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# Planetary Health Report Card (Medicine): *NYU Grossman School of Medicine*

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2024-2025 Contributing Team:

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## Summary of Findings

<b>Overall Grade</b>	<b>B</b>
<b>Curriculum</b>	<b>+D</b>
<ul style="list-style-type: none"> <li>The NYU Grossman School of Medicine (NYUGSOM) preclinical curriculum includes occasional slides on planetary health content, as well as two optional lectures on topics related to climate change, but the condensed nature of this curriculum lacks foundational topics and longitudinal coverage of key climate health and sustainability issues. The medical school no longer offers an elective course dedicated to environmental health, and environmental topics are covered briefly in a health equity elective.</li> <li><b>Recommendations:</b> NYUGSOM is in the process of designing a dedicated introductory lecture and panel on planetary health within its Foundational Clinical Skills course, a part of the preclinical core curriculum. Lecturers should continue to address climate-related issues as relevant to their areas of expertise and could integrate these points into a longitudinal thread by including an icon or other visual to indicate “climate correlations.”</li> </ul>	
<b>Interdisciplinary Research</b>	<b>A</b>
<ul style="list-style-type: none"> <li>NYUGSOM provides ample opportunities for students and faculty to become involved in planetary health research and offers conferences and symposiums to further the healthcare community's understanding of planetary health.</li> <li><b>Recommendations:</b> The school could centralize planetary health resources under one webpage to enable students and faculty to locate research opportunities and funding.</li> </ul>	
<b>Community Outreach and Advocacy</b>	<b>A</b>
<ul style="list-style-type: none"> <li>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.</li> <li><b>Recommendations:</b> 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.</li> </ul>	
<b>Support for Student-Led Initiatives</b>	<b>A</b>
<ul style="list-style-type: none"> <li>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.</li> <li><b>Recommendations:</b> 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.</li> </ul>	
<b>Campus Sustainability</b>	<b>C</b>
<ul style="list-style-type: none"> <li>NYU Langone, under which NYUGSOM is housed, is supportive of institution-wide sustainability initiatives, particularly energy-efficient, green building and environmentally-friendly transportation.</li> <li><b>Recommendations:</b> We recommend NYU Langone expand its percent of energy coming from renewable sources and commit to divesting from fossil fuels and the School of Medicine, specifically, create and implement sustainability guidelines for events.</li> </ul>	

# Statement of Purpose

*Planetary health is human health.*

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

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

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

# Instructions for Completing the PHRC

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

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

## Completing the report card:

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

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

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

**Elective coursework:** This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.

**Brief coverage in the core curriculum:** This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. Brief inclusion would qualify as inclusion in a single lecture slide in a single year.

**In depth coverage in the core curriculum:** This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats. Please consider amongst your team that this is the highest score awarded and a subjective decision must be made as to whether the topic should be awarded this score.

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

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

It is essential that you have clearly justified the score for each metric, outlining in the box provided the specific content delivered in your curriculum and why you have assigned the

score. Each report card is reviewed by a member of the leadership team for accuracy and consistency across report cards. An example of the sufficient level of evidence is provided below each metric.

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

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

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

# Definitions & Other Considerations

## Definitions:

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

specifically targeted for medical students, can meet this metric.

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

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

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

**Other considerations:**

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

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

# Planetary Health Curriculum

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

## Curriculum: General

<b>1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?</b>	
Yes, the medical school has offered <b>more than one</b> elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year. (2 points)	
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. (1 points)	
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. (0 points)	
Score Assigned:	1
<i>Score explanation: As of 2024, NYUGSOM no longer offers a dedicated environmental health elective. However, 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 US.</i>	

## Curriculum: Health Effects of Climate Change

<b>1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)	
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	

Score Assigned:	2
<p><i>Score explanation: In the renal unit of the preclinical curriculum, the “Kidney Stones” lecture highlighted the impact of rising temperatures on the development of kidney stones. The lecture also discussed the relationship between urban heat islands, redlining, and prevalence of kidney stones in communities of color. The relationship between climate change and health more broadly, including several examples specific to New York City, was also covered in an optional lunch lecture titled “Climate Lunch &amp; Learn.”</i></p>	

<p><b>1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?</b></p>	
<p>This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)</p>	
<p>This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)</p>	
<p>This topic was covered in <b>elective</b> coursework. (1 point)</p>	
<p>This topic was <b>not</b> covered. (0 points)</p>	
Score Assigned:	2
<p><i>Score explanation: Extreme weather events were mentioned three times in the core preclinical curriculum. During the “Staph Aureus” lecture in the infectious disease unit, hurricane evacuees living in shelters were mentioned among groups that may be considered vulnerable to Staph aureus infection. In the “Circulatory Physiology” lecture of the cardiology unit, one slide was dedicated to the destruction that Hurricane Sandy brought to NYU Langone and Bellevue Hospitals. Lastly, the “COPD: Clinical Features, Pathogenesis, &amp; Therapeutics” lecture in the pulmonology unit mentioned outdoor air pollution from natural disasters as a risk factor for developing COPD and provided the example of wildfires in Canada during the summer of 2023.</i></p> <p><i>The medical school also hosted two optional lunch lectures during the preclinical curriculum that touched on this topic: “Climate Lunch and Learn” and “Pandemic Preparedness and Global Health.” The former lecture further elaborated on the impact of hurricanes and wildfires on health in New York City. The latter lecture detailed the ways that natural disasters can impede health systems’ ability to respond to infectious disease, providing the example of the spread of cholera amidst earthquakes in Haiti.</i></p>	

<p><b>1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?</b></p>	
<p>This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)</p>	
<p>This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)</p>	
<p>This topic was covered in <b>elective</b> coursework. (1 point)</p>	
<p>This topic was <b>not</b> covered. (0 points)</p>	

Score Assigned:	2
<p><i>Score explanation: In the “Vector-Borne Infections” lecture in the pre-clinical infectious diseases unit, the lecturer dedicated a few slides to explaining that a warming climate results in expansion of habitat for vector species such as mosquitoes and ticks, increasing risk for vector-borne disease transmission. A similar point was made in the optional “Climate Lunch and Learn” lecture.</i></p>	

<p><b>1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?</b></p>	
<p>This topic was explored <b>in depth</b> by the <b>core</b> curriculum.</p>	
<p>This topic was <b>briefly</b> covered in the <b>core</b> curriculum.</p>	
<p>This topic was covered in <b>elective</b> coursework.</p>	
<p>This topic was <b>not</b> covered.</p>	
Score Assigned:	2
<p><i>Score explanation: In the preclinical curriculum, the lectures “Asthma: Clinical features, pathogenesis and therapeutics” and “COPD: Clinical features, pathogenesis &amp; 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.</i></p> <p><i>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 &amp; COPD.”</i></p> <p><i>Finally, the Health Equity selective course includes didactics on the disproportionate impact on climate-change related respiratory issues on marginalized communities. The optional “Climate Lunch and Learn” lecture addresses similar disparities in respiratory health.</i></p>	

<p><b>1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat</b></p>	
<p>This topic was explored <b>in depth</b> by the <b>core</b> curriculum.</p>	
<p>This topic was <b>briefly</b> covered in the <b>core</b> curriculum.</p>	
<p>This topic was covered in <b>elective</b> coursework.</p>	
<p>This topic was <b>not</b> covered.</p>	

Score Assigned:	1
<i>Score explanation: NYUGSOM's Health Equity selective course includes didactics on the disproportionate impact on climate-change related cardiovascular disease on marginalized communities.</i>	

<b>1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	0
<i>Score explanation: This topic is not addressed in the NYUGSOM curriculum.</i>	

<b>1.8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	0
<i>Score explanation: This topic is not addressed in the NYUGSOM curriculum.</i>	

<b>1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	

This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation: The “Kidney Stones” lecture in the renal unit notes that redlined areas are often subject to disproportionate warming, which results in higher rates of kidney stones. Furthermore, the optional lunch lecture “Pandemic Preparedness and Global Health” stated that the disproportionate impact of climate change on socioeconomically marginalized communities may be particularly acute in times of extreme climate events. The Health Equity selective also includes a lecture on disparities in climate change-related health effects, particularly related to the disproportionate impact on communities of color and women, and 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. The optional “Climate Lunch and Learn” lecture provides multiple examples of climate health inequity, including the disproportionate impact of Hurricane Ida on Asian communities in New York City.</i></p>	

<b>1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	0
<p><i>Score explanation: This topic is not covered in the curriculum.</i></p>	

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

<b>1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation: The “Introduction to Embryology” lecture in the preclinical anatomy curriculum introduces the concept of teratogens, which may include environmental pollutants. In the endocrine module, the curriculum spotlights environmental chemicals acting as endocrine</i></p>	

disruptors. The optional “Climate Lunch and Learn” lecture demonstrates that prenatal exposure to air pollution is associated with pregnancy and perinatal complications.

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

This topic was explored **in depth** by the **core** curriculum.

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

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

This topic was **not** covered.

Score Assigned:

2

*Score explanation: In the “Circulatory Physiology” lecture of the cardiology unit, one slide was dedicated to the destruction that Hurricane Sandy brought to NYU Langone and Bellevue Hospitals. Additionally, the lecture “Asthma: Clinical features, pathogenesis, and therapeutics” in the pulmonology unit briefly mentioned the impact of wildfire smoke from wildfires in Canada on respiratory health in NYC. The lecturer also listed environmental exposures among reasons for NYC’s unusually high rates of asthma. The optional “Climate Lunch and Learn” reinforces these examples.*

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

This topic was explored **in depth** by the **core** curriculum.

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

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

This topic was **not** covered.

Score Assigned:

2

*Score explanation: In the pre-clinical infectious diseases curriculum, the lecture “Anti-parasitic Medications” states that the medicinal properties of quinine have been known to Indigenous peoples in South America for centuries.*

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

This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	1
<i>Score explanation: The optional “Climate Lunch and Learn” lecture states that populations such as older adults, communities of color, pregnant people, and workers in fields like construction and firefighting are particularly impacted by poor air quality due to anthropogenic causes.</i>	

***Curriculum: Sustainability***

<b>1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	0
<i>Score explanation: Though the health benefits of a plant-based diet are discussed during the GI module of the preclinical curriculum, the environmental co-benefits are not addressed.</i>	

<b>1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	1
<i>Score explanation: In the optional “Climate Lunch and Learn,” the lecturer points out that the global healthcare sector emits more greenhouse gases than all but four countries and provides several mechanisms for these high emissions.</i>	

1.17. Does your <b>medical school</b> curriculum cover these components of sustainable clinical practice in the <b>core</b> curriculum? (points for each)	Score
The health <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment (2 points)	0
The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	0
The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	0
Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of <b>anaesthetic</b> gases on the healthcare carbon footprint and ways to reduce anaesthesia's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0
The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
<b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0
<i>Score explanation: These topics are not currently included in the core curriculum.</i>	

*Curriculum: Clinical Applications*

1.18. In training for patient encounters, does your <b>medical school's</b> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the <b>core</b> curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in <b>elective</b> coursework. (1 points)	
No, there are <b>not</b> strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
<i>Score explanation: This topic is not covered in the curriculum.</i>	

**1.19. In training for patient encounters, does your medical school's curriculum introduce strategies for taking an environmental history or exposure history?**

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

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

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

Score Assigned:

0

*Score explanation: Because the environmental health selective is no longer offered, this topic is not part of the curriculum.*

***Curriculum: Administrative Support for Planetary Health***

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

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

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

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

Score Assigned:

4

*Score explanation: Working with the student-led Environmental Medicine Interest and Advocacy Group, the Office of Medical Education has committed to teaching planetary health within the Foundational Clinical Skills course of the preclinical curriculum. In 2025-2026, the required curriculum will include a dedicated lecture and panel discussion covering climate change and planetary health, and this topic will be further developed as a longitudinal thread in the curriculum in subsequent years.*

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

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

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

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

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

Score Assigned:	2
<p><i>Score explanation: The primary education on planetary health was a standalone optional lunch lecture called "Climate Lunch &amp; Learn." Planetary health is not currently a longitudinal theme in the curriculum. When addressed, planetary health topics are usually mentioned briefly and tangentially rather than in relation to each other.</i></p>	

<p><b>1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?</b></p>	
<p><b>Yes, the medical school</b> has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)</p>	
<p><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. (0 points)</p>	
Score Assigned:	0
<p><i>Score explanation: The medical school does not have a specific faculty member responsible for planetary health and sustainable healthcare in the curriculum.</i></p>	

<b>Section Total (26 out of 72)</b>	<b>36%</b>
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# Interdisciplinary Research

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

<b>2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>?</b>	
Yes, there are faculty members at the <b>institution</b> who have a <b>primary</b> research focus in planetary health <b>or</b> sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the <b>institution</b> who are conducting research <b>related</b> to planetary health or healthcare sustainability, <b>OR</b> are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the <b>institution</b> , but not specifically associated with healthcare/vetcare. (1 point)	
No, there are <b>no</b> planetary health and/or sustainability researchers at the <b>institution</b> at this time. (0 points)	
Score Assigned:	3
<p><i>Score explanation: There are several faculty members employed in the <a href="#">Division of Environmental Medicine</a> whose 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. Faculty who conduct research on the intersection of sustainability and healthcare can be found in the <a href="#">Sustainability and Healthcare database</a>.</i></p>	

<b>2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?</b>	
There is <b>at least one</b> dedicated department or institute for interdisciplinary planetary health research. (3 points)	
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. (2 points)	
There is an <b>Occupational and Environmental Health department</b> , but no interdisciplinary department or institute for planetary health research. (1 points)	

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

Score Assigned:

3

*Score explanation: The [Division of Environmental Medicine](#) is part of 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. NYU Grossman School of Medicine also contains the [Center for the Investigation of Environmental Hazards](#), 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. In addition, the School of Medicine is one of seven [Collaborative Centers in Children's Environmental Health Research & Translation](#) across the country, with the school's center focused on the effects of climate change and endocrine disrupting chemicals on child health.*

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

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

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

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

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

Score Assigned:

3

*Score explanation: The School of Medicine's [Collaborative Centers in Children's Environmental Health Research & Translation](#) which focuses on the effects of climate change and endocrine disrupting chemicals on children's health contains a Community Stakeholder Advisory Board. The advisory board consists of national and international organizations in the environmental space that, among other things, provide oversight and feedback on the work being created to ensure research on climate change as it pertains to children is effectively translated into policy and practice.*

*Additionally, researchers from NYU Grossman School of Medicine partner with the Ramapough Lunaape Nation community who live in northern NJ and southern NY state on heavily polluted land on community-led research that is based on an equal and equitable partnership, including a [project](#) focused on building food sovereignty and sustainability among the Ramapough Turtle and Deer Clan.*

*Lastly, the Perlmutter Cancer Center has a [Community Outreach & Engagement Core](#) which "aims to prevent cancer and reduce disparities in cancer care in the communities that we serve in our catchment area, especially underserved populations. By engaging with our stakeholders, we identify local community needs and implement strategies to translate cancer research into policy*

*and practice.” A number of researchers within the Department of Environmental Medicine who conduct work on planetary health are part of the Cancer Center’s research programs that are influenced by the Community Outreach & Engagement Core’s findings.*

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

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

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

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

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

Score Assigned:

2

*Score explanation: The [Division of Environmental Medicine](#) website has information on ongoing research efforts and leaders at the institution. The [NYU Langone Health Sustainability](#) website includes a link to a sustainability and healthcare database which compiles NYU research efforts on environmental health. This includes all publications prior to the last update in April 2023. Centralized information on upcoming events and funding opportunities is not available.*

**2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?**

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

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

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

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

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

Score Assigned:

4

*Score explanation: Within the past year, NYU Grossman School of Medicine has hosted a symposium, conference, and mini symposium on topics related to planetary health. The school hosted a mini virtual conference titled "[Measuring Microplastics](#)" on July 12th and 31st, a conference on May 6th, 2024 titled, "[Health, Healthcare And... Climate Action](#)", and a two-day symposium on [Plastics and Human Health](#) on September 23-24, 2024.*

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

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

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

Score Assigned:

1

*Score explanation: The NYU Langone Department of Population Health, which is part of NYU Grossman School of Medicine, 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.S. Health Care Climate Council](#), [US Department of Health & Human Services' Health Care Sector Pledge](#), [International Health Care Climate Challenge](#), and [National Academy of Medicine's Initiative to Accelerate the National Climate and Health Movement](#).*

**Section Total (16 out of 17)**

**94%**

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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 colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.

<b>3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?</b>	
Yes, the <b>institution</b> meaningfully partners with <b>multiple</b> community organisations to promote planetary and environmental health. (3 points)	
Yes, the <b>institution</b> meaningfully partners with <b>one</b> community organisation to promote planetary and environmental health. (2 points)	
The <b>institution</b> does not partner with community organisations, but has participating in community focused events relating to planetary health. (1 point)	
No, there is <b>no</b> such meaningful community partnership. (0 points)	
Score Assigned:	3
<p><i>Score explanation: NYU Langone’s <a href="#">Department of Population Health</a>, 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. Examples of recent community outreach include the public-facing <a href="#">Health, Healthcare and Climate Action Conference</a>.</i></p> <p><i>Additionally, an integral part of the mission of the Institute of <a href="#">Excellence in Health Equity’s Section for Global Health</a> is to partner with community groups to help populations around the world facing issues relating to “climate change, discrimination, water supply, food quality, built environments, institutionalized inequities, and inadequate implementation of evidence-based policies and programs.”</i></p> <p><i>Finally, in <a href="#">NYU’s annual sustainability report</a>, the institution reports that they:</i></p> <p><i>“are part of the U.S. Health Care Climate Council, whose members collectively promote resiliency in their communities and advocate for climate-smart policies at the local, state, and federal level. We also serve on a technical expert panel for a new initiative launched by the American Hospital Association to address the impacts of climate in the communities that hospitals serve. Over the next two years, we will work alongside our peers to provide strategic guidance and subject matter expertise to ultimately empower communities and health systems to partner and collaborate when approaching environmental and climate</i></p>	

*challenges. We are integrating these learnings on climate and health into our own community health needs assessment process, which would be shared in our next community service plan in 2025.”*

**3.2. Does your institution offer community-facing courses or events regarding planetary health?**

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

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

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

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

Score Assigned:

3

*Score explanation: NYU’s Department of Population Health has a [Community Service Plan](#) which includes*

*“programs that span multiple sectors, including community-based early childhood education settings and schools, primary care, housing, and community settings, as well as faith-based organizations and social service providers.”*

*A specific example is the [Health and Housing Consortium](#) which is related to planetary health insofar as climate change is a major threat to global housing security. The consortium:*

*“sponsors interagency case conferences that bring together stakeholders from homeless outreach, supportive housing, and social services with hospital emergency department clinicians, inpatient social workers, and discharge planners. These bi-annual case conferences foster cross-sector relationships.”*

*The Department of Population Health hosts several other community-facing events such as the [Health, Healthcare and Climate Action Conference](#). Additionally, the institution has organized other events such as a Climate Week symposium on [Plastics and Human Health](#).*

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

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

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

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

Score Assigned:

2

*Score explanation: 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 include relevant planetary health/sustainable healthcare topics:*

**Monday, September 23, 2024**

**Plastics And Human Health Symposium**

Monday, September 23

Location: Schwartz Ground Floor (SLHE Seminar Room)

The NYU Langone Health Center for the Investigation of Environmental Hazards (CIEH) will kick off **Climate** Week NYC on September 23 and 24, 2024, for a two-day in-person scientific symposium on Plastics and Human Health here at NYU. The first day will cover the gamut of issues, from microplastics to...

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

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

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

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

Score Assigned:

2

*Score explanation: At NYU Langone, seminars and training for **CME** 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 institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?**

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

<b>Some</b> affiliated hospitals have accessible educational materials for patients. (1 point)	
<b>No</b> affiliated medical centres have accessible educational materials for patients. (0 points)	
Score Assigned:	2
<i>Score explanation: At NYU Langone, the <a href="#">Center for the Investigation of Environmental Hazards</a> hosts <a href="#">events</a> 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.</i>	

<b>3.6. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?</b>	
Yes, the <b>medical school</b> or <b>all affiliated hospitals</b> have accessible educational materials for patients. (2 points)	
<b>Some</b> affiliated hospitals have accessible educational materials for patients. (1 point)	
<b>No</b> affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	0
<i>Score explanation: No patient-facing materials directly addressing the health impacts of climate change were found.</i>	

<b>Section Total (12 out of 14)</b>	<b>86%</b>
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## Support for Student-Led Planetary Health Initiatives

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

### 4.1. Does your **institution** offer support for students interested in enacting a sustainability initiative/QI project?

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

The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)

No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

2

*Score explanation: The NYU Office of Sustainability offers [Green Grants Program](#) awards 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 [seed funding](#) for projects that address issues at the intersection of environmental and 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. Funding is available for student-driven sustainability projects during a 6-week summer research fellowship.*

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

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

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

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

Score Assigned:

2

*Score explanation: Multiple summer research fellowship opportunities (a requirement for students to complete after their first year) exist which pertain directly to planetary health research. These range from applying LLMs to study the impacts of climate change on health to assessing how environmental changes in Chinatown (e.g., construction, climate, etc.) impact the health of older adults (+ reviewing culturally adapted mitigation strategies). There are many more relevant opportunities that students can seek out and design themselves with the Department of Population Health.*

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

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

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

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

Score Assigned:

0

*Score explanation: NYU Langone Health hosts a [sustainability](#) webpage. This site includes information on the hospital system's sustainability commitments and accomplishments, and also links to a [database](#) of NYU Langone and NYU researchers' work on sustainability and healthcare. Additionally, NYU Grossman School of Medicine's [Division of Environmental Medicine](#) 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 institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?**

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

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

No, there is <b>not</b> a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	2
<i>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 training in the environmental health field. The group is supported by a faculty advisor.</i>	

<b>4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?</b>	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	0
<i>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.</i>	

<b>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)</b>	<b>Score</b>
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 organise hiking, backpacking, kayaking, or other outings for students)	1
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Score explanation:

- 1) 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.
- 2) There have been multiple optional “lunch and learn” talks about planetary health that have medical students as the primary target audience.
- 3) Such events include:
  - a) <https://www.nyu.edu/life/sustainability/teaching---research/environmental-and-racial-justice-network/past-erjn-events.html>
  - b) <https://as.nyu.edu/research-centers/clacs/research/research-colloquium/spring-2024-colloquium--critical-voices-in-environmental---racia.html>
- 4) NYU Tisch has held various events showcasing art related to the climate crisis:
  - a) <https://tisch.nyu.edu/collaborative-arts/collaborative-arts-events/global-climate-change-film-festival-2024.html>
  - b) <https://tisch.nyu.edu/research/events/spring-2024/Climate-Opera.html>
- 5) The undergraduate campus has several organizations and opportunities dedicated to environmental-related volunteering:
  - a) <https://www.nyu.edu/life/sustainability/action/student-organizations.html>
- 6) The NYUGSOM Outdoors Club has hosted several events including day-trip hikes to the Catskill Mountains.

Section Total (14 out of 15)	93%
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# Campus Sustainability

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

<b>5.1. Does your <u>institution</u> have an Office of Sustainability?</b>	
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. (3 points)	
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 hospital sustainability. (2 points)	
There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee. (1 point)	
There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	3
<p><i>Score explanation: NYU Langone Health has a well-established Energy &amp; Sustainability team that is part of Real Estate Development and Facilities Department (RED+F). This department oversees the physical campuses that include the medical school buildings and hospital facilities. The team includes three full-time Energy &amp; Sustainability staff members who manage the institution-wide sustainability program. The sustainability program 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.</i></p>	

<b>5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?</b>	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b> (5 points)	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b> (3 points)	
The institution 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> (1 point)	
The institution/medical school does <b>not</b> meet any of the requirements listed above (0 points)	

Score Assigned:	0
<p><i>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 &amp; 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.</i></p>	

<p><b>5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?</b></p>	
<p>Yes institution buildings are <b>100%</b> powered by renewable energy. (3 points)</p>	
<p>Institution buildings source <b>&gt;80%</b> of energy needs from off-site and/or on-site renewable energy. (2 points)</p>	
<p>Institution buildings source <b>&gt;20%</b> of energy needs from off-site and/or on-site renewable energy. (1 point)</p>	
<p>Institution buildings source <b>&lt;20%</b> of energy needs from off-site and/or on-site renewable energy. (0 points)</p>	
Score Assigned:	0
<p><i>Score explanation: 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 expanding into solar power development.</i></p>	

<p><b>5.4. Are sustainable building practices utilised for new and old buildings on the <u>institution's</u> campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?</b></p>	
<p>Yes, sustainable building practices are utilised for new buildings on the institution's campus and the <b>majority</b> of old buildings <b>have been retrofitted</b> to be more sustainable. (3 points)</p>	
<p>Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have <b>not been retrofitted</b>. (2 points)</p>	

Sustainable building practices are <b>inadequately or incompletely</b> implemented for new buildings. (1 point)	
Sustainability is <b>not considered</b> in the construction of new buildings. (0 points)	
Score Assigned:	3
<p><i>Score explanation: As part of NYU Langone Health design standards, all new construction and major projects over 25,000 square feet must pursue Gold or higher certification under the USGBC LEED rating system. Across its portfolio, NYU Langone Health has completed 5 LEED certified buildings comprising 1.58M square feet of space and is pursuing certification for an additional 4 projects. 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 Platinum certification in 2019. Prior to these achievements, the medical center and medical school main campus sustained significant damage during 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 addition of an 11MW cogeneration plant that now provides clean and efficient power and heat for the medical center. It also allows NYU Langone to be completely self-sufficient in the event of a utility power interruption.</i></p>	

<b>5.5. Has the <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?</b>	
Yes, the institution 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-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)	
The institution has implemented <b>some</b> strategies to provide environmentally-friendly transportation options, but the options are <b>unsatisfactorily</b> accessible or advertised. (1 point)	
The institution has <b>not</b> implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)	
Score Assigned:	2
<p><i>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 own 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</i></p>	

staff are also encouraged to use public transportation through a benefit offer of receiving pre-tax metrocards.

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

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

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

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

Score Assigned:

1

*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.*

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

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

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

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

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

Score Assigned:

2

*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.

**5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?**

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

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

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

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

Score Assigned:

2

*Score explanation: 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 launched a 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.*

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

Every event hosted at the institution **must** abide by sustainability criteria. (2 points)

The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required**. (1 point)

There are **no** sustainability guidelines for institution events. (0 points)

Score Assigned:	0
<p><i>Score explanation: While there are no sustainability guidelines for medical school events, the Office of Student Affairs is part of an institution-wide sustainability group which discusses opportunities to eliminate waste at medical school events.</i></p>	

<p><b>5.10. Does your <u>institution</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?</b></p>	
<p>Yes, the institution has <b>programs</b> and <b>initiatives</b> to assist with making lab spaces more environmentally sustainable. (2 points)</p>	
<p>There are <b>guidelines</b> on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)</p>	
<p>There are <b>no</b> efforts at the institution to make lab spaces more sustainable. (0 points)</p>	
Score Assigned:	2
<p><i>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.</i></p>	

<p><b>5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?</b></p>	
<p>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. (4 points)</p>	
<p>The institution is <b>entirely divested</b> from fossil fuels. (3 points)</p>	
<p>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. (2 points)</p>	
<p>The institution has <b>not divested</b> from fossil-fuel companies, but faculty and/or students are <b>conducting organised advocacy</b> for divestment. (1 point)</p>	
<p>Yes, the institution has investments with fossil-fuel companies and there have been <b>no efforts</b> to change that. (0 points)</p>	
Score Assigned:	2
<p><i>Score explanation: New York University committed to fully divesting from fossil fuels in September 2023. However, NYU Langone Health, which encompasses the medical school, has not responded</i></p>	

*to calls by the “First, Do No Harm” campaign to divest its pension and retirement funds from fossil fuels at this time.*

<b>Section Total (17 out of 32)</b>	<b>53%</b>
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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 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
<b>Planetary Health Curriculum (30%)</b>	$(26/72) \times 100 = 36\%$	+D
<b>Interdisciplinary Research (17.5%)</b>	$(16/17) \times 100 = 94\%$	A
<b>Community Outreach and Advocacy (17.5%)</b>	$(12/14) \times 100 = 86\%$	A
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(14/15) \times 100 = 93\%$	A
<b>Campus Sustainability (17.5%)</b>	$(17/32) \times 100 = 53\%$	C
<b>Institutional Grade</b>	$(36 \times 0.3 + 94 \times 0.175 + 86 \times 0.175 + 93 \times 0.175 + 53 \times 0.175) = 68\%$	<b>B</b>

# Report Card Trends

## Section Overview

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

