) in East Harlem, the NIEHS-funded Community Engagement Core has a stakeholder advisory board consisting of representatives from several community organizations across the city. The institute is also working to strengthen the role that communities play in driving the research agenda through new initiatives including community grand rounds, pilot funding and technical support to CBOs, pilot project community reviewers, and creation of a youth climate justice advisory board.

New From Last Year: Nothing

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

There is an **easy-to-use**, **adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all 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:

Score explanation: The Icahn School of Medicine centralizes campus resources relating to health and the environment to an exclusive portal available at <u>https://mountsinaiexposomics.org/</u> (Previously at <u>https://icahn.mssm.edu/about/departments/environmental-public-health</u>). It contains upcoming events, recent environment medicine and public health news, and relevant funding opportunities.

3

New From Last Year: New Website

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

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

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

Yes, the **institution** has hosted a conference on topics related to planetary health / sustianable 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)

4

Score Assigned:

Score explanation: The Mount Sinai Institute for Climate Change, Environmental Health, and Exposomics held its ninth exposome symposium on May 27-29, 2024 discussing Research Implications for Alzheimer's Disease and Related Dementias (https://mountsinaiexposomics.org/2024sapporo/).

Additionally, ISMMS regularly conducts its Environmental Medicine and Climate Science (EMCS) Grand Rounds and Seminars at the <u>Department of Environmental Medicine And Climate Science</u>.

New From Last Year: Additional Events

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

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

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

Score Assigned:

Score explanation: The Icahn School of Medicine is a part of the Global Consortium on Climate and Health Education

1

(https://www.publichealth.columbia.edu/research/programs/global-consortium-climate-health-edu cation). Additionally, the Mount Sinai Transdisciplinary Center on Early Environmental Exposures is a National Institute of Environmental Health Sciences Core Center Grantee (https://reporter.nih.gov/project-details/10388170description).

New From Last Year: Nothing

Section Total (16 out of 17)

94.1%

Back to Summary Page <u>here</u>

### **Community Outreach and Advocacy**

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

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

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

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

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

3

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

Score Assigned:

Sinai maintains partnerships with Cada Paso (http://www.cadapaso.us/), WeAct (https://www.weact.org/), Clean and Healthy (https://cleanandhealthy.org/), Cafeteria Culture (https://www.cafeteriaculture.org/), Sixth Street Community Center, and other organizations. These are meaningful partnerships relating to environmental health education and advocacy, with Sinai faculty serving on advisory boards, and community organization representatives serving as Sinai advisors and co-applicants on grants.

Sinai also maintains a <u>Community Outreach Event Hub</u> that highlights various community events hosted throughout the health system. While not exclusively focused on planetary health, some events address environmental health topics (<u>here</u>, <u>here</u>, and <u>here</u>).

New from Last Year: Nothing

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

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

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

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

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

Score Assigned:

The Institute for Climate Change, Environmental Health, and Exposomics holds events where faculty regularly speak about health and the environment in community forums. Mount Sinai also maintains a Community Outreach Event Hub that highlights various community events hosted throughout the health system. While not exclusively focused on planetary health, some events featured address environmental health topics (here, here, and here).

3

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

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

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

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

Score Assigned:

Planetary health and sustainable healthcare topics are sometimes included in communication updates, particularly those that pertain to public health and healthcare delivery. However, the Institute for Climate Change, Environmental Health, and Exposomics regularly publishes articles and studies regarding climate change, environmental factors, and health which can be viewed <u>here</u>. New From Last Year: Nothing

1

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

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

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

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

Score Assigned:

2

The Icahn School of Medicine offers the following Residency and Fellowships: Occupational and Environmental Residency Program, which provides a clinical, research, and administrative training curriculum directed towards completion of required competencies in occupational medicine and general preventive medicine as outlined by the ACGME, and the NIH T32 Pediatric Environmental Health Fellowship, which provides trainees with training in environmental epidemiology, exposure biology / exposomics, geospatial modeling, microbiome, and toxicology. The Mount Sinai Global Health Training Center also trains residents, faculty, and fellows in climate change. Climate change, however, is not a primary focus of these programs.

New From Last Year: Nothing

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

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

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

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

Score Assigned:

The New York City Children's Environmental Health Center (NYSCHECK) at Mount Sinai serves as the Network Coordinating Center that provides expertise in environmental pediatrics, public health, and education/outreach, working closely with community partners in NYC and New York State. The Region 2 Pediatric Environmental Health Specialty Unit (PEHSU), located at Mount Sinai, is one of ten regional federal funded centers for providing clinical consultation and education to families, health care professionals, public health officials, and community organizations on concerns related to environmental exposures in children and pregnant women.

2

Environmental pediatricians and partners of Mount Sinai's NYSCHECK and PEHSU have created dozens of "Prescriptions for Prevention," which provide information for New York families to address common environmental health concerns, such as lead, secondhand smoke, mold, radon, space heater safety, and phthalates in consumer products. The front of each prescription provides simple steps for how to reduce exposure to the specific environmental health concern, and the back of each prescription lists resources that families can use to help address the concern. These prescriptions are available in English, Spanish, Chinese, French, Korean, Russian, Haitian Creole, Bengali, Arabic and Urdu- viewable here.

Additionally, the Mount Sinai Institute for Exposomic Research offers a Learning Hub dedicated to educating parents, caregivers, and community members, enabling them to make informed decisions regarding environmental exposures and health.

New From Last Year: Nothing

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

Yes, the **medical school** 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:

Mount Sinai's NYSCHECK has created and disseminated across New York "Prescriptions for Prevention" that specifically address climate change and its impacts, such as extreme heat, outdoor air pollution, flooding, mosquito-borne and tick-borne disease, and diarrheal disease. These prescriptions, available in English and Spanish, can be accessed <u>here</u>.

2

Additionally, the Mount Sinai Institute for Exposomic Research offers a Learning Hub dedicated to educating parents, caregivers, and community members, enabling them to make informed decisions regarding environmental exposures and health.

New From Last Year: Nothing

Section Total (13 out of 14)

92.9%

Back to Summary Page here

### Support for Student-Led Planetary Health Initiatives

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

4.1. Does your <u>institution</u> 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, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)

0

Score Assigned:

New from last year: Nothing

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

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

There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time. (1 point)

1

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

Score Assigned:

Sinai's Department of Environmental Medicine and Climate Science's <u>website</u> lists various laboratories and programs relating to environmental health research. Medical students could pursue research opportunities in at least some of these labs/programs.

New from last year: Nothing

4.3. Does the <u>institution</u> 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 medical school, 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)

2

Score Assigned:

Sinai's Medical Student Research Office has a list of mentors on its website, which includes mentors involved in climate change studies and environmental medicine. The website is available to Sinai medical students only. Sinai's MS4SF chapter has also compiled and shared a mentor list with its membership.

Sinai's Department of Environmental Medicine and Climate Science has a <u>website</u> listing faculty, events, progress, research programs, and more.

New from last year: Nothing

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

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

Yes, there is a student organisation at my medical school 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

Sinai has an active chapter of Medical Students for a Sustainable Future (MS4SF) with a faculty advisor.

*New from last year: Nothing* 

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

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

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

Score Assigned:

Sinai has a Sustainability Committee within its Student Council to advocate for and promote more sustainable practices. This committee comprises medical and graduate students.

1

New from last year: Medical Education invited students to contribute to the new curriculum for first year students by submitting content on intersectional topics; several medical students submitted climate and environmental health content. Additionally, two medical students serve on the Climate Change Selective Facilitators team, helping to develop and deliver climate change content to first year medical students.

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score	
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	0	
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1	
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	1	
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0	
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	0	
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1	
New from last year:		
Metric 2: The Institute for Climate Change, Environmental Health, and Exposomics launched a <u>webinar series on Environment and Health</u> , open to students.		
Metric 3: One of the sessions in the Climate Change Selective for first year students featured speaker who discussed her life growing up in an environmental justice community impacted traffic pollution and high asthma rates, which inspired her environmental advocacy and		

partnership with health professionals, including a physician at the session who detailed his role in working with community organizations to combat environmental injustice.

*Metric 6: Sinai's Wilderness Medicine Interest Group (WildMed) hosted two camping trips and one hike.* 

Section Total (9 out of 15)

60%

Back to Summary Page here

## **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 medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.

#### 5.1. Does your institution have an Office of Sustainability?

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

There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of hospital sustainability. (2 points)

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

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

Score Assigned:

Mount Sinai has a sustainability team made up of 10 full time employees spread across departments, including 7 full time employees in energy management, and several part time employees in food services, supply chain, and infrastructure. The sustainability program is overseen by the department of Environmental Health and Safety. The team was previously coordinated by an Associate Director of Corporate Sustainability, but this full-time employee left in February 2024.

3

New from last year: None.

#### 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/medical school does **not** meet any of the requirements listed above (0 points)

0

Mount Sinai has signed on to both the NYC Mayor's Climate Challenge and the U.S. Health & Human Services (HHS) Health Sector Climate Pledge. Signing the HHS pledge expanded the hospital's climate goal to a 50% reduction in greenhouse gas emissions by 2030 (based on a 2008 baseline), and net-zero by 2050. The hospital is on track to meet the 2030 goal with the progress it has made on energy and anesthetic gas reductions over the past several years.

New from last year: In 2024, Mount Sinai added to its institutional commitment by signing on to the New York State Insurance Fund Climate Action Pledge. This pledge reiterates the HHS pledge to reduce emissions 50% by 2030.

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

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

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

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

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

Score Assigned:

0

Currently, renewable energy is utilized in the Hess Building as it is eligible for hydropower through New York State. Approximately 40% of Hess is powered by hydropower from this program. The rest of the buildings on the Mount Sinai main campus are not eligible for this program and receive power directly from the NYC grid.

Due to the limited renewable energy available from the grid, thus far, Mount Sinai has focused its efforts on electrifying the campus and reducing its emissions through infrastructure upgrades.

New from last year: Mount Sinai receives approximately 7,500,000 kWhr of renewable energy from NYPA. Though the Downstate New York Grid only supplies 4% renewable energy, the electricity used by MSH/ISMMS is 9% renewable. Unfortunately, previous proposals to add solar panels on Sinai buildings were abandoned due to space constraints and high cost.

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

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

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

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

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

Score Assigned:

3

Mount Sinai has reduced its energy-related carbon footprint by 30% over the last 20 years. Most of these reductions have taken place in existing buildings, as the medical school's location in a dense urban environment does not leave space for new buildings. While each building is unique, renovation projects have included many elements defined in the LEED rating system and have complied with the most current energy code adopted by New York City. These modifications include switching to energy-efficient light bulbs, installing occupancy sensors, and optimizing natural light usage, improving insulation including installation of new facades and windows, installing state of the art HVAC controls, installing variable refrigerant flow (VRF) systems that allow simultaneous heating and cooling via electric-based refrigeration systems, installing low-flow water fixtures, removing all once-through cooling applications, and robust steam trap maintenance programs.

New from last year: Mount Sinai continues to construct and retrofit buildings to minimize carbon emissions. Mount Sinai has begun a NYSERDA funded decarbonization study at the MSH/ISMMS campus. The recently-opened Hamilton and Amabel James Center for AI and Human Health incorporated a VRF system for heating and cooling. Mount Sinai has also introduced many projects to upgrade lighting, heat recovery, and controls throughout its campus. Finally, Mount Sinai is in the process of signing a contract to retrofit the lighting system at the Icahn School of Medicine, which would reduce electricity by 2,100,000 kWh per year.

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

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

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

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

2

Score Assigned:

Mount Sinai's location affords easy access to public transportation, and most resources that students need to access are within walking distance of the campus. Students can also take the hospital-run shuttle to St. Luke's and Roosevelt Hospitals. However, the medical school does not provide students with discounted MetroCards to encourage the use of public transit for students commuting to other affiliated hospitals.

New from last year: There are a limited number of partially-subsidized CitiBike subscriptions that are awarded to students via lottery.

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

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

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

1

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

Score Assigned:

The medical school has a conventional recycling program with recycling bins accessible in most classroom spaces, student lounge areas, and student housing. Composting is available to students living in several Mount Sinai-affiliated residential buildings near the hospital, but is not yet available to students or faculty in classrooms or lounge spaces. In the cafeteria, food waste generated during cooking is composted using a biodigester, but composting collection is not currently planned for public spaces due to high contamination rates seen when trialing this program in the past. Sustainability staff are evaluating new technologies and programs that may allow for successful compost collection in public spaces again in the future.

New from last year: Students are now mandated to compost in Mount Sinai affiliated residences. Additionally, Mount Sinai strengthened its medical waste recycling programs by introducing an updated staff education module on proper waste segregation and disposal. With proper segregation, Mount Sinai has decreased landfill waste from being improperly placed in pharmaceutical waste, which has a higher carbon footprint. In 2024, Mount Sinai diverted 5.8M pounds of waste from landfills through its recycling program.

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

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

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

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

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

Score Assigned:	2
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Mount Sinai is committed to the Cool Food Pledge, which includes a 25% reduction of meat served in the cafeteria by 2030. All plastic food packaging in the cafeteria is biodegradable or certified compostable and the cafeteria has eliminated the use of styrofoam and PFAs. This is still insufficient, however, given that the cafeteria program does not include meat-free days or no red meat.

New from last year: Following a Plant Power 30 day challenge, the cafeteria committed to incorporating plant-forward foods in the new patient menu. This menu was debuted at a Food Expo in November of 2024. The cafeteria now includes a plant-based food item on the retail menu on a daily basis.

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

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

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

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

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

Score Assigned:

3

Mount Sinai has fully integrated sustainability criteria into its supply chain's procurement process. All vendors must complete a sustainability scorecard evaluating their internal climate goals, progress towards those goals, internal sustainability policies and practices, sustainable transportation of their products, and compliance with Mount Sinai's Environmentally Preferable Purchasing (EPP) Policy. The EPP policy was recently approved and will be enforced overtime as contracts for products are up for renewal. This policy requires manufacturers to meet strict safety requirements in line with PGH/HCWH and the European Union (e.g., restricting use of PFAS, phthalates, and heavy metals) while also meeting waste reduction requirements (e.g., reduced packaging, recyclable packaging, etc.). Additionally, Mount Sinai has representation on its Group Purchasing Organization's EPP Advisory Council, and a sustainability representative sits on every value analysis committee within the Health System. Altogether, these efforts have led to several new sustainable procurement initiatives such as the following: OR kit reformulation to greatly reduce waste, reusable sterilization trays to phase out blue sterile wrap, enhanced reprocessing programs to prevent single-use devices from immediately going to a landfill, and transitioning from multi-dose vials to pre-filled syringes to reduce pharmaceutical waste.

New from last year: None.

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:

There are currently no sustainability guidelines for medical school events, although sustainability staff have shown openness to working on this issue.

0

New from last year: None

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

Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)

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:

Lab recycling currently has high contamination rates, so sustainability staff have developed a poster to provide information about how to segregate waste streams in the lab. All staff complete annual training on waste management and the module for research staff was updated to include more language on sustainability this year. Laboratory spaces have implemented an enhanced recycling program, regulated medical waste reduction program, and a hazardous chemical waste reduction program within lab spaces. Additionally, sustainability staff have provided assistance with battery recycling and donation or transfer of lab equipment instead of disposal when feasible. The Green Team coordinated by the Associate Director of Corporate Sustainability is exploring additional strategies to improve sustainability in laboratory spaces.

1

New from last year: None

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:

4

The investment pool for the Icahn School of Medicine and Mount Sinai Health System has not previously held and does not currently have any investments dedicated to fossil-fuel companies.

New from last year: None.

Section Total (19 out of 32)	59%

Back to Summary Page here

### Grading

#### **Section Overview**

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

Letter Grade*	Percentage	
А	80% - 100%	
В	60% - 79%	
С	40% - 59%	
D	20% - 39%	
F	0% - 19%	

\*Within each grade bracket, a score in the top 5% ( $_5$  to $_9$ %), receives a "+", and a score in the bottom 5% ( $_0$  - 4%) receives a "--". For example, a percentage score of 78% would be a B+.

[Please input your scores HERE]

#### Planetary Health Grades for the Icahn School of Medicine at Mount Sinai

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

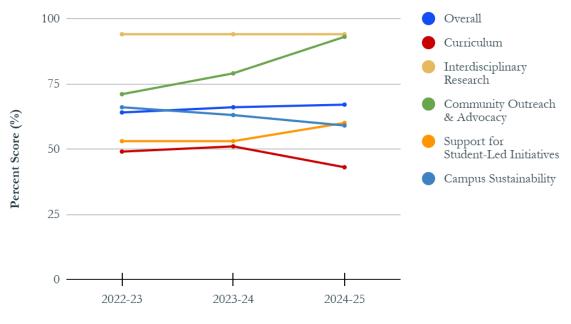
Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(31/72) \ge 100 = 43.1\%$	C-
Interdisciplinary Research (17.5%)	(16/17) x 100 = 94.1%	А
Community Outreach and Advocacy (17.5%)	(13/14) x 100 = 92.9%	А
Support for Student-led Planetary Health Initiatives (17.5%)	(9/15) x 100= 60.0%	B-
Campus Sustainability (17.5%)	(19/32) x 100 = 59.4%	C+
Institutional Grade	(43.1x0.3 + 94.1x0.175 + 92.9x0.175 + 60.0x0.175 + 59.4x0.175) = 66.5%	В

### **Report Card Trends**

#### **Section Overview**

This graph demonstrates trends in overall and section grades for the years in which the Icahn School of Medicine at Mount Sinai has participated in the Planetary Health Report Card initiative.





Academic Year