



Planetary Health Report Card (Pharmacy) 2026: *University of Pittsburgh School of Pharmacy*



University of
Pittsburgh
School of Pharmacy

2025-2026 Contributing Team:

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Land Acknowledgement:

The University of Pittsburgh System (Oakland, Greensburg, Bradford, Johnstown, Titusville) occupies the ancestral lands of the Seneca (Sen-uh-kuh) in Pittsburgh and Sharpsburg, Adena culture, Hopewell culture, and Monongahela (Muh-naang-guh-hee-luh) peoples who were later joined by refugees of other tribes (including the Delaware, Shawnee, Mingo, and Haudenosaunee tribes (Hoe-den-no-show-nee), who were all forced off their original land and displaced by European colonists. We acknowledge the most recent displacement of the Seneca near Warren County (between Bradford and Titusville campuses) in 1965 and native languages and cultures that have been severely damaged or lost due to forced removal and assimilation. We honor the original caretakers of this region and uplift their historic, unique, and enduring relationship with this land, which is their ancestral territory.

We pay our respects to their Elders and their past, present, and future people, community, and culture. While we cannot change the past, we commit to continued gratitude for the gifts of nature, along with ongoing respect, care, and stewardship of the land, each other, and future generations. We are committed to learning and supporting indigenous communities in the region today and in the future.

This land acknowledgment reminds us of the people who have been harmed and oppressed in the past, and of the harms that continue today. It reminds us that we must attend to the intersectional identities and power systems of race, gender, class, religion, and ability, to build peace, and to build a more just and equitable future.

Summary of Findings

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| Overall Grade | B |
| Curriculum | C- |
| <ul style="list-style-type: none"> • This year, our Planetary Health Report Card team transitioned to a more streamlined, example based data collection process with course coordinators. This move provided more robust insights into our curriculum and helped to move our barometer from last year. This also revealed significant faculty interest and a proactive demand for supplemental planetary health resources to integrate into future lectures. • Students now have the opportunity to enroll in the “Sustainability in Healthcare: Planetary Health in Practice” course. This extracurricular interprofessional course allows students to collaborate across the health science schools to advance environmental health and make it a core part of clinical practice. • Recommendations: To move beyond brief mentions in the core curriculum, the School of Pharmacy should work to implement faculty requests for supplemental materials to ensure environmental impacts on human health are a consistent and valuable part of the PharmD education. | |
| Interdisciplinary Research | A |
| <ul style="list-style-type: none"> • The University of Pittsburgh offers several research opportunities relating to sustainability in healthcare. Students have opportunities via summer research positions and funding opportunities. Faculty are actively researching in this field. • Recommendations: Involve communities disproportionately impacted by climate change in research agenda at Pitt. | |
| Community Outreach and Advocacy | B |
| <ul style="list-style-type: none"> • University of Pittsburgh partners with multiple community organizations relating to planetary health. Health Sciences would benefit from more community facing events. • Recommendations: More accessible materials for patients and providers to learn about health impacts of climate change. | |
| Support for Student-Led Initiatives | A+ |
| <ul style="list-style-type: none"> • The University of Pittsburgh continues to offer strong support for student led planetary health initiatives through funding, research, and advocacy. The Office of Sustainability in the Health Sciences (OSHS) has institutionalized student voices through its Student Advisory Committee, and the Mascaro Center for Sustainable Innovation (MCSI) provides diverse research opportunities in sustainable healthcare. • Recommendations: We recommend that student-led sustainability initiatives at the university be advertised more clearly to health sciences students, ideally centralized in one location or through a consistent way of communication. | |
| Campus Sustainability | B+ |
| <ul style="list-style-type: none"> • Pitt has a strong commitment to sustainability, evident through its goals, collaborations, and initiatives. The percentage of electricity attributed to renewables is growing each year. • Recommendations: We recommend focusing on establishing requirements for supply procurement. | |

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, and 4) community outreach centred on environmental health impacts 5) school campus sustainability.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional 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.
- **Pharmacy School/Department vs. Institution:** When “Pharmacy school” is specified in the report card, this only refers to curriculum and resources offered by the School/department of Pharmacy 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 Pharmacy 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 (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).

Scoring Matrix

- Elective coursework (1 point): This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.
- Brief coverage in the core curriculum (2 points): This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. At minimum brief inclusion would qualify as inclusion in a single lecture slide in a single year.
- In depth coverage in the core curriculum (3 points): This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats.

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.

Updated in 2025, a complete literature review by metric is available for the 2024/25 Medicine Report Card Template. This largely translates across disciplines although we are hoping to expand this process across all of our covered disciplines. A link to the 2025 literature review by metric is available [here](#).

Planetary Health Curriculum

Section Overview: *This section evaluates the integration of relevant planetary health topics into the Pharmacy school curriculum. Today's health professional students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that 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.*

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| 1.1 Does your pharmacy 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 |
| <p><i>Score explanation:</i> This section will be assigned 2 points because several core courses across the P1 through P3 years including Pharmacist Patient Care 1 and 3, Population Health and Management, Self-care, Cardiology, Acute Care Simulations, and Pharmacy in the World of Tomorrow address the impacts of extreme weather on health and healthcare systems. These courses cover a broad range of topics, such as the mental and physical health consequences of flooding, the respiratory and cardiovascular risks associated with wildfire smoke, and the implications of drought on food security. Our curriculum includes practical applications, such as a mass casualty simulation in PPC 2 and discussions in Self-care regarding weather related triggers for asthma and allergies. While these topics are integrated into various modules, the instruction often focuses on the immediate clinical response to injuries and displacements rather than providing a consistent analysis of the long term relationship between climate change and extreme weather patterns. Additionally, multiple course coordinators expressed a desire for more specific resources to further incorporate these themes into their core curriculum courses.</p> | |

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| 1.2 Does your pharmacy school curriculum address the environmental impact of medicines in terms of their pollution, ecological impact and contamination of water 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) | |

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| Score Assigned: | 2 |
| <p><i>Score explanation:</i> This section will be assigned 2 points because several core courses across the P1 through P3 years including Health System Pharmacy, Pharmacy in the World of Tomorrow, Pharmacokinetics and Drug Response, Population Health Management, Cardiology, and Acute Care Simulations address the environmental impact of medications. Courses like Pharmacokinetic and Health System Pharmacy discuss how medications are designed for potency and degradation resistance, which leads to environmental damage during manufacturing, patient excretion, and improper disposal. Several courses cover how climate change stresses the medical supply chain and manufacturing infrastructure, potentially leading to medication shortages. While the impact of drugs is mentioned across different years of the curriculum, the topic is often framed within the context of supply chain management or clinical pharmacokinetics rather than as a primary lesson on ecological health or water contamination. Additionally, multiple course coordinators expressed a desire for more specific resources to further incorporate these themes into their core curriculum courses.</p> | |

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| 1.3 Does your pharmacy school curriculum address the health effects of pharmaceutical industry- and manufacturing-related environmental toxins? | |
| This topic was explored in depth by the core curriculum. (3 points) | |
| This topic was briefly covered in the core curriculum. (2 points) | |
| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 1 |
| <p><i>Score explanation:</i> In courses like Pharmacy in the World of Tomorrow and Population Health and Management, students explore how the manufacture and consumption of pharmaceutical products release active pharmaceutical ingredients into ecosystems. These electives highlight the public health threat of antimicrobial resistance. Discussions also cover the pathways through which these toxins enter the environment, including manufacturing plant effluent, waste water, and improper disposal. Additionally, multiple course coordinators expressed a desire for more specific resources to further incorporate these themes into their core curriculum courses.</p> | |

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| 1.4. Does your pharmacy 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: | 2 |

Score explanation: The curriculum highlights that the U.S. healthcare sector is a major global emitter, accounting for approximately 8.5% of national greenhouse gas emissions. Our curriculum focuses on the environmental impact of MDIs with lectures in PPC and Pulmonology discussing the high global warming potential of HFA propellants. Students are taught to evaluate the benefit-risk of these devices, often using the metric that one aerosol inhaler can have a carbon footprint equivalent to driving a gasoline-powered car for over 100 miles. While these specific examples are well integrated into respiratory modules, the curriculum lacks a broader, consistent discussion on the carbon footprint of other high impact areas. Additionally, multiple course coordinators expressed a desire for more specific resources to further incorporate these themes into their core curriculum courses.

1.5. Does your pharmacy school curriculum address the impact of climate change on the changing patterns of infectious diseases and increased antimicrobial resistance?

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: Students explore how human activities, including land system change and habitat encroachment act as drivers for disease emergence and how disrupted rainfall and temperature patterns alter the distribution of vector borne illnesses. Specific examples covered include the increased prevalence of food and water borne diseases, as well as the expansion of malaria, dengue, lyme disease, and west nile virus into new geographic regions. Additionally, multiple course coordinators expressed a desire for more specific resources to further incorporate these themes into their core curriculum courses.

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

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: Based on the survey results, 10 core courses said they cover content related to the respiratory health effects of climate change and air pollution. Courses such as PHARM 5229, PHARM 5128, PHARM 5320, PHARM 5210, and the Case Conference series, along with several other required courses, reported talking about topics such as particulate matter, chemical pollutants, environmental triggers of asthma, and how air quality can worsen chronic respiratory diseases.

Some courses also mentioned discussing air pollution and its effect on hypertension, coronary artery disease, congestive heart failure, arrhythmias, infections, dermatitis, respiratory allergies, asthma, COPD, lung and other cancers, as well as in utero and child lung growth. However, it seems that these topics are usually included as part of larger lectures focused on respiratory diseases rather than climate change and its direct impact on respiratory health. The topic is clearly present in multiple required courses but not covered in a very detailed or consistent way across the curriculum in a way that mentions climate change.

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

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: Based on the survey results, 4 of the 24 core courses reported that they cover content related to the cardiovascular health effects of climate change and air pollution. Courses such as PHARM 5320, the case conference series, Pharmacy of the World Tomorrow, and Whole Person Pharmacy Care reported discussing topics such as particulate matter, chemical pollutants, and how poor air quality can increase the risk of hypertension, coronary artery disease, myocardial infarction, stroke, congestive heart failure, and arrhythmias. However, it seems that these topics are usually included as part of larger lectures focused on cardiovascular disease states rather than climate change and its direct impact on cardiovascular health. The topic is clearly present in a few required courses but not covered in a very detailed way across the curriculum in a way that specifically emphasizes climate change.

1.8. Does your pharmacy school curriculum address the relationship between climate change and allergies?

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: Based on the survey results, 4 of the 24 core courses indicated that they include content related to allergies in the context of climate change and air pollution. Courses such as PHARM 5210, PHARM 5128, Pharmacy of the World Tomorrow, and Whole Person Pharmacy Care noted discussing topics like particulate matter, environmental pollutants, and common allergy triggers, as well as how worsening air quality can contribute to increased rates or severity of

allergic rhinitis, asthma, and other hypersensitivity conditions. However, this material appears to be embedded within broader discussions of allergic or respiratory conditions rather than presented as a focused look at how climate change is altering allergy patterns. While the topic is addressed in some required courses, it is not extensively emphasized throughout the curriculum in a way that directly centers on climate change.

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

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: Based on the survey results, 3 of the 24 core courses reported that they include content related to the mental health effects of climate change and environmental factors. The courses that indicated coverage mentioned discussing topics such as stress, anxiety, trauma, and the psychological impact of environmental disasters or chronic environmental changes. However, this material appears to be incorporated into broader lectures focused on psychiatric conditions or public health topics rather than being presented as a dedicated discussion on climate change and its specific impact on mental health. Although the topic is present within the required curriculum, it is addressed in a limited number of courses and not explored in a detailed way that centers around climate change.

1.10. Does your pharmacy school curriculum address the unequal regional health impacts of climate change nationally and globally, including the impact of social inequality?

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: Based on the survey results, 4 of the 24 core courses reported that they include content related to social inequality in the context of climate change and health. The courses that indicated coverage mentioned discussing topics such as health disparities, access to care, socioeconomic status, and how environmental exposures and poor air quality can disproportionately affect underserved or vulnerable populations. However, this content appears to be included within broader discussions of public health, health equity, or population health rather than as a focused exploration of how climate change specifically worsens social and health

inequalities. While the topic is present in required courses, it is not covered in a detailed or consistent way across the curriculum that directly centers on climate-related inequities.

1.11 Does your pharmacy school curriculum address the relationship between climate change and social determinants of health (e.g., reduced nutritional value of food)?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

0

Score explanation: The relationship between climate change and the social determinants of health is not covered as part of the core curriculum or in elective coursework.

1.12. Does your pharmacy 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:

1

Score explanation: The majority of courses in the Pitt School of Pharmacy do not include the concept planetary health as a co-benefit of plant-based diets. We have a few courses including our Pharmacy Patient Care Series and Pharmacy in the World of Tomorrow that teach about the health benefits of food as medicine and how food systems affect our health, but do not touch on environmental benefits as well.

| 1.13. Does your pharmacy school curriculum cover these components of sustainable clinical practice? (1 point each) | Score |
|--|-------|
| Waste production within the healthcare system and strategies for reducing waste in clinical activities such as single use plastic and packaging. (1 point) | 1 |
| Patient counselling on safe disposal of medications. For example, what can be disposed of and how to locate recycling schemes, in addition to certain drugs or drug classes that are most important to dispose of properly (e.g. hormonal contraceptives, drugs that are excreted unchanged/active metabolites). (1 point) | 1 |

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| The impact of extreme heat, on patients on medications which can interfere with thermoregulation. (1 point) | 1 |
| The impact of anaesthetic gases on the healthcare carbon footprint. (1 point) | 1 |
| The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively, teaching on de-prescribing where clinically appropriate and its environmental and health co-benefits would fulfil this metric. (1 point) | 1 |
| The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes for obesity. This is commonly known as social prescribing in the UK. (1 point) | 1 |
| The impact and benefits of benign by design pharmaceuticals through exploring medicinal chemistry concepts and/or discussing implications of excretion of active metabolites/unchanged drug products on ecological systems. (1 point) | 0 |
| <p><i>Score explanation:</i></p> <ol style="list-style-type: none"> 1. We have a few classes in our curriculum and through electives that teach about the importance of reducing waste in healthcare. These include Pharmacy Patient Care 1 & 2, Pharmacy in the World of Tomorrow, and Health System Pharmacy 2. They focus on avoiding overuse of packaging and working to ensure efficiency in pharmacy processes in order to decrease total waste in the pharmacy. Multiple course coordinators are interested in increasing this material in their courses as well. 2. We have multiple points in our curriculum that briefly touch on the topic of safe medication disposal. These courses include our Pharmacy Patient Care Series, Neurology-Psychiatry, and our site based hours of SilverScripts and health fairs. 3. No courses in the Pitt School of Pharmacy include concern for extreme heat on patients and their medications. We have courses that teach about the adverse effects of photosensitivity that come with taking some medications, but do not touch on the outcomes related to extreme heat. 4. No courses in the Pitt School of Pharmacy include the impact of anaesthetic gas. However, a few course coordinators did have interest in learning more about this and how they could incorporate it into their courses. 5. This topic was covered by Case Conference 3 and 4, where it is taught that pharmacists play an integral role in deprescribing, which has particular relevance for older patients receiving polypharmacy (overprescribing and unnecessary prescriptions). Deprescribing can improve patient health while reducing adverse events, environmental harm, waste and healthcare costs. 6. Several courses such as PHARM 5128 and Case Conference 3 and 4 emphasize benefits of non pharmaceutical management such as exercise for chronic conditions. P2 Cardiology, P3 Acute Care Simulations, PHARM 5325, and PHARM 5111 also describe sleep hygiene techniques in place of prescriptions. 7. Although several course coordinators are open to receiving resources that could be incorporated into their courses, this concept is not yet covered in the course curriculum. | |

1.14. Does your pharmacy school curriculum discuss the environmental implications of various dosage forms, medication delivery devices, and/or excipients?

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: Although the curriculum does not cover the environmental implications of dosage forms in depth, there are several courses such as PHARM 5110, PHARM 5111, and PHARM 5210 that describe the effects of metered-dose inhalers. Pressured metered-dose inhalers (MDIs) contain hydrofluoroalkane (HFA) propellant which provides the force to expel the medication from the canister with each actuation. HFAs are potent greenhouse gases, the most common of which is 1300 x more potent than CO₂.

1.15. In training for patient communication, does your pharmacy school's curriculum introduce strategies for having conversations with patients about the health effects of climate change?

Yes, there are clear and detailed strategies introduced for having conversations with patients about climate change in the core curriculum (3 points)

Yes, having conversations with patients about climate change is briefly mentioned in the core curriculum. (2 points)

Yes, there are some examples of having conversations with patients about climate change in elective coursework. (1 point)

No, there are no strategies or examples for having conversations with patients about climate change (0 points)

Score Assigned:

0

Score explanation: Conversations with patients about the health effects of climate change are not part of the core curriculum or in elective coursework involved with patient communication.

1.16. Does your pharmacy school curriculum guide students to consider the environmental impact of medications as a factor in addition to safety, efficacy, cost, and pill burden when comparing equivalent therapies?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

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| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation:</i> Environmental impact is considered in the core curriculum course PHARM 5211, which encourages broad thinking about health system sustainability, while Pharm 5323 and 5324 emphasize deprescribing and minimizing unnecessary therapy. In courses PHARM 5111, PHARM 5325, PHARM 5218, and through service learning at SilverScripts, efforts to reduce polypharmacy and optimize adherence are encouraged, which also help limit medication waste. The importance of environmental impact is taught alongside safety, efficacy, cost, and pill burden, for it is integrated across courses rather than taught as a standalone theme.</p> | |

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| 1.17. Is your pharmacy school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education? | |
| Yes, the school is currently in the process of making major improvements to ESH/planetary health education. (4 points) | |
| Yes, the school is currently in the process of making minor improvements to ESH/planetary health education. (2 points) | |
| No, there are no improvements to planetary health education in progress. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation:</i> The School of Pharmacy is implementing planetary health in its curriculum by transitioning from general awareness to intentional faculty engagement. This year, the PHRC team provided course coordinators with specific topic examples to streamline data collection, revealing a strong faculty desire for supplemental resources and a commitment to integrating these themes into future lectures.</p> | |

| | |
|---|---|
| 1.18. Does your pharmacy school have a member of faculty to incorporate planetary health and sustainable healthcare as a theme throughout the curriculum? | |
| Yes, there is/are a member(s) of faculty whose role is directly responsible for the incorporation of planetary health and sustainable healthcare as a theme throughout the curriculum (4 points) | |
| Yes, there is/are member(s) of faculty who are incorporating planetary health and sustainable healthcare as a theme throughout the curriculum as well as doing their principle role (2 points) | |
| There are no members of faculty who are incorporating planetary health and sustainable healthcare as a theme throughout the curriculum (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation:</i> We have a member of faculty who holds multiple roles including Director of Sustainability at Pitt Pharmacy, Co-Director of the Professional Development Team, as well as an Associate Professor.</p> | |

1.19. Does your pharmacy school curriculum offer clinical practice experiences (for example, IPPE/APPE rotations in the U.S. or placement opportunities in the UK) that allow for the exploration of planetary health topics?

There are multiple clinical practice experiences/placements that allow for direct exposure to planetary health topics. (3 points)

There is one available clinical practice experience/placement that allows for direct exposure to planetary health topics. (2 points)

There are available clinical practice experiences/placements that allow for indirect exposure to planetary health topics. (1 point)

No, there are no such clinical practice experiences/placements available through the pharmacy school. (0 points)

Score Assigned:

0

Score explanation: Exploration of planetary health topics are currently not offered as part of the core curriculum or in elective coursework in clinical settings.

1.20. Does your pharmacy school curriculum acknowledge a disparity in the effects of climate change? Specifically, does your curriculum address groups more vulnerable to environmental impacts, such as BIPOC, immigrant groups, low income populations, children, elderly, persons with disabilities, persons with pre-existing or chronic medical conditions?

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 pharmacy school's curriculum shows an emerging but inconsistent commitment to addressing the disparate impacts of climate change. Multiple core curriculum courses such as PHARM 5129 and PHARM 5320 address environmental injustice and the vulnerability of groups like Indigenous populations, refugees, and low-income communities. Additionally, clinical courses in the P2 and P3 years successfully link environmental sustainability to medication adherence and the reduction of polypharmacy. However, gaps remain in current content of other courses, and staff have expressed a need for external resources.

1.21. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?

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:</i> Teaching on civic engagement/advocacy to address the environmental and structural determinants of health was not covered as part of the core curriculum or in elective coursework. | |
| Section Total (36 out of 69) | 52.2% |

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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.

| | |
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| 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: | 3 |
| <i>Score explanation:</i> There are faculty members at the medical school conducting research in environmental health, specifically in the Pulmonary Medicine and Obstetrics and Gynecology departments. A few faculty have primary research focus on planetary health. Dr. Woods researches the environmental impact of surgery. Dr. Maximous researches the effect of climate change and the environment on pulmonary health. Dr. Artsen conducts research on sustainable mesh materials with the aim to transform the field from using petroleum-based plastic mesh to sustainable and biodegradable materials. | |

| | |
|---|--|
| 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 point) | |

| | |
|---|---|
| There is no dedicated department or institute. (0 points) | |
| Score Assigned: | 3 |
| <p><i>Score explanation:</i> Pitt opened the Office of Sustainability in the Health Sciences in 2024. They have summer research students every year. This past academic year, research projects included:</p> <ul style="list-style-type: none"> • Nutrition Security & Sustainability • Energy and Smart Data Analytics • Developing and Conducting a Scope 3 Greenhouse Gas Inventory • Helicopter Transport Sustainability • Sustainable Transportation at UPMC <p>There is a Center for Healthy Environments and Communities at the School of Public Health. There is also a Center for Climate and Global Change which is a multidisciplinary center for researchers which is based in the School of Arts & Sciences. Finally there is the Mascaro Center for Sustainable Innovation which provides interdisciplinary research, education and engagement opportunities.</p> | |

| | |
|---|---|
| 2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution? | |
| Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda. (3 points) | |
| Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda. (2 points) | |
| No , but there are current efforts to establish a process for community members to advise or make decisions on the research agenda. (1 point) | |
| There is no process, and no efforts to create such a process. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation:</i></p> <p>1) Pitt's Clinical and Translational Science Institute (CTSI) has a program called The Community PARTners Core which links researchers and the community by partnering with diverse community members and organizations to build on a community's strengths, as well as learn about health topics. For researchers, the Core's team helps develop studies that address the complex health questions which community partners state are most concerning. It provides training as well as funding opportunities for research development and partnered data collection.</p> <p>For community organizations, the Core assists with providing evidence-based research interventions and practices. It supports communities with “getting the word out” on health research awareness and education.</p> <p>2) The University of Pittsburgh School of Medicine has a Social Medicine Fellowship program that links students with local communities. These students seek input from the community on projects that can be started to improve health outcomes.</p> <p>https://www.universityofpittsburghsmf.org/</p> | |

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

There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)

There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)

The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)

There is **no** website. (0 points)

Score Assigned:

3

Score explanation: [The Office of Sustainability for the Health Sciences](#) is an office that works to ensure that health science students learn how to care for the planet.

[Environmental Health & Safety Home](#) provides access to safety protocols and guidelines for the campus. It covers topics such as chemical waste disposal and sustainability initiatives, our platform serves as a central hub to access important safety protocols and guidelines, ensuring a secure campus environment.

The [Pitt Sustainability website](#) helps spread the word about sustainability efforts on campus and to update students/community about ongoing events and how to be involved:

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

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

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

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

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

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

Score Assigned:

4

Score explanation: The institution hosted the 17th annual sustainability symposium last April

The Office of Sustainability in the Health Sciences hosted Pitt's second [One Health Day](#) in November 2025, with student research poster sessions, a plenary speaker, presentations, and student awards. One Health Day explored topics of planetary health and the role of sustainability in advancing global health.

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 point)

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

Score Assigned:

0

Score explanation: The University of Pittsburgh School of Medicine has been a member of the Global Consortium on Climate and Health Education since 2008, but University of Pittsburgh as a whole is not part of a national or international planetary health or ESH/ESV organization.

Section Total (15 out of 17)

88%

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Community Outreach and Advocacy

Section Overview: This section evaluates a school's 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: | 3 |
| <p><i>Score explanation:</i> The broader University of Pittsburgh institution partners with several community organizations in the city of Pittsburgh on research projects, advocacy, and outreach. Sub-Offices and research labs like the Pitt Center for Health, Environment, and Engaged Research (CHEER) work with a broad range of community collaborators in the city to promote planetary and environmental health such as 3 Rivers Wet Weather, Water Resources Education Network (WREN) - project of League of Women Voters of PA, and Western PA Conservancy. Additionally, at UPSOM specifically, MS1 students attend required neighborhood tours in underserved areas experiencing climate injustice and meet community leaders of local nonprofits. Nonprofits visited include community gardens, and volunteer opportunities were discussed. In addition, Pitt Students for One Health is a student organization that focuses on improving health by acknowledging the complex intersection between people, animals, plants, and their shared environments. It has partnered with community organizations such as Tree Pittsburgh, Repair the World Pittsburgh, City of Pittsburgh Volunteer Clean Up, and the Pittsburgh East End Cooperative Garden in the past. This past academic year, Pitt Students for OneHealth has collaborated with the Group Against Smog and Pollution. The student sustainability leaders in the Office of Sustainability in the Health Sciences have volunteered at the Plant 2 Plate Garden.</p> | |

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| 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: | 2 |
| <p><i>Score explanation:</i> The University of Pittsburgh School of Medicine supports a group called Clinicians for Climate Action that is open to clinicians in the area (with or without university affiliation). This group has participated in community facing events such as Children’s Environmental Health Day and Earth Day in partnership with other community organizations. They also host regular book clubs and online lectures.</p> <p>The Office of Sustainability in the Health Sciences hosts public sustainability events, such as workshops and public lectures on climate change, sustainability, and planetary health, which are open to broader audiences beyond Pitt students and staff. They host an annual One Health Day event open to the community that includes speakers, poster sessions, and presentations. The Climate and Global Change Center at Pitt has organized events like mobile science labs and lectures, specifically directed to children in grades K-12.</p> | |

| | |
|--|---|
| 3.3. Does your <u>institution</u> 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: | 2 |
| <p><i>Score explanation:</i> Frequent communications from the Office of Sustainability in the Health Sciences often include promotions for the recurring planetary health journal club and upcoming events. The Office of Sustainability in the Health Sciences has a Teams site where announcements related to planetary health are posted. Pitt Sustainability and the Student Office of Sustainability have newsletters that are sent out once a month and these occasionally include sustainable healthcare events/topics.</p> | |

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:

2

Score explanation: On October 30, 2025, Dr. Noe Woods and Lola Conti from the Office of Sustainability in the Health Sciences held a [Faculty and Staff Development Program \(FSDP\)](#) workshop session titled "Introduction to Sustainable Healthcare" aimed at professionals in health science careers at Pitt looking to further their knowledge on planetary health in their profession. Additionally, 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.

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 medical centres have accessible educational materials for patients. (0 points)

Score Assigned:

1

Score explanation: Magee Women's Hospital includes environmental education in its programming for new parents. The free environmental health classes for child-bearing families includes education about environmental hazard reduction, although these classes do not seem to be frequently offered. This information is also included in their prenatal/postnatal online newsletter.

Not all hospitals have accessible patient education materials and the medical school does not have any accessible patient education materials on environmental health exposures. Additionally UPMC as a whole offers a Health Library which includes an article on Environmental Illness which addresses pollutants and their effect on health.

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: | 1 |
| <p><i>Score explanation:</i> All UPMC hospitals share the same UPMC website. As such, the patient facing UPMC “Healthbeat blog” covers the health impacts of climate change in a few articles that are written primarily for the education of their patients. Examples include an article written in late 2024 regarding an increase in incidence of tickborne illnesses due to climate change, and another article written in 2025 about more extreme allergy seasons due to climate change. However, these articles are few and far between, and additionally are not widely distributed to patients. As such, this type of educational material is not generally accessible.</p> | |
| Section Total (10 out of 14) | 71% |

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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 <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. (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 |
| <p><i>Score explanation:</i> The University of Pittsburgh provides sufficient financial and institutional support for students pursuing sustainability projects. Through a collaborative network led by the Office of Sustainability for the Health Sciences (OSHS), these grants are available for individual initiatives (Pitt Green Fund and Dietrich School Curiosity Grants), student groups (MCSI Student Group Sustainability Grants), and global research (Global Studies Center). For students with entrepreneurial interest, the Big Idea Center and Pitt SPARK provide significant prize pools and investment. The Mascaro Center for Sustainable Innovation and other departments offer summer research support and specialized scholarships such as the John C. “Jack” Mascaro Scholarship for M.S. in Sustainable Engineering. The office’s website highlights existing projects and details about how sustainable practices have been achieved across campus.</p> | |

| 4.2. Does your institution offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare? | |
|--|---|
| The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points) | |
| There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek them 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: There are opportunities for students to get involved with research in planetary health and sustainable healthcare sponsored by the Office of Sustainability in the Health Sciences. The Mascaro Center for Sustainable Innovation (MCSI) sponsors multiple summer research projects each year. Previous research projects included:

- Alternative Energy Opportunities for UPMC Hospitals
- Life Cycle Analysis of Metered Dose Inhalers in the UPMC System
- Climate Inventory and Targets for the UPMC System
- Environmental Impact and Patient Outcomes in Helicopter Transport Transfers
- Environmental Impact of Disposable Medical Supplies
- Surveying the Woody Vegetation across Powdermill Nature Reserve to Track Change Over Time

Ongoing projects:

- Global LCA of Cesarean Section
- LCA of Disposable Stethoscopes
- Infection rates with reduced draping for cystoscopy
- Eco-Engineering the Future: Sustainable Prosthetics for Sustainable Healthcare

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

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

There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the 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:

2

Score explanation: The School of Medicine has a website for the [Clinicians for Climate Action](#) group introducing leaders in healthcare sustainability. This website includes faculty mentors, their contact information and specific advocacy and research interests. There is up to date information about ongoing projects, events, conferences, and achievements. Additionally, the [Office of Sustainability in the Health Sciences website](#) describes health science directors and faculty, as well as details about research and upcoming events.

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: | 2 |
| <p><i>Score explanation:</i> Each Health Science School (Dental Medicine, Medicine, Pharmacy, Health & Rehabilitation Sciences, Nursing, Public Health) has a student group focused on sustainability led by a faculty member. The School of Medicine also leads a Global Health & Underserved Populations Interest Group as well as Pitt Students for One Health (PSOH). Other graduate student organizations include the Corporate Sustainability Club affiliated with the Katz Graduate School of Business and the Energy & Environmental Law Society affiliated with the School of Law.</p> <p>Additionally, the campus offers undergraduate student organizations focused on sustainability such as Food Recovery Heroes, Students for Sustainability, Engineers for a Sustainable World, Free the Planet, and Conservation Club.</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 who serves on a department or institutional decision-making council/committee. (1 point) | |
| No, there is no such student representative. (0 points) | |
| Score Assigned: | 1 |
| <p><i>Score explanation:</i> The Office of Sustainability in the Health Sciences (OSHS) has established a student advisory committee with representatives from each Health Science school at Pitt. Additionally, four health science students currently serve on the office’s steering committee (2 Medicine, 1 Dental Medicine, 1 Pharmacy).</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 |

Score explanation:

1. Plant2Plate Student Garden is a student organization at Pitt that manages an urban student garden near campus that provides fresh, organic produce for students and local food pantries.
2. In November 2025, OSHS hosted Pitt’s first One Health Day, focused on planetary health and sustainable healthcare. The event included student poster presentations, planetary speakers, student awards, and an interactive demonstration. OSHS also hosts regular Planetary Health Journal Clubs focused on describing an issue related to environmental health and is open to all undergraduate students, graduate students, staff, and faculty. Additionally, students in the School of Medicine host regular “lunch and learns” where physicians and community members are open to share their sustainability journeys.
3. The School of Public Health hosted an Environmental Justice Summit to address environmental health disparities. Multiple panels and activities throughout the day engaged attendees during the three day summit. The School of Public Health and the Community Empowerment Association also held the Homewood Community Health and Wellness Summit to discuss asthma and air pollution.
4. This spring, students can participate in the national “Climate Change Quilt” project (February 10th). Students can also submit sustainable artwork to the EcoArtisans Exhibition (April 8th), and short films to the Health Sciences Sustainability Film Festival (April 3rd). The purpose of these events is to promote environmental awareness through art and film on Pitt's campus.
5. Pitt Sustainability partners with Tree Pittsburgh to organize the [Tree Tender program](#). Pitt’s Tree Tender course is taught by Tree Pittsburgh and covers urban forestry practices, tree biology and health, basic tree identification, proper pruning and maintenance, and how to lead your community in organizing tree plantings and tree care. All Pitt students and employees are eligible to become a tree tender for free. The campus also houses the University of Thriftburgh, which is a student run thrift store modeling sustainability and encouraging students to buy clothing secondhand to reduce textile waste, cut carbon, and encourage re-use.
6. Through the [Outdoor and Adventure Pursuits program](#) at Pitt, students can get involved in activities such as urban hikes, local park hikes, bike rides, and stand up paddleboarding. The new campus recreation center also offers a climbing wall, where students can learn new climbing routes, and get involved in outdoor climb programs and partnerships.

| | |
|-------------------------------------|-------------|
| Section Total (15 out of 15) | 100% |
|-------------------------------------|-------------|

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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 institutions, 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: | 3 |
| <p><i>Score explanation:</i> The Office of Sustainability in the Health Sciences opened in 2023 including an associate, assistant dean, program manager, and project coordinator to work alongside the The University of Pittsburgh Office of Sustainability directed by Dr. Aurora Sharrard. The University office of Sustainability employs 19 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.</p> | |

| 5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint? | |
|---|---|
| The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points) | |
| The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points) | |
| The institution has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate (1 point) | |
| The institution does not meet any of the requirements listed above (0 points) | |
| Score Assigned: | 3 |

Score explanation: In February 2020, the University of Pittsburgh's Board of Trustees, committed to carbon neutrality by 2037 and this encompasses the dental school. It has a clear climate action plan updated yearly that outlines the work needed to meet this goal and the 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.

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

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

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

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

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

Score Assigned:

1

Score explanation: In calendar year 2021, 16.5% of Pitt's electricity was attributed to renewables, down from a pre-pandemic high of 23% in FY19. In calendar year 2022, 22.7% of Pitt's electricity was attributed to renewables; in calendar year 2023, 28.3% of the University's electricity originated from renewable energy sources. In Fiscal Year 2025, 39.2% of the University's electricity originated from renewable energy sources. [Energy and Emissions - Pitt Sustainability](#)

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:

3

Score explanation: All major renovation and new construction building projects at Pitt pursue [LEED certification](#) or better as part of the Pitt Sustainability Plan. There are 18 LEED certified spaces covering nearly 1.4 million square feet of space. [Buildings - Pitt Sustainability](#)

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

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

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

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

Score Assigned: 2

Score explanation: The University of Pittsburgh allows students, faculty and staff to avoid car commuting by offering fare-free service on all forms of Pittsburgh Regional Transit (PRT) throughout Allegheny County. Additionally, students and staff can utilize POGO bike share network through unlimited free 30-minute rides. Additionally, Pitt holds a [Gold Bicycle Friendly Designation](#) from the League of American Bicyclists and has recently renovated Bigelow Boulevard on campus to be a complete street with separated bike lanes. This information was sent to all students in an email and mentioned at new student orientation, and on the schools website. The fare-free service on PRT is highly utilized by students as parking on campus is expensive and limited.

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: 2

Score explanation: 16 buildings are collecting compostables in bathrooms and kitchenettes and Pitt Sustainability is working to expand on these locations. Pitt offers battery recycling, textile recycling, tone & ink cartridge recycling, and single stream recycling across 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

Score explanation: Real Food Challenge at Pitt: In March 2015, the University of Pittsburgh committed to serving 20% local, fair, ecologically sound, and humane foods by 2020. At the time, only 9% of food served at Pitt’s primary dining hall (now The Eatery, formerly “Market Central”) fit the criteria of meeting at least one of the four requirements.

In early 2018, Pitt Dining announced it met its 20% Real Food goal at Market Central, Pitt’s main dining hall, two years early. At the same time, as part of the Pitt Sustainability Plan, the University strengthened its overall commitment to serve 25% Real Food campus-wide.

CoolFood Pledge: In 2019, the University of Pittsburgh was among the first signatories — and one of the first universities worldwide — to join in the CoolFood Pledge, a global initiative led by the World Resources Institute (WRI) to cut food-related greenhouse gas emissions by 25% by 2030.

6 of the Pitt Eats dining locations are recognized as Live Well Allegheny Restaurants, which have a mission to improve the overall health and wellness of Allegheny County residents. There are several requirements that these restaurants must meet, such as offering vegan/vegetarian menu items and using plant-based oils for cooking.

2 of the dining halls (The Eatery and The Perch) now offer sustainable stainless steel to-go containers (USEFULL brand) which replace the reusable plastic ones that were previously used. Because of the QR code you scan to check out a container, these have a return rate of 99%.

The Eatery and The Perch are also gold tier Sustainable Pittsburgh Restaurants, meaning they have implemented almost all of the listed 149 sustainable actions “based on preventing waste, conserving water, becoming more energy efficient, food and product sourcing, and promoting equity within the restaurant industry, food system, and communities.

5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?

Yes, the institution has **adequate** sustainability requirements for supply procurement **and is engaged** in efforts to increase sustainability of procurement. (3 points)

| | |
|--|---|
| There are sustainability guidelines for supply procurement, but they are insufficient or optional . The institution is engaged in efforts to increase sustainability of procurement. (2 points) | |
| There are sustainability guidelines for supply procurement, but they are insufficient or optional . The institution is not engaged in efforts to increase sustainability of procurement. (1 point) | |
| There are no sustainability guidelines for supply procurement. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation:</i> 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. Materials & Waste Progress, 2018-22 - Pitt Sustainability LEED certification or better on all new construction and major renovations plans UPMC purchasing with the goal of sustainability.</p> <p>Overall there is a lot of information on Pitt's website for suggestions and information regarding sustainable purchasing methods but there is no exact requirements. However, Pitt is under contract with suppliers that are picked based on their adherence to sustainable measures.</p> | |

| | |
|--|---|
| 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: | 1 |
| <p><i>Score explanation:</i></p> <p>The Office of Sustainability maintains zero waste practices at all events, using reusable plates and cutlery, reusable napkins, and composting food waste. They encourage and help make affiliated group's events zero waste as well.</p> <p>Pitt also has a Green Host program that provides resources for hosting sustainable events, but it is not required..</p> | |

| | |
|---|--|
| 5.10. Does your <u>institution</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable? | |
| Yes, the institution has programs and initiatives to assist with making lab spaces more environmentally sustainable. (2 points) | |

| | |
|---|---|
| There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point) | |
| There are no efforts at the institution to make lab spaces more sustainable. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation:</i> The University of Pittsburgh Office of Sustainability has a Pitt Green Labs designation. The criteria for this designation is based on Chemicals & Safety, Culture of Sustainability, Energy Consumption & Maintenance, Innovation Actions, Lab Recycling, Purchasing, and Water Conservation. There is a program where labs can fill out a self-assessment to receive points for a laboratory designation. The University of Pittsburgh currently has over 50 Green Labs.</p> | |

| 5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies? | |
|---|---|
| The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives. (4 points) | |
| The institution is entirely divested from fossil fuels. (3 points) | |
| The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments. (2 points) | |
| The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organised advocacy for divestment. (1 point) | |
| Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation:</i> According to the May 2024 Consolidated Endowment Fund: Environmental, Social, and Governance Report, 2023-24, the University's endowment fund has 7.8% exposure to fossil fuel holdings. This is a slight decrease from 8.2% in 2022-23.</p> | |

| | |
|-------------------------------------|------------|
| Section Total (24 out of 32) | 75% |
|-------------------------------------|------------|

Back to Summary Page [here](#)

Grading

Section Overview

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

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

**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 Pharmacy

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

| Section | Raw Score % | Letter Grade |
|---|--|--------------|
| Planetary Health Curriculum (30%) | $(36/69) \times 100 = 52.2\%$ | C- |
| Interdisciplinary Research (17.5%) | $(15/17) \times 100 = 88\%$ | A |
| Community Outreach and Advocacy (17.5%) | $(10/14) \times 100 = 71\%$ | B |
| Support for Student-led Planetary Health Initiatives (17.5%) | $(15/15) \times 100 = 100\%$ | A+ |
| Campus Sustainability (17.5%) | $(25/32) \times 100 = 75\%$ | B+ |
| Institutional Grade | $(52.2 \times 0.3 + 88 \times 0.175 + 71 \times 0.175 + 100 \times 0.175 + 71 \times 0.175) = 73.41\%$ | B |

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which The University of Pittsburgh School of Pharmacy has participated in the Planetary Health Report Card initiative.

Planetary Health Report Card Trends for University of Pittsburgh School of Pharmacy

