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# Planetary Health Report Card (Medicine): *Icahn School of Medicine at Mount Sinai*

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Icahn School  
of Medicine at  
**Mount  
Sinai**

2022-2023 Contributing Team:

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## Summary of Findings

Overall	B-
<u>Curriculum</u>	C
<ul style="list-style-type: none"> <li>The Icahn School of Medicine at Mount Sinai does include some climate curriculum in the pre-clinical years. A large portion of the climate curriculum was included within several stand-alone lectures. Longitudinal climate curriculum was sporadically present. There is a lack of comprehensive coverage of climate-related topics.</li> <li><b>Recommendations:</b> There is a lack of clinical opportunities for students to practice discussing/engaging with climate health topics. There is also no discussion regarding sustainable clinical practices. This could be introduced in the clinical years or by furthering partnerships with community organizations. Better visibility of climate change topics is necessary; this could be achieved by incorporating climate topics into assessment materials and clinical vignettes.</li> </ul>	
<u>Interdisciplinary Research</u>	A
<ul style="list-style-type: none"> <li>The Icahn School of Medicine 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. It organizes this research and associated conferences in a centralized website.</li> <li><b>Recommendations:</b> While the Icahn School of Medicine 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.</li> </ul>	
<u>Community Outreach and Advocacy</u>	B
<ul style="list-style-type: none"> <li>The Icahn School of Medicine Mount Sinai has made good progress in community outreach relating to planetary health. NYCSCHECK and PEHSU at ISMMS have promoted planetary health to New Yorkers through public-facing brochures on several environmental health and climate change topics (Prescriptions for Prevention). During InFocus courses during the first year of medical school and clinical electives, students are able to work directly with community partners on environmental justice crisis issues, such as asthma, air pollution, and mold exposures. Since 2019, the Mount Sinai Institute for Exposomic Research has hosted the Clinical Climate Change Conference, an annual continuing medical education conference that focuses on the latest planetary health-related research and ways to advance patient health and education.</li> <li><b>Recommendations:</b> ISMMS should continue to integrate more community partnerships relating to planetary health. There is room for improvement in hosting events or courses related to planetary health for medical education and student training. In addition, ISMMS should consider sending out more communication regarding planetary health to trainees, faculty, and other members of the school/hospital.</li> </ul>	
<u>Support for Student-Led Initiatives</u>	C
<ul style="list-style-type: none"> <li>The Icahn School of Medicine has several student groups relating to planetary health, sustainability, and/or wilderness appreciation: the Greening/Sustainability Committee of Student Council; WildMed; the One Health and Emerging Pathogens Interest Group; and our chapter of MS4SF. Students can attend planetary health-related events, such as the annual Climate Change Conference. Sinai has relevant web pages about planetary health research and programs, which medical students can pursue; however, dedicated programming and funding for medical student research and projects on planetary health appear to be lacking.</li> </ul>	

- **Recommendations:** More funding and programming for medical student research and projects on planetary health is needed. Sinai could also benefit from more opportunities relating to food systems, environmental justice, art events about environmentalism, and environmental volunteering.

## Campus Sustainability

**B**

- The Icahn School of Medicine has implemented many initiatives to improve supply procurement, conserve energy in existing buildings, and reduce waste in clinical and laboratory settings. The institution has taken steps toward further systemic changes by divesting from fossil-fuel investments and setting goals for carbon neutrality.
- **Recommendations:** Areas needing the most improvement include increased usage of renewable energy throughout the healthcare system as well as further implementation of composting within the hospital and cafeteria. Further, we suggest that the medical school create sustainability guidelines relating to purchases for its catered events.

## Statement of Purpose

*Planetary health is human health.*

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

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

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

centered on environmental health impacts 5) medical school campus sustainability.

# Definitions & Other Considerations

## Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimizes use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
  1. Describe how the environment and human health interact at different levels.
  2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
  3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Medical School vs. Institution:** When “medical school” is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more

broadly. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions providers are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mold after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

**Other considerations:**

- If there are more than one "tracks" at your medical school with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples).

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

# Planetary Health Curriculum

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

## Curriculum: General

1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered <b>more than one</b> elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does <b>not</b> have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a <b>lecture</b> on planetary health.
0	No, the medical school has <b>not</b> offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>The Icahn School of Medicine at Mount Sinai has not offered elective courses on Sustainable Health Care or Planetary Health in the last year.</i></p>	

## Curriculum: Health Effects of Climate Change

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

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

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

*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.*

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

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

*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.*

*The M1 Medical Microbiology course also covered this topic extensively in the “Bacterial biology and mechanisms,” “Bacterial GI pathogens,” “Vector-borne and zoonotic bacterial infections,” “Viral vector borne infections and zoonoses,” and “Global perspectives” lectures.*

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

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

*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.*

*Additionally, during the Pulmonary Pathophysiology course in the M2 year, a “Frontiers in Science” lecture was given on Epidemiology Research on Asthma and Lung Cancer, centered around research assessing various stove interventions in Africa.*

*As part of the M1 InFocus 1, a subset of the M1 class visited community-based organizations (AIRnyc and Little Sisters of the Assumption) that help families modify the home environment to remove environmental triggers for asthma exacerbation.*

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

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

*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 cardiovascular effects of climate change.*

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

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

*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.*

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

3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.

0	This topic was <b>not</b> covered.
<p><i>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. One talk centered specifically around biodiversity loss and pandemics, touching on ecosystem health and climate change.</i></p> <p><i>Patient food and water security was not discussed in the curriculum this past year.</i></p>	

<p><b>9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?</b></p>	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>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 health disparities related to 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 &amp; 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.</i></p>	

<p><b>10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?</b></p>	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>The Icahn School of Medicine at Mount Sinai did not address the unequal regional health impacts of climate change globally.</i></p>	

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

<p><b>11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?</b></p>	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.

2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>The Icahn School of Medicine 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.</i></p>	

12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>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 &amp; 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.</i></p>	

13. To what extent does your <u>medical school</u> emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	Indigenous knowledge and value systems are <b>integrated throughout</b> the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included <b>briefly</b> in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>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.</i></p>	

14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.

2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>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 &amp; 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.</i></p>	

***Curriculum: Sustainability***

<b>15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum.
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>The Icahn School of Medicine at Mount Sinai did not cover the environmental and health co-benefits of a plant-based diet.</i></p>	

<b>16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?</b>	
3	This topic was explored <b>in depth</b> by the <b>core</b> curriculum
2	This topic was <b>briefly</b> covered in the <b>core</b> curriculum.
1	This topic was covered in <b>elective</b> coursework.
0	This topic was <b>not</b> covered.
<p><i>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 touched on the carbon footprint of healthcare systems.</i></p>	

<b>17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)</b>	
2	The health <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment

2	The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfill this metric.
1	The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of <b>anaesthetic</b> gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	<b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	<i>The Icahn School of Medicine at Mount Sinai did not cover sustainable clinical practices in the core curriculum.</i>

### *Curriculum: Clinical Applications*

<b>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?</b>	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the <b>core</b> curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in <b>elective</b> coursework.
0	No, there are <b>not</b> strategies introduced for having conversations with patients about climate change
<i>The Icahn School of Medicine at Mount Sinai did not cover strategies to have conversations with patients about the health effects of climate change in the core curriculum.</i>	

<b>19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?</b>	
2	Yes, the <b>core</b> curriculum includes strategies for taking an environmental history.
1	Only <b>elective</b> coursework includes strategies for taking an environmental history.
0	No, the curriculum does <b>not</b> include strategies for taking an environmental history.

*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 Art and Science of Medicine.*

**Curriculum: Administrative Support for Planetary Health**

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

4	Yes, the medical school is currently in the process of making <b>major</b> improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making <b>minor</b> improvements to ESH/planetary health education.
0	No, there are <b>no</b> improvements to planetary health education in progress.

*The Icahn School of Medicine at Mount Sinai is currently undergoing a complete curriculum redesign, and the medical education committee members involved have expressed willingness to include planetary health topics in “threads” for the future curriculum.*

*The mandatory Global Health-focused InFocus 3 for M2 students also integrated 2 lectures and 1 small group session focused directly on climate change.*

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

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

*The initiative “The Climate Change Curriculum Infusion Project (CCCIP)” at the Icahn School of Medicine at Mount Sinai introduced a longitudinal curriculum that spans throughout the pre-clinical 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. However, the bulk of the planetary health-related content assessed in the report card was delivered within the standalone InFocus lectures.*

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

1	<b>Yes</b> , the <b>medical school</b> has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
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0	<b>No, the medical school does not</b> have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
<i>The Icahn School of Medicine at Mount Sinai does not 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.</i>	

<b>Section Total (x out of 72)</b>	<b>35</b>
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*The Climate Change Curriculum Infusion Project (CCCIP) is a student-led, faculty supported initiative to coordinate the introduction of climate change content in the preclinical curriculum at ISMMS that began in 2018. The initiative included pre-made slides that were infused longitudinally into multiple courses throughout the first and second years of undergraduate medical education. Through this project, the impacts of climate change on the pathophysiology of various organ systems, including neurology, cardiology, microbiology, immunology, and pulmonology, were discussed, albeit briefly. This longitudinal approach can not be completely appreciated through the existing PHRC questions above.*

# Interdisciplinary Research

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

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u> ?	
3	Yes, there are faculty members at the <b>medical school</b> who have a <b>primary</b> research focus in planetary health <b>or</b> healthcare sustainability.
2	Yes, there are individual faculty members at the <b>medical school</b> who are conducting research <b>related</b> to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the <b>institution</b> , but none associated with the medical school.
0	No, there are <b>no</b> planetary health and/or healthcare sustainability researchers at the <b>institution</b> or <b>medical school</b> at this time.
<p><i>The Icahn School of Medicine at Mount Sinai has a Transdisciplinary Center on Early Environmental Exposures 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.” 97 faculty members are listed to participate in this center. Of these, several (e.g. Dr. Robert O Wright, Dr. Dania Valvi) conduct research in this domain as their primary focus.</i></p>	

2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u> ?	
3	There is <b>at least one</b> dedicated department or institute for interdisciplinary planetary health research.
2	There is <b>not currently</b> a department or institute for interdisciplinary planetary health research, but there are <b>plans</b> to open one in the next 3 years.
1	There is an <b>Occupational and Environmental Health department</b> , but no interdisciplinary department or institute for planetary health research.
0	There is <b>no</b> dedicated department or institute.
<p><i>The Icahn School of Medicine at Mount Sinai has three departments or institutes dedicated to interdisciplinary planetary health research: (1) Icahn School of Medicine Institute for Exposomic Research (“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)</i></p>	



*The Icahn School of Medicine Transdisciplinary Center on Early Environmental Exposures (“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.”)*

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

3	Yes, there is a process in which community members impacted by climate and environmental injustice have <b>decision-making power</b> in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice <b>advise</b> the climate + environmental research agenda.
1	<b>No</b> , but there are <b>current efforts</b> to establish a process for community members to advise or make decisions on the research agenda.
0	There is <b>no</b> process, and <b>no</b> efforts to create such a process.

*The Institute for Exposomics Research 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 a number of 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.*

**4. Does your institution have a planetary health website that centralizes ongoing and past research related to health and the environment?**

3	There is an <b>easy-to-use, adequately comprehensive</b> website that <b>centralizes</b> various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
2	There is a website that <b>attempts to centralize</b> various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
1	The <b>institution</b> has an <b>Office of Sustainability website</b> that includes <b>some</b> resources related to health and the environment.
0	There is <b>no</b> website.

*The Icahn School of Medicine centralizes campus resources relating to health and the environment (<https://icahn.mssm.edu/about/departments/environmental-public-health>).*

5. Has your <b>institution</b> recently hosted a conference or symposium on topics related to planetary health?	
4	Yes, the <b>medical school</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the <b>institution</b> has hosted a conference on topics related to planetary health in the past three years.
1	The <b>institution</b> has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the <b>institution</b> has not hosted a conference on topics related to planetary health in the past three years.
<p><i>The Icahn School of Medicine at Mount Sinai held an Exposome Symposium on July 12-13, 2022 discussing Health Equity and the Exposome: Understanding the hIdden Ways Environment Drives Health.</i>  <a href="https://mountsinaiexposomics.org/events/exposome-symposium/past-events-es/past-events-exposome-symposium-2022/">(https://mountsinaiexposomics.org/events/exposome-symposium/past-events-es/past-events-exposome-symposium-2022/)</a>. Additionally, ISMMS held its fourth Clinical Climate Change Conference on January 7, 2022  <a href="https://health.mountsinai.org/blog/fourth-clinical-climate-change-conference-at-mount-sinai-addresses-the-health-effects-of-the-climate-crisis-and-improving-patient-care/">(https://health.mountsinai.org/blog/fourth-clinical-climate-change-conference-at-mount-sinai-addresses-the-health-effects-of-the-climate-crisis-and-improving-patient-care/)</a>.</p>	

6. Is your <b>medical school</b> a member of a national or international planetary health or ESH organization?	
1	Yes, the medical school is a member of a national or international planetary health <b>or</b> ESH organization
0	No, the medical school is <b>not</b> a member of such an organization
<p><i>The Icahn School of Medicine is a part of the Global Consortium on Climate and Health Education</i>  <a href="https://www.google.com/url?q=https://www.publichealth.columbia.edu/research/global-consortium-climate-and-health-education/list-gcche-member-institutions&amp;sa=D&amp;source=docs&amp;ust=1672756125127962&amp;usg=AOvVawIv9455QcAMbHURWT65_qqG"> (https://www.google.com/url?q=https://www.publichealth.columbia.edu/research/global-consortium-climate-and-health-education/list-gcche-member-institutions&amp;sa=D&amp;source=docs&amp;ust=1672756125127962&amp;usg=AOvVawIv9455QcAMbHURWT65_qqG)</a>.</p>	

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# Community Outreach and Advocacy

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

1. Does your <b>medical school</b> partner with community organizations to promote planetary and environmental health?	
3	Yes, the <b>medical school</b> meaningfully partners with <b>multiple</b> community organizations to promote planetary and environmental health.
2	Yes, the <b>medical school</b> meaningfully partners with <b>one</b> community organization to promote planetary and environmental health.
1	The <b>institution</b> partners with community organizations, but the medical school is not part of that partnership.
0	No, there is <b>no</b> such meaningful community partnership.
<p><i>During InFocus 1, Icahn School of Medicine partners with AIRnyc and Little Sisters of the Assumption organization in Harlem (LSA) to provide medical students with exposure to environmental health. LSA has community health workers that assess and improve housing conditions for East Harlem families to support children's air quality, asthma symptoms, and overall health and wellbeing. First-year medical students are able to opt into this session partnering with LSA, among other topics/organizations.</i></p> <p><i>During clinical years, students can rotate with the Pediatric Environmental Health Specialty Unit and New York State Children's Environmental Health Center. Students also get additional exposure to these organizations during InFocus weeks and medical Grand Rounds. The medical school partners with other organizations including <a href="http://www.cadapaso.us/">http://www.cadapaso.us/</a>; <a href="https://www.weact.org/">https://www.weact.org/</a>; and <a href="https://cleanandhealthy.org/">https://cleanandhealthy.org/</a>.</i></p>	

2. Does your <b>medical school</b> offer community-facing courses or events regarding planetary health?	
3	The <b>medical school</b> offers community-facing courses or events at least once every year.
2	The <b>medical school</b> offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The <b>institution</b> has offered community-facing courses or events, but the <b>medical school</b> was not involved in planning those courses or events.
0	The <b>institution/medical school</b> have not offered such community-facing courses or events.

The MPH program and other branches of the institution host public health events including those focused on planetary health, such as “Telling a coherent story to an incoherent society: choosing the future of public health in a time of climate change”. Further examples can be found here: <https://icahn.mssm.edu/education/masters/public-health/events>. While these events are open to medical students, the medical school was not directly involved in planning such events.

**3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?**

2	Yes, all students <b>regularly</b> receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are <b>sometimes</b> included in communication updates.
0	Students <b>do not</b> receive communications about planetary health or sustainable healthcare.

*Planetary health and sustainable healthcare topics are sometimes included in communication updates, particularly those that pertain to public health and healthcare delivery. The Mount Sinai Institute for Exposomic Research sends yearly updates regarding climate change, environmental factors, and health.*

*In addition, there are institution-wide broadcast messages pertaining to planetary health and sustainable healthcare that are not coming directly from the medical school. For example, in November 2022, an institution-wide broadcast highlighted Mount Sinai Hospital’s pledge to reduce carbon emissions in healthcare. Another in June 2022, highlighted a new report from the New York Department of Health and Mental Hygiene regarding the impact of hot weather on vulnerable communities.*

**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?**

2	Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
1	Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are <b>no</b> such accessible courses for post-graduate providers

*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.*

Since 2019, the Mount Sinai Institute for Exposomic Research has hosted the [Clinical Climate Change Conference](#) each year. The Clinical Climate Change Conference is an annual continuing medical education conference at the Icahn School of Medicine at Mount Sinai that focuses on ways in which the health care community can address the health effects of the climate crisis and improve patient care through research and evidence-based tools. The Fourth Clinical Climate Change Conference, held on January 7, 2022, was attended by more than 250 physicians, medical students, researchers, and allied community leaders across the United States.

**5. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?**

2	Yes, <b>all</b> affiliated hospitals have accessible educational materials for patients.
1	<b>Some</b> affiliated hospitals have accessible educational materials for patients.
0	<b>No</b> affiliated medical centers have accessible educational materials for patients.

*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 and works closely with community partners in New York City 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.*

*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 and Spanish can be viewed [here](#).*

**6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?**

2	Yes, <b>all</b> affiliated hospitals have accessible educational materials for patients.
1	<b>Some</b> affiliated hospitals have accessible educational materials for patients.
0	<b>No</b> affiliated hospitals have accessible educational materials for patients.

*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 [here](#).*

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*The Mount Sinai Institute for Exposomic Research has an Environment & Health Lunchtime Chat Webinar Series, where scientists at Mount Sinai share the latest research on how the environment affects health. The goal of this free webinar series is for scientists to translate their scientific research to empower families and communities to understand the science and make lifestyle changes. These webinars are accessible to the public on YouTube. Past webinars, which have focused on topics such as air pollution and climate change, exposures to cleaning chemicals and disinfectants, autism, and food allergies, are posted on this [webpage](#).*

# Support for Student-Led Planetary Health Initiatives

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

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

2. Does your <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The <b>institution</b> has a <b>specific</b> research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these <b>require student initiative</b> to seek these out and carry them out in their spare time.
0	There are <b>no opportunities</b> for students to engage in planetary health/sustainable healthcare research.
<i>Sinai's Department of Medicine and Public Health Research's website lists various laboratories and programs relating to environmental health research. Medical students could pursue research opportunities in at least some of these labs/programs.</i>	

3. Does the <u>medical school</u> have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
2	The <b>medical school</b> has a web-page with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.

1	There is a <b>medical school</b> webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
0	There is <b>no medical-school</b> specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.
<p><i>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.</i></p> <p><i>Sinai's Department of Environmental Medicine and Public Health has a website listing faculty, events, progress, research programs, and more.</i></p>	

<b>4. Does your <u>medical school</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?</b>	
2	Yes, there is a student organization <b>with faculty support</b> at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it <b>lacks faculty support</b> .
0	No, there is <b>not</b> a student organization at my institution dedicated to planetary health or sustainability in healthcare.
<p><i>Sinai has an active chapter of MS4SF with a faculty advisor.</i></p>	

<b>5. Is there a student liaison representing sustainability interests who serves on a <u>medical school</u> or <u>institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?</b>	
1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.
<p><i>Sinai has a Greening/Sustainability Committee within its Student Council. This committee comprises medical and graduate students. Members of this committee have recently been invited to join Sinai's institutional, monthly Green Team meetings.</i></p>	

<b>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)</b>	
1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.



1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)
<p><i>Sinai hosts an annual Climate Change Conference, a continuing medical education event that welcomes medical students. Additionally, the Mount Sinai Human Rights Program hosted a speaker event for students in fall 2022 on how climate change affects human migration.</i></p> <p><i>Sinai's Wilderness Medicine Interest Group (WildMed) organizes hiking/camping trips.</i></p> <p><i>Sinai's One Health and Emerging Pathogens Interest Group hosts yearly speaker series relating to planetary and one health that welcome students.</i></p>	

<b>Section Total (x out of 15)</b>	<b>8</b>
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# Campus Sustainability

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

1. Does your <b>medical school</b> and/or <b>institution</b> have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is <b>at least one designated staff member</b> for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but <b>no specific staff member</b> in charge of medical school and/or hospital sustainability.
1	There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee
0	There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability
<p><i>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 and the team is coordinated by the Associate Director of Corporate Sustainability for the Mount Sinai Health System, a full-time staff member working exclusively on sustainability issues.</i></p>	

2. How ambitious is your <b>institution/medical school</b> plan to reduce its own carbon footprint?	
5	The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>
3	The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>
1	The institution/medical school has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b>
0	The institution/medical school does <b>not</b> meet any of the requirements listed above
<p><i>Mount Sinai has signed on to both the NYC Mayor's Climate Challenge and the U.S. Health &amp; 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</i></p>	

	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.
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**3. Do buildings/infrastructure used by the medical school for teaching (not including the hospital) utilize renewable energy?**

3	Yes medical school buildings are <b>100%</b> powered by renewable energy
2	Medical school buildings source <b>&gt;80%</b> of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source <b>&gt;20%</b> of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source <b>&lt;20%</b> of energy needs from off-site and/or on-site renewable energy.

*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. The hospital spaces used for education are powered with electricity generated by ConEdison, which in 2021 included 25% nuclear energy and 29% renewable energy for the New York State grid (<https://www.eia.gov/state/?sid=NY>). There is no data available for 2022.*

*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. Mount Sinai is actively seeking to add rooftop solar panels to several of its buildings throughout the health system, including the Hess Building and 98th St Parking Garage. Proposals to start installing these systems in 2023 are currently being reviewed.*

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

3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the <b>majority</b> of old buildings <b>have been retrofitted</b> to be more sustainable.
2	Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have <b>not been retrofitted</b> .
1	Sustainable building practices are <b>inadequately or incompletely</b> implemented for new buildings.
0	Sustainability is <b>not considered</b> in the construction of new buildings.

*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.*

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

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

*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.*

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

2	Yes, the medical school has <b>both</b> compost <b>and</b> recycling programs accessible to students and faculty.
1	The medical school has <b>either</b> recycling <b>or</b> compost programs accessible to students and faculty, but not both.
0	There is <b>no</b> compost or recycling program at the medical school.

*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.*

**7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?**

3	Yes, the medical school has <b>adequate</b> sustainability requirements for food and beverages, including meat-free days or no red-meat, and <b>is engaged</b> in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> . The medical school <b>is engaged</b> in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> . The medical school is <b>not engaged</b> in efforts to increase food and beverage sustainability.
0	There are <b>no</b> sustainability guidelines for food and beverages.
<p><i>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 customers of the cafeteria do not have the option to compost their food remains or packaging from within the hospital cafeteria.</i></p>	

<b>8. Does the <u>medical school</u> or <u>institution</u> apply sustainability criteria when making decisions about supply procurement?</b>	
3	Yes, the medical school has <b>adequate</b> sustainability requirements for supply procurement <b>and is engaged</b> in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The medical school <b>is engaged</b> in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The medical school is <b>not engaged</b> in efforts to increase sustainability of procurement.
0	There are <b>no</b> sustainability guidelines for supply procurement.
<p><i>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.</i></p>	

**9. Are there sustainability requirements or guidelines for events hosted at the medical school?**

2	Every event hosted at the medical school <b>must</b> abide by sustainability criteria.
1	The medical school <b>strongly recommends or incentivizes</b> sustainability measures, but they are <b>not required</b> .
0	There are <b>no</b> sustainability guidelines for medical school events.
<p><i>There are currently no sustainability guidelines for medical school events, although sustainability staff have shown openness to working on this issue. They are currently reviewing sustainability opportunities within Mount Sinai's Food Services Catering division and expect to have new requirements in place for our internal catering in 2023. Mount Sinai is reviewing possible additional opportunities for external vendors that help with events.</i></p>	

10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	Yes, the medical school has <b>programs</b> and <b>initiatives</b> to assist with making lab spaces more environmentally sustainable.
1	There are <b>guidelines</b> on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are <b>no</b> efforts at the medical school to make lab spaces more sustainable.
<p><i>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 will be updated to include more language on sustainability starting in 2023. 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.</i></p>	

11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?	
4	The institution is <b>entirely divested</b> from fossil fuels <b>and</b> has made a <b>commitment to reinvest divested funds</b> into renewable energy companies or renewable energy campus initiatives.
3	The institution is <b>entirely divested</b> from fossil fuels.
2	The institution has <b>partially divested</b> from fossil fuel companies <b>or</b> has made a <b>commitment to fully divest</b> , but <b>currently</b> still has fossil fuel investments.
1	The institution has <b>not divested</b> from fossil-fuel companies, but faculty and/or students are <b>conducting organized advocacy</b> for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been <b>no efforts</b> to change that.

*The Icahn School of Medicine Investment Pool has not previously held and does not currently have any investments dedicated to fossil-fuel companies.*

**Section Total (x out of 32)**

**21**

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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%

*\*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+.*

## Planetary Health Grades for the Icahn School of Medicine

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

Section	Raw Score %	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(35/72) \times 100 = 48.6\%$	C
<b>Interdisciplinary Research (17.5%)</b>	$(16/17) \times 100 = 94.12\%$	A
<b>Community Outreach and Advocacy (17.5%)</b>	$(10/14) \times 100 = 71.4\%$	B
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(8/15) \times 100 = 53.3\%$	C
<b>Campus Sustainability (17.5%)</b>	$(21/32) \times 100 = 65.6\%$	B
<b>Institutional Grade</b>	$(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 64.37\%$	<b>B-</b>