



Planetary Health Report Card (Medicine):

*Rutgers Robert Wood Johnson
Medical School*



2024-2025 Contributing Team:

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Land acknowledgment:

We acknowledge that the land on which our medical school stands is the ancestral territory of the Lenape People. We pay respect to Indigenous people throughout the Lenape diaspora and honor those who have been historically excluded and systemically disenfranchised. We also acknowledge that Rutgers University, and its affiliated medical school, like New Jersey and the United States as a nation, was founded upon the exclusions and erasures of Indigenous peoples.

Summary of Findings

Overall Grade	C
Curriculum	C-
<ul style="list-style-type: none"> Robert Wood Johnson Medical School (RWJMS) has two clinical electives related to environmental and planetary health and a longitudinal four-year Distinction Program offered to interested students. RWJMS also includes planetary health in the curriculum, but it lacks integration longitudinally. In the first and second year, various aspects of planetary health are discussed in lectures concentrated in the clinical introductory course, rather than in the systems-based courses. Recommendations: While student-initiatives are underway to conduct a longitudinal integration of planetary health in pre-clerkship and clerkship curriculums, this has not yet been enacted. There is also a lack of direct clinical teaching (e.g. how students may discuss climate-related topics with their patients). Further, we suggest that RWJMS include climate health education beyond electives as part of the core curriculum. 	
Interdisciplinary Research	B
<ul style="list-style-type: none"> Rutgers University has had at least one climate-related symposium (although not specific to planetary health) in the past year. However, it was institution-wide, not directly affiliated with the medical school, and therefore not advertised specifically to medical students. Additionally, RWJMS has not made substantial effort to seek input from communities most impacted by climate change in their planetary health research. Recommendations: Robert Wood Johnson Medical School may organise a conference or showcase directly related to Planetary Health. Further, RWJMS may consider creating a website for consolidated information regarding planetary health and corresponding research, and creating a path for community input to this research agenda. 	
Community Outreach and Advocacy	F
<ul style="list-style-type: none"> Robert Wood Johnson Medical School's community outreach and advocacy relating to planetary health has been limited in a direct capacity. Recommendations: We recommend the medical school develop direct outreach to the local community as well as partner with organizations that are already connected to the community. 	
Support for Student-Led Initiatives	A-
<ul style="list-style-type: none"> Rutgers University and Robert Wood Johnson Medical School have funded student interest groups dedicated to the topic of planetary health or climate change related health outcomes called Medical Students for a Sustainable Future. The school has supported students directly adding to the core curriculum through this organization, and the university offers multiple opportunities to become involved in health programs and initiatives. Recommendations: We recommend that planetary health be incorporated into the experiential learning portion of the core curriculum to help provide opportunities for students to engage in environmental justice and learn about sustainable healthcare. 	
Campus Sustainability	C
<ul style="list-style-type: none"> Campus sustainability is incorporated via the University-wide climate action plan to become carbon neutral by 2040. This does include the medical school's main affiliated hospital. The Rutgers Green Lab Checklist is an initiative to increase sustainability within research laboratories, 	

increase recycling, reduce waste, and decrease water consumption in Rutgers laboratories. This is a lab-dependent framework, with no institutional framework to make it policy.

- **Recommendations:** We recommend efforts to incorporate the Robert Wood Johnson University Hospital into the Climate Action Plan set forth by Rutgers University. At the medical school level, we recommend developing sustainability guidelines for events and begin efforts to make lab spaces and supply procurement 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 health professional schools’ 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 health professional training. It is imperative that we hold our institutions accountable for educating health professional 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) 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 health professional 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 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:	3
<p><i>Score Explanation:</i></p> <ul style="list-style-type: none"> • <i>Students can elect to pursue a Distinction in Climate Health and Environmental Sustainability over the course of their four years in medical school. This distinction includes, a 2 to 4 week Climate Health Elective during the clinical years, participation as a member on local or regional climate health advocacy committees, and completion of research in clinical applications of climate change, environmental justice, and/or healthcare sustainability.</i> • <i>There is one elective course that can be taken during third or fourth year titled "Climate Change Health & Sustainability." The learning objectives include: "Understand the current state of climate change and its impact on the healthcare system; Recognize how environmental health impacts patients, as well as the general population; Identify health conditions that are impacted by climate change; Teach patients and the community about climate change's impact on their health; Describe the positive actions that can be taken to mitigate the effects of climate change; Explain why it is important for healthcare providers to be knowledgeable about environmental health." This elective is part of the requirements for completing the above mentioned Distinction in Climate Health and Environmental Sustainability.</i> • <i>There is a fourth year elective titled "Environmental & Occupational Medicine," with the following overarching objective: "familiarity with clinical problems and research issues in occupational and environmental medicine," and includes practicing taking an environmental and occupational patient history.</i> 	

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:	2
<p><i>Score Explanation:</i></p> <ul style="list-style-type: none"> <i>As part of the core curriculum and Pulmonary & Renal Systems course for first-year students, the lecture, "Kidney Stones," discusses in one slide the increasing incidence of kidney stones as a reflection of hot weather and changing climate.</i> <i>The lecture, "Obstructive Diseases: Asthma," from the Pulmonary & Renal Systems course for f students features a slide that describes temperature as an aggravating factor for asthma.</i> <i>In the Emergency Medicine clerkship, the lecture, "Temperature Extremities: Case Studies in Climate Health and Emergency Medicine," is dedicated to climate health related emergencies. Students are also provided didactic reading material on hypothermia and hyperthermia.</i> 	

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:	2
<p><i>Score Explanation</i></p> <ul style="list-style-type: none"> <i>In the Principles of Pharmacology, Disease, and Defense course for first-years, the lecture, "Microbiology: Spirochetes," discussed the increase in leptospirosis cases after Hurricane Maria in Puerto Rico.</i> <i>A first-year lecture in RWJMS' longitudinal introduction to clinical medicine course discusses the impact of climate change on intense weather events in New Jersey and how they affect physical and mental health. It also covers various indirect effects of flooding in</i> 	

the community surrounding the medical school's affiliated hospital and includes CDC (Centers for Disease Control and Prevention) resources on safety guidelines for various disaster events.

- *As part of the Cells to Structure course, a lecture called "DNA Replication and Repair" discussed how natural disasters can impact the risk of toxic exposure to heavy metals, though it does not discuss the impact of exposure to these toxic metals.*

1.4. Does your medical school 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:

1

Score Explanation: The first-year Principles of Pharmacology Disease & Defense course includes a lecture called "Autoimmunity" that discusses how the loss of planetary biodiversity impairs self-tolerance and exacerbates immunologic diseases, how climate change alters antigen exposure and could impact tolerance subsequently increasing incidence of molecular mimicry, and how there has been a recent surge in immunologic diseases.

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

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:

2

Score Explanation:

- *As part of RWJMS' longitudinal introduction to clinical medicine course for first-years, there is a lecture called "Environmental & Occupational Medicine in Clinical Practice" which briefly describes risk factors for asthma and includes environmental pollution.*
- *The lecture, "Epigenetic Regulation in Health and Disease," in the first-year Cells to Structure course has one slide mentioning that air pollution can create epigenetic changes.*
- *The lecture, "Chronic Obstructive Pulmonary Disease (COPD) and Bronchiectasis," in the first-year Pulmonary & Renal Systems course lists air pollution, occupational dust, and chemicals as risk factors for COPD.*

- The first-year Principles of Pharmacology, Disease, and Defense course has a lecture called “Innate Immunity,” which discusses occupational inhalation of silica and asbestos as a cause of chronic inflammatory and fibrotic disease of the lung.
- The first-year Pulmonary & Renal course has two relevant lectures. The lecture titled “Histology of the Respiratory System” has one slide stating that fine-particulate matter air pollution exposure may increase morbidity and mortality and its influence on atherosclerosis. The two lectures on obstructive lung diseases include 2 slides total listing air pollution as a risk factor for COPD and asthma.
- There is a required lecture in RWJMS’ longitudinal introduction to clinical medicine course for first-years, conducted by a fourth-year student, dedicated to a high-level overview of the health effects of climate change including: local, regional, and national environmental threats (e.g. particulate matter, extreme weather events) and the disparate environmental threat burden by socioeconomic status and race.

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

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:

0

Score Explanation: The medical school curriculum does not address this information.

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. (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:

2

Score Explanation: A first-year lecture in RWJMS’ longitudinal introduction to clinical medicine course discusses the impact of climate change on intense weather events in New Jersey and how they affect physical and mental health, specifically addressing how the stress of severe weather events that are increasing in frequency due to climate change can increase anxiety, depression, and may cause Post-Traumatic Stress Disorder (PTSD). It also covers various indirect effects of

flooding in the community surrounding the medical school's affiliated hospital and includes CDC resources on safety guidelines for various disaster events.

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. (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

Score Explanation: Local environmental threats are discussed in a Lunch Lecture (an optional activity in which guest lecturers on a specific topic present to interested medical students during lunch hour). Local disparities in toxin exposure, including description and overview of Superfund sites, flood zones, and pollution overlays on New Jersey by region are discussed.

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. (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:

2

Score Explanation:

- *Local environmental threats are discussed in a Lunch Lecture (an optional activity in which guest lecturers on a specific topic present to interested medical students during lunch hour). Local disparities in toxin exposure, including description and overview of Superfund sites, flood zones, and pollution overlays, on New Jersey by region are discussed.*
- *The pediatrics clerkship included one lecture titled "Health Disparities in Children," which included three relevant slides listing that there is increased exposure to environmental toxins in concentrated poverty areas and the disparate health impact of decreased green space access.*

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. (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:

2

Score Explanation: As part of the first-year Principles of Pharmacology, Disease, and Defense course, a lecture titled "Food and Water-Related Diseases" discusses the impact of environmental exposures in the context of global infant mortality rates and disparate maternal health outcomes in developing health systems.

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. (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:

0

Score Explanation: At RWJMS, this topic was not covered.

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

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

2

Score Explanation:

- *As part of RWJMS' longitudinal introduction to clinical medicine course for first-years, a lecture on "Environmental & Occupational Medicine," covers a significant history of local Superfund sites in NJ and toxic waste dump sites in the wake of 9/11 and their impact on human health.*
- *In the first-year Principles of Pharmacology, Disease, and Defense course, there is a lecture on "Global View of Food and Water-borne Illness," which includes several slides that discuss lead poisoning in Newark, NJ as a result of poor plumbing resulting in contaminated tap water. It also discusses the health impact of petroleum in Highland Park (a town adjacent to the medical school) tap water as a result of industrial solvents.*
- *There is a required lecture in RWJMS' longitudinal introduction to clinical medicine course for first-years, conducted by a fourth year student, dedicated to a high-level overview of the health effects of climate change, local, regional, and national environmental threats including: local, regional, and national environmental threats (e.g. particulate matter, extreme weather events) and disparate environmental threat burden by socioeconomic status and race.*
- *Local environmental threats are discussed in a Lunch Lecture (an optional activity in which guest lecturers on a specific topic present to interested medical students during lunch hour). Local disparities in toxin exposure, including description and overview of Superfund sites, flood zones, and pollution overlays on New Jersey by region, are discussed.*

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

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

0

Score Explanation: At RWJMS, this topic was not covered.

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

This topic was explored **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:	2
<p><i>Score Explanation:</i></p> <ul style="list-style-type: none"> • During the first-year lecture titled “Global View of Food and Water-borne Illness,” as part of the Principles of Pharmacology, Disease, and Defense course, the impact of environmental exposures is discussed in the context of global infant mortality rates and disparate maternal health outcomes in developing health systems. • At RWJMS, the outsized impact of anthropogenic environmental toxins on marginalised populations was also discussed in Lunch Lectures (optional activities in which guest lecturers on a specific topic present to interested medical students during lunch hour). The Lunch Lecture specifically explored local disparities in toxin exposure, including description and overview of Superfund sites' disparate proximity to low SES regions of New Jersey. 	

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored in depth by the core curriculum. (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:	0
<i>Score Explanation: At RWJMS, this topic was not covered.</i>	

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. (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:</i></p> <ul style="list-style-type: none"> • At RWJMS, there is a 2-4 week elective for third-year students called “Climate Change Health and Sustainability” during which one of the objectives is to “understand the current state of climate change and its impact on the healthcare system.” 	

- *As part of the didactic component of this elective, each student is expected to watch 5-10 video lectures from Emory University or complete the ClimateRx virtual modules that address the carbon footprint of healthcare systems.*
- *At RWJMS, the carbon footprint of healthcare systems was discussed in a Lunch Lecture (an optional activity in which guest lecturers on a specific topic present to interested medical students during lunch hour). Concepts including sustainable treatment options to green architecture were discussed in the context of reducing the carbon footprint of the healthcare industry.*

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)	0
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) .	0
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)	0
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)	1
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
<i>Score Explanation: During the Neurology block of second-year pre-clerkship courses, the general anesthesia lecture included verbal discussion of anesthetic gases' impact on the healthcare system's carbon footprint, and the lecturer verbally advised students on sustainable considerations in choosing anesthetics in the operating room. Notably, this was a verbal inclusion and there were no materials provided in the lecture slides.</i>	

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your medical school's curriculum introduce strategies to have conversations with patients about the health effects of climate change?

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:	1
<p><i>Score Explanation:</i></p> <ul style="list-style-type: none"> • <i>At RWJMS, there is a 2-4 week elective for third-year students called “Climate Change Health and Sustainability” during which one of the objectives is to “teach patients and the community about climate change’s impact on their health.”</i> • <i>As part of the optional inpatient component of this elective, students will make patient education materials on climate change, perform climate health risk assessments on patients, and/or discuss climate factors that can impact patient health.</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?	
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:</i></p> <ul style="list-style-type: none"> • <i>In RWJMS’ longitudinal introduction to clinical medicine course for first-years, there is a lecture conducted by medical faculty from the Environmental and Occupational Health Sciences Institute dedicated to environmental/occupational hazards that are relevant to the local area. The lecture also discusses strategies to take an environmental history when seeing a patient.</i> • <i>Concepts on environmental history taking from this lecture are then used to test students during an objective standardized clinical exam.</i> 	

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:	2
<p><i>Score Explanation:</i></p> <ul style="list-style-type: none"> <i>The curriculum coordinators at RWJMS have accepted many student-made climate health education slides into the curriculum across multiple subjects. While the majority of the work has been student-led, the faculty have supported these efforts and incorporated this work into their lectures into the preclinical curriculum.</i> <i>In RWJMS' longitudinal introduction to clinical medicine course for first-years, there is a recently implemented required lecture created by a fourth-year student dedicated to a high-level overview of the health effects of climate change including: local, regional, and national environmental threats (e.g. particulate matter; extreme weather events) and disparate environmental threat burden by socioeconomic status and race.</i> <i>The optional clinical elective "Climate Change, Health & Sustainability" has recently been added to the clinical curriculum as an opportunity for third-year medical students to learn about climate change in the context of healthcare and medicine through clinical practice, seminars, and presentation completion.</i> 	

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
<p><i>Score Explanation:</i></p> <ul style="list-style-type: none"> <i>Planetary health principles' integration is limited to content primarily sourced by students and introduced into standalone slides with permission from the faculty. These slides contain a brief connection between the content and planetary health.</i> <i>There is one required dedicated lecture and one objective standardized clinical exam that covers environmental health history taking and exposures.</i> <i>There is one lecture that provides an overview of the health effects of climate change, covering topics such as local, regional, and national environmental threats.</i> <i>This coverage is not fully integrated into all preclinical blocks at this point and therefore not enough to award more points.</i> 	

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?

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

Score Explanation: RWJMS has one staff member that is coordinating and overseeing the incorporation of planetary health and sustainable healthcare into the curriculum, however this is not an appointed, full-time position.

Section Total (30 out of 72)

41.6%

Back to Summary Page [here](#)

Students can elect to pursue a **Distinction in Climate Health and Environmental Sustainability** over the course of their four years in medical school. This distinction includes a 2 to 4 week Climate Health Elective during the clinical years, participation as a member on local or regional climate health advocacy committees, and completion of research in clinical applications of climate change, environmental justice, and/or healthcare sustainability. Completion of this distinction is notated on the recipient's diploma upon graduation.

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
Score Explanation: <ul style="list-style-type: none"> • <i>The RWJMS faculty advisor for Medical Students for a Sustainable Future (MS4SF, a student interest group involved in climate advocacy) conducts research related to planetary health and healthcare sustainability, however, they have a primary focus in education.</i> • <i>A core faculty member of RWJMS studies epidemiology and climate and health outcomes. However, climate health is not her only focus.</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:</i> Adjacent to RWJMS, there is the Environmental and Occupational Health Sciences Institute. Medical faculty from this institute give lectures on the environmental health impacts of occupational and toxic hazards relevant to the local area.</p> <p>The Rutgers Office of Climate Action is an organization dedicated to interdisciplinary research across Rutgers campuses and school. Its mission statement includes 4 objectives:</p> <ol style="list-style-type: none"> 1. Advocate for climate action and sustainability at the highest levels of University leadership. 2. Provide oversight and accountability for and, where necessary, facilitate Climate Action Plan implementation 3. Communicate about and engage internal and external stakeholders in the University's climate action and sustainability efforts 4. Oversee regular updating of the Climate Action Plan <p>The Rutgers Climate Institute is a University-wide effort to address one of the most important issues of our time through research, education and outreach. The Institute draws upon strengths in many departments at Rutgers by facilitating collaboration across a broad range of disciplines in the natural, social and policy sciences. The Rutgers Climate Institute is guided by the following goals:</p> <ol style="list-style-type: none"> 1. To understand the mechanisms that drive global and regional climate change; 2. To understand the human and social dimensions of climate change, including how social, economic, political, cultural, and behavioural factors drive climate change, shape vulnerabilities, and condition response strategies; 3. To study the impacts of climate change, particularly its effects on densely populated, coastal regions; 4. To inform and educate society about the causes and consequences of climate change. 	

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:</i> At this institution, there is no process in which communities disproportionately impacted by climate change and environmental injustice can give input about research.</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

Score Explanation:

- The [Rutgers Climate Institute website](#) centralizes all publications related to planetary health on the website. This website is easy to use and comprehensive, however the latest publications it includes are from 2019.
- The [Office of Climate Action](#) also includes student groups that are involved in planetary health and details the climate goals of the institution in detail. However, parts of the website are not fully up-to-date such as the events section.

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

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

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

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

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

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

Score Assigned:

4

Score Explanation: The Rutgers Climate Institute holds the [Rutgers Climate Institute Symposium](#) annually. This year it was held on November 13, 2024 with the goal of fostering collaboration

between researchers and students from different regions and disciplines who are interested in climate change.

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

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

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

Score Assigned:

0

Score Explanation: RWJMS is listed on the [Global Consortium on Climate and Health Education \(GCCHE\)](#) website, however the current status is that RWJMS is a member that has not recommitted to GCCHE since 2023. Faculty were contacted to determine whether the recommitment form could be completed for the 2025 year; though there has been no response.

Section Total (11 out of 17)

64.7%

Back to Summary Page [here](#)

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 participates in community focused events relating to planetary health. (1 point)	
No, there is no such meaningful community partnership. (0 points)	
Score Assigned:	0
<i>Score Explanation: There are no significant ongoing partnerships with community organizations to promote planetary health.</i>	

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 has not offered such community-facing courses or events. (0 points)	
Score Assigned:	0
<i>Score Explanation:</i>	

- *There were no obviously promoted institution-wide community events regarding planetary health.*
- *At the 2024 annual [Rutgers Day](#), there was a planetary health booth that community members could engage with to learn more about healthcare sustainability and climate health. However, this booth was not part of the planning, promotion, nor overall intended purpose of Rutgers Day.*

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:

- *The Rutgers University Office of Climate Action publishes a monthly [newsletter](#) that discusses publication opportunities related to climate health and Rutgers climate health initiatives. This newsletter is sent to all who subscribe.*
- *Notably, in 2024 the newsletter had a six month publication hiatus for unknown reasons.*

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:

1

Score Explanation:

- *RWJMS' main affiliated hospital is the Robert Wood Johnson University Hospital in New Brunswick, NJ. This hospital offers weekly grand rounds, which serve as a method to train residents and offer information as continuing medical education to all interested faculty. One of the Internal Medicine specific grand round lectures per year focuses on planetary health education.*

3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?	
Yes, the institution or <u>all</u> affiliated hospitals have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	0
<i>Score Explanation: Neither the institution nor its affiliated hospitals have accessible educational materials for patients about environmental health exposures.</i>	

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?	
Yes, the institution or <u>all</u> affiliated hospitals have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	0
<i>Score Explanation: Neither the institution nor its affiliated hospitals have accessible educational materials for patients about the health impacts of climate change.</i>	

Section Total (2 out of 14)	14.3%
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Back to Summary Page [here](#)

Support for Student-Led Planetary Health Initiatives

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

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

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

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

No, the institution **does not** offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

2

Score Explanation:

- The [Rutgers IDEA Innovation](#) grant program, which targets the department containing the medical school, funds research and scholarly activities. Grants range from \$1,000 to \$10,000 and faculty, students, and staff across Rutgers Health are eligible to apply. The program accepts applications related to planetary health.
- The [Rutgers Climate and Energy Institute \(RCEI\) Student Support Program](#) aims to further educate and prepare students as future climate and energy professionals. This program accepts Ph.D and M.F.A students whose research includes human dimensions of climate mitigation, renewable energy, renewable technology, and energy conservation, among other topics. The maximum award is \$1500.

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

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

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

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

Score Assigned:	2
<p><i>Score Explanation: The RWJMS Distinction program offers students opportunities to conduct research in a field of their interest. The "Distinction in Climate Health and Environmental Sustainability" was added to the program in the 2024-2025 academic year. This distinction includes a 2 to 4 week Climate Health Elective during the clinical years, participation as a member on local or regional climate health advocacy committees, and completion of research in clinical applications of climate change, environmental justice, and/or healthcare sustainability. These programs are optional and depend heavily on student initiative.</i></p>	

<p>4.3. Does the <u>institution</u> 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.</p>	
<p>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)</p>	
<p>There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)</p>	
<p>There is no institution specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)</p>	
Score Assigned:	0
<p><i>Score Explanation: There is no webpage as specified in the prompt for Rutgers University.</i></p>	

<p>4.4. Does your <u>institution</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?</p>	
<p>Yes, there is a student organisation with faculty support at my institution dedicated to planetary health or sustainability in healthcare. (2 points)</p>	
<p>Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it lacks faculty support. (1 point)</p>	
<p>No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)</p>	
Score Assigned:	2
<p><i>Score Explanation: At RWJMS, there is a student group affiliated with Medical Students for a Sustainable Future (MS4SF) that receives funding from the medical school student government. It seeks to promote planetary health education materials in the core curriculum and provide</i></p>	

opportunities for students to learn more about sustainable healthcare. This group is supported by a faculty advisor with a research interest in sustainable healthcare.

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:

1

Score Explanation: At RWJMS, the [Office of Climate Action Student Advisory Board](#) advocates for the implementation of sustainable practices across campus in conjunction with the university's climate action plan. Members of this board are drawn from each Rutgers Campus. One member on the 2024-2025 board represents Rutgers Biomedical and Health Sciences (RBHS) and is a medical student.

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)

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.

1

Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.

1

Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)

1

Score Explanation:

1. The [Rutgers Coop extension](#) is an accessible and hands-on way for students to learn about agriculture and sustainable food systems. Other examples of locations that students can gain experience about the topics listed are the [Rutgers Gardens](#) and [Rutgers Farm](#).

2. *There are a number of climate panels, conferences and symposiums held across campus related to planetary health that are primarily student-facing and held by the several climate organisations on campus. The [Rutgers Climate Symposium](#) is hosted annually by Rutgers University.*
3. *The Mason Gross School of Arts at Rutgers engages in [Environmental Arts](#) for both students, faculty and the public. Further, students have developed art installations for climate symposiums held on campus, an example including a dance interpretation of climate change made with ice. Notably, none of the aforementioned events were held in 2024-2025, but the webpage is still active. In 2023, the Rutgers School of Arts and Sciences and the School of Environmental and Biological Sciences launched a new minor called “[Creative Expression and the Environment](#)” in which undergraduate students learn about environmental sciences and respond to environmental issues with creative projects. This minor is still offered at Rutgers.*
4. *Several Rutgers Climate organizations engage with the community and connect students with opportunities to volunteer in resilience programs. One example is the [Living Shorelines project](#). Rutgers annual [Climate Symposium](#), is open to researchers and students throughout the Mid-Atlantic region of the United States. The most recent symposium was hosted in November, 2024 and was centered around “Signals - Climate Change Communication for Understanding and Action.”*
5. *The [Rutgers Outdoors Club](#) is a free club available to all students that organizes hiking trips, climbing, kayaking and other outdoors activities. The club also supplies all the gear students would need for free, including tents, sleeping bags, snow shoes, kayaks, etc.*

Section Total (12 out of 15)

80.0%

Back to Summary Page [here](#)

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:	2
Score Explanation: At Rutgers University, the Office of Climate Action has dedicated staff to advocate for sustainability on campus and facilitate implementation of the University's climate action plan. There is no specific staff member in charge of the medical school or representing the hospital.	

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 does not meet any of the requirements listed above (0 points)	
Score Assigned:	3

Score Explanation: Rutgers University is committed to achieving carbon neutrality by 2040. The [Rutgers Climate Action Plan](#) and [Sustainability Timeline](#) convey Rutgers' goal and outline how Rutgers will achieve this goal.

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:

0

Score Explanation: RWJMS sources <20% of its energy from renewable resources.

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:

- *New buildings built on the Rutgers University Campus are at a minimum LEED silver standard. The new medical school building will be built LEED silver per university policy.*
- *A project is in progress to audit and retrofit old buildings via the Public Service Electric and Gas (PSE&G) [Engineered Solutions](#) program and the PSE&G [Direct Install](#) program. However, this has not been completed on the majority of buildings to date.*

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:

1

Score Explanation:

- *At RWJMS, there is a free bus that transports students from the medical school campus to the affiliated hospital. The bus is not advertised, not often used, and runs infrequently.*
- *Rutgers University offers multiple [bus routes](#) throughout the undergraduate campus that surrounds New Brunswick. The buses are free for undergraduate students.*

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 institution. (0 points)

Score Assigned:

1

Score Explanation:

- *RWJMS buildings each contain recycling bins that are easily accessible.*
- *Currently, there is no compost available to students and faculty at the medical school campus nor patients and staff at the affiliated hospital.*
- *Rutgers University dining services began using [SPROUT food waste digesters](#) last year, though it is unclear whether compost bins are accessible to students and faculty.*
- *Rutgers Health (e.g. the health system affiliated with the medical school) does not use the same dining service or dining standards as Rutgers University.*

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:	3
<i>Score Explanation: RWJMS food and beverage selections are facilitated by the Rutgers Dining Services. The Rutgers Dining Services operates on the Menus of Change Principles. Details of the sustainability operations are included in this document and details about the sustainable menu program to offer greater than 50% plant-based or low carbon footprint meal options by 2026 are included here. Highlights of Rutgers Dining Services sustainability requirements include purchasing greater than 80% of food locally (defined as within 250 miles), emissions tracking of food sources and reducing high carbon footprint foods such as red meat.</i>	

5.8. Does the <u>institution</u> 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:	1
<i>Score Explanation:</i> <ul style="list-style-type: none"> • Rutgers University follows a Green Purchasing Program to reduce its environmental impact and to conserve resources when purchasing supplies, equipment, and services. The list of Rutgers contracted suppliers includes the ability to filter for sustainable suppliers. • RWJMS does not apply sustainability guidelines for supply procurement. 	

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

Every event hosted at the institution must abide by sustainability criteria. (2 points)	
The institution strongly recommends or incentivizes sustainability measures, but they are not required . (1 point)	
There are no sustainability guidelines for institution events. (0 points)	
Score Assigned:	0
<i>Score Explanation: There are no sustainability requirements or guidelines for events hosted at the institution.</i>	

5.10. Does your <u>institution</u> 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:	1
<i>Score Explanation: The Rutgers Green Lab framework is a framework available to be used by labs across the Rutgers system. It is an initiative to increase sustainability within research laboratories, increase recycling, reduce waste, and decrease water consumption. Currently, nine labs within one building in the Newark, NJ, campus have adopted the Green Lab checklist, but no labs within the medical school have applied. There are no institutional policies in place mandating this program.</i>	

5.11. Does your <u>institution's</u> 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:	2
<p><i>Score Explanation:</i></p> <ul style="list-style-type: none"> <i>Rutgers University committed to divest from fossil fuels as of March 2021, as described here, however the institution currently still has investments in fossil fuels. The commitment includes ceasing all new investments in fossil fuels, divesting from index funds with fossil fuel investments in favor of renewable energy and exiting all fossil fuel investments within 10 years.</i> <i>Rutgers is in early stages of discussion regarding re-investing in a sustainable portfolio with increased transparency.</i> 	
Section Total (16 out of 32)	50.0%

Back to Summary Page [here](#)

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%

Planetary Health Grades for the Rutgers Robert Wood Johnson School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(30/72) \times 100 = 41.7\%$	C-
Interdisciplinary Research (17.5%)	$(11/17) \times 100 = 64.7\%$	B
Community Outreach and Advocacy (17.5%)	$(2/14) \times 100 = 14.3\%$	F
Support for Student-led Planetary Health Initiatives (17.5%)	$(12/15) \times 100 = 80.0\%$	A-
Campus Sustainability (17.5%)	$(16/32) \times 100 = 50.0\%$	C
Institutional Grade	$(41.7 \times 0.3 + 64.7 \times 0.175 + 14.3 \times 0.175 + 80.0 \times 0.175 + 50.0 \times 0.175) = \mathbf{49.1\%}$	C

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which **Rutgers Robert Wood Johnson Medical School** has participated in the Planetary Health Report Card initiative.

