



Planetary Health Report Card (Medicine):

*Norton College of Medicine, SUNY
Upstate Medical University*



2023-2024 Contributing Team:

- Students: Haani Qudsi, John Sebastian Babich, Samantha Ballas, Kathleen Renna, Katie Farkouh, Veronica Rive, Maushmi Chitale, Jessica Crooker, Kelly Reese
- Faculty Mentors: Dr. Augusta Williams, DSc, MPH
- *Primary Contact: Haani Qudsi, qudsih@upstate.edu

Summary of Findings

Overall	C
<u>Curriculum</u>	C
<ul style="list-style-type: none"> Norton College of Medicine integrates planetary health into the medical school curriculum longitudinally; however, most integrations could be expanded. Curriculum changes resulted in establishing a new elective, as well as modules (<i>Health Systems Science Week</i>) that discuss climate health in preclinical coursework. Recommendations: Not all topics of climate change impacts, such as neurological/mental health and reproductive health, are integrated in our current curriculum longitudinally. Our curriculum lacks coverage of strategies to bring up climate change health impacts to patients. 	
<u>Interdisciplinary Research</u>	C
<ul style="list-style-type: none"> Upstate Medical University employs environmental health researchers, with a large focus on infectious disease and vector borne disease research. The institution collaborates interdisciplinarily with the SUNY College of Environmental Science. Conferences were hosted regarding planetary health in the past year. Recommendations: Upstate Medical University researchers that focus on planetary health at our institution could establish a centralized resource page to streamline research opportunities and projects. This may be preferred to having students search for opportunities through multiple web pages. Upstate could join the Planetary Health Alliance. 	
<u>Community Outreach and Advocacy</u>	C+
<ul style="list-style-type: none"> Upstate Medical University has some community outreach for planetary health matters. The institution partners with clinical centers and local groups. Upstate covers lead exposure education extensively. Upstate hosted a lyme disease and tick-borne symposium in the past year. Recommendations: The medical school lacks climate education courses specifically. Efforts could be made to expand education resources on the hospital website. Materials to educate the public regarding air pollution, extreme heat, weather pattern changes, etc. could be shared with central NY communities. 	
<u>Support for Student-Led Initiatives</u>	B
<ul style="list-style-type: none"> Norton College of Medicine has a student-led Environmental Justice and Sustainability Club. Academic opportunities are available for students. The institution has a community wellness garden. Student-led initiatives are supported by our faculty mentor and sustainability manager. We have increased student interest in planetary health advocacy and education. Recommendations: This is Upstate's best performing metric, though there is room for improvement. There could be resource allocation for QI projects to be integrated as a credential for our medical school. We also do not currently have a research fellowship for sustainable healthcare projects. 	
<u>Campus Sustainability</u>	D+
<ul style="list-style-type: none"> Norton College of Medicine operates within Upstate Medical University and the University Hospital. This may hinder independent decision-making on behalf of our medical school to enact changes to sustainability. The medical school employs a sustainability manager. Sustainability guidelines are lacking for supply procurement and food offered at our institution. Recommendations: Our university should have a more rapid progression towards carbon neutrality and increased use of renewable energy for its large-scale infrastructure. We are hoping to make improvements to recycling and composting services on campus and in campus housing. 	

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

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

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

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

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	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.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation: SUNY Upstate Medical University offers three electives related to social responsibility of physicians: 1. Physicians and Social Responsibility I, 2. Physicians and Social Responsibility II, and 3. Physicians and Social Responsibility III. The material in each of these electives varies year-to-year, but each includes either a lecture on environmental issues in health or service learning opportunities that students can gear towards planetary health topics. Additionally, the elective Food as Medicine discusses at length the topic of dietary change and health. This course includes lectures regarding environmental impact of certain diets, but planetary health is not the main focus of the elective course.</i></p> <p><i>Starting in the Spring of 2024, a new elective course was offered, titled "The Impacts of the Climate Crisis on Health and Clinical Medicine". In this elective course, students learn about the global impact that the climate crisis is having on health systems, health equity, health justice, patient populations, and disease incidence and prevalence. Students are also taught about how healthcare professionals are addressing the climate crisis, challenges they're facing, and how climate change will impact the students in their future clinical practice.</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?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: SUNY Upstate Medical University curriculum included a lecture titled "Climate Change, Sustainability, and the Health Care Sector" in one of our week-long Health Systems Science Intensives (MHSS2:Population Health and Preventive Medicine) which discussed the impacts of climate change on weather patterns and climate, including the Greenhouse Effect, as well as the effects of extreme temperature on health outcomes.</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?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: SUNY Upstate Medical University curriculum included a lecture titled "Climate Change, Sustainability, and the Health Care Sector" in one of our week-long Health Systems Science Intensives (MHSS2:Population Health and Preventive Medicine) which discussed the impacts on health outcomes from climate change patterns like extreme temperature, severe storms, fog, wildfires, and winter weather. There was one slide in this lecture that discussed the impacts extreme weather can have on accessing health care and multiple slides discussing health care's influence on climate change.</i></p>	

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: Students received a lecture entitled "Global Health, One Health, and Planetary Health" which in part described the increase in zoonotic disease transmission as a result of climate change. The lecture described both direct interaction with humans and vectors as a result of changes to</i></p>	

climate, but also the resultant changes in the ecosystem more broadly that alter infectious disease dynamics.

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

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

Score explanation: SUNY Upstate Medical University curriculum included a lecture titled "Climate Change, Sustainability, and the Health Care Sector" in one of our week-long Health Systems Science Intensives (MHSS2:Population Health and Preventive Medicine) which discussed in multiple slides the impacts of climate change on air pollution and respiratory health outcomes. The slides discussed how Fog, Wildfire, Air Pollution, and Increasing Allergens all impact respiratory health outcomes.

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

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

Score explanation: SUNY Upstate Medical University curriculum included a lecture titled "Climate Change, Sustainability, and the Health Care Sector" in one of our week-long Health Systems Science Intensives (MHSS2:Population Health and Preventive Medicine) which discussed the impacts of climate change on weather patterns, including extreme heat, and the associated health outcomes that may result from extreme heat: including heat stroke, heat-related illness, exacerbated cardiovascular outcomes, cardiovascular failure, and death.

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

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

Score explanation: While the neuroanatomy and clinical neuroscience curricula at Upstate does not cover the mental health impacts of climate change and environmental degradation, the new "The Impacts of the Climate Crisis on Health and Clinical Medicine" elective does touch upon these topics.

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

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

Score explanation: In the lecture entitled "Climate Change, Sustainability, and the Health Care Sector," there was one slide that described the impact of changing weather events, and resultant climate change ramifications, on food production systems. Additionally the "Global Health, One Health, and Planetary Health" lecture included a brief discussion of the ways climate change and urbanisation can impact food security, and called on students to take a One Health approach to tackling food safety and security.

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

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

Score explanation: We received an entire lecture entitled "Environmental and Climate Justice" which described disparities in asthma rates, exposure to heavy metals, and historic activism in the field. The learning objective was to recognize how environmental factors influence individual and population health and health equity. The lecture included historic context for environmental activism, including the PCB landfill sit-in and the Memphis sanitation strikes, particularly highlighting the role that marginalised communities played in the environmental justice movement. Students also engaged in an applied learning activity where they interacted with the EPA web-mapping tool to explore different environmental and climate justice issues in locations across the United States, focusing on historically marginalized populations' proximity to known environmental hazards and pollutants.

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

3	This topic was explored in depth by the core curriculum.
---	--

2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: Discussion of the regional impacts of climate change globally is scarcely referred to in preclinical health systems science lectures. Within the “The Impacts of the Climate Crisis on Health and Clinical Medicine” Elective offered in Spring 2024, the class structure naturally prompts discussion of the impacts of displaced immigrants and refugees on health systems, given the class emphasis on climate justice and healthcare systems. There is flexibility as far as the extent of these discussions and are largely based on collective student interest.</i></p>	

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

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: There are no lecture slides related to the maternal and fetal health effects due to reproductive environmental toxins and air pollution in our current reproductive units. Discussion of teratogens, as it relates to medications are discussed; however, other environmental and occupation agents are scarcely mentioned.</i></p>	

1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university’s surrounding community?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: At Upstate Medical University, first year medical students partake in a Syracuse Community Orientation in their first semester. The Community Orientation provides a visual overview of the City of Syracuse. This orientation is the initial step to learning from and about the community and its local history while also uncovering the community dynamics and the conditions and trends that affect the health of its members. This experience is intended to provide students a unique opportunity to explore the social, political, environmental, and structural factors that impact the health of the community, as well as community resources and responses to health impacts, through the perspectives of the community narrators who are considered the “insiders” of the community. The Community Orientation centers the voices and lived experiences of the community members and provides</i></p>	

background and context for subsequent Community Engaged Learning (CEL) experiences that are grounded in a social justice lens. Students will be able to develop an understanding of how the built environment and social context of the community impact the health disparities in the City of Syracuse as we delve deeper into developing a holistic and public health approach to patient-centered care.

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

3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.

Score explanation: The current curriculum does not incorporate information regarding Indigenous knowledge as an essential component of planetary health solutions.

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

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

Score explanation: Students prepared for and participated in a case-based learning session in small groups where participants considered sources of lead exposure, associated adverse health outcomes, and disproportionate population exposures as related to the experience of a young boy with high blood lead levels. The case was explored through numerous sociodemographic variables and social determinants of health, such as geographic location, housing access, and family dynamics. The child in this case was also a person of color with little education, which the case directly tied to increased lead exposure. MS2 students also received lectures on pneumoconioses and metal toxicities that disproportionately affect individuals of low SES and minority individuals.

Curriculum: Sustainability

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

3	This topic was explored in depth by the core curriculum.
---	--

2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: Upstate Medical University brings up Cancer and Nutrition in the MSII curriculum in the Hematology and Oncology Unit. The lecture describes how plant-based diets are preventative for certain cancers. This lecture does not, however, focus on the environmental impact of plant-based diets. An elective is available for students to take called Food as Medicine, highlighting the impact of plant-based diet on health and the environment.</i></p>	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored in depth by the core curriculum
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: SUNY Upstate Medical University curriculum included a lecture titled "Climate Change, Sustainability, and the Health Care Sector" in one of our week-long Health Systems Science Intensives (MHSS2:Population Health and Preventive Medicine) which discussed in multiple slides the impacts health care has on climate change. The slides discuss the U.S. healthcare system's greenhouse gas emissions relative to the rest of the world, what specific factors of the health care system contribute to climate change and how (direct vs. indirect emissions), as well as provides a slide discussing the benefits of improving sustainability in the health care sector.</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)	
2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
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 fulfill this metric.
1	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	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions

1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	<i>Score explanation: While students did receive a lecture that included a few slides about healthcare contributions to climate change, there were no explicit mentions made that referenced the above topics. However, links were provided throughout and at the end of the presentation that allowed students to explore these specific topics in greater detail if they chose. MSII students received a lecture on alternatives to pharmaceuticals for psychiatric illnesses such as meditation and mindfulness, discussing how these practices may also be effective for illnesses such as Type 2 Diabetes.</i>

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?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
<i>Score explanation: In the previous curriculum's Patients to Populations health course, small groups discussed a case involving a patient having deteriorating health due to the effects of climate change (dehydration induced chronic disease). We discussed the impact of climate change on physical/mental health. However, within the current longitudinal curriculum, developments have been made in discussing strategies to converse with patients about the health impacts due to climate change in the new elective, "The Impacts of the Climate Crisis on Health and Clinical Medicine."</i>	

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?	
2	Yes, the core curriculum includes strategies for taking an environmental history.
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.
<i>Score explanation: Upstate Medical University incorporates physiologic effects of environmental exposures to pneumoconiosis in the MSII CardioRespiratory Unit, as well as effects of metal toxicities and environmental exposures in the MSII GI Unit. This information is expected to be tested in simulated patient experiences with history taking and physical exam, and will be expected to be utilised during hospital rotations during MSIII and MSIV clerkship years. Additionally, asking about environmental exposures is part of training for students when learning how to take a patient history in</i>	

the Practice of Medicine clinical skills course. Lastly, MSII students are given an Environmental Pathology lecture in which students learn how to elicit a detailed environmental exposure history, including work history.

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?

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

Score explanation: At Upstate Medical University, this past semester, a new elective course was offered, titled "The Impacts of the Climate Crisis on Health and Clinical Medicine". In this elective course, students learn about the global impact that the climate crisis is having on health systems, health equity, health justice, patient populations, and disease incidence and prevalence. Students are also taught about how healthcare professionals are addressing the climate crisis, challenges they're facing, and how climate change will impact the students in their future clinical practice. At Upstate Medical University, the Environmental Justice and Sustainability club has appointed curriculum chairs to work with faculty, Dr. Augusta Williams, ScD, MPH and Dr. Travis Hobart, MD, MPH, to incorporate environmental health topics into the medical school core curriculum. Curriculum chairs identify touch points throughout the core curriculum where aforementioned topics can be included in body system units, Practice of Medicine course, as well as Foundations in Reasoning in Medicine course.

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

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

Score explanation: While students did receive several stand alone lectures on climate change content, it was not a longitudinal course. Most of the content was also incorporated into only a single week of the new curriculum focused on social determinants of health. This single week is a mandatory requirement for all students to attend, thus all students received this lecture material. The content has not since been incorporated into any body system units in the new curriculum.

1.22. Does your medical school employ a member of faculty to specifically oversee and take

responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
Score explanation: Upstate Medical University has an appointed sustainability manager: Designation is part of an overall push for sustainability The Informed Patient Podcast SUNY Upstate	

Section Total (37 out of 72)	C
------------------------------	---

Back to Summary Page [here](#)

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

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u>?	
3	Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation: SUNY Upstate has an appointed professor of Public Health and Preventative medicine that has an academic interest in researching environmental and climate health. There are also collaborations Upstate researchers have with the SUNY Center for Environmental Health and Medicine. Upstate additionally has a Vector Biology laboratory. The center houses MD's and PhD's to dedicate themselves to infectious disease research within the context of global/environmental health. Although many investigators at this institute do not have their primary focus in planetary health, the director of the institution is investigating environmental factors contributing to vector borne diseases in the United States.</i></p>	

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

Score explanation: Upstate has their newly made [Vector Biocontainment Laboratory](#) and does have an [Occupation Health Clinical Center](#). The vector biocontainment lab houses researchers investigating global infectious disease patterns, which is in the direction towards interdisciplinary planetary health. However, it is not necessarily a center that focuses on other aspects of planetary health (air pollution effects, heat effects, weather pattern changes, environmental toxin exposure, policy etc). As an alternative to opening a Upstate institution for interdisciplinary Environmental health, there is a collaboration between the university and [SUNY Center for Environmental Health and Medicine](#).

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 medical school?

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

Score explanation: It is not known at this time whether or not climate disadvantaged community stakeholders give input for the research agenda at our institution.

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

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

Score explanation: Upstate lacks a centralized website regarding comprehensive resources for event planning and opportunities in environmental and planetary health. Our institution does have a [Office of Sustainability website](#), “Think Green. Think Future”, that does mention resources and collaborations with local services. This website, however, is not as comprehensive as we would like it to be.

2.5. Has your institution recently hosted a conference or symposium on topics related to

planetary health?	
4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.
<p><i>Score explanation: SUNY Upstate hosted their 2024 Health Justice Conference, where topics of environmental justice and indigenous group health were discussed. This event was open to the community. The themes of this conference vary from year to year. The Lyme and Tick-Borne Disease Summit also took place last year, with the principal audience intended for health professionals (joint CME course).</i></p>	

2.6. Is your medical school a member of a national or international planetary health or ESH organization?	
1	Yes, the medical school is a member of a national or international planetary health or ESH organization
0	No, the medical school is not a member of such an organization
<p><i>Score explanation: The college of medicine, along with the department of public health and preventative medicine, is a member of the Global Consortium on Climate and Health Education. SUNY Upstate is not a member of the Planetary Health Alliance.</i></p>	

Section Total (9 out of 17)	C
------------------------------------	----------

Back to Summary Page [here](#)

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

Community Outreach and Advocacy

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

3.1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation: SUNY Upstate as a parent institution has numerous partnerships, along with its medical school. SUNY Upstate partners with Practice Greenhealth, an organization built around building sustainable healthcare practices. Upstate is also a Bee Campus USA affiliate, allowing Upstate to limit pesticide and herbicide use for campus landscaping and promote education of pollinators. Upstate also has a historical partnership with The Onondaga County Resource Recovery Agency (OCRRA) for campuswide community recycling and waste reduction initiatives. In regards to its hospitals and patient care centers, the Children’s Environmental Health Center is also very active, partnering with the Central and Eastern New York Lead Poisoning Resource Center, Clean and Healthy New York, Home Headquarters and Green and Healthy Homes.</i></p> <p><i>At the medical school, students are able to participate through the Center for Community Engaged Learning to partner with local sustainability groups of their choosing. This is supplemental to pursuing elective credit, micro-credential certification (such as the ‘Physician Advocacy’ track), or volunteer work. The medical school also collaborates with the Eastern Farmers Workers Association, which allows students to interface directly with low-income farmers and migrant workers on a volunteer basis to help bridge the health gap between rural and urban communities, also giving the opportunity for students to secondarily promote sustainability and planetary health.</i></p>	

3.2. Does your medical school offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.

2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The institution/medical school have not offered such community-facing courses or events.
<p><i>Score explanation: While Upstate medical school does not offer public courses to teach the community planetary health, the Public Health program is often involved with hybrid events that are educational and activity-based (clean-up, gardening, etc.), where students and community members alike can get involved.</i></p>	

<p>3.3. Does your <u>medical school</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?</p>	
2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not receive communications about planetary health or sustainable healthcare.
<p><i>Score explanation: The sustainability manager periodically updates students on Upstate relevant sustainability initiatives and action plans through campus communications. Upstate also runs a community garden that gets mentioned through emails, in regards to efforts to get student volunteers.</i></p>	

<p>3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?</p>	
2	Yes, the institution or main affiliated hospital trust offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
1	Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are no such accessible courses for post-graduate providers
<p><i>Score explanation: Upstate Medical University offered a CME course on matters of planetary health and infectious disease. Through the CNY Biotech Accelerator, Upstate sponsored a Lyme and Tick-Borne Disease Summit to educate healthcare practitioners about the epidemiological patterns of tick-borne diseases. There is no knowledge of additional sustainable healthcare courses recently offered for post-graduation continuing education despite other extensive offerings.</i></p>	

3.5. Does your medical school or its affiliated teaching hospitals have accessible educational

materials for patients about environmental health exposures?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated medical centres have accessible educational materials for patients.
<p><i>Score explanation: Select Upstate clinic facilities have environmental health exposure resources readily available for patient access. Upstate Golisano Children’s hospital has on its web page a tab on occupational and environmental exposures, along with a ‘lead poisoning’ page, linking brochures and additional webpages for families and healthcare professionals. ‘Upstate News’ releases latest research advancements from the Institute of Global Health and publishes recommendations from the Upstate Poison Center regarding chemical toxins.</i></p>	

3.6. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation: On the SUNY Upstate Medical University main web page, ‘Upstate News’ periodically feature articles and interviews from SUNY Upstate researchers discussing the connection between health and the environment, such as alterations to vector-borne disease patterns, air pollution, chemical exposures, and heat. Upstate also has an ‘Informed Patient’ podcast that features researchers/professionals who discuss the connections between the environment and disease, as well as susceptible populations at risk for worsening disease. While these are available for patients to look for, there is a scarcity of accessible educational resources found directly through the Upstate main hospital, as well as through Crouse, St. Josephs, and affiliate Upstate centers in the form of a consolidated section surrounding planetary health. Despite this, there are outsourced printed brochures/posters placed on the walls of Upstate clinics regarding the impacts of climate change on general health.</i></p>	

Section Total (8 out of 14)	C+
------------------------------------	-----------

Back to Summary Page [here](#)

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

Support for Student-Led Planetary Health Initiatives

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

Score explanation: The Norton College of Medicine requires a certain number of hours participating in Community Engaged Learning opportunities. One of these opportunities includes the Upstate Community & Wellness Garden, which is a student-run and student-grown garden located on campus. Students have the option to regularly volunteer to water, maintain, and weed the garden. Volunteers are also able to take home some of the crop after a certain amount of work. While this opportunity is available to students in season, there is no requirement to participate in this specific sustainable option.

4.2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.

Score explanation: There are limited research opportunities at Upstate focused on planetary health and sustainable healthcare. However, Upstate has ample infectious disease research opportunities at the [SUNY Center for Vector-Borne Diseases \(CVBD\)](#), which focuses on zoonotic disease. This center encourages intersectionality and research collaboration between SUNY Upstate Medical University and SUNY College of Environmental Science & Forestry. Medical students can participate in research that is focused on the geographic expansion of vector-borne diseases due to ecological changes. This initiative will be furthered by the [Multidisciplinary Lyme and Tick-Borne Disease Treatment Center](#).

which will be established after a recent grant. Some current research topics at CVBD include vector biology, vaccine development, health impacts of chemical stressors, cancer and cardiovascular health effects from industrial toxins, and more. Additionally, Environmental Health faculty within the Department of Public Health and Preventive Medicine also welcome students to conduct this type of research. There is no specific research or fellowship grant encouraging sustainable healthcare research at this time.

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

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

Score explanation: While Upstate Medical University has a [website](#) dedicated to the “Think Green” initiative and sustainability resources, this website is a bit outdated and lacks major updates. Students interested in sustainability might not find all of the information they would like on this website, including research opportunities, student organization leadership contacts, and ways to get involved.

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

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

Score explanation: Upstate Medical University has the [Environmental Justice and Sustainability Club](#), which is a student-run and student-led organization aimed at supporting sustainable initiatives on campus and within the community. This student group focuses on spreading awareness about the harms of climate change, highlighting the adverse impacts of climate change on health and healthcare systems, using activism and volunteering to help our earth, and advocating for policy changes, divestment, and other solutions. The Upstate Environmental Justice and Sustainability Club has a faculty advisor and is supported strongly by Upstate’s Sustainability Manager.

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

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

Score explanation: Upstate Medical University has a medical student representative that works directly with faculty interested in incorporating environmental justice more strongly into the medical curriculum. Through the Environmental Justice and Sustainability Club, this student serves as a representative who drafts environmental health topics, slides, and questions which are then presented to the College of Medicine curriculum team with the goal of incorporating them into next year's curriculum.

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)

1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)

Score explanation:

1. *The Upstate Community & Wellness Garden, as mentioned prior, provides the students with an opportunity to garden and contribute to sustainable agriculture on their campus. This garden is student-run and student-grown by regular volunteers.*
2. *Upstate Medical University is an official Bee Campus USA affiliate as of 2023. [Bee Campus USA](#) is a nationwide initiative to create communities that are pollinator-friendly. Upstate has committed to improving habitats for bees on its property through avoiding pesticides and herbicides, planting pollinator-friendly plants, and educating Upstate personnel about the impact of pollinators on ecosystems.*
3. *Students painted bee boxes at the Bee Nest Box Painting Event. These boxes will be installed around Upstate grounds during Spring 2024. This event highlighted the intersectionality between art and pollinator health, with students being the target audience for awareness of Upstate's Bee Campus affiliation and actions.*

4. *Several student-run panels, speaker sessions, and film viewings have been organized by Upstate Medical University's Environmental Justice and Sustainability Club. These events often center around advocacy and education, and they feature environmental professionals in multidisciplinary fields.*
5. *Upstate's Wilderness Medicine Interest Group has organized several local hikes, ski trips, bonfires, and film screenings throughout the year for medical students. Additionally, they provide a yearly discounted ski lift season's pass at nearby mountains.*

Section Total (10 out of 15)

B

Back to Summary Page [here](#)

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

Campus Sustainability

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

5.1. Does your medical school and/or institution have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.
1	There are no salaried sustainability staff , but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation: There is an Office of Sustainability with one full time salaried staff member dedicated to campus sustainability. The Office does not have an office with multiple staff members. The campus is not associated with an undergraduate campus and is exclusively healthcare focused thus the staff member is designated to the hospital/medical campus.</i></p>	

5.2. How ambitious is your institution/medical school plan to reduce its own carbon footprint?	
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate
0	The institution/medical school does not meet any of the requirements listed above
<p><i>Score explanation: SUNY Upstate is committed to aligning with the New York State executive order on climate change issued in 2022. The order includes carbon neutrality by 2040 and outlines specific actions needed to meet this goal such as 100% of non-emergency vehicle fleets will be zero emission vehicles by 2035. More information on the order can be found here.</i></p>	

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

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

Score explanation: Our school's infrastructure is integrated with other health professions schools (e.g. nursing, PT, PA, masters) on a centralized campus. According to our sustainability manager, Upstate does not specifically source energy from renewables directly, but approximately 20-30% of electricity purchased from the grid is generated using renewables. If considering Nuclear as part of renewables, or rather low-carbon fuels, compared to traditional fossil fuels, this figure jumps to 60-70%. Counteracting this, we use natural gas for heating and cooling and have diesel generators for backup as required by law. Based on this information, the percent energy expenditure that includes renewables is estimated between 20 and 80%.

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

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

Score explanation: The institution has a clean energy master plan to guide building decisions. Renovations are occurring within sustainable guidelines. The New York State Governor has executive orders the institution will follow to reduce carbon footprints of decommissioned buildings. The institution is committed to at least LEED Silver on all new buildings.

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

2	Yes, the medical school or 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-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
---	---

1	The medical school or institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school or institution has not implemented strategies to encourage and provide environmentally-friendly transportation options.
<i>Score explanation: The medical school requires students to have independent transportation for third year clinical sites, some of which are difficult to get to without a car. The campus does not have strong bike infrastructure or public transportation options. The institution does provide free bus passes for the city but it is not sufficient to access all clinical sites and it is not widely advertised.</i>	

5.6. Does your <u>medical school</u> have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?	
2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.
<i>Score explanation: There are recycling bins dispersed throughout campus. Many bins have education on what is recyclable and what is not. There is presently a pilot for composting at the residential tower, but these efforts are still in a preliminary phase of their implementation.</i>	

5.7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
3	Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<i>Score explanation: Though there are ongoing efforts at the institution to include more plant-based options for patients and staff, there are no guidelines that direct the purchasing of food and beverage selections.</i>	

5.8. Does the medical school or institution apply sustainability criteria when making decisions

about supply procurement?	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.
<i>Score explanation: Criteria for sustainable purchasing exist at the state level with the SUNY system more broadly, but there are ongoing discussions on how to make these guidelines actionable.</i>	

5.9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u> ?	
2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required .
0	There are no sustainability guidelines for medical school events.
<i>Score explanation: There are presently no sustainability guidelines for events at the medical school, nor within the institution more broadly.</i>	

5.10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.
<i>Score explanation: We were not able to find information that describes this objective. There have been attempts before to recycle styrofoam on campus, but this did not succeed. The Facilities department does have guidelines on waste management, but these guidelines at present are related to managing these products from an occupational health perspective.</i>	

5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?	
4	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.

3	The institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.

Score explanation: Our university does not have any direct investments in fossil fuels. However, through participation in various pooled investment vehicles, mutual funds, the investing strategy is delegated to professional investment managers, many of whom integrate environmental, social, and governance (ESG) principles into their decision-making process when investing in individual companies on our behalf. These entities include Black Rock, Victory Fund, Alliance Bernstein, and others. For more information on the endowments, view [Upstate Foundation's Financial Information webpage](#). Because we do not know what financial vehicles these investment managers are using, we cannot say that the endowment is divested from fossil fuels or there has been a commitment on this front.

Section Total (12 out of 32)	D+
-------------------------------------	-----------

Back to Summary Page [here](#)

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

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 Norton College of Medicine, SUNY Upstate Medical University

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(37/72) \times 100 = 51.4\%$	C
Interdisciplinary Research (17.5%)	$(9/17) \times 100 = 52.9\%$	C
Community Outreach and Advocacy (17.5%)	$(8/14) \times 100 = 57.1\%$	C+
Support for Student-led Planetary Health Initiatives (17.5%)	$(10/15) \times 100 = 66.7\%$	B
Campus Sustainability (17.5%)	$(12/32) \times 100 = 37.5\%$	D+
Institutional Grade	$(51.4 \times 0.3 + 52.9 \times 0.175 + 57.1 \times 0.175 + 66.7 \times 0.175 + 37.5 \times 0.175) = 52.91\%$	C

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which **Norton College of Medicine, SUNY Upstate Medical University** has participated in the Planetary Health Report Card initiative.

