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# Planetary Health Report Card (Medicine): *University of Pittsburgh School of Medicine*

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2022-2023 Contributing Team:

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## Summary of Findings

|  |            |
|--|------------|
| <b>Overall</b>   | <b>C</b>   |
| <b><u>Curriculum</u></b>   | <b>D</b>   |
| <ul style="list-style-type: none"> <li>● Pitt Med does include planetary health in the curriculum, especially through a Climate Change elective course. This course covers many major planetary health topics (air pollution, healthcare carbon footprint, local environment, and mental health). The core curriculum also covers discussion of some fundamental topics including non-pharmaceutical health management and the impact of the environment on marginalized communities.</li> <li>● <b>Recommendations:</b> Introduce a thread of planetary health themes through problem-based learning scenarios, history taking (environmental exposure), patient and community panels through Social Medicine, and in-clerkship didactics.</li> </ul>                       |            |
| <b><u>Interdisciplinary Research</u></b>   | <b>D +</b> |
| <ul style="list-style-type: none"> <li>● Pitt Med is a member of the Global Consortium on Climate and Health Education. We also have individual faculty members at the medical school exclusively doing research related to planetary health and have many scientists across the public health department doing the same.</li> <li>● <b>Recommendations:</b> Organize a planetary healthcare conference that includes community voices to allow them to engage with designing research projects and developing plans that maximize community benefit.</li> </ul>   |            |
| <b><u>Community Outreach and Advocacy</u></b>  | <b>B</b>   |
| <ul style="list-style-type: none"> <li>● Students attend neighborhood tours in areas experiencing climate injustice and meet community leaders of local nonprofits, including community gardens. Pitt Students for One Health is a student organization that partners with Tree Pittsburgh, Repair the World Pittsburgh, City of Pittsburgh Volunteer Clean Up, and the Pittsburgh East End Cooperative Garden.</li> <li>● <b>Recommendations:</b> Grow these community partnerships to include staff and faculty across the UPMC hospitals and increase availability of educational seminars within the medical school on how to best serve our communities through the lens of planetary health.</li> </ul>  |            |
| <b><u>Support for Student-Led Initiatives</u></b>  | <b>B</b>   |
| <ul style="list-style-type: none"> <li>● The institution offers numerous grants in sustainability projects for individual students, student groups, building innovations, and events. There are also student organizations that cover the topics of planetary health engagement, scholarship, and advocacy including Pitt Students for One Health, Global Health and Underserved Populations Group, and the Social Medicine Fellows Program.</li> <li>● <b>Recommendations:</b> We recommend the medical school offer increased support to students interested in sustainable initiatives by creating a subsection of the Pitt Sustainability website that advertises mentors or opportunities for students and prioritizes grants for planetary health research.</li> </ul> |            |
| <b><u>Campus Sustainability</u></b>  | <b>B-</b>  |
| <ul style="list-style-type: none"> <li>● The Pitt Office of Sustainability has a wealth of resources available for the medical school to utilize to inform sustainable practices. The medical school building has had updates with these guidelines in mind and the new West Wing building under construction has LEED certification.</li> <li>● <b>Recommendations:</b> Recruit faculty and students from the medical school who can directly implement the Pitt Sustainability Plan, Pitt Green Host program, establish a composting program, and encourage participation in the Pitt Green Labs Program.</li> </ul>   |            |

# Statement of Purpose

*Planetary health is human health.*

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

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

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

# Definitions & Other Considerations

## Definitions:

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

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

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

**Other considerations:**

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

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

# Planetary Health Curriculum

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

## Curriculum: General

| 1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?   |   |
|--|---|
| 3  | Yes, the medical school has offered <b>more than one</b> elective whose primary focus is ESH/planetary health in the past year.   |
| 2  | Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year.   |
| 1  | The medical school does <b>not</b> have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a <b>lecture</b> on planetary health. |
| 0  | No, the medical school has <b>not</b> offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.                                   |
| <p><i>Score explanation:</i> A single professional enrichment course is offered, entitled “Medicine and Climate Change”. The purpose of this course is to provide an introductory overview into the intersection between the environment, the healthcare system, and medicine. Specifically, modules include: 1. An overview of climate medicine, 2. Air pollution and climate change 3. The carbon footprint of healthcare, and 4. Tree-planting as a public health initiative. The courses are taught in a lecture format by Dr. Noedahn Copley-Woods. The course also includes an optional field trip to a disposal site for medical waste.</p> |   |

## Curriculum: Health Effects of Climate Change

| 2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?   |  |
|--|--|
| 3  | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2  | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1  | This topic was covered in <b>elective</b> coursework.                  |
| 0  | This topic was <b>not</b> covered.                                     |
| <p><i>Score explanation:</i> An Emergency Medicine case discussion is provided in the Adult Inpatient Medicine Clerkship during the third year that details the diagnosis and medical management of hyper-</p> |  |

and hypothermia. It does not, however, explore the way in which these conditions will become more common with the changing climate or how well the healthcare system is equipped to handle large volumes of these cases on days of extreme temperature. In other words, the link between extreme temperatures and climate change is not discussed in this lecture.

The link between extreme heat, health risks, and climate change is not explored in any core coursework.

**3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?**

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* This topic is not covered in any core curriculum.

**4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?**

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* This topic was not covered as part of the core curriculum Medical Microbiology or the Immunology in Health & Disease courses in the M1 year.

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

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* The topic was covered briefly in the Body Fluid Homeostasis Pulmonary course during the M2 year. In the lecture on COPD and lung cancer, risk factors mention environmental air pollution. “Weather changes” and air pollution are also listed as a common asthma trigger. The specific

diseases caused by various chemicals and compounds, including asbestos and coal, are also explored in a lecture entitled “Restrictive Lung Diseases” under “Pneumoconioses”. This topic was also covered in an elective Medicine and Climate Change Professional Enrichment Course where a session was devoted to Air Pollution and Climate Change.

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

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* This topic was not covered in the main curriculum during the Fluid Dynamics Homeostasis Cardiovascular Course taken during the M2 year.

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

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* The MS1 course “Behavioral Medicine” mentions stress management and the contributory effect of environmental events, but no exact examples are given or discussed further. The syllabi for “Racism in Medicine” and “Populations Health” did not have any significant discussion of mental health and environmental factors. The “Medicine and Climate Change” elective features improvement of mental health through tree-planting as a public health initiative, and the “current state of climate change and the key global and local health impacts.” The tree planting lecture has multiple slides on the benefits of a healthy/greener environment and higher test scores, mental health outcomes, and anxiety.

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

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|---|--|



|   |  |
|---|--|
| 2   | This topic was <b>briefly</b> covered in the <b>core</b> curriculum. |
| 1   | This topic was covered in <b>elective</b> coursework.                |
| 0   | This topic was <b>not</b> covered.                                   |
| <p><i>Score explanation:</i> The MS1 “Behavioral Medicine” course mentions structural factors like environment and food access with respect to obesity, but there is no broader link to ecosystem health or climate change. The MS3 course “Medical Nutrition” does not feature food security in the learning objectives, but it includes optional readings such as “Promoting Food Security for All Children” and a podcast called “Food Insecurity.” However, the Culinary Medicine Professional Enrichment Course (elective) addresses the intersection between food security and climate change in depth.</p> |  |

|   |  |
|---|--|
| <p><b>9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?</b></p>  |  |
| 3   | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2   | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1   | This topic was covered in <b>elective</b> coursework.                  |
| 0   | This topic was <b>not</b> covered.                                     |
| <p>PEC - Medicine and Climate Change (Spring 2023): has two meetings which focus on Climate Medicine, which “seeks to understand the health effects of climate change and how it acts as a disparity potentiator”. One objective is “Students should be able to describe how a warming planet harms human health and who is the most vulnerable.” Specific populations are not mentioned.</p> <p>Population Health (MS2 course): syllabus mentions that city policies on environmental hazards are often biased towards communities of color - “City sanitation department policies that concentrate trash transfer stations and other environmental hazards disproportionately in communities of color.”</p> |  |

|  |  |
|--|--|
| <p><b>10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?</b></p>                           |  |
| 3  | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2  | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1  | This topic was covered in <b>elective</b> coursework.                  |
| 0  | This topic was <b>not</b> covered.                                     |
| <p>PEC - Medicine and Climate Change (Spring 2023): One session reviews “the current state of climate change and the key global and local health impacts.”</p> |  |

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

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

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* The syllabus briefly mentions that environmental exposures such as endocrine disruptors has been a reason for delayed puberty. It also states that congenital malformations can be caused by environmental teratogens. There is no information on the specifics of industry-related environmental toxins and their impact on reproductive health.

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

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* The elective “Environmental Health” covered the topic of local factory waste and pollution. Specifically, one lecture covered a fire at the Clairton Coke Works factory that caused a spike in childhood ER visits and was a huge air pollution problem in the surrounding community.

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

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

*Score explanation:* No mention of indigenous knowledge and value systems in association with climate or planetary health solutions was found in the core curriculum or elective coursework.

**14. Does your medical school curriculum address the outsized impact of anthropogenic**

**environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?**

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* Population Health (MS2 course): Slides mention that residential racial segregation leads to “unhealthy physical exposures”, which harm childhood and adult health. Slides mention that one effect of neoliberalism/capitalism is environmental pollution, due to industry deregulation. Slides show a map of areas with highest concentration of black carbon in air in Pittsburgh, as well as a map of Pittsburgh overlaid with area deprivation index scores (a metric linked to several healthcare outcomes, including higher rates of diabetes and cardiovascular disease, increased utilization of health services, and earlier death). The specific populations affected are not mentioned.

*Curriculum: Sustainability*

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

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* Effects of plant-based diet are covered in the Culinary Medicine Professional Enrichment Curriculum, but only with respect to health and not its effects on the environment. Plants are mentioned in Digestion and Nutrition course, but only with respect to fiber and IBS.

**16. Does your medical school curriculum address the carbon footprint of healthcare systems?**

|   |  |
|---|--|
| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |

*Score explanation:* The “Medicine and Climate Change” elective explores this in detail in the “The Carbon Footprint of Healthcare” lecture.

| 17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each) |  |
|---|--|
| 2   | The health <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment  |
| 2   | The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfill this metric.   |
| 1   | The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.   |
| 1   | Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated   |
| 1   | The impact of <b>anesthetic</b> gasses on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anesthesia or choosing less environmentally harmful anesthetic gas options with reduced greenhouse gas emissions  |
| 1   | The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.  |
| 1   | <b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)   |
|   | <i>Score explanation:</i> Avoiding over-medicalisation and deprescribing are discussed in the current curriculum; however, environmental benefits of these practices are not discussed. Health and environmental co-benefits of non-pharmaceutical management are discussed in the Culinary Medicine elective and Medicine & Climate Change elective. Built environment is covered in the surgery clerkship, but only in the context of patient background, not necessarily re: the impacts of surgical healthcare on the environment. Environmental impact of anesthesia is covered in the required text for the Anesthesia clerkship, but not elsewhere. Environmental impact of inhalers not covered. Waste management strategies in clinics are not covered. |

*Curriculum: Clinical Applications*

| 18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change? |   |
|---|---|
| 2   | Yes, there are strategies introduced for having conversations with patients about climate change in the <b>core</b> curriculum. |
| 1   | Yes, there are strategies introduced for having conversations with patients about climate change in <b>elective</b> coursework. |
| 0   | No, there are <b>not</b> strategies introduced for having conversations with patients about climate change                      |
| <i>Score explanation:</i> This is not incorporated into any standardized patient simulation prior to starting clerkships.   |   |

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

|   |  |
|---|--|
| 2 | Yes, the <b>core</b> curriculum includes strategies for taking an environmental history.   |
| 1 | Only <b>elective</b> coursework includes strategies for taking an environmental history.   |
| 0 | No, the curriculum does <b>not</b> include strategies for taking an environmental history. |

*Score explanation:* Extensive practice and focus is placed on obtaining a social history in the Medical Interviewing courses. However, the importance of these elements in the context of climate change is not emphasized. For example, it is encouraged to discuss access to food, but evaluating the importance of this information in the context of environmental health is not emphasized. Environmental pollution is not introduced as an important component of social history-taking.

*Curriculum: Administrative Support for Planetary Health*

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

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

*Score explanation:* There is a dedicated faculty group for implementing ESH into the new Pitt Med curriculum. Key topics on ESH will be discussed throughout the curriculum.

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

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

*Score explanation:* ESH at Pitt Med is currently covered in standalone lectures (e.g. environmental exposures) or very tangentially as part of SDoH curriculum. There are two elective courses that cover ESH.

**22. Does your medical school employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?**

|   |   |
|---|---|
| 1 | <b>Yes, the <u>medical school</u> has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare</b>                  |
| 0 | <b>No, the <u>medical school</u> does <b>not</b> have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.</b> |

*Score explanation:* Yes, for the new curriculum. There are dedicated faculty working to incorporate ESH. This is specifically Dr. Eloho Ufomata and Dr. Thuy Bui.

**Section Total (23 out of 72)**

**D**

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

# Interdisciplinary Research

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

| 1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u> ?   |   |
|--|---|
| 3  | Yes, there are faculty members at the <b>medical school</b> who have a <b>primary</b> research focus in planetary health <b>or</b> healthcare sustainability.   |
| 2  | Yes, there are individual faculty members at the <b>medical school</b> who are conducting research <b>related</b> to planetary health or healthcare sustainability, but it is not their primary research focus. |
| 1  | There are planetary health and/or healthcare sustainability researchers at the <b>institution</b> , but none associated with the medical school.  |
| 0  | No, there are <b>no</b> planetary health and/or healthcare sustainability researchers at the <b>institution</b> or <b>medical school</b> at this time.  |
| <p><i>Score explanation:</i> There are faculty members at the medical school conducting research in environmental health. These faculty members include but are not limited to Noe Copley-Woods and Maya Ragavan, who are affiliated with the medical school. Online portfolios and papers tend to indicate that planetary health is not their primary research interests. There are additional faculty conducting environmental science research outside of the medical school.</p> |   |

| 2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u> ?  |  |
|---|--|
| 3   | There is <b>at least one</b> dedicated department or institute for interdisciplinary planetary health research.  |
| 2   | There is <b>not currently</b> a department or institute for interdisciplinary planetary health research, but there are <b>plans</b> to open one in the next 3 years. |
| 1   | There is an <b>Occupational and Environmental Health department</b> , but no interdisciplinary department or institute for planetary health research.                |
| 0   | There is <b>no</b> dedicated department or institute.  |
| <p><i>Score explanation:</i> There is no interdisciplinary department or institute for Occupational and Health Department, but there are multiple departments. In the Graduate School of Public Health, there is an Environmental and Occupational Health department. In the School of Engineering, there is a Civil and Environmental department. There is also a Department of Geology and Environmental Science, which has a Paleoclimate and Environmental Change subsection.</p> |  |

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

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

*Score explanation:* There is currently no such process at this institution.

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

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

*Score explanation:* Website includes upcoming events, leaders in planetary health at your institution, and relevant funding opportunities but may not be up to date. The list of relevant faculty and labs does not seem complete.

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

|   |  |
|---|--|
| 4 | Yes, the <b>medical school</b> has hosted at least one conference or symposium on topics related to planetary health in the past year. |
| 3 | Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.    |
| 2 | Yes, the <b>institution</b> has hosted a conference on topics related to planetary health in the past three years.                     |



|   |  |
|---|--|
| 1   | The <b>institution</b> has not hosted any conferences directly, but they have provided financial support for a local planetary health event. |
| 0   | No, the <b>institution</b> has not hosted a conference on topics related to planetary health in the past three years.                        |
| <i>Score explanation:</i> There has not been a recent conference but there is one planned for May 2023. |  |

|  |   |
|--|---|
| <b>6. Is your <u>medical school</u> a member of a national or international planetary health or ESH organization?</b>                            |   |
| 1  | Yes, the medical school is a member of a national or international planetary health or ESH organization |
| 0  | No, the medical school is <b>not</b> a member of such an organization                                   |
| <i>Score explanation:</i> The University of Pittsburgh, School of Medicine is a member of the Global Consortium on Climate and Health Education. |   |

|                                    |           |
|------------------------------------|-----------|
| <b>Section Total (6 out of 17)</b> | <b>D+</b> |
|------------------------------------|-----------|

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

# Community Outreach and Advocacy

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

| 1. Does your <b>medical school</b> partner with community organizations to promote planetary and environmental health?  |  |
|---|--|
| 3   | Yes, the <b>medical school</b> meaningfully partners with <b>multiple</b> community organizations to promote planetary and environmental health. |
| 2   | Yes, the <b>medical school</b> meaningfully partners with <b>one</b> community organization to promote planetary and environmental health.       |
| 1   | The <b>institution</b> partners with community organizations, but the medical school is not part of that partnership.                            |
| 0   | No, there is <b>no</b> such meaningful community partnership.  |
| <p><i>Score explanation:</i> During the MS1 orientation, students attend required neighborhood tours in underserved areas and meet community leaders of local nonprofits. On each tour, a community garden was visited and volunteer opportunities were made available. Also, the student organization “Pitt Students for One Health” focuses on “achieving optimal health by recognizing the interconnection between people, animals, plants, and their shared environment.” This student organization has multiple partnerships with community organizations such as Tree Pittsburgh, Repair the World Pittsburgh, City of Pittsburgh Volunteer Clean Up, and the Pittsburgh East End Cooperative Garden.</p> |  |

| 2. Does your <b>medical school</b> offer community-facing courses or events regarding planetary health?  |   |
|--|---|
| 3  | The <b>medical school</b> offers community-facing courses or events at least once every year.   |
| 2  | The <b>medical school</b> offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. |
| 1  | The <b>institution</b> has offered community-facing courses or events, but the <b>medical school</b> was not involved in planning those courses or events.    |
| 0  | The <b>institution/medical school</b> have not offered such community-facing courses or events.   |
| <p><i>Score explanation:</i> The University of Pittsburgh offers online and in-person public lectures regularly; some related to climate change and environmental health are hosted and/or co-hosted by the <u>Center for Sustainable Business</u>. The <u>Climate and Global Change Center</u> has held past events and public outreach</p> |   |

activities such as K-12 mobile science labs based on climate and the impacts of climate change. However, the University of Pittsburgh School of Medicine does not offer regular community-facing events on the subject.

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

|   |   |
|---|---|
| 2 | Yes, all students <b>regularly</b> receive communication updates dedicated to planetary health and/or sustainable healthcare. |
| 1 | Yes, planetary health and/or sustainable healthcare topics are <b>sometimes</b> included in communication updates.            |
| 0 | Students <b>do not</b> receive communications about planetary health or sustainable healthcare.                               |

*Score explanation:* The regular email updated from OMED (Office of Medical Education) sometimes include communications on planetary health. In the OMED update email from 10/13/2022, a section is dedicated to climate change and includes resources such as the New England Journal of Medicine compendium of articles and curricular resources from Minnesota’s Global Health Center.

**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?**

|   |   |
|---|---|
| 2 | Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. |
| 1 | Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers   |
| 0 | There are <b>no</b> such accessible courses for post-graduate providers   |

*Score explanation:* Magee-Womens hosts an annual Environmental Health Literacy Symposium for health care providers. The purpose of the symposium is to educate health care providers around current research in the field of environmental health and to supply tools to assist them in counseling patients

**5. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?**

|   |  |
|---|--|
| 2 | Yes, <b>all</b> affiliated hospitals have accessible educational materials for patients. |
| 1 | <b>Some affiliated hospitals have accessible educational materials for patients.</b>     |
| 0 | <b>No</b> affiliated medical centers have accessible educational materials for patients. |

*Score explanation:* There is a website that describes how climate change affects health (<https://inside.upmc.com/8-billion-people-four-ways-climate-change-and-population-growth-combine-to-threaten-public-health-with-global-consequences/>). I have not been able to find brochures or handouts for patients describing how the environment affects their health. Moreover, the above linked

article focuses more on a global health perspective. It would be helpful to have a brochure or handout about how the environment affects health in ways that are especially relevant to people in Pittsburgh. An example could describe data from Pittsburgh based studies. The following website describes the role of cancer and the environment, but it is not accessible educational material for the general patient (<https://inside.upmc.com/cancer-environment-pitt-upmc/>).

**6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?**

|   |  |
|---|--|
| 2 | Yes, <b>all</b> affiliated hospitals have accessible educational materials for patients. |
| 1 | <b>Some</b> affiliated hospitals have accessible educational materials for patients.     |
| 0 | <b>No</b> affiliated hospitals have accessible educational materials for patients.       |

*Score explanation:*  
<https://www.upmc.com/health-library/article?hwid=zp3199>  
 UPMC Health Library article about environmental illness.

|                                     |          |
|-------------------------------------|----------|
| <b>Section Total (10 out of 14)</b> | <b>B</b> |
|-------------------------------------|----------|

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

# Support for Student-Led Planetary Health Initiatives

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

| 1. Does your <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project?  |   |
|--|---|
| 2  | Yes, the medical school or institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.   |
| 1  | The <b>medical school</b> or <b>institution</b> encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, <b>but</b> there is no student funding available and there is no requirement to participate. |
| 0  | No, <b>neither</b> the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.  |
| <p><i>Score explanation:</i> The institution offers numerous grants and awards for students interested in pursuing sustainability <a href="#">projects</a>. These grants are available for individual students (Pitt Green Fund), student groups (MCSI Student Group Sustainability Grants), building innovations (Sustainability Student Prototyping Grants), and events (Global Studies Center Student Center Student Organization Event Funding). This website highlights existing projects and details about how sustainable practices have been achieved across campus.</p> |   |

| 2. Does your <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?  |   |
|---|---|
| 2   | The <b>institution</b> has a <b>specific</b> research program or fellowship for students interested in doing planetary health/sustainable healthcare research.  |
| 1   | There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these <b>require student initiative</b> to seek these out and carry them out in their spare time. |
| 0   | There are <b>no opportunities</b> for students to engage in planetary health/sustainable healthcare research.   |
| <p><i>Score explanation:</i> Yes, there are plenty of opportunities for students to get involved with research in planetary health and sustainable healthcare mostly through the school of public health as well as under a few clinicians in the medical school. There are a few funded research programs through PittSustainability but they are only for undergraduate students and not available for medical students. However, many of the opportunities medical students may have to do research will have the potential to be funded by the medical school's nonspecific research grants (Dean's summer research program, Social Medicine Fellows, PhD program, etc.).</p> |   |

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

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

*Score explanation:* There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. While there is the broader Pitt sustainability website there is nothing specific for the medical school or medical students.

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

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

*Score explanation:* Yes, there are multiple student organizations that cover the topics of planetary health engagement, scholarship, and advocacy. All of these groups have a dedicated faculty advisor that is supportive in their endeavors. These groups include Pitt Students for One Health, Global Health and Underserved Populations Group, and Social Medicine Fellows.

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

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

*Score explanation:* The members of the committee involved in completing this report card will be advocating for curricular and structural changes to the curricular reform committee.

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

|   |   |
|---|---|
| 1 | Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.  |
| 0 | 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 organize hiking, backpacking, kayaking, or other outings for students)  |

*Score explanation:* Medical students have planned recreational events using the school budget for activities including kayaking and hiking. While the remaining events are not held co-curricularly, the Pitt Students for One Health organization holds speaker panels related to planetary health with organizations from the community as well as volunteer events, including trash pickup and tree-planting, that is offered to all four classes. There was also a classwide volunteer event working with Repair the World working in a community garden and understanding how this organization works to meet community health needs.

**Section Total (10 out of 15)**

**B**

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

# Campus Sustainability

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

| 1. Does your <u>medical school</u> and/or <u>institution</u> have an Office of Sustainability?   |  |
|--|--|
| 3  | Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is <b>at least one designated staff member</b> for sustainability at the hospital and/or medical school. |
| 2  | There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but <b>no specific staff member</b> in charge of medical school and/or hospital sustainability.  |
| 1  | There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee  |
| 0  | There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability  |
| <p><i>Score explanation:</i> The University of Pittsburgh Office of Sustainability is directed by Dr. Aurora Sharrard and employs 13 other staff members in addition to interns, campus leaders, green ambassadors, and affiliated faculty dedicated to university wide, strategies, policies, collaborations and partnerships to advance the Pitt Sustainability Plan. There is no specific staff member in charge of the medical school.</p> |  |

| 2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?   |  |
|---|--|
| 5   | The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>  |
| 3   | The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>  |
| 1   | The institution/medical school has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b> |
| 0   | The institution/medical school does <b>not</b> meet any of the requirements listed above   |
| <p><i>Score explanation:</i> In February 2020, The University of Pittsburgh’s Board of Trustees, committed to carbon neutrality by 2037 and this should encompass the medical school. It has a clear climate action plan updated yearly that outlines the work needed to meet this goal and the</p> |  |



progress so far. More information on the Climate Action Plan can be found [here](#). Pitt is also actively tracking their progress through the sustainability [dashboard](#).

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

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

*Score explanation:* No buildings used by the medical school use renewable energies.

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

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

*Score explanation:* The 2009 renovations to the medical school building were designated LEED BD-C status for components related to water use reduction, use of low-emission regional materials, and heat island preventative roofing. Energy usage was reduced through changes such as switching escalators to staircases. The West Wing addition currently under construction will make use of a streetscape designed to collect and store stormwater from roof runoff. A rain garden and green roof will contribute to water control. There is also a focus on local low-emissions building materials.

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

|   |  |
|---|--|
| 2 | Yes, the medical school has implemented strategies to encourage and provide <b>environmentally-friendly transportation options</b> such as safe active transport, public transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. |
|---|--|

|  |   |
|--|---|
| 1  | The medical school has implemented <b>some</b> strategies to provide environmentally-friendly transportation options, but the options are <b>unsatisfactorily</b> accessible or advertised. |
| 0  | The medical school has <b>not</b> implemented strategies to encourage and provide environmentally-friendly transportation options.  |
| <i>Score explanation:</i> The University of Pittsburgh as a whole offers fare-free service on Pittsburgh Regional Transit (PRT) throughout Allegheny County. Additionally students and staff can utilize POGO bike share network through unlimited free 30 minute rides. This information was sent to all students in an email and mentioned at new student orientation, and on the schools website. |   |

| <b>6. Does your <u>medical school</u> have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?</b>   |   |
|---|---|
| 2   | Yes, the medical school has <b>both</b> compost <b>and</b> recycling programs accessible to students and faculty.           |
| 1   | The medical school has <b>either</b> recycling <b>or</b> compost programs accessible to students and faculty, but not both. |
| 0   | There is <b>no</b> compost or recycling program at the medical school.  |
| <i>Score explanation:</i> The University of Pittsburgh and UPSOM have recycling containers available throughout campus buildings. While the University has multiple compost drop-off locations, the medical school does not have compost bins. This reflects the lack of compost programs within the hospital, which manages the medical school building. |   |

| <b>7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?</b>   |   |
|--|---|
| 3  | Yes, the medical school has <b>adequate</b> sustainability requirements for food and beverages, including meat-free days or no red-meat, and <b>is engaged</b> in efforts to increase food and beverage sustainability. |
| 2  | There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> . The medical school <b>is engaged</b> in efforts to increase food and beverage sustainability.                |
| 1  | There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> . The medical school is <b>not</b> engaged in efforts to increase food and beverage sustainability.            |
| 0  | There are <b>no</b> sustainability guidelines for food and beverages.   |
| <i>Score explanation:</i> UPMC Presbyterian Hospital, where the medical school is located, partners with the Greater Pittsburgh Community Food Bank's Chef's Table program to donate leftover food to community organizations. The Hospital also collaborates with Freedom Farms to provide a weekly farmers market. Additionally the cafeteria achieved a LEED-Silver designation from the Sustainable Pittsburgh Restaurant Association based on 149 actions across 6 categories of sustainability standards: waste reduction, water conservation, energy efficiency, people, responsible sourcing, and nutrition. |   |

**8. Does the medical school or institution apply sustainability criteria when making decisions about supply procurement?**

|   |   |
|---|---|
| 3 | Yes, the medical school has <b>adequate</b> sustainability requirements for supply procurement <b>and is engaged</b> in efforts to increase sustainability of procurement.                                |
| 2 | There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The medical school is <b>engaged</b> in efforts to increase sustainability of procurement.     |
| 1 | There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The medical school is <b>not engaged</b> in efforts to increase sustainability of procurement. |
| 0 | There are <b>no</b> sustainability guidelines for supply procurement.   |

*Score explanation:* The University of Pittsburgh has optional guidelines for sustainable supply procurement. The Pitt Surplus program facilitates material reuse by coordinating pickup/dropoffs of gently used supplies/furniture to exchange between departments, offices, and individuals for repurposing. The University Stores and online purchasing tool provide designations for “sustainable picks” and “green program” endorsements. These criteria include local sourcing, use of sustainable materials, and climate neutral certifications. The medical school’s recent construction and supply procurement has had a focus on sustainable sourcing in accordance with these recommendations.

**9. Are there sustainability requirements or guidelines for events hosted at the medical school?**

|   |   |
|---|---|
| 2 | Every event hosted at the medical school <b>must</b> abide by sustainability criteria.                                    |
| 1 | The medical school <b>strongly recommends or incentivizes</b> sustainability measures, but they are <b>not required</b> . |
| 0 | There are <b>no</b> sustainability guidelines for medical school events.  |

*Score explanation:* The “Pitt Green Host” program on the main campus provides a certification program for event hosts. The certification program includes online modules and a quiz for certification. The online modules cover topics like food waste composting, zero waste, multiple attendance modalities, food for all dietary needs, and supply procurement. The training can be found [here](#). This allows hosts to access a Microsoft Teams site to request green resources for their event and gain support. Medical school events would be eligible for this certification however the medical school does not require that hosts participate in this program.

**10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?**

|   |   |
|---|---|
| 2 | Yes, the medical school has <b>programs</b> and <b>initiatives</b> to assist with making lab spaces more environmentally sustainable. |
| 1 | There are <b>guidelines</b> on how to make lab spaces more environmentally sustainable, but not programs or initiatives.              |
| 0 | There are <b>no</b> efforts at the medical school to make lab spaces more sustainable.  |

*Score explanation:* The University of Pittsburgh Office of Sustainability has a Pitt Green Labs designation. The criteria for this designation can be found [here](#) and are based on Chemicals & Safety, Culture of Sustainability, Energy Consumption & Maintenance, Innovation Actions, Lab Recycling, Purchasing, Water Conservation. There is a program where labs can fill out a self-assessment to receive points for a laboratory designation. The Medical School has one laboratory, an infectious disease lab led by Urvi Parikh, Ph.D., which received the seed award in 2020. The seed award corresponds to 1-49% of the possible sustainability points.

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

|   |  |
|---|--|
| 4 | The institution is <b>entirely divested</b> from fossil fuels <b>and</b> has made a <b>commitment to reinvest divested funds</b> into renewable energy companies or renewable energy campus initiatives. |
| 3 | The institution is <b>entirely divested</b> from fossil fuels.   |
| 2 | The institution has <b>partially divested</b> from fossil fuel companies <b>or</b> has made a <b>commitment to fully divest</b> , but <b>currently</b> still has fossil fuel investments.                |
| 1 | The institution has <b>not divested</b> from fossil-fuel companies, but faculty and/or students are <b>conducting organized advocacy</b> for divestment.   |
| 0 | Yes, the institution has investments with fossil-fuel companies and there have been <b>no efforts</b> to change that.  |

*Score explanation:* According to the March 2022 Consolidated Endowment Fund Environmental, Social, and Governance Report 2020-21 As of 2021, the Universities endowment fund has 5.9% exposure to fossil fuel holdings. This is a decrease from 10% in 2015. In the February 2021 report from the Board of Trustees Ad Hoc Committee on Fossil Fuels, will divest from fossil fuels by 2035. The University currently is on track to meet this commitment.

**Section Total (20 out of 32)**

**B-**

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

## Grading

### Section Overview

This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

| Letter Grade* | Percentage |
|---------------|------------|
|---------------|------------|

|   |            |
|---|------------|
| A | 80% - 100% |
| B | 60% - 79%  |
| C | 40% - 59%  |
| D | 20% - 39%  |
| F | 0% - 19%   |

*\*Within each grade bracket, a score in the top 5% (\_5 to \_9%), receives a “+”, and a score in the bottom 5% (\_0- \_4%) receives a “-”. For example, a percentage score of 78% would be a B+.*

### **Planetary Health Grades for the University of Pittsburgh School of Medicine**

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

| <b>Section</b>  | <b>Raw Score %</b>   | <b>Letter Grade</b> |
|---|--|---------------------|
| <b>Planetary Health Curriculum (30%)</b>                            | $(23/72) \times 100 = 31.94\%$   | D                   |
| <b>Interdisciplinary Research (17.5%)</b>                           | $(6/17) \times 100 = 35.29\%$  | D+                  |
| <b>Community Outreach and Advocacy (17.5%)</b>                      | $(10/14) \times 100 = 71.43\%$   | B                   |
| <b>Support for Student-led Planetary Health Initiatives (17.5%)</b> | $(10/15) \times 100 = 66.67\%$   | B                   |
| <b>Campus Sustainability (17.5%)</b>                                | $(20/32) \times 100 = 62.50\%$   | B-                  |
| <b>Institutional Grade</b>  | $(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 50.86\%$ | <b>C</b>            |