



Planetary Health Report Card (Medicine): *SUNY Downstate Health Sciences University*



2024-2025 Contributing Team:

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Land acknowledgment: We would like to acknowledge the land politically designated as New York City to be the original homeland of the Lenape (Lenapehoking) people who were displaced as a result of European colonialism.

Summary of Findings

Overall Grade	C
Curriculum	C+
<ul style="list-style-type: none"> SUNY Downstate Health Sciences University does include planetary health in the curriculum, but it lacks integration longitudinally. There is one specific group session dedicated to planetary health during the third year, but there is minimal mention of planetary health topics in lectures and small groups pre-clinically or longitudinally within the clerkship curriculum. Recommendations: Introduction of planetary health curricula into preclinical lectures, problem based learning sessions, further longitudinal integration across clinical clerkships, and the creation of a fourth year elective course. 	
Interdisciplinary Research	C-
<ul style="list-style-type: none"> Faculty at SUNY Downstate Health Sciences University support students conducting research on planetary health topics. The School of Public Health has a dedicated department for planetary health. Recommendations: SUNY Downstate Health Sciences University could organize a conference related to Planetary Health and create avenues for medical students to get involved with planetary health through resources offered by the School of Public Health.. They could also join the Planetary Health Alliance and the Global Consortium on Climate and Health Education. 	
Community Outreach and Advocacy	B-
<ul style="list-style-type: none"> SUNY Downstate Health Sciences University is very involved with its neighboring communities, hosting community health fairs and weekly free classes/workshops. However, there is a lack of direct mention of planetary health throughout these events. Recommendations: We recommend integration of planetary health topics within the annual community health fair, as well as creating community partnerships that directly relate to planetary health. 	
Support for Student-Led Initiatives	C
<ul style="list-style-type: none"> SUNY Downstate Health Sciences University supports student groups dedicated to planetary health, such as the planetary health club. However, the club was inactive in the last year with few organized events, and was subsequently removed as an official club. Recommendations: We recommend the medical school offers increased support to students interested in sustainable initiatives. For example, through the creation of a website that advertises mentors or opportunities for students relating to planetary health. We also recommend that current clubs with topics related to planetary health (e.g. Lifestyle Medicine Interest Group) incorporate more planetary health discussions and activities during the academic year for interested students. 	
Campus Sustainability	D
<ul style="list-style-type: none"> SUNY Downstate Health Sciences University has pledged to be a more sustainable institution. They partner with several companies that make transportation and electricity more sustainable on campus. There is a recycling program on campus as well. Recommendations: There is still much to improve with the campus sustainability. Goals and plans are already in place, but we recommend updating the students and the website regarding sustainability measures. In addition, we recommend creating a composting program and making lab and study spaces more sustainable. 	

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.

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

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year. (2 points)	
The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health. (1 points)	
No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	1
<p><i>Score explanation: There are no specific offered electives focusing or addressing planetary health at SUNY Downstate Health Sciences University. In the past, students have developed their own independent research elective for credit focused on Planetary Health, however this is not a standard elective offered by the school. The school does offer a Global Health Elective that occasionally discusses the impacts of climate change in developing countries. They also offer another elective called "Hospital Systems & Disaster Management," which provides instruction on practical knowledge and experience in disaster medicine, including natural disasters like hurricanes and wildfires.</i></p>	

Curriculum: Health Effects of Climate Change

1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	

This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: As part of the MS3 core curriculum at SUNY Downstate Health Sciences University, students had a 2.5 hour clinical skills session titled “Climate Change and Health,” during which they went through two simulated patient cases: a child with an asthma exacerbation following air quality alerts, and a case of West Nile virus. Following the cases, there was a brief discussion that included the health impacts of extreme heat and the populations most at risk. Testable learning objectives for the session included: develop a treatment plan for each of the patient’s diagnoses, which includes addressing environmental risks, identify how climate change can affect human health, and identify ways that physicians can engage in climate health action on a personal level.</i></p>	

1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	1
<p><i>Score explanation: In the 2024-2025 academic year, SUNY Downstate Health Sciences University’s COM offered an optional Global Health elective for students in their MS1 and MS2 year, which consists of a series of lectures over the course of the year focusing on the intersections between healthcare and the global environment. One such talk was titled International Disaster and Emergency Medicine, and went over the workflow of disaster medicine in specific cases, including responses to Haiti, Chile, and Japan natural disasters. For their MS4 students, SUNY Downstate Health Sciences University’s COM offered the month-long elective “Hospital Systems & Disaster Management,” which provided instruction on practical knowledge and experience in disaster medicine, including natural disasters like hurricanes and wildfires. Another offered elective, “Wilderness Medicine,” familiarises students with the wilderness setting and included learning objectives such as managing injuries/illness in the austere environment and managing mass casualty incidents.</i></p>	

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	

This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: As part of the MS3 core curriculum at SUNY Downstate Health Sciences University, students had a 2.5 hour clinical skills session titled “Climate Change and Health,” during which they went through two simulated patient cases, one of which was about West Nile Virus. Following this case, students discussed how climate change impacts vector-borne diseases and new patterns of vector borne disease, with several examples including Dengue fever, yellow fever, Zike virus, Lyme disease, malaria, and West Nile virus.</i></p>	

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?	
This topic was explored in depth by the core curriculum.	
This topic was briefly covered in the core curriculum.	
This topic was covered in elective coursework.	
This topic was not covered.	
Score Assigned:	3
<p><i>Score explanation: As part of the MS3 core curriculum at SUNY Downstate Health Sciences University’s COM, students had a 2.5 hour clinical skills session titled “Climate Change and Health,” during which they went through two simulated patient cases, one of which focused on a child with an asthma exacerbation following a poor air quality alert secondary to wildfire smoke. Following this case, students discussed different types of pollution and their impacts on health, including ambient air pollution, household air pollution, polluted water and polluted soil.</i></p>	

1.6. 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.	
This topic was covered in elective coursework.	
This topic was not covered.	
Score Assigned:	2
<p><i>Score explanation: As part of the MS3 core curriculum at SUNY Downstate Health Sciences University’s COM, students had a 2.5 hour clinical skills session titled “Climate Change and</i></p>	

Health,” at which time they were presented with eight pathways of earth systems impacting human health: air pollution, extreme heat, extreme weather, vector-borne illness, water-borne illness, food-borne illness, hunger and malnutrition, and mental health harms. While the main discussion focused around pollution and vector-borne illness, brief mention was made regarding cardiovascular effects of climate change in reference to pollution and extreme heat.

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

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

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:

During the core Psychiatry Clerkship rotation, air pollution was briefly discussed as a modifiable risk factor for the development of dementia. Additionally, as part of the 2.5-hour “Climate Change and Health” session for MS3 students, brief mention was made regarding mental health harms secondary to extreme weather events, displacement, relocation, and loss of property/personal finances.

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

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

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

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

This topic was **not** covered.

Score Assigned:

0

Score explanation: In the 2024-2025 academic year, there were no known sessions in the SUNY Downstate Health Sciences University’s COM curriculum that addressed the relationships between health, individual patient food and water security, ecosystem health, and climate change.

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?

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

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: As part of the MS3 core curriculum at SUNY Downstate Health Sciences University's COM, students had a 2.5 hour clinical skills session titled "Climate Change and Health," at which time they were presented with eight pathways of earth systems impacting human health: air pollution, extreme heat, extreme weather, vector-borne illness, water-borne illness, food-borne illness, hunger and malnutrition, and mental health harms. Students were then prompted to discuss four main discussion questions, one being "Which populations are most vulnerable to climate-related issues?"

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?

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

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

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

This topic was **not** covered.

Score Assigned:

1

Score explanation: At SUNY Downstate Health Sciences University's COM, the unequal regional health impacts of climate change globally was mentioned both during some of the Global Health Pathway lectures for the MS1 and MS2 students, as well as during the case-based discussion for the MS3 students in the Global Health Pathway.

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

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

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
<i>Score explanation: At SUNY Downstate Health Sciences University's COM, students in the third year OB/GYN clerkship have a mandatory lecture on Preterm Labor during their weekly didactic session which briefly mentions non-modifiable risk factors and causes for preterm labor, including air pollutants.</i>	

1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
This topic was explored in depth by the core curriculum.	
This topic was briefly covered in the core curriculum.	
This topic was covered in elective coursework.	
This topic was not covered.	
Score Assigned:	3
<p><i>Score explanation: At SUNY Downstate Health Sciences University's COM, human-caused environmental threats that are relevant to our community are mentioned frequently and longitudinally throughout several lectures and problem-based learning sessions. Our school is located in an underserved community and serves a population of primarily Caribbean/Afro-Caribbean patients who are disproportionately impacted by poverty and pollution. Specifically, a session titled "Social Determinants of Child Health" discusses childhood exposures to toxic environments and pollution, and how those exposures result in adverse health outcomes in adulthood.</i></p> <p><i>Another lecture for MSI's titled "Linking Environmental Causes of Cancer to the Hallmarks" discusses the roles of several environmental risk factors in neoplasia. This topic is also addressed in the Patient-Oriented Problem Solving session titled "Mechanisms of Carcinogenesis." The required pre-reading for this session addresses environmental carcinogens including tobacco, and occupational and dietary carcinogens were discussed throughout the session itself as well.</i></p>	

1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
This topic was explored in depth by the core curriculum.	
This topic was briefly covered in the core curriculum.	
This topic was covered in elective coursework.	
This topic was not covered.	

Score Assigned:	0
<p><i>Score explanation: There is no known curriculum in SUNY Downstate Health Sciences University's COM that addresses the importance of Indigenous knowledge and value systems as essential components of planetary health solutions.</i></p>	

<p>1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?</p>	
<p>This topic was explored in depth by the core curriculum.</p>	
<p>This topic was briefly covered in the core curriculum.</p>	
<p>This topic was covered in elective coursework.</p>	
<p>This topic was not covered.</p>	
Score Assigned:	0
<p><i>Score explanation: There is no known curriculum in SUNY Downstate Health Sciences University's COM that addresses the outsized impact of anthropogenic environmental toxins on marginalized populations.</i></p>	

Curriculum: Sustainability

<p>1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</p>	
<p>This topic was explored in depth by the core curriculum.</p>	
<p>This topic was briefly covered in the core curriculum.</p>	
<p>This topic was covered in elective coursework.</p>	
<p>This topic was not covered.</p>	
Score Assigned:	2
<p><i>Score explanation: The health benefits of a plant-based diet were discussed in several lectures throughout SUNY Downstate Health Sciences University's COM curriculum. The environmental and health benefits of a plant-based diet were also clearly discussed in elective lectures hosted by the Lifestyle Medicine Interest Group at Downstate, such as in the one titled "How Not to Age" by Dr. Greger, based on his bestselling book of the same name.</i></p>	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
This topic was explored in depth by the core curriculum.	
This topic was briefly covered in the core curriculum.	
This topic was covered in elective coursework.	
This topic was not covered.	
Score Assigned:	2
<p><i>Score explanation: As part of the MS3 core curriculum at SUNY Downstate Health Sciences University's COM, students had a 2.5 hour clinical skills session titled "Climate Change and Health," at which time they were presented with eight pathways of earth systems impacting human health: air pollution, extreme heat, extreme weather, vector-borne illness, water-borne illness, food-borne illness, hunger and malnutrition, and mental health harms. Students were then prompted to discuss four main discussion questions, one being "Do physicians have a responsibility to bring the health effects of climate change to the attention of the public and policymakers? If so, what role can physicians play when it comes to climate change and health?" In this discussion, a talking point was about the carbon footprint of the very system we are a part of.</i></p>	

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	Score
The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points)	2
The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	2
The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	1
Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0
The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0

Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0
<p><i>Score explanation: At SUNY Downstate Health Sciences University, there are several sessions that address the benefits of non-pharmaceutical management of conditions. Specifically, the “Introduction to Nutrition Topics” offered to MS1’s discusses benefits of managing cardiovascular disease and pre-diabetes with diet and exercise, prior to starting prescription drugs. In addition, there are several problem based learning sessions that cover diabetes and hypertension, where one of the learning objectives include societal factors that contribute to under-diagnosed or inadequately treated conditions in medically-underserved populations in New York City. In the discussion of societal factors, non-pharmaceutical management such as exercise was discussed, as well as the limits to exercising/access to gyms/access to green/outside space. Fourth year medical students at SUNY Downstate also have a mandatory “Deprescribing” lecture which discusses techniques and reasons to limit the number of prescription medications patients are taking, especially in geriatric populations.</i></p>	

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school’s</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework. (1 points)	
No, there are not strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	2
<p><i>Score explanation: As part of the MS3 core curriculum at SUNY Downstate Health Sciences University’s COM, students had a 2.5 hour clinical skills session titled “Climate Change and Health,” at which time they were presented with eight pathways of earth systems impacting human health: air pollution, extreme heat, extreme weather, vector-borne illness, water-borne illness, food-borne illness, hunger and malnutrition, and mental health harms. Students were then prompted to discuss four main discussion questions, one being “Do physicians have a responsibility to bring the health effects of climate change to the attention of the public and policymakers? If so, what role can physicians play when it comes to climate change and health?” In this discussion, strategies for conversations with patients about the health effects of climate change included personalizing climate change topics to their concerns, gauging patient interest in climate change, and connecting patients to federal and local resources.</i></p>	

1.19. In training for patient encounters, does your <u>medical school’s</u> curriculum introduce strategies for taking an environmental history or exposure history?	
Yes, the core curriculum includes strategies for taking an environmental history. (2 points)	

Only elective coursework includes strategies for taking an environmental history. (1 point)	
No, the curriculum does not include strategies for taking an environmental history. (0 points)	
Score Assigned:	2
<p><i>Score explanation: In the first two years of medical school at SUNY Downstate Health Sciences University, students are exposed to several problem-based learning sessions and patient-oriented problem solving sessions that discuss the importance of asking patients about their environmental and occupational exposures. Important exposures which were discussed included conversations around pneumoconiosis (including asbestosis and silicosis), as well as environmental exposure to pesticides and exposure to environmental pathogens related to travel or outdoor exposure. There are several additional clinical rotations offered for MS3's and MS4's that address taking an environmental history, including the pediatric and adult allergy and immunology rotation. Students are also provided with online modules and templates to prepare them to take environmental/exposure histories for all patients.</i></p>	

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education. (4 points)	
Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education. (2 points)	
No, there are no improvements to planetary health education in progress. (0 points)	
Score Assigned:	4
<p><i>Score explanation: There is currently a group of students working with a faculty preceptor to develop a curriculum based around Medicine for a Changing Planet's climate-related cases. The goal is that this curriculum will be incorporated into the didactics for each clerkship of the clinical years.</i></p>	

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

Score Assigned:	2
<i>Score explanation: Most of the planetary health curriculum at SUNY Downstate Health Sciences University is delivered in a stand-alone session required for MS3s titled "Climate Change and Health."</i>	

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	0
<i>Score explanation: SUNY Downstate Health Sciences University's COM does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health/sustainable healthcare.</i>	

Section Total (42 out of 72)	58.33%
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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>?	
Yes, there are faculty members at the institution who have a primary research focus in planetary health or sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the institution who are conducting research related to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the institution , but not specifically associated with healthcare/vetcare. (1 point)	
No, there are no planetary health and/or sustainability researchers at the institution at this time. (0 points)	
Score Assigned:	2
<i>Score explanation: There are individual faculty members at SUNY Downstate Health Sciences University's COM working with students conducting research on planetary health, sustainability within medicine, and planetary health curriculum building. Furthermore, SUNY Downstate Health Sciences University has a School of Public Health with several faculty with research interests dedicated to planetary health. The School of Public Health also offers a five-class (fifteen credit) "Advanced Certification in Climate Change and Planetary Health" available to all students.</i>	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?	
There is at least one dedicated department or institute for interdisciplinary planetary health research. (3 points)	
There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years. (2 points)	
There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research. (1 points)	

There is no dedicated department or institute. (0 points)	
Score Assigned:	3
<p><i>Score explanation: The SUNY Downstate School of Public Health has a Department of Environmental and Occupational Health Sciences (EOHS). This department conducts both basic science and applied clinical research. The focus of the department is the impact of the urban built environment on public health. The build environment includes the physical environment, including air pollution, environmental contaminants, and unhealthy buildings.</i></p> <p>Department Website Link: https://www.downstate.edu/education-training/school-of-public-health/departments/environmental-occupational-health-sciences/index.html</p>	

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:	0
<p><i>Score explanation: There is no known process by which communities disproportionately impacted by climate change and environmental injustice give input/make decisions about the research agenda at SUNY Downstate Health Sciences University.</i></p>	

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
<p><i>Score explanation: There is a dedicated website (also linked above) for the Department of Environmental & Occupational Health Sciences that lists involved faculty and research projects. Furthermore, there is a planetary health club with information also linked on the official SUNY Downstate website. However, it is outdated (currently advertising for events in 2021). There is also a separate website about sustainability and resources available to our surrounding community.</i></p> <p>https://www.downstate.edu/education-training/school-of-public-health/departments/environmental-occupational-health-sciences/index.html</p> <p>https://www.downstate.edu/education-training/school-of-public-health/_documents/planetary_health_club_info_sheet.pdf</p> <p>https://www.downstate.edu/about/community-impact/green-initiative/index.html</p>	

2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?	
Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)	
Yes, the institution has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)	
Yes, the institution has hosted a conference on topics related to planetary health / 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:	0
<p><i>Score explanation: To the best of our knowledge, SUNY Downstate Health Sciences University has not hosted a conference or symposium on topics related to planetary health in the past three years.</i></p>	

2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation?	
Yes, the institution is a member of a national or international planetary health or ESH/ESV organisation. (1 points)	
No, the institution is not a member of such an organisation. (0 points)	
Score Assigned:	0

Score explanation: SUNY Downstate Health Sciences University, College of Medicine is not a member of a national or international planetary health organization; however, SUNY Downstate's School of Public Health is a member of the Planetary Health Alliance.

Section Total (7 out of 17)

41.18%

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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.

3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?	
Yes, the institution meaningfully partners with multiple community organisations to promote planetary and environmental health. (3 points)	
Yes, the institution meaningfully partners with one community organisation to promote planetary and environmental health. (2 points)	
The institution does not partner with community organisations, but has participated in community focused events relating to planetary health. (1 point)	
No, there is no such meaningful community partnership. (0 points)	
Score Assigned:	2
<p><i>Score explanation: The Arthur Ashe Institute at SUNY Downstate Health Sciences University partners with Communities Together for Health Equity, which lists environmental justice as one of their core pillars. The model engages with community based organizations to address their roles in reducing avoidable hospital use. This form of community engaged for preventative medicine inherently promotes environmental health (reducing medical waste, decreasing use of ambulances/gas for transportation); however this partnership does not emphasize the promotion of planetary and environmental health and the medical school is not directly involved.</i></p>	

3.2. Does your <u>institution</u> offer community-facing courses or events regarding planetary health?	
The institution offers community-facing courses or events at least once every year. (3 points)	
The institution offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)	
The institution has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)	

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

Score Assigned:

3

Score explanation: SUNY Downstate Health Sciences University hosts a Community Healthy Lifestyle Fair every September. Although on the website, there are no direct mentions of planetary health topics, during the fair students and providers talk to patients about exercising in the park, taking citi bikes to commute to work/school, recycling, all in terms of personal benefits and environmental benefits.

<https://www.downstate.edu/about/community-impact/health-wellness/health-fair.html>

Downstate's School of Public Health (SPH) partnered with the [Mobile Teaching Kitchen \(MTK\) Initiative](#) in October 2023 to advance health and nutrition outreach in Brooklyn and provide education about nutritious eating, wholesome cooking techniques, and eco-friendly food habits.

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:

1

Score explanation: Students at SUNY Downstate Health Sciences University occasionally receive communication about planetary health. Every April, all students receive communication about the Earth month pledge and different actions they can take to better the planet, including biking, walking, planting, recycling, and more.

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
<p><i>Score explanation: SUNY Downstate Health Sciences University offers an Advanced Certificate Program in Climate Change and Planetary Health which “provides students with training to characterize and assess impacts related to climate change and the anthropogenic effects on health and wellbeing through constructive strategizing for policy and positive change.” This advanced certificate program includes five courses that each span one semester.</i></p> <p><i>Link:</i> https://www.downstate.edu/education-training/school-of-public-health/programs/advanced-climate-change.html</p>	

<p>3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?</p>	
<p>Yes, the medical school or all affiliated hospitals have accessible educational materials for patients. (2 points)</p>	
<p>Some affiliated hospitals have accessible educational materials for patients. (1 point)</p>	
<p>No affiliated medical centres have accessible educational materials for patients. (0 points)</p>	
Score Assigned:	1
<p><i>Score explanation: NYC Health & Hospitals (which includes Kings County Hospital Center, one of SUNY Downstate’s affiliated hospitals) has an "Institute for Diseases and Disaster Management" which includes a Tools and Resources page for both patients and clinicians and includes information regarding environmental exposure to COVID-19 and Special Pathogens such as Ebola virus, Marburg virus, Crimean-Congo Hemorrhagic Fever, and more. During clinical rotations in allergy/immunology, there are also pamphlets that are given out to patients regarding environmental exposures to pollutants and allergens.</i></p> <p>https://www.nychealthandhospitals.org/institute-for-disease-and-disaster-management/tools-and-re-sources/</p>	

<p>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?</p>	
<p>Yes, the medical school or all affiliated hospitals have accessible educational materials for patients. (2 points)</p>	
<p>Some affiliated hospitals have accessible educational materials for patients. (1 point)</p>	
<p>No affiliated hospitals have accessible educational materials for patients. (0 points)</p>	
Score Assigned:	0
<p><i>Score explanation: There are no known accessible educational materials for patients at SUNY Downstate Health Sciences University or its affiliated teaching hospitals about the health impacts of climate change.</i></p>	

Section Total (9 out of 14)	64.3%
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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 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. (1 point)

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

Score Assigned:

1

Score explanation: Faculty at SUNY Downstate Health Sciences University are incredibly supportive of students interested in planetary health and/or sustainability topics. These topics are encouraged and faculty is willing to participate in helping students receive independent electives, research credit, and develop curriculum related to these topics. However, there is no student funding and no requirements to participate.

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:

1

Score explanation: Faculty at SUNY Downstate Health Sciences University are incredibly supportive for students interested in planetary health or sustainability topics. These topics are encouraged and faculty is willing to participate, however, the initiative for the projects/electives must come entirely from students.

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: There is currently no medical school-specific webpage for locating planetary health and/or sustainable healthcare projects or mentors at SUNY Downstate Health Sciences University.

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 **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)

Score Assigned:

2

Score explanation: SUNY Downstate Health Sciences University has an active Planetary Health Club, which was started in 2020 by a medical student, and is supported by a faculty member who works in the School of Public Health. Students from across SUNY Downstate Health Sciences University's various academic programs are involved in the aforementioned club.

<https://www.downstate.edu/education-training/student-services/student-organizations/clubs/planetary-health.html>

4.5. Is there a student liaison representing sustainability interests who serves on a department

or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative 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: There is no student representative at SUNY Downstate Health Sciences University who serves on a decision-making council to advocate for curriculum reform in terms of planetary health and or/sustainability best practices.</i>	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1
<p><i>Score explanation: SUNY Downstate Health Sciences University has a student group called the Initiative for Nutritional Empowerment which has developed a community garden and has organized events around gardening education, food production, and which also provides fresh food to people in our community via the Brooklyn Free Clinic. In addition, SUNY Downstate has the Lifestyle Medicine Interest Group, which provides resources about plant-based nutrition and recently released a cookbook that teaches about healthy eating with plant-based recipes. This club has also had speaker events about sustainable food systems and healthy eating habits. Link: https://downstatelmig.wordpress.com</i></p> <p><i>The Planetary Health Club and the School of Public Health's Environmental and Occupational Health Concentration has hosted panels and events related to planetary health with students as intended audience. In addition, the global health pathway also hosted speakers on topics related to planetary health, such as disaster medicine.</i></p> <p><i>There is a wilderness elective available to fourth year medical students that mandates a once-a-week trip out into the wilderness. Students are also encouraged to take outdoor walks for</i></p>	

important causes: ie: Walk for Alzheimer's and Walk for Breast Cancer, among others. Students also receive emails from the Office of Communications & Marketing encouraging hiking NYS.

Section Total (7 out of 15)

46.67%

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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.*

5.1. Does your <u>institution</u> have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of hospital sustainability. (2 points)	
There are no salaried sustainability staff , but there is a sustainability task force or committee. (1 point)	
There are no staff members or task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	0
<p><i>Score explanation: There is a web page regarding a "Green Initiative" at SUNY Downstate, but there is no mention of staff, task forces, or committees responsible for overseeing or implementing initiatives for campus sustainability.</i></p> <p>https://www.downstate.edu/about/community-impact/green-initiative/index.html</p>	

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?	
The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)	
The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)	
The institution has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate (1 point)	
The institution/medical school does not meet any of the requirements listed above (0 points)	
Score Assigned:	1
<p><i>Score explanation: SUNY Downstate Health Sciences University's "mandatory policy" within its "Green Initiative" Webpage quoted Executive Order 24 under NYS Governor David Paterson,</i></p>	

which set the goal to "Reduce NYS greenhouse gas emissions ("GHG emissions") by 80 percent by the year 2050 (known as the "80 by 50" goal), using the baseline year of 1990." However, there is no shared plan that outlines what SUNY Downstate is actively doing to achieve this goal.
 Link: <https://www.downstate.edu/about/community-impact/green-initiative/policies.html>

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

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

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

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

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

Score Assigned:

1

Score explanation: In 2018, SUNY Downstate Health Sciences University partnered with Bloom Energy and Con Edison in a 15-year contract to use a 1.8 megawatt fuel cell system to produce clean energy to power its buildings. The contract stated, "The fuel cell unit will provide 45 percent of Downstate's base electrical load, including two-thirds of the electricity needs of the University Hospital of Brooklyn (UHB)."

Although there have not been any recent updates on the outcomes of this partnership since 2018, it is assumed that the contract has not been broken.

<https://www.downstate.edu/news-events/news/2018/06-21-2018.html>

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

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

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

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

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

Score Assigned:

2

Score explanation: SUNY Downstate Health Sciences University's newest building is the Public Health/Academic Building (PHAB), and was designed to meet LEED Silver energy conservation and sustainability standards. Link:

<https://downstatemedicalalumni.wordpress.com/2015/11/09/downstate-public-health-building/>

In 2019, SUNY Downstate Health Sciences University Replaced 5,000 fluorescent lights with LED resulting in energy and carbon savings. Link:

<https://www.suny.edu/sustainability/>

In 2023, SUNY Downstate Health Sciences University installed an all-glass automatic revolving door in its Education Building to lower its carbon footprint and be 8x more energy efficient than traditional sliding doors. Link:

<https://www.downstate.edu/about/office-of-the-president/presidents-bulletin/2023/02-07/physical-campus-updates.html>

However, it is unclear to what extent Downstate's old buildings are being updated or remodeled to conform to a published sustainability rating system / building code / guideline.

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

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

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

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

Score Assigned:

2

Score explanation:

Zip car membership is offered and discounted for SUNY Downstate Health Sciences University's students, faculty, and staff.

<https://www.downstate.edu/about/our-administration/finance/faculty-student-association/zipcar.html>

SUNY Downstate Health Sciences University, in partnership with Con Edison and the FLO Network, installed 4 EV charging stations on the SUNY Downstate campus in 2022, adjacent to the Health Sciences Education Building.

<https://www.downstate.edu/news-events/news/2022/04-21-2022.html>

SUNY Downstate Health Sciences University also offers daily van shuttle services for students, residents, faculty and staff to its affiliate sites such as Maimonides Hospital Center and the Brooklyn VA.

<https://www.downstate.edu/about/our-administration/university-police/transportation-shuttle-services.html>

Additionally, SUNY Downstate Health Sciences University is located in the middle of Brooklyn, NY where unsustainable forms of transportation like cars are not commonly used by most students. Most students use the public transportation system including the MTA subways and buses.

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: SUNY Downstate Health Sciences University has conventional recycling, but no composting programs. The Planetary Health Club has made efforts to initiate a composting program, but it has not come to fruition as of yet.

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: There are no clear sustainability guidelines for food or beverages, but the medical school's cafeteria has made some efforts in recent years to increase sustainable food and beverages such as installing a larger salad bar, and increased offerings of vegetarian / vegan / locally-sourced / culturally local meals.

On-campus catering sources are available through two primary sources - Sodexo or Cafe101, which is based on-campus. Cafe101's menu contains limited options to minimize waste, but sustainability is not identified as a clear goal. Sodexo is Downstate's supplier for all food in the cafeteria. Sodexo has implemented several initiatives to increase its environmental sustainability

efforts, but it is unclear how much of its efforts are directly applicable to SUNY Downstate Health Sciences University or are likewise employed by the institution.

Links:

<https://www.downstate.edu/about/our-administration/finance/contracts-purchasing/procurement/for-staff/index.html#catering>

<https://www.downstate.edu/about/our-administration/finance/faculty-student-association/cafe-101.html>

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: There are general procurement requirements at SUNY Downstate Health Sciences University, which include sustainability guidelines for cleaning products and copier paper, and encourages trading-in surplus, obsolete, or unused equipment rather than making a new purchase.

<https://www.downstate.edu/about/our-administration/finance/contracts-purchasing/procurement/for-staff/index.html#officesupplies>

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

Score explanation: There are no known sustainability guidelines for medical school events at SUNY Downstate Health Sciences University's COM.

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

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

There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)

There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

Score Assigned:

0

Score explanation: There are no known programs or initiatives to assist with making lab spaces more environmentally sustainable at SUNY Downstate Health Sciences University.

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?

The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)

The institution is **entirely divested** from fossil fuels. (3 points)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)

Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

Score Assigned:

0

Score explanation: It is assumed that SUNY Downstate Health Sciences University has investments with fossil fuel companies and there have been no efforts to change it as there is no information available regarding Downstate's investments nor divestment efforts, and SUNY as a whole has not divested from fossil fuel investments. To the best of our knowledge, there are no student or faculty organizations on campus advocating for divestment.

Section Total (11 out of 32)

34.37%

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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 SUNY Downstate Health Sciences University’s School of Medicine

The following table presents the individual section grades and overall institutional grade for the SUNY Downstate Health Sciences University’s School of Medicine on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(42/72) \times 100 = 58.3\%$	C+
Interdisciplinary Research (17.5%)	$(7/17) \times 100 = 41.1\%$	C-
Community Outreach and Advocacy (17.5%)	$(7/14) \times 100 = 64.3\%$	B-
Support for Student-led Planetary Health Initiatives (17.5%)	$(7/15) \times 100 = 46.7\%$	C
Campus Sustainability (17.5%)	$(11/32) \times 100 = 34.4\%$	D
Institutional Grade	$(58.3 \times 0.3 + 41.1 \times 0.175 + 64 \times 0.175 + 46.7 \times 0.175 + 34.4 \times 0.175) = 50.1\%$	C

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which SUNY Downstate Health Sciences University has participated in the Planetary Health Report Card initiative.

