

## Planetary Health Report Card (Medicine):

NYU Grossman School of Medicine



#### 2023-2024 Contributing Team:

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## **Summary of Findings**

Overall	В -
Curriculum	<b>D</b> +

- The NYU Grossman School of Medicine (NYUGSOM) curriculum includes some planetary health content in core and elective coursework; however, the condensed preclinical curriculum lacks key content on several climate health and sustainability issues.
- **Recommendations:** NYUGSOM could integrate missing key planetary health issues into pre-existing core coursework in applicable content areas. Additionally, topics on sustainable healthcare that are currently not included in the curriculum could be added to Foundation Clinical Skills or clerkship coursework.

#### **Interdisciplinary Research**

A

- NYUGSOM provides students and members of the institution with strong opportunities to be involved with planetary health research, particularly through the Department of Environmental Medicine. The institution hosts frequent conferences/symposiums related to planetary health and has established a well-organized website/database to compile ongoing research efforts.
- **Recommendations**: NYUGSOM could continue to work on integrating and organizing different research efforts throughout the institution while ensuring that the medical school is directly involved in events and projects hosted by the broader institution.

### **Community Outreach and Advocacy**

В

- NYUGSOM is engaged in community outreach and advocacy efforts associated with planetary health through a variety of programs. Many of these efforts are through the Department of Population Health, which partners with several community organizations and provides community-facing events throughout the year.
- **Recommendations**: In addition to community partnerships and events, NYUGSOM and its affiliated teaching hospitals could include more accessible material for patients about environmental health exposures and the health impacts of climate change, particularly focused on topics that directly impact New York City residents.

### **Support for Student-Led Initiatives**

B

- NYUGSOM is very supportive of the main student interest group dedicated to planetary health work. Additionally, the medical school offers research opportunities and funding for students interested in environmental medicine or sustainable healthcare projects. The institution also hosts several relevant initiatives throughout the year, which students and faculty members are encouraged to attend.
- **Recommendations**: The School of Medicine could continue to grow its support for student-led initiatives by adding a student liaison representing sustainability interests on a decision-making council.

### **Campus Sustainability**

 $\mathbf{C}$  +

- NYU Langone Health has a well-established Sustainability Program that is working towards greener operations across the health system and the medical school. In particular, the program has made great progress by setting high on-campus sustainability guidelines for building design and supply procurement.
- **Recommendations**: Further work is needed to meet broader institutional sustainability goals related to divesting from fossil fuel companies, sourcing energy from renewable sources, and achieving carbon neutrality. Support is also needed to implement a composting program on the main campus.

### **Statement of Purpose**

Planetary health is human health.

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

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

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

#### **Definitions & Other Considerations**

#### **Definitions:**

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable
  healthcare involves ensuring the ability to provide good quality care for future generations by
  balancing the economic, environmental, and social constraints and demands within health
  care settings. A sustainable healthcare system maintains population health, reduces disease
  burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the 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 <u>Literature</u> Review by <u>Metric</u> collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

## **Planetary Health Curriculum**

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

Score explanation: The medical school offers a four-week selective course in Environmental Health that includes lectures, case studies, and journal club presentations on environmental health topics in addition to planetary health and climate change.

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 in depth by the core 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.	
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Score explanation: During the preclinical curriculum, the impact of rising temperatures on the development of kidney stones was discussed in a "Kidney Stones" lecture during the renal unit. This lecture presented data on the impact of temperature on kidney stone prevalence by state, and also

discussed urban heat islands and the disproportional impact of heat on communities of color, particularly in neighborhoods that have been redlined and federally disinvested in.

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

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

Score explanation: NYUGSOM had an optional lunch-and-learn talk, "Pandemic Preparedness and Global Health," during the preclinical infectious disease unit which discussed the impact of natural disasters on health systems. Hurricane evacuees in shelters were also mentioned as a group particularly vulnerable to Staph Aureus infection in the core curriculum lecture "Gram Positive: Staphylococcus Aureus." Additionally, the impact of Hurricane Sandy on NYU Langone and Bellevue Hospital was briefly mentioned during the "Intro to Cardiovascular Disease" lecture and the "Circulatory Physiology" lecture during the preclinical cardiology block.

In addition to preclinical coursework, the Environmental Health Selective includes case studies and lectures covering the health effects of some extreme weather events such as the historic London Fog, forest fires, and volcanic eruptions.

## 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.
- 2 This topic was **briefly** covered in the **core** curriculum.
- 1 This topic was covered in **elective** coursework.
- 0 This topic was **not** covered.

Score explanation: The impact of climate change on infectious disease patterns was discussed in the lecture "Vector-Borne Infections" during the infectious disease block of the preclinical curriculum. The lecturer discussed the changing patterns of malaria, West Nile virus, Eastern Equine Encephalitis, and tick-borne infections due to a warming climate.

The optional lunch-and-learn talk, "Global Health/Pandemic Preparedness," also addressed these issues. There was an additional optional lecture, "Climate Change and Infectious Disease," planned during the infectious disease block, however this was canceled due to scheduling issues.

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

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

Score explanation: In the preclinical curriculum, the lectures "Asthma: Clinical features, pathogenesis and therapeutics" and "COPD: Clinical features, pathogenesis & therapeutics" discuss the impact of air pollution on the development, and exacerbation, of asthma and COPD. The impact of climate change and air pollution on respiratory health is also discussed in the "Lung Cancer" lecture. Additionally, in the clinical curriculum, the Pediatrics Clerkship, a required course, includes didactic content that discusses how asthma is triggered by "extremes of temperature, changes in temperature, humidity, wind, barometric pressure." In the Medicine Clerkship, a required course, similar content is discussed in the lecture "Asthma & COPD."

The Environmental Health Selective course also covers the impact of climate change and air pollution in a lecture titled "Environmental Health History/Air Pollution," and the Health Equity selective course includes didactics on the disproportionate impact on climate-change related respiratory issues on certain communities.

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

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

Score explanation: The Environmental Health Selective course covers the cardiovascular impacts of climate change and air pollution in a lecture titled "Environmental Health History/Air Pollution," and the Health Equity selective course includes didactics on the disproportionate impact on climate-change related cardiovascular disease on certain communities.

## 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.
- 2 This topic was **briefly** covered in the **core** curriculum.
- 1 This topic was covered in **elective** coursework.
- 0 This topic was **not** covered.

Score explanation: This topic is not addressed in the NYUGSOM curriculum.

## 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 in depth by the core curriculum. 2 This topic was briefly covered in the core curriculum. 1 This topic was covered in elective coursework. O This topic was not covered.

#### Score explanation:

At NYUGSOM, the Health Equity Advanced Clinically Integrated Science Selective (ACISS) course includes a didactic titled "Climate Health and Health Equity: Earth, Wind and Fire." This didactic presented articles and cases that address the relationship between health, food security, ecosystem health, and climate change, particularly in relation to racial disparities in the United States.

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

Score explanation: At NYUGSOM, the Health Equity Advanced Clinically Integrated Science Selective (ACISS) includes a lecture on disparities in climate change-related health effects, particularly related to the disproportionate impact on communities of color and women. Additionally, the didactic "Health Impact Assessments: A Tool of Achieving Health Justice" covers measurement methodologies that capture the impact of climate change on health outcomes and related health equity outcomes of interest.

## 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.

Score explanation: This topic is not covered in the curriculum.

## 11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)? 3 This topic was explored in depth by the core curriculum. 2 This topic was briefly covered in the core curriculum. 1 This topic was covered in elective coursework. O This topic was not covered.

Score explanation: The core curriculum at NYUGSOM discusses the impact of environmental toxins on reproductive health throughout the curriculum. The "Introduction to Embryology" lecture in the Anatomy unit discusses concepts relating to effects of teratogens, which include environmental pollutants, and periods of fetal susceptibility. In the endocrine module, the curriculum spotlights environmental chemicals acting as endocrine disruptors.

Additionally, the Environmental Health Selective covers the impact of toxins on reproductive health in the following lectures: "Immunotoxicity & Early Life Exposures," "Environmental Epigenetics," and "Endocrine Disrupting Chemicals."

## 12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?

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

Score explanation: In the preclinical curriculum, the impact of the summer 2023 wildfires on air quality in New York City was briefly addressed in the lecture, "Asthma: Clinical features, pathogenesis and therapeutics," as was the impact of the 9/11 attacks in generating environmental toxins. The "Lung Cancer" lecture also mentioned air pollution in New York City, particularly particulate matter and World Trade Center dust as human-caused carcinogens specifically relevant to our surrounding community. The Environmental Health Selective also includes a project in which all participating students measure air quality differences in the surrounding community to learn about human-caused air pollution in New York City.

## 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?

Indigenous knowledge and value systems are **integrated throughout** the medical school's planetary health education

Indigenous knowledge and value systems as essential components of planetary health solutions are included **briefly** in the core curriculum.

Indigenous knowledge and value systems as essential components of planetary health solutions are included in **elective** coursework.

This topic was **not** covered.

Score explanation: The medical school does not emphasize Indigenous knowledge and value systems as essential components of planetary health solutions in the curriculum. Although there was previously a lecture on Indigenous Health in the preclinical curriculum, this lecture was removed from the curriculum in 2020 due to logistical difficulties posed by the COVID-19 pandemic.

- 14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?
- 3 This topic was explored in depth by the core curriculum.
- 2 This topic was **briefly** covered in the **core** curriculum.
- 1 This topic was covered in **elective** coursework.
- 0 This topic was **not** covered.

Score explanation: The "Lung Cancer" lecture during the pulmonology block of the preclinical curriculum discusses the disproportionate impact of air pollution on marginalized communities in general terms, particularly noting the outsized presence of highways and power plants in these communities. However, the core curriculum does not address the outsized impacts of environmental toxins on specific marginalized populations, such as homeless populations or Indigenous communities.

In terms of elective coursework, the Environmental Health Selective offers lectures that cover environmental exposures related to children (e.g. lead, tobacco products, arsenic, others). Most of the lectures address aspects of environmental exposures that particularly impact marginalized populations.

Curriculum: Sustainability

## 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.
- 2 This topic was **briefly** covered in the **core** curriculum.
- 1 This topic was covered in **elective** coursework.
- 0 This topic was **not** covered.

Score explanation: The health benefits of a plant-based diet are extensively discussed during the GI module of the preclinical curriculum in a workshop on dietary counseling and in a lecture on nutrition.

These benefits were also addressed in a patient presentation on myocardial infarction during the cardiology block. However, the environmental co-benefits are not addressed.

In elective curricula, the Environmental Health Selective has a Case Study module that was recently developed to cover the topic of plant based diets and health benefits. However, as in the core curriculum, the environmental co-benefits are not mentioned.

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

Score explanation: The medical school curriculum does not currently address the carbon footprint of healthcare systems.

	17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment	
2	The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfill this metric.	
1	The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.	
1	Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated	
1	The impact of <b>anaesthetic</b> gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions	
1	The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.	
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)	
	Score explanation: These topics are not currently included in the core curriculum.	

#### Curriculum: Clinical Applications

# 18. In training for patient encounters, does your medical school's curriculum introduce strategies to have conversations with patients about the health effects of climate change? 2 Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum. 1 Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework. O No, there are not strategies introduced for having conversations with patients about climate change

Score explanation: The current medical school's curriculum does not introduce strategies to have conversations with patients about the health effects of climate change.

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

Score explanation: During the Environmental Health Selective's clinical experiences in environmental cardiology and respiratory health, students learn to take an appropriate history of environmental and occupational exposures.

#### Curriculum: Administrative Support for Planetary Health

	s your <u>medical school</u> currently in the process of implementing or improving Education for ainable 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.
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Score explanation: The education directors have begun a conversation on integrating planetary health content in the curriculum and they are working with the student-led Environmental Medicine Interest Group to do so.

# 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 well integrated into the core medical school curriculum. 8 Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. 2 Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s). O There is minimal/no education for sustainable healthcare.

Score explanation: The climate health topics discussed in the curriculum are integrated into other lectures, rather than as a stand-alone lecture. Planetary health concepts can be found in the preclinical curriculum during year 1, as well as during the clinical curriculum.

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

Score explanation: The medical school does not have a specific faculty member responsible for planetary health and sustainable healthcare in the curriculum.

Section Total (27 out of 72) 37.5%
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Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

### **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.	

Score explanation: There are several faculty members employed in the Division of Environmental Medicine who's primary research focuses range from the health effects of metals and particulate matter to the influence of epigenetic factors on the process of environmental disease development. There are also faculty who focus on healthcare sustainability, such as Dr. Cassandra Thiel. Faculty who conduct research on the intersection of sustainability and healthcare can be found in the Sustainability and Healthcare database.

	ere a dedicated department or institute for interdisciplinary planetary health research at astitution?
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.

There is **no** dedicated department or institute.

Score explanation: The <u>Division of Environmental Medicine</u> is part of the NYU Grossman School of Medicine and their goal is to understand the environmental causes of disease and determine new methods to protect our communities. In addition to research, they have PhD and MS programs in environmental health sciences. In addition, there is the <u>Center for the Investigation of Environmental Hazards</u>, which performs fundamental toxicologic and epidemiologic studies with strong focuses on heavy metals, air pollution, climate change, and endocrine-disrupting chemicals. Their research is translated into policy and practice in order to detect, understand, and prevent environmental hazard—induced human diseases.

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

- 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.
- Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda.
- No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda.
- There is **no** process, and **no** efforts to create such a process.

Score explanation: NYU Langone's Center for the Investigation of Environmental Hazards (CIEH) has a Community Engagement Core (CEC) which strives to engage with community stakeholders with the goal of effectively translating and disseminating critical environmental health information and scientific research findings to communities at risk for environmental contamination, and to reduce resulting health disparities. The Community Stakeholder Advisory Board is made up of community leaders and stakeholders representing multiple sectors throughout environmentally impacted Brooklyn communities. Survey results from Ramapough Lenape Nation community members regarding priorities on specific contaminant exposure pathways and indoor pollutants were used to guide exposure assessment citizen science projects, and plans are in place to do similar work in the Brooklyn neighborhoods.

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

- There is an **easy-to-use**, **adequately comprehensive** website that **centralizes** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
- There is a website that **attempts to centralize** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.

	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.

Score explanation: The <u>Division of Environmental Medicine website</u> has information on ongoing research efforts, opportunities, and leaders at the institution. The NYU Langone Health Sustainability website includes a link to a <u>sustainability and healthcare database</u> which compiles NYU research efforts on environmental health. This includes all publications prior to the last update in April 2023. Information on upcoming events or funding opportunities is not available.

#### 5. Has your institution recently hosted a conference or symposium on topics related to planetary health? 4 Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year. 3 Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. 2 Yes, the **institution** has hosted a conference on topics related to planetary health in the past three years. The **institution** has not hosted any conferences directly, but they have provided financial 1 support for a local planetary health event. 0 No, the **institution** has not hosted a conference on topics related to planetary health in the past three years.

Score explanation: On September 14th, 2023, the NYU Center for Health Data Science hosted "<u>Human and Planetary Health Roundtable & Symposium: Foregrounding Local Research and Data.</u>" On September 20, 2023, NYU Langone Health hosted a half-day event on NYC Health, Energy & Equity Challenge during NYC Climate Week.

## 6. Is your <u>medical school</u> a member of a national or international planetary health or ESH organization?

- Yes, the medical school is a member of a national or international planetary health **or** ESH organization
- 0 No, the medical school is **not** a member of such an organization

Score explanation: The NYU Langone Department of Population Health, which is part of NYU Grossman Medical School, is a member of the Planetary Health Alliance. The medical school is also part of the New York State Energy Research and Development Authority's Green Clean Campuses program.

Additionally, NYU Langone Health is a member of the <u>U.S. Health Care Climate Council</u>, US Department of Health & Human Services' Health Care Sector Pledge, International Health Care Climate Challenge, and National Academy of Medicine's Action Collaborative on Decarbonizing the U.S. Health Sector.

## Section Total (15 out of 17) 88.2%

Back to summary page <u>here</u>

Are there additional research resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

### **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.

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

Score explanation: NYU Langone's Department of Population Health, which is part of the medical school, partners with the community through programs that are designed to prevent chronic diseases by reducing risk factors for obesity and cardiovascular disease and decreasing tobacco use and exposure to secondhand smoke, addressing the intersection of health and housing, supporting disease self-management, and connecting people to resources that address social and health risk factors. Many of these programs address environmental determinants of health as a critical part of work to advance health equity, and rely on community expertise to tackle the issues.

3.2. Does your <u>medical school</u> 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 medical school was not involved in planning those courses or events.	
0	The institution/medical school have not offered such community-facing courses or events.	

Score explanation: The Department of Population Health, within the medical school, has offered a number of events related to planetary health within the last year that have been open to the public. These included a talk on "Decoding Climate Vulnerability," held May 18, 2023, as well as the recent "Veganuary webinar: Impact of Plant Based Diets for Health, the Environment and Social Justice, held January 8, 2024. This event was also later posted publicly on YouTube.

In addition to events hosted by the medical school, NYU Langone Health has offered a number of community-facing events related to planetary health. For instance, NYU Langone participated in a Climate Week panel, "NYC Health, Energy & Equity Action Challenge" in September 2023 and hosted a Climate Week NYC in 2023 about NYC Health, Energy & Equity with Advanced Energy Group. This was a public event.

Additional examples geared more specifically to the community include a public <u>Cooking for Wellness</u> series which includes episodes on the importance of eating plant-based, and using local and seasonal ingredients. In 2023, the Hassenfeld Children's Hospital also featured the hospital's beekeeper to talk about her job and importance of bees and planetary and community health. This was an episode on their internal channels for patients.

## 3.3. Does your <u>medical school</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.
- Yes, planetary health and/or sustainable healthcare topics are **sometimes** included in communication updates.
- O Students **do not** receive communications about planetary health or sustainable healthcare.

Score explanation: Those who subscribe to the internal sustainability page receive regular notifications on blogs, content on sustainability topics, and program updates. Institution-wide articles are posted on internal platforms throughout the year, and especially during Earth Month, on sustainability program initiatives, ways to be involved, and environmental strategies to implement. Additionally, updates in the weekly NYU Langone Academic Events Calendar occasionally include planetary health/sustainable healthcare topics.

## 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.

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

Score explanation: At NYU Langone, seminars and trainings for <u>CME</u> have included topics such as, "Who Is Most Vulnerable? Interpretable Causal Machine Learning for Environmental Justice," "Leadership for Cost-Saving, Climate-Smart and Quality Healthcare," "American Thoracic Society: Presentation on Air Pollution, Oxidative Stress, and Cardiopulmonary Disease," "Climate Resiliency Measures for Healthcare Delivery Organizations," and more. Additionally, a number of sustainability-related courses are available to all NYU students and employees on an institutional training platform.

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

- Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients.
- 1 **Some** affiliated hospitals have accessible educational materials for patients.
- **No** affiliated medical centers have accessible educational materials for patients.

Score explanation: At NYU Langone, the <u>Center for the Investigation of Environmental Hazards</u> hosts <u>events</u> and has developed patient facing education materials on environmental health exposures, such as pesticides, chemicals, toxics, pollutants for the public. These include community outreach and educational materials through social media.

## 3.6. Does your <u>medical school</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.
- 1 **Some** affiliated hospitals have accessible educational materials for patients.
- **No** affiliated hospitals have accessible educational materials for patients.

Score explanation: No patient-facing materials directly addressing the health impacts of climate change were found.

Are there additional community engagement and advocacy resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.		

### **Support for Student-Led Planetary Health Initiatives**

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

## $\textbf{4.1. Does your } \underline{\textbf{medical school}} \ \textbf{or your } \underline{\textbf{institution}} \ \textbf{offer support for medical students interested in enacting a sustainability initiative/QI project?}$

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

Score explanation: The NYU Office of Sustainability offers <u>Green Grants Program awards</u> up to \$20,000 and microgrants of up to \$3,000 for members of the NYU community to pursue projects that "improve the university's operational environmental performance, foster environmental literacy and community engagement, advance applied research and design, expand sustainability learning opportunities, and demonstrate the viability of best practices and technologies for sustainability." Additionally, NYU's Environmental and Racial Justice Network, launched in 2020, offers <u>seed funding</u> for projects that address issues at the intersection of environmental ad racial justice. While these initiatives are not specific to the medical school, students from all NYU schools are eligible to apply.

While there are no specific quality improvement grants at the medical school, the Environmental Medicine Interest and Advocacy student group was supported by NYU Grossman School of Medicine in a recent quality improvement initiative to bring composting to Vilcek Hall, the medical student residence hall. Students can also participate in the institution-wide Clinical Sustainability Advisory Board, and work on sustainability QI projects alongside faculty and staff.

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

- The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
- There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time.
- There are **no opportunities** for students to engage in planetary health/sustainable healthcare research.

#### Score explanation:

There are plentiful opportunities for medical students to engage in research through NYUGSOM <u>Division of Environmental Medicine</u> or through the <u>Department of Population Health</u>. The medical school also funds student research projects, including those related to planetary health. However, there are no specific research programs or fellowships to help MD students with environmental health research.

- 4.3. 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.
- The **medical school** has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
- There is a **medical school** webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
- There is **no medical-school** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation: NYU Langone Health hosts a <u>sustainability webpage</u>. This site includes information on the hospital system's sustainability commitments and accomplishments, and also links to a <u>database</u> <u>of NYU Langone and NYU researchers' work on sustainability and healthcare</u>. Additionally, NYU Grossman School of Medicine's <u>Division of Environmental Medicine</u> website includes details about research areas, publications, and faculty members working on environmental health topics. Faculty contact information is readily accessible here.

- 4.4. 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?
- Yes, there is a student organization **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare.
- Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.**
- No, there is **not** a student organization at my institution dedicated to planetary health or sustainability in healthcare.

Score explanation: NYUGSOM Environmental Medicine Interest and Advocacy Group is a student-led group aimed at involving students in opportunities related to sustainable healthcare, climate change and health, and advocacy. The group receives semesterly funding for hosting student educational events and trainings in the environmental health field. The group is supported by a faculty advisor.

## 4.5. 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?

- Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
- 0 No, there is no such student representative.

Score explanation: NYU Langone Health has a Clinical Sustainability Advisory Board which develops initiatives to reduce the institution's environmental footprint. Although medical students are welcome to join the advisory board and have been involved in the past, there is no student current representative. NYUGSOM does not have formal student representation of sustainability interests on the student council or other institutional bodies.

## 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)

- 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.
- Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
- 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.
- Cultural arts events, installations or performances related to planetary health that have students as an intended audience
- Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
- Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)

Score explanation: The NYU Urban Farm Lab is an outdoor classroom, research lab, and community farm. While it is primarily led by the Department of Nutrition and Food Studies at NYU Steinhardt and several community organizations, it is open to the larger NYU community during volunteer days and farm events.

In the past year, NYU Tisch has held various events showcasing art related to the climate crisis, including those that touch on <u>pollution</u> and <u>food justice</u>. These are supported by the <u>NYU Climate Art</u> & Action incubator.

NYUGSOM's Environmental Medicine Interest Group has hosted lectures and training related to environmental Health in the past year. These events have included a Climate Health Bootcamp, panel/lecture on pollution and airways, and a Composting Kickoff. In addition, the medical school's Department of Population Health and Center for the Investigation of Environmental Hazards host events related to planetary health that students are encouraged to attend.

#### Section Total (10 out of 15)

66.7%

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

Are there additional student-led initiative resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

### **Campus Sustainability**

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

1. Does your medical school and/or institution have an Office of Sustainability?		
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is <b>at least one designated staff member</b> for sustainability at the hospital and/or medical school.	
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but <b>no specific staff member</b> in charge of medical school and/or hospital sustainability.	
1	There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee	
0	There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability	

Score explanation: NYU Langone Health has a well-established Energy & Sustainability team that is part of Real Estate Development and Facilities Department (RED+F). The team includes three full-time Energy & Sustainability staff members who manage the institution-wide sustainability program, including for the medical school. The <u>sustainability program</u> was created to reduce environmental impacts, promote health and resiliency through building design and better procurement, and advocate for climate leadership in healthcare. While the program is managed by RED+F, the program is a collaborative effort among individuals and teams who are implementing best practices and working towards greener operations across the health system and the medical school.

2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?		
5	The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>	
3	The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>	
1	The institution/medical school has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b>	
0	The institution/medical school does <b>not</b> meet any of the requirements listed above	

Score explanation: NYU Langone Health is committed to becoming a carbon neutral health system by 2050, which accounts for emissions by the integrated medical school campus. This goal is part of the institution's commitment with the U.S. Department of Health and Human Services' Health Sector pledge, which NYU Langone joined in 2022 alongside other leading health systems across the country to strengthen national healthcare resilience to climate change. While NYU's Washington Square campus is committed to achieving carbon neutrality by 2040, the medical school campus emissions are accounted for under NYU Langone Health's commitment to become a carbon neutral health system by 2050.

NYU Langone is also a longstanding participant in the New York City Carbon Challenge, a voluntary leadership initiative and public-private partnership with the NYC Mayor's Office of Climate & Environmental Justice. As a Carbon Challenge participant, NYU Langone also updates and submits a Climate Action Plan to NYC which reflects new decarbonization strategies, updates to their building portfolio, and opportunities for improvements.

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

2 Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.

Yes medical school buildings are 100% powered by renewable energy

- 1 Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
- Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.

#### Score explanation:

3

NYUGSOM is still working towards sourcing the majority of their energy needs from renewable sources. NYU Langone is committed to adding more renewables to its portfolio, however, on-site solar and wind are challenging in a dense urban environment where the School of Medicine is located. NYU Langone has recently purchased additional renewable energy credits, participates in the New York State ReCharge Program which sources energy from clean hydro power, and has begun to expanding solar power development.

- 4. Are sustainable building practices utilized for new and old buildings on the <u>medical school</u> campus, with design and construction of new buildings and remodeling of old buildings conforming to a published sustainability rating system or building code/guideline?
  - Yes, sustainable building practices are utilized for new buildings on the medical school campus and the **majority** of old buildings **have been retrofitted** to be more sustainable.
  - 2 Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have **not been retrofitted.**

- Sustainable building practices are **inadequately or incompletely** implemented for new buildings.
- O Sustainability is **not considered** in the construction of new buildings.

#### Score explanation:

The combined hospital and medical school campus on the east side of Manhattan is the first in the world to receive the highest-level Platinum certification under both U.S. Green Building Council's (USGBC) Performance Excellence in Electricity Renewal (PEER) and Leadership in Energy and Environmental Design (LEED) standards. The Helen L. and Martin S. Kimmel Pavilion and the Science Building, which include many of the facilities utilized by the medical school, both achieved LEED certification in 2019. As part of NYU Langone Health design standards, all new construction and major projects over 25,000 ft² must pursue Gold or higher certification under the USGBC LEED rating system.

Previous to these achievements, the medical center and medical school main campus sustained significant damage due to Hurricane Sandy in 2012. Following this event, older buildings were rebuilt and renovated to be more sustainable and resilient. A key part of the reconstruction plan was the Energy Building, the centerpiece of NYU Langone's plan to provide clean and efficient energy for the medical center, while allowing NYU Langone the capacity to be completely self-sufficient in the event of a utility power interruption.

- 5. Has the <u>medical school</u> or <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?
  - Yes, the medical school has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
  - The medical school has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised.
  - The medical school has **not** implemented strategies to encourage and provide environmentally-friendly transportation options.

Score explanation: Given NYU Grossman School of Medicine's location in Manhattan, unsustainable forms of transportation like cars are not generally used by students. Due to the close proximity of the student residence building, where the majority of students live, most students walk to the medical school. Additionally, students who live further off campus are able to utilize NYC's extensive public transportation system, NYU Langone's shuttle buses and ferry, or NYU Langone bike parking spots.

In 2022, NYU doubled the number of bike parking spots for public and private use at our facilities to over 400 and collaborated with the NYC Department of Transportation (DOT) to install public bike racks in front of multiple NYU Langone facilities. In 2022, NYU Langone Health also set a standard that all new and major renovated car parking lots and garages must provide EV charging stations to at least 5% of total parking spots, and an additional 5% of parking spots must be EV-ready to meet future demand. NYU Langone faculty and staff are also encouraged to use public transportation through a benefit offer of receiving pre-tax metrocards.

## 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 both compost and recycling programs accessible to students and faculty. 1 The medical school has either recycling or compost programs accessible to students and faculty, but not both. 0 There is no compost or recycling program at the medical school.

Score explanation: The medical school and hospital have a robust recycling program, which standardizes infrastructure and compliance across all buildings. A compost program was recently implemented at Vilcek Hall, the medical student residence building. In 2023, the plan to introduce composting services in all medical student residence buildings was delayed in order to align the schedule with NYC Department of Sanitation's composting service rollout in late 2024.

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

- Yes, the medical school has **adequate** sustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.
- There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The medical school **is engaged** in efforts to increase food and beverage sustainability.
- There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The medical school is **not** engaged in efforts to increase food and beverage sustainability.
- There are **no** sustainability guidelines for food and beverages.

#### Score explanation:

NYU Langone has made concentrated efforts to provide locally-sourced and plant-based options where possible. All poultry purchased is 100% antibiotic free and raised within 250 miles of New York City, and half of all purchased meat and poultry are certified with the USDA Organic, American Grassfed, or Global Animal Partnership. In addition, there are many sources for farm-fresh meal options and platforms to purchase local foods and products for employees and students working on our hospital campuses. The Manhattan Main Campus hosts weekly market tables featuring plant-based meals from local, sustainably-grown ingredients, with fresh organic vegetables available for purchase. NYU Langone partners with Local Roots NYC for this market table, which is an independent, minority women-owned business that only works with local farms and producers close to New York City.

While the cafeterias do not have specific meat free days, they have implemented many strategies to reduce meat consumption including seafood substitutes, vegan meat substitutes, and a variety of plant-based protein options on daily rotation.

# 8. Does the medical school or institution apply sustainability criteria when making decisions about supply procurement? Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement. There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is engaged in efforts to increase sustainability of procurement. There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is not engaged in efforts to increase sustainability of

#### There are **no** sustainability guidelines for supply procurement.

#### Score explanation:

procurement.

Sustainable procurement is driven by multiple departments who set procedures, goals, and drive the process for product requests and use. NYU Langone Food & Nutrition Services team procure food, cleaning supplies, and serviceware, all of which consider environmental attributes. The Real Estate Development & Facilities teams procure all design and construction services and materials as well as operational service vendors, maintenance equipment and consumables related to facilities management. Much of that procurement is dictated through NYU Langone Design Guidelines, which are updated every year and include several sustainability goals for our vendors, project managers and architects to comply with. Environmental Services and Building Services procure cleaning products that comply with our Safer Chemicals Challenge goals, which was encouraged through our pursuit of LEED certification projects and their continuous engagement with the sustainability team.

The Energy & Sustainability Assistant Director is also a member of the Supply Chain Value Analysis Committee and offers guidance on environmental considerations during medical and surgical product evaluation. In 2023, Supply Chain incorporated numerous environmental attribute questions into its reformulated new clinical product intake form and recently launched product selection platform. In select RFPs, language is included regarding our sustainability goals. The sustainability team meets regularly with different departments to identify and develop opportunities to institutionalize sustainable operations and procurement.

9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u> ?		
2	Every event hosted at the medical school <b>must</b> abide by sustainability criteria.	
1	The medical school <b>strongly recommends or incentivizes</b> sustainability measures, but they are <b>not required.</b>	
0	There are <b>no</b> sustainability guidelines for medical school events.	

#### Score explanation:

While there are no sustainability guidelines for medical school events, the Office of Student Affairs has recently created a sustainability group within the department to evaluate our administrative processes and projects for opportunities to eliminate waste in medical school events.

## 10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable? 2 Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable. 1 There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.

Score explanation: The Science Building, which includes the majority of the school's lab spaces, has LEED Platinum Certification and incorporates green design approaches and sustainable technologies. Other sustainability initiatives include: purchasing Energy Star Certified ultra-low temperature freezers, a PC power management program for noncritical devices which reduces the power consumption of an individual computer setup by about 30-50%, and a lighting setback program to reduce wasted energy when unoccupied.

There are **no** efforts at the medical school to make lab spaces more sustainable.

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.	

#### Score explanation:

0

New York University committed to fully <u>divesting from fossil fuels</u> in September 2023. However, NYU Langone Health, which encompasses the medical school, has not responded to <u>calls</u> by the "First, Do No Harm" campaign to divest its pension and retirement funds from fossil fuels.

Section Total (18 out of 32)	56.3%
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## Grading

#### **Section Overview**

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

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

#### Planetary Health Grades for the NYU Grossman School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(27/72) \times 100 = 37.5\%$	D+
Interdisciplinary Research (17.5%)	(15/17) x 100 = 88.24%	A
Community Outreach and Advocacy (17.5%)	(10/14) x 100 = 71.43%	В
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	В
Campus Sustainability (17.5%)	(18/32) x 100 = 56.25%	C+
Institutional Grade	(37.5x0.3 + 88.24x0.175 + 71.43x0.175 + 66.67x0.175 + 56.25x0.175) = 60.70%	В-