



Planetary Health Report Card (Medicine): *Rowan-Virtua School of Osteopathic Medicine*



Virtua Health College
of Medicine & Life Sciences
of Rowan University

2024-2025 Contributing Team:

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Land acknowledgment: Rowan University's campuses were built on Lenapehoking, the ancestral lands of the Nanticoke Lenni-Lenape tribal nation. We acknowledge the history of genocide, forced displacement, and cultural erasure carried out against the Indigenous people of our region; and, we celebrate the vibrance, persistence, and ongoing project of sovereignty of the Lenni-Lenape people today. For more, please visit Rowan University's full [land acknowledgment](#).

Summary of Findings

Overall Grade	C
Curriculum	C
<ul style="list-style-type: none"> Rowan-Virtua School of Osteopathic Medicine (SOM) has an in-depth Health Equity curriculum that does a fair job in exploring health disparities as they relate to planetary health within each organ system block. The coming addition of a lifestyle medicine area of distinction will provide some additional elective coursework relating to the overlap in environmental and patient health. Recommendations: Rowan-Virtua SOM should continue to expand the Health Equity curriculum to planetary issues like extreme heat, pollution, and the impact of the healthcare system on the environment. 	
Interdisciplinary Research	C-
<ul style="list-style-type: none"> Rowan University has faculty conducting planetary health and sustainability research through the School of Earth and Environment. There is a centralized website that organizes all things sustainability on campus and there was a recent conference through the William G. Rohrer College of Business relating healthcare, environmental, and corporate concerns in the post-COVID world. Recommendations: Rowan University and Rowan-Virtua SOM can work towards updating their Sustainability at Rowan website to provide an up to date resource for all students. There is space to expand the research being done to the medical school and to incorporate local community voices in determining which issues gain the most attention. 	
Community Outreach and Advocacy	C+
<ul style="list-style-type: none"> Rowan University does incorporate the community in planetary health outreach and advocacy work. Rowan-Virtua SOM and its affiliate hospitals do offer patient and specialty appropriate resources. Recommendations: There is space to generate and digitally distribute planetary health and sustainable healthcare education at the hospital and university level. 	
Support for Student-Led Initiatives	A
<ul style="list-style-type: none"> Rowan University has a diverse offering of sustainability and planetary health majors, research, programs, and student organizations. Students are encouraged to become involved in advocacy for the planet by participating in QI programs throughout their education and in their extracurricular activities. Rowan-Virtua SOM does offer a student-run community garden and has planetary healthcare focused programing and research if students are driven to seek it out. Recommendations: Support for student-led initiatives mostly comes from the wider Rowan University rather than Rowan-Virtua SOM. We recommend Rowan-Virtua SOM offers increased support to students interested in sustainable initiatives by creating more research, QI projects, and volunteering opportunities dedicated to the intersection of sustainability and healthcare. 	
Campus Sustainability	D
<ul style="list-style-type: none"> The recent establishment of a sustainability council and the work being completed by the Provost for Sustainability are promising steps towards making Rowan University a more sustainable campus. Recommendations: We recommend Rowan University continue to support and expand on sustainable campus initiatives. Suggestions include incorporating LEED certification into the building process, updating and expanding the promise toward carbon neutrality, and establishing sustainability guidelines for procurement. Rowan-Virtua SOM can improve on campus sustainability by incorporating compost bins on site. 	

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 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 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, 4) community outreach centred on environmental health impacts, and 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 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:	0
<i>Score explanation: There are no current elective courses offered at Rowan-Virtua SOM that engage students in planetary health or sustainability healthcare conversation. Students will soon be able to participate in an area of distinction (AOD), elective coursework that enables students to concentrate in a specific topic of lifestyle medicine. This AOD will incorporate learning on plant based diets and preventative medicine.</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:	0

Score explanation: This topic is not covered.

1.3. Does your medical school 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

Score explanation: The curriculum includes discussions within corresponding pathology lectures about the impact of natural disasters and extreme weather events on human health. These discussions acknowledge the role of climate change in increasing the frequency and severity of such events. For example, the microbiology curriculum block explores the link between heavy rainfall and high temperatures and the increased incidence of waterborne diseases.

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:

2

Score explanation: The microbiology curriculum block discusses the impact of climate change on the natural habitat of specific infectious vectors and how this impacts human health during their pertinent lectures. An example of this is a discussion on the reduviid bug's role in transmitting Trypanosoma cruzi in the lecture on Chagas disease.

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:	3
<p><i>Score explanation: The Health Equity curriculum includes a module examining the health disparities faced by the Marshallese population. This module highlights their increased risk of chronic diseases, such as tuberculosis, resulting from the long-term consequences of nuclear testing after World War II. The module emphasizes how the displacement from their native lands, disruption of their culture, and limited access to healthy food options have contributed to high population density and exacerbated the transmission of tuberculosis, significantly impacting the overall health of the Marshallese people.</i></p> <p><i>Furthermore, the pulmonology block extensively explores the impact of environmental and occupational hazards on lung health. This includes in-depth discussions on pneumoconiosis, the health consequences of smoking, and other occupational exposures. These discussions align with the block's overarching goal of providing students with a comprehensive understanding of pulmonary medicine, encompassing normal respiratory function, disease pathophysiology, and the management of these conditions</i></p>	

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat	
This topic was explored in depth by the core curriculum. (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: This topic is not covered.</i>	

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
This topic was explored in depth by the core curriculum. (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: While not specifically covered in the core curriculum. Rowan-Virtua SOM did offer a campus talk, available to all medical students, entitled “Impact of Nigral and Extranigral Neurodegeneration on Aerodigestive Discoordination in a Pesticide Model of Parkinson's Disease, National Institutes of Health, Francois Gould, Cell Biology & Neuroscience”.

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:

3

Score explanation: This topic is explored in the gastroenterology section of the Health Equity curriculum. The module discusses how ecology and tradition shape patient's diets and overall health by having students watch Michael Polland's "In Defense of Food." Throughout there is discussion on the impact of a traditionally Western diet on human health as it relates to larger unsustainable food and environmental systems.

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:

3

Score explanation: This topic is explored in depth by the Health Equity curriculum and the Community Service Leadership and Learning (CSLL) course. CSLL is a three year longitudinal course designed to create “culturally humble, responsive, and competent physician leaders that are skilled to work with unrecognized populations.” CSLL includes a curriculum that covers the fundamentals of healthcare disparities taught to students through case studies, interactive panels, lectures, and group projects. Specific to the impact of climate change, CSLL has a lecture titled “Understanding Power, Privilege, and Oppression” that discusses the different access that social groups have to healthcare resources and opportunities. The intersection of socioeconomic status, gender, and race are thoroughly explored and there is mention of environmental injustice as it relates to these factors.

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:

0

Score explanation: This topic is not covered.

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: There is a lecture during the endocrine and reproductive curriculum block titled "Prenatal and Antenatal Care" that goes into detail on the importance of prenatal care, vitamins, vaccines, and lifestyle factors that contribute to maternal and fetal health. However, environmental toxins, specifically those generated by human-caused sources such as air pollution or pesticides, as they relate to reproductive health are not covered. This lecture may be an opportunity to explore such details in the future.

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:	3
<p><i>Score explanation: This topic is covered by the Health Equity curriculum during the endocrinology and reproduction unit. This module has students watch “The Great Invasion” a 2010 documentary that explores how endocrine-disrupting chemicals (EDCs), directly produced as a byproduct of polymerized plastics, are linked to metabolic disorders like type 2 diabetes. EDCs have been detected across the United States, including in South Jersey, directly impacting the Rowan-Virtua community. Applying the principles of EDCs on the social determinants of health is a tested learning objective for students during the endocrinology and reproduction unit.</i></p>	

<p>1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?</p>	
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: This topic is covered by the Health Equity curriculum during the endocrinology and reproduction unit. Students are assigned the “Bad Sugar” documentary produced in 2008 by PBS. The documentary explores how the Pima and Tohono O’odham Indigenous People of Arizona had some of the highest rates of type 2 diabetes in the world. The module explores how medical interventions are only so effective and that to address the root cause, Indigenous knowledge and value systems must be incorporated.</i></p>	

<p>1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?</p>	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: This topic is covered by the Health Equity curriculum during the endocrinology and reproduction unit. One of the required assignments includes an article entitled “Disparities in Environmental Exposures to Endocrine-Disrupting Chemicals and Diabetes Risk in Vulnerable</i></p>	

Populations” which explores how environmental toxins are disruptive to metabolic disease. The article specifically looks at how African-American, Latino, and low-income individuals are of especially high susceptibility due to healthcare disparities and the disproportional exposure of these populations to environmental toxins.

Curriculum: Sustainability

1.15. Does your medical school 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:

2

Score explanation: This topic is explored in the gastroenterology section of the Health Equity curriculum where students watch Michael Polland’s “In Defense of Food.” The module focuses on how in supporting local and sustainable food systems, positive health outcomes typically follow. There is an in depth discussion about how eating a majority locally sourced and plant based food contributes to ethical and environmentally sound food production.

1.16. Does your medical school 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:

0

Score explanation: This topic is not covered.

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core curriculum? (points for each)

Score

The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)

2

The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	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)	0
The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0
<p><i>Score explanation:</i></p> <p><i>As an osteopathic school, Rowan-Virtua SOM's curriculum focuses on holistic patient centered care that prioritizes non-surgical and non-pharmaceutical therapeutics as a first line of treatment. Course lectures often stress the benefits of avoiding over-medicalisation, over-investigation, and over-treatment. An example of this is the emphasis provided to a reduction in testing for second year students in their case-based learning modules. In these small group learning sections, students work through a virtual case study, facilitated by practising physicians. The facilitators often challenge students on the number, cost, and impact of diagnostic tools, imaging, or testing to the patient when diagnosing in these case groups. Discussion does include benefits of reduced overall cost and testing to the patient, healthcare system, environment, and provider.</i></p> <p><i>Additionally, first and second year students participate in a weekly two hour osteopathic manipulative medicine (OMM) lab. Within the lab, there is a strong emphasis placed on how OMM can act as a non-pharmaceutical treatment for many patient complaints. Third year students participate in an OMM rotation where they are able to see these principles applied in a clinical setting. These principles, while covering in depth the health benefits of non-pharmaceutical management, fail to acknowledge the co-benefit to the environment.</i></p>	

Curriculum: Clinical Applications

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

Score Assigned:	0
<i>Score explanation: This topic is not covered.</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
<i>Score explanation: Students are trained to take a full history, which is defined to include asking about occupational and environmental hazards during their first year History and Physical course (Medical and Social History lecture).</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:	4
<i>Score explanation: Rowan-Virtua SOM has received a Health Resources and Services Administration (HRSA) grant to integrate learning for about 20 students interested in pursuing a career in primary care. These students will receive additional training in community health care, including issues that impact the health of local New Jersey residents. The issues pertinent to New Jersey residents include planetary health care and sustainability topics, such as care for environmental refugees and migrants, food insecurity and obesity management, air and water pollution, extreme weather events, and mental healthcare. Additionally, there is a student-led push to include further coverage of planetary health and sustainability topics in the core curriculum.</i>	

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?
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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:	4
<p><i>Score explanation: The Rowan-Virtua SOM Health Equity curriculum integrates elements of planetary health and ESH throughout its core pre-clerkship components. Designed to foster cultural competency and equip future clinicians to address health disparities, this curriculum explores the intricate connections between environmental factors, social determinants of health, and healthcare outcomes. Key objectives include:</i></p> <ul style="list-style-type: none"> • <i>Examining how dietary shifts and environmental changes disproportionately impact marginalized communities.</i> • <i>Analyzing the role of socioeconomic status in shaping health outcomes and access to care.</i> • <i>Understanding the global diversity of care models and the influence of healthcare access and affordability.</i> <p><i>Delivered through a blend of readings, assignments, online videos, and tutorials, the Health Equity curriculum is woven into most learning blocks during the first and second years of medical education.</i></p>	

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
Yes , the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No , the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	0
<p><i>Score explanation: There is not currently a faculty member dedicated to planetary health and sustainable healthcare. All members of faculty lead with the Rowan-Virtua SOM central mission of community health which is evolving to include planetary healthcare and sustainability.</i></p>	

Section Total (36 out of 72)	50%
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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u> ?	
Yes, there are faculty members at the institution who have a primary research focus in planetary health or sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the institution who are conducting research related to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the institution , but not specifically associated with healthcare/vetcare. (1 point)	
No, there are no planetary health and/or sustainability researchers at the institution at this time. (0 points)	
Score Assigned:	2
Score explanation: Rowan University has several faculty members within the School of Earth and Environment that are investigating the intersection of planetary health and public health. While planetary health is the primary focus of some of the faculty within these departments, they are not based at or out of the medical school.	

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:	1

Score explanation: Rowan University includes the [School of Earth and Environment](#) that houses education and research concerning climate change, sea level rise, ocean destabilization, environment and biodiversity, urbanization, and Earth through space and time. The School of Earth and Environment does not specifically include interdisciplinary planetary health research but there are courses, such as [HLT 00303: Environmental Issues and Health](#), dedicated to planetary health.

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

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

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

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

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

Score Assigned:

0

Score explanation: Rowan-Virtua SOM does include community members on the Institutional Animal Care & Use Committee (IACUU) and the Institutional Review Board (IRB). The role of these community members is to advise on research protocols prior to approval. However, there is no current process for community members impacted by climate change or environmental injustice to provide input on the research agenda at the medical school or at the university level.

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: Rowan University compiles all things sustainable on their [Sustainable@Rowan](#) page. The site is not regularly maintained, but does link to many student resources including career information, faculty research, and current/future plans for sustainable initiatives.

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 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:

2

Score explanation: Rowan University's William G. Rohrer College of Business hosted the [Environmental, Social, and Corporate Governance \(ESG\) Conference](#) in October of 2022. The conference "range of issues related to health care, the environment, corporate governance and investing amid staggering 21st century uncertainties" including climate science and COVID-19.

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: Rowan University nor Rowan-Virtua SOM are not a member of such an organization.

Section Total (7 out of 17)

41.2%

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Community Outreach and Advocacy

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

3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?	
Yes, the institution meaningfully partners with multiple community organisations to promote planetary and environmental health. (3 points)	
Yes, the institution meaningfully partners with one community organisation to promote planetary and environmental health. (2 points)	
The institution does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)	
No, there is no such meaningful community partnership. (0 points)	
Score Assigned:	2
Score explanation: Rowan University and Rowan-Virtua SOM both have community gardens that are managed by students and provide fresh produce to their respective local communities. Additionally, Rowan University's main campus hosts the West Campus Farm where tens of thousands of pounds of fresh fruit and produce are distributed to Rowan's on-campus food pantry and local communities organizations.	

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:	3

Score explanation: Rowan University's School of Earth and Environment offers many community accessible events relating to planetary health, including the annual [BioBlitz](#) in celebration of Earth Day. BioBlitz allows students and community members to help identify biodiversity on the Rowan campus. Rowan student researchers and the facilities team then use the data to better understand and care for the local habitat.

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: Rowan University sends all students and faculty a daily communication that includes information regarding sustainability practices, opportunities, and student organizations. A recent example includes a link to contribute articles for [South Jersey Climate News](#).

Rowan-Virtua SOM communicates with students about planetary health and current climate events as appropriate. A recent example includes communication about the Los Angeles fires and how we can support any Rowan-Virtua members impacted by the devastation.

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 providers. (1 point)

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

Score Assigned:

0

Score explanation: There are no professional education activities covering planetary health and sustainable healthcare.

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?

Yes, the **institution** or **all 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

Score explanation: Rowan-Virtua SOM and its affiliates provide patient and specialty specific [educational materials](#) as appropriate, however no environmental or climate change specific materials currently exist. Additionally, all affiliate clinics rely on the most up to date OSHA, EPA, and applicable professional organization guidelines when making recommendations or connecting patients to resources.

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?

Yes, the **institution** or **all 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:

2

Score explanation: Rowan University has a [library research guide](#) specific to climate change that is accessible by students, faculty, providers, and patients.

Section Total (8 out of 14)

57.1%

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Support for Student-Led Planetary Health Initiatives

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

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

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

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

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

Score Assigned:

2

Score explanation: Rowan University has a variety of undergraduate degrees, minors, and graduate degrees that incorporate sustainability learning outcomes, including enacting sustainability initiatives or QI projects. A non-comprehensive list of these include: Civil and Environmental Engineering, Community and Environmental Planning, Environmental & Sustainability Studies, Environmental Science, Geographical Information Science (GIS), Geography, Health and Science Communication, Health Promotion & Wellness Management, Public Health and Wellness, and BS Management – Sustainability Management Concentration.

There are additional opportunities for sustainability initiatives and QI projects through Rowan University student groups including the Rowan Environmental Action League (REAL), GEO Club, South Jersey Climate News, Rowan University Student Planning Organization, Net Impact, US Green Building Council, and Rowan Progressives Environmental Working Group. These organizations all participate in their own unique sustainability initiatives ranging from helping students become LEED Green Associates to running a community garden.

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

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

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

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

Score Assigned:

2

Score explanation: Rowan University has a variety of undergraduate degrees, minors, and graduate degrees that incorporate planetary health and or sustainable healthcare. A non-comprehensive list is included in point 4.1. There will be additional opportunities for research in this field when the Rowan Schreiber School of Veterinary Medicine opens in the fall of 2025.

Rowan-Virtua SOM offers many opportunities for medical students to perform research in any category. One such program includes the six week Summer Medical Research Fellowship ([SMRF](#)) where students are encouraged to perform clinical or basic-science research. Students can choose to dedicate research to planetary and or sustainable healthcare but are required to identify a mentor and project on their own.

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

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

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

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

Score Assigned:

1

Score explanation: Rowan University compiles all things sustainable on their [Sustainable@Rowan](#) page. The site is not regularly maintained, but does link to many student resources including career information, faculty research, and current/future plans for sustainable initiatives.

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

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

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

No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	1
<p><i>Score explanation: Rowan University has the GEO Club and the Rowan University Student Planning Organization (RUSPO). The GEO club is connected to the School of Earth and Environment and connects students with diverse environmentally focused interests, including planetary health. RUSPO focuses more on students interested in the intersection of urban planning and sustainability. Both organizations have faculty support, however, these are not located at the medical school.</i></p> <p><i>Rowan-Virtua SOM does have Rowan Roots, a non-funded volunteer based club that boasts a 100ft² garden that works to grow and donate vegetables to local Camden County food banks, where many residents struggle with food insecurity and food deserts.</i></p>	

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?	
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
<p><i>Score explanation: Rowan University has a Student Government Association representative that focuses on facilities and regularly meets with university leadership. This student representative is also involved with the Sustainability Council to help advocate for sustainability best practices as they relate to Rowan facilities.</i></p>	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	1
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	1

Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1
<p><i>Score explanation: Rowan University and Rowan-Virtua SOM both have community gardens that are managed by students and provide fresh produce to their respective local communities. Additionally, Rowan University's main campus hosts the West Campus Farm where tens of thousands of pounds of fresh fruit and produce are distributed to Rowan's on-campus food pantry and local communities organizations. The produce from the West Campus Farm is also used to produce hot sauce which is for sale to raise funds for student emergency scholarships.</i></p> <p><i>There are countless examples of panels, speakers, and events in which students are encouraged to attend. A recent example is the talk "Impact of Nigral and Extranigral Neurodegeneration on Aerodigestive Discoordination in a Pesticide Model of Parkinson's Disease" held at Rowan-Virtua SOM.</i></p> <p><i>Student organizations at the University are involved in community based events, including volunteering, community hikes, and other outdoor adventures.</i></p>	
Section Total (13 out of 15)	86.7%

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Campus Sustainability

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

5.1. Does your <u>institution</u> have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of hospital sustainability. (2 points)	
There are no salaried sustainability staff , but there is a sustainability task force or committee. (1 point)	
There are no staff members or task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	1
<i>Score explanation: The Rowan University Sustainability Council (RUSC) recently held an inaugural meeting where 55 people attended to begin the process of transforming Rowan into a more sustainable University. RUSC is currently headed by Dr. Garrett Broad, the Provost Fellow for Sustainability.</i>	

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:	0
<i>Score explanation: Rowan University instilled a framework to achieve carbon neutrality by 2029 in 2009. This plan was mentioned as needing updating in the 2020 Road Map confirming that this</i>	

plan is now out of date. There is a current push to reevaluate and update a plan for carbon neutrality, however, no current actionable plan is in place. In efforts to move towards an actionable plan, the University has contracted Siemens to perform an energy evaluation to initiate energy savings and begin developing a renewable energy strategy. Additionally, the Provost's Fellow in the Catalysts for Sustainability is working to complete the Sustainability Tracking, Assessment, and Rating System (STARS) Report to help provide a framework for future sustainability efforts.

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: While a few campus buildings do have solar panels, their contribution is relatively low and the overall institutional buildings source a minimal amount of energy from renewable sources.

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:

1

Score explanation: Rowan University buildings are always designed to latest codes, however, there is no definitive sustainability goal considered. Buildings designed after 2020 were designed to meet LEED standards, but the certification was not applied for or granted.

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: Rowan-Virtua's Stratford campus is located near the [PATCO](#), a public transportation option in and out of Philadelphia and the surrounding NJ suburbs. While there are no travel stipends, incentives, or discounts, Rowan-Virtua SOM does advertise and encourage students to utilize this as a transportation option. Students are still expected to be able to travel to multiple campuses and clinical sites, which does require a car, throughout their medical education.

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: Rowan University does offer both compost and recycling programs, however, Rowan-Virtua SOM only offers recycling bins on campus.

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: Rowan University uses Gourmet Dining for all catering and dining contracts. Gourmet Dining has a clearly outlined commitment to sustainability including sustainable disposable products, responsible sourcing, sustainable seafood, a 30% reduction in beef across all menus (as compared to 2015), fair trade and eco certified coffee, local produce, and plant based meat alternatives offered at every station across campus. Additionally, Gourmet Dining works with the Food Recovery network to help reduce food waste.</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:	0
<i>Score explanation: There is not a set criteria for procurement, however, Rowan University has begun to make environmentally conscious decisions in housekeeping and dining. The director of housekeeping has switched all products to Green Seal or EcoLogo certified cleaning products. Another example of exercising environmentally conscious buying power is through the purchasing of 100% recycled copy paper.</i>	

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 current guidelines for event sustainability.</i>	

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

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

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

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

Score Assigned:

1

Score explanation: There are not any current guidelines at the University or SOM level that enforce sustainable lab initiatives. However, there are many individual leaders of labs that do actively engage in green initiatives including using reusable materials, making reagents, reducing their waste, and properly disposing of laboratory waste.

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

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

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

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

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

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

Score Assigned:

0

Score explanation: Rowan University's endowment is managed by the Rowan University Foundation which has investments in index funds that include fossil fuel companies.

Section Total (8 out of 32)

25%

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 Rowan-Virtua School of Osteopathic Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(36/72) \times 100 = 50.00\%$	C
Interdisciplinary Research (17.5%)	$(7/17) \times 100 = 41.18\%$	C-
Community Outreach and Advocacy (17.5%)	$(8/14) \times 100 = 57.14\%$	C+
Support for Student-led Planetary Health Initiatives (17.5%)	$(13/15) \times 100 = 86.67\%$	A
Campus Sustainability (17.5%)	$(8/32) \times 100 = 25.00\%$	D
Institutional Grade	$(50.00 \times 0.3 + 41.18 \times 0.175 + 57.14 \times 0.175 + 86.67 \times 0.175 + 25.00 \times 0.175) = 51.75\%$	C