Planetary Health Report Card (Medicine):

Sidney Kimmel Medical College at Thomas Jefferson University

2024-2025 Contributing Team:

- Students: *Matthew Driben*, Meryem Guler, Reese MacMillan, Sophie Flomenbaum, Macy Matheson, Melissa Gormus, Serena Gelfer, Tamanaa Atrafi, Justin Do, Julia Liu, Julie Bartz*
- Faculty Mentors: *Dr. Scott Dale*

*Primary Contact: Matthew Driben, myd069@students.jefferson.edu

Land acknowledgment: Lenapehoking and Poutaxat

Summary of Findings

Overall Grade	C

Curriculum	C+

- In 2023-2024, Sidney Kimmel Medical College (SKMC) opted to include more planetary health and climate change topics in the medical school curriculum through the Climate Change Curriculum Integration Project (CCCIP). Planetary health is primarily discussed within Phase 1 Foundations of Medicine lectures throughout the first and second year, but they are not brought up 3rd and 4th year.
- **Recommendations:** Further integration of planetary health concepts within the medical school curriculum, especially within the 3rd and 4th year curriculum. This can be done by adding an "Advanced Basic Sciences" elective based on climate change and medicine. Additionally, planetary health questions can be incorporated into the clinical skills curriculum..

Interdisciplinary Research	C

- SKMC was recently listed as a member of the Global Consortium of Climate and Health Education (GCCHE). There is no office of sustainability at Thomas Jefferson University (TJU) or SKMC. There are individual faculty members pursuing interest in planetary health, but this information is not consolidated and requires individual initiative to seek out.
- **Recommendations**: Research in planetary health and sustainable healthcare can be advertised to students via the existing Scholarly Inquiry track within the medical school curriculum. The creation of a website would allow for the consolidation of all information related to TJU/SKMC's sustainability efforts.

Community Outreach and Advocacy	C

- Thomas Jefferson University has multiple community partners with opportunities to promote planetary health. However, SKMC does not directly offer events regarding planetary health.
- **Recommendations**: Include a section on SKMC weekly update emails dedicated solely to sustainable healthcare and planetary health. Allow for students, residents, and faculty to participate in Jefferson's Sustainability Leadership Certificate program.

Support for Student-Led Initiatives	B

- There is no formal support within TJU or SKMC for students to pursue sustainability initiatives. While there are faculty members at TJU, SKMC, and Thomas Jefferson University Hospital (TJUH) that pursue research in those fields, students need to identify these individuals and seek them out on their own. One student organization, JeffEARTH, has faculty support and helps coordinate events and research. **Recommendations**: Create a website that consolidates all current information regarding planetary health research and sustainability efforts by TJU, TJUH, and SKMC.

Campus Sustainability	D-

- There are seven LEED certified buildings enterprise-wide, but there is only one building within the medical school that is LEED silver certified. There are no sustainability guidelines for medical school events or food and beverages. There are insufficient guidelines for supply procurement.
- **Recommendations**: There are significant improvements that can be made in regards to campus sustainability by SKMC. First would be to create a statement/plan for reducing their carbon footprint and formally designating a staff member to address these issues.

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 medical school's institutional priorities do not reflect the urgency of this danger to human health.

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

Instructions for Completing the PHRC

Thank you! We are really pleased to have you and your team on board to complete the PHRC at your institution. Many of you will have already been part of a completed report card or even lead the team at your school but please take a moment to read the instructions below.

For a full comprehensive step-by-step guide to completing your report card please refer to the PHRC User Guide. This page serves as a brief overview of the important methodology.

Completing the report card:

The Planetary Health Report Card is a self assessment tool designed to identify an institution's strengths and areas in need of improvement in regards to its planetary health education. The metric-based report card consists of five sections; 1. Curriculum, 2. Interdisciplinary Research, 3. Community Outreach, 4. Support for Student-Led Initiatives and 5. Campus Sustainability.

- **Metrics.** There are roughly 55 metrics (depending on your discipline). Sections 2-5 are the same across all disciplines. Each metric has different criteria for either scoring 1, 2 or 3 points. Participants should read each metric carefully and answer the question with as much accuracy as possible, drawing upon multiple sources where possible. It is vital sufficient investigation is completed for each metric to give a fair and accurate representation of your institution.

  Most of the Curriculum metrics are graded by inclusion in **elective** coursework, **brief** coverage in the **core curriculum** or **in depth** coverage in the **core curriculum.**

  > **Elective coursework:** 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**: 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. Brief inclusion would qualify as inclusion in a single lecture slide in a single year.
  >
  > **In depth** coverage in the **core curriculum:** 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. Please consider amongst your team that this is the highest score awarded and a subjective decision must be made as to whether the topic should be awarded this score.
  >
  > (A full list of definitions is provided on the below pages)

- **Types of evidence.** Acceptable forms of evidence include: lecture titles, learning objectives, module descriptions, descriptions of the intended learning, case titles, seminar titles, project titles, webpages, researcher profiles / biographies, news articles, publications, social media output, institutional policy documents. Please be as specific as possible.

  It is essential that you have clearly justified the score for each metric, outlining in the box provided the specific content delivered in your curriculum and why you have assigned the

score. Each report card is reviewed by a member of the leadership team for accuracy and consistency across report cards. An example of the sufficient level of evidence is provided below each metric.

Please do not include **lecturers' names** without permission. The title of the lecture or module with a brief description of the material will suffice.

Where material is publicly available via an institution's website, please include hyperlinks to the webpages.

- **Evidence deadline.** Any material from the previous academic year and the current academic year up to the draft deadline of the **17th February 2025** may be included in this report card. Any teaching planned after this date should not be scored in this report card but can be included in the 2025/26 report. You may wish to make a note of any such teaching for your colleagues producing next year's report card.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

    1. Describe how the environment and human health interact at different levels.
    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Medical School/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is

specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

- **Core Curriculum:** This refers to taught material that is develiered 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.

- **Extractivisim:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.

- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.

- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.

- **Anthropogenic:** Created through human activity

- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

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

Completed in 2022 a Literature Review by Metric is available for the 2022 medicine report card metrics. We are in the process of updating this review and making it more applicable to all the disciplines. However the review serves as a rough collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)	
The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health. (1 points)	
No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	0
Score explanation: *At this time, Sidney Kimmel Medical College does not provide any electives that are focused on planetary health nor include information on planetary health.*	

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)
This topic was covered in **elective** coursework. (1 point)
This topic was **not** covered. (0 points)

Score Assigned:	2

Score explanation:

In a case based learning (CBL) session during Block 3B (Pulmonary block) at SKMC, a learning objective is devoted to exploring the impact of climate change on specific health risks including asthma and allergies. The learning objective focuses on the impact of environmental factors, including climate change, on obstructive lung disease, and includes a link to an article by the Asthma and Allergy Foundation of America titled "Climate and Health." This article explains how warmer temperatures due to climate change has caused longer allergy seasons, worsening air quality, and stronger airborne allergens with more allergy symptoms. The article and learning objective in this CBL address how extreme heat due to climate change has led to increased health risks and gives specific examples of worsening asthma and allergies. Ultimately, SKMC receives a score of 2 for briefly acknowledging this question in a course outside of lecture material but still as part of the required coursework.

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

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

Score Assigned:	3

Score explanation: Insert explanation here.

The curriculum at SKMC provides a pathology lecture to 1st year students entitled "Cell Injury and Death: The Role of the Environment". In this lecture a section devoted to climate change identifies that climate change includes a warming climate as well as increased frequency of more severe ("hot and cold, wet and dry") weather events.

During 2nd year, SKMC students are required to attend a Health Systems Science (HSS) lecture entitled "Disaster Medicine: Individual, Community and Systems Perspectives". This lecture includes "natural disasters" as one such type of disaster, with specific mentions of "climatological", "geophysical", "hydrological", and "meteorological" events including floods, extreme temperatures, and drought. The stages of disaster (including pre-impact, impact, and post-impact) and the human responses to each phase are well explicated, from physiological stress responses (e.g., shock/numbness, insomnia, reduced energy, irritability) to positive social responses (e.g., determination and resolve, social connectedness, altruistic helping behaviors). The lecture also discusses the burden that disaster can have on people already suffering from mental health conditions (e.g., medication shortages, exacerbation of pre-existing anxiety) and emphasizes the role of psychological first aid (PFA) in the immediate aftermath of disasters. SKMC received a 3 in this category because, in addition to teaching about the mental health impacts as well as physical impacts of extreme weather events, it also discusses the ramifications of mass casualty incidents on the healthcare system (as a societal structure) and on hospitals.

1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: *In SKMC's 1st year pathology lecture entitled "Cell Injury and Death: The Role of the Environment", the connection between climate change and infectious disease is briefly described. This lecture identifies the "direct effects" of climate change, including increased infectious diseases This lecture also mentions the "indirect effects" of climate change, including contaminated drinking water and thus more water-borne diseases, and an expanded range of animals and plants that carry pathogens. An accompanying notes packet provides several descriptions of "current dangers" that include references to Dengue Fever and West Nile disease as examples of "increased bacterial and other pathogen growth, stimulated by warm weather and water." SKMC receives a score of 2 in this category because there is only 1 slide dedicated to this topic in the curriculum and, although this slide states the relationships, it does not explain the pathophysiology of why such a relationship between climate change and infectious disease exists.*	

1.5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	3
Score explanation: *In SKMC's 1st year pathology lecture entitled "Cell Injury and Death: The Role of the Environment", three slides are devoted to pollution as the "largest environmental cause of disease and premature death". These slides specifically discuss the types of air particles (namely, carbon) that are inhaled and the pathophysiology of how these particles impact cellular processes (e.g.,*	

oxidative stress, impedance of fibrinolysis". Another section also notes how climate change "exacerbates pathogenicity of air pollution" and causes "increased frequency/severity of respiratory and cardiovascular events."

A separate lecture also for 1st year students with the Health System Sciences (HSS) curricular thread entitled "Introduction to Public & Population Health" by Dr. Rosemary Frasso references the Healthy People 2030 program, which is in part based on addressing Structural Determinants of Health (SDOH) that include "polluted air and water."

Additionally, in the Pulmonology block within the 1st year curriculum, there is a learning objective for students to explore the impact of environmental factors, including climate change, on obstructive lung diseases. They also provide a link to a report by the Asthma and Allergy Foundation of America detailing the effects of global warming on allergies (link).

1.6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	2

Score explanation:

In SKMC's 1st year pathology lecture entitled "Cell Injury and Death: The Role of the Environment", there is mention of how climate change "exacerbates pathogenicity of air pollution" and causes "increased frequency/severity of respiratory and cardiovascular events". However, this is the extent to which this connection is discussed and no further explanation is provided regarding the pathophysiology or implications of climate change on cardiovascular health. No mention is made of the relationship between heat and cardiovascular health.

SKMC receives a score of 2 because while there is a brief mention of the effects of air pollution within one lecture, there is no mention of climate change within the Cardiology block of the Phase 1 curriculum.

1.7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?
This topic was explored **in depth** by the **core** curriculum.
This topic was **briefly** covered in the **core** curriculum.
This topic was covered in **elective** coursework.

This topic was **not** covered.	
Score Assigned:	3

Score explanation:

During 2nd year, SKMC students are required to attend a Health Systems Science (HSS) lecture entitled "Disaster Medicine: Individual, Community and Systems Perspectives". This lecture includes "natural disasters" as one such type of disaster, with specific mentions of "climatological", "geophysical", "hydrological", and "meteorological" events including floods, extreme temperatures, and drought. The stages of disaster (including pre-impact, impact, and post-impact) and the human responses to each phase are clearly outlined, including physiological stress responses (e.g., shock/numbness, insomnia, reduced energy, irritability) and positive social responses (e.g., determination and resolve, social connectedness, altruistic behavior). The lecture also outlines the phases of communal mental well-being throughout the process, including the honeymoon and disillusionment phases which are characterized by emotional highs and lows, respectively. Finally, the lecture discusses the burden that disaster can have on people already suffering from mental health conditions (e.g., medication shortages, exacerbation of pre-existing anxiety) and emphasizes the role of psychological first aid (PFA) in the immediate aftermath of disasters.

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

This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	3

Score explanation:

In SKMC's 1st year pathology lecture entitled "Cell Injury and Death: The Role of the Environment", lecture slides mention "impaired agricultural production, animal growth" (animals including cows, sheep, and goats are verbally mentioned), "contaminated drinking water; more water-borne diseases", and "expanded range of animal and plant pathogens". The notes packet accompanying this lecture also references examples of dangers related to climate change such as "decreased food production due to altered cycles of male and female flowers, droughts, floods", "contamination of water supplies because of rising ocean levels, leading to unclean water", and "decreased body size of animals used for food (e.g., fish, domestic livestock) as they adapt to warmer temperatures". SKMC receives a score of 3 for expressing information about this subject in both the lecture slides and supplementary materials.

1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	3
Score explanation: *There are several lectures in the SKMC curriculum that touch upon this topic. In the 1st year lecture entitled "Structural Racism and Health Inequities" given by Dr. Bernard Lopez, it is noted that "structural racism influences the impact of overarching socioeconomic, cultural and environmental conditions experienced by different groups in society."* *Additionally, a lecture entitled "Introduction to Public and Population Health" includes environmental injustice as part of the "physical environment" component of Social Determinants of Health (SDOH); this lecture also references the Healthy People 2030 program, which includes SDOHs such as "access to nutritious foods and physical activity opportunities", and "polluted air and water".* *During 2nd year, SKMC students are required to attend a Health Systems Science (HSS) lecture entitled "Disaster Medicine: Individual, Community and Systems Perspectives". This lecture includes information that it has been "consistently shown" that risk factors for PTSD after disaster include "pre-existing psychopathology" and "female gender." Possible/confounding risk factors include "minority membership," "younger age," and "lower socioeconomic status." The lecture also discusses "integrating racially/ethnically diverse communities into disaster planning" and emphasizes "language assistance services" including "providing translated materials, "providing interpreter services," and "recruiting a diverse staff" for "Programs/Strategies for Disaster Planning."*	

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	0
Score explanation:	

At Sidney Kimmel Medical College, there is no evidence that suggests any elements of the curriculum specifically addresses the unequal regional health impacts of climate change globally in depth. *In the 1st year lecture titled "GI Absorption" in the Gastrointestinal System block, there is a study question provided that includes a case of increased incidence of diarrhea in a region following a natural disaster, however the question focuses on the physiological mechanism of diarrhea rather than the global impact of natural disasters. Additionally, in the same block, there is a lecture titled "Infectious Diarrhea Framework" that briefly mentions disparities in low- and middle-income countries, but attributes this due to "inadequate sanitation and hygiene" and does not mention regional differences due to climate change.*

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

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	3
Score explanation: *At Sidney Kimmel Medical College, in the first-year Foundations of Medicine Block 1: Introduction to the Study of Medicine, there was a lecture titled "Principles of Teratology". In the lecture, there was a learning objective about the potential outcomes of altered developmental processes after exposure to common therapeutic and environmental agents. In the slides and lecture, several environmental teratogens, such as chemicals (PCB, Methyl Mercury, and Dioxin) and Ionizing Radiation were noted as important teratogens.*	

1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	0

Score explanation: *At this time, there is no mention of human-caused environmental threats within the Sidney Kimmel Medical School curriculum.*

1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	1
Score explanation: *Sidney Kimmel Medical College offers a yearly event which may fulfill elective coursework requirements called "Health Humanities Reading Group: Radical Recipe," in which this topic is explored as part of a broader discussion on "anti-racism in relation to food, foodways, veganism and cookbooks."*	

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	3
Score explanation: *At Sidney Kimmel Medical College, in the Phase 1 Course, Block 2 (Hematology/Oncology): Host Defense/Blood, a lecture in the Health Systems Science thread titled "Social Determinants of Health" discusses how marginalized populations bear the burden of negative environmental exposure through learning objectives about connecting the impact of the SDOH on future practice and the wellbeing of future patients as well as reflecting on the root causes of disparities.*	

Lecture material contains discussion of Commercial Determinants of Health (CDOH) leading to air pollution and therefore negative health outcomes. In addition, the lecture discusses the effect of the "built environment" on low resourced communities, with notes about the increased pollution and toxic waste sites. In lecture, it was verbally communicated that lower resourced communities were more often close to waste dumping sites than communities of opportunity.

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	1
Score explanation: *Sidney Kimmel Medical College offers a yearly event which may fulfill elective coursework requirements called "Health Humanities Reading Group: Radical Recipe," in which this topic is explored as part of a broader discussion on "anti-racism in relation to food, foodways, veganism and cookbooks."*	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	3
Score explanation: *Within the 1st year curriculum, there is a lecture by Dr. Scott Dale titled "Climate Change and Health" that covers this content in depth. It states that "Healthcare is responsible for 10% of total US emissions" and compares the emissions of the healthcare industry to other countries. He specifically mentions that the healthcare system is responsible for more carbon emissions than the entire United Kingdom. Additionally, Dr. Dale goes in depth into reasons for this trend (materials, energy, chemicals, and food) as well as methods of reducing this waste.*	

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core curriculum? (points for each)	**Score**
The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	0
The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	0
The health **and** environmental **co-benefits** of **non-pharmaceutical management** of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	0
Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	1
The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0
The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
Waste production within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1

Score explanation:

Throughout the Phase 1 curriculum there is an emphasis on the Choosing Wisely initiative (link).This initiative focuses on avoiding unnecessary medical tests, treatments, and procedures to prevent undue harm to patients. However, there is no emphasis on the environmental co-benefits of this initiative throughout the SKMC curriculum or the Choosing Wisely website.

Additionally, there is mention of the effects of over-prescribing of medications such as antibiotics through the Choosing Wisely initiative. It also advocates for deprescribing when possible. However, there is no mention of the environmental impacts/benefits of either of these topics.

In the Phase 1 lecture "Local and General Anesthetics" there is mention of inhaled anesthetics contributing to air contamination, global warming, and the ozone depletion. However, there is no mention of ways to reduce this effect or sustainable alternatives to inhaled anesthetics.

Curriculum: Clinical Applications

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

Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points)
No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)

Score Assigned:	0

Score explanation: Insert explanation here.

In SKMC's current curriculum, there are no outlines on how to speak about the effects on health that climate change has on health. Although there was a lecture that spoke about identifying adverse outcomes that are a result of climate change, it does not efficiently speak about approaching a clinical conversation. SKMC receives a score of 0 for this category for this reason.

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?
Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)
Only **elective** coursework includes strategies for taking an environmental history. (1 point)
No, the curriculum does **not** include strategies for taking an environmental history. (0 points)

Score Assigned:	2

Score explanation:

Included in the Clinical Skills curriculum, a core portion of the Phase I medical curriculum at Sidney Kimmel Medical College, students are trained to take a full history. This includes asking about socioeconomic factors (home environment), occupation, social determinants of health, and recent travel. These aim to identify environmental exposure history.
However, the Clinical Skill curriculum does not teach students to take a history relevant to environmental exposures due to climate change-related natural disasters (wildfires, air pollution, flooding, etc), resulting in SKMC receiving a score of 2 in this category.

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?
Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)
Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)

No, there are **no** improvements to planetary health education in progress. (0 points)

Score Assigned:	2

Score explanation:

In SKMC's 2023-2024 year, JeffEARTH, a student organization, introduced planetary health and climate change topics into the curriculum through the Climate Change Curriculum Integration Project (CCCIP). This was approved by the faculty team and implemented into the class of 2027's curriculum. Through this change, a total of 17 learning objectives were changed to incorporate topics of environmental health, environmental justice, and climate change.

One learning objective in a case-based learning session discussed the impact of climate change on obstructive lung disease. Furthermore, this object was further supported by a research article, which helped to introduce the topic to students.

Although these changes indicate progress in the curriculum, more could be done to discuss the health impacts of climate change/environmental health into the Phase 1 curriculum, thus resulting in a score of 2 for SKMC. Additionally, to our team's knowledge, no additional learning objectives were incorporated into the 2024-2025 academic year. However, lecturers have made minor adjustments to their powerpoints/lectures to include some climate change topics, regardless of overall learning objectives including this content or not.

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

Score Assigned:	4

Score explanation:

As stated above, there have been some changes within the SKMC curriculum to further incorporate climate change topics into the medical school curriculum. In the 2023-24 school year, JeffEARTH, a student organization, introduced planetary health and climate change topics into the curriculum through the Climate Change Curriculum Integration Project (CCCIP). This was approved by the faculty team and implemented into the class of 2027's curriculum. Through this change, a total of 19 learning objectives were changed to incorporate topics of environmental health, environmental justice, and climate change.

In the first year of the Phase 1 curriculum, the Pulmonology block included a learning objective that helped to address the impacts of climate change on obstructive lung disease. Earlier in the

year, in a lecture titled, "Cell Injury and Death - The Role of the Environment", the longitudinal incorporation of climate change was made into the curriculum. Due to the new initiatives made by SKMC, a score of 4 was warranted. This score was received because although this new learning objective was a positive sign of progress, more longitudinal approaches to ESH and planetary health could be introduced.

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	0
Score explanation: *Sidney Kimmel Medical College does not have any specific faculty or staff members responsible for the integration of planetary health and sustainable healthcare. Changes made in the past year through the Climate Change Curriculum Integration Project (CCCIP) were implemented through the entire Phase I curriculum team. When asked, the faculty curriculum team deemed it unlikely for Sidney Kimmel Medical College to appoint a single faculty position for this purpose.*	

Section Total (42 out of 72)	**58%**

Back to Summary Page here

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your institution?	
Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)	
No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)	
Score Assigned:	2
Score explanation: *Sidney Kimmel Medical College does have some faculty members with an interest in sustainability research (i.e. Dr. Scott Dale, whose name is included in this document with his permission), but planetary health and/or healthcare sustainability are not their primary research foci.* *Additionally, there are faculty members of SKMC that also serve faculty roles in the School of Public Health at Thomas Jefferson University who have recently collaborated with researchers at the Global Consortium on Climate and Health Education (GCCHE) regarding climate change content inclusion in medical school curricula internationally (link). However, sustainability in healthcare and planetary health are not their primary research foci.* *Thomas Jefferson University as a whole has researchers performing projects that revolve around the health of the planet, adjacent to healthcare but not directly focused on healthcare sustainability. There are ongoing projects that investigate the effects that climate change is having on healthcare but not on sustainable practices. The planetary health research at the institution focuses on improving sustainability in the fashion industry and reducing impact of human-caused spread of invasive species in the Schuylkill River Valley (link). The undergraduate architectural program also developed a plan to curb climate change-associated rising tides in Venice, Italy (link).* *Recommendations: Provide a list of researchers at Thomas Jefferson University, SKMC, or Thomas Jefferson University Hospital that are involved in sustainability research. This list can then be accessed by students to search for mentors in this field of research. Ideally, it would be beneficial to*	

create a research team of providers from various specialties whose primary research focus can be planetary health and sustainability practices across their specialties.

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?	
There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)	
There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)	
There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points)	
There is **no** dedicated department or institute. (0 points)	
Score Assigned:	3
Score explanation: *The Department of Sustainable Environments, under the Sustainability, Energy Efficiency and Design Center (SEED) at Thomas Jefferson University (link) aims to "improve lives through a holistic approach to sustainable design, emphasizing economic prosperity, environmental quality, and community well-being." The Department of Sustainable Environment utilizes an interdisciplinary approach in both their research and degree programs, with the "Nexus Learning approach [using a] ... collaborative, real-world projects across all disciplines in the college." Specific sustainability research is done in research centers such as the Institute for Smart & Healthy Cities and the Lab for Urban & Social Innovation.*	

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?	
Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)	
Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)	
No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 points)	
There is **no** process, and **no** efforts to create such a process. (0 points)	
Score Assigned:	2
Score explanation:	

SKMC does not provide a means for community members to give feedback or offer input on research topics being addressed by the medical faculty/students.
Additionally, there are no formal current efforts by SKMC to provide this opportunity for feedback from community members. Through internal discussions, it has been brought up that JeffHope (student-led community clinics) does some research with the patient demographics that attend their clinics and discussions with these patients does help inform medical students on what research topics could be explored. However, none of the currently researched topics with JeffHope focus on climate change or environmental health.

Thomas Jefferson University's College of Population Health did previously have an event titled "Community Based Research Day" (link) which is described on the website as an "annual event that provides a networking opportunity for community-based organizations (CBOs) and academic institutions, in an effort to foster joint projects that enhance the health of communities." However, the last year that this event was reported to have occurred was in 2022.

Additionally, the Sidney Kimmel Cancer Center has a program titled the Community Learning and Experience About Research (CLEAR) that connects community members with Sidney Kimmel Comprehensive Cancer Center Researchers (link).

Recommendations: In order for this to be a goal of SKMC and TJU, this requires more transparency from the medical school and institution as a whole to the community on what research topics are being addressed. It may be beneficial to provide this list to the public on the SKMC website, rather than just on the Canvas website. Additionally, as mentioned in other explanations throughout the Interdisciplinary Research topic, it would be beneficial to provide a consolidated list of medical researchers focused on Planetary Health and sustainability. Additionally, SKMC can host Town Halls during which community members can comment on what occurs within the university from both a community and research standpoint.

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:	0
Score explanation: *Thomas Jefferson University and Sidney Kimmel Medical College lack an office of sustainability or any website that centralizes campus resources regarding the environment or sustainability.*	

Additionally, there are no websites offered by the medical school or institution on ongoing sustainability research endeavors.

Recommendations: Create a website or Canvas page for Sidney Kimmel Medical College and/or for Thomas Jefferson University Hospital focused on their sustainability efforts so these are more transparent for current and prospective students.

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 / sustianable 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:	0

Score explanation: Insert explanation here.

Sidney Kimmel Medical College currently does not host any conferences dedicated to planetary health. There is a yearly conference titled the JeffX Global Health Conference (link to an article about the conference), with the latest conference being in 2023, that has some standalone lectures about planetary health and the environment in relation to global health. However, since the focus of this conference is more on global health rather than planetary health, we did not award SKMC points for this.

In the past, graduate students at Thomas Jefferson University formed a Graduate Sustainability Network (GSN) that hosted an annual Sustainability Forum in Philadelphia (link to an article regarding this). However the last reported meeting that our team was able to find was in 2019.

Recommendations: Thomas Jefferson University offers many standalone lectures and events with topics related to planetary health that could be consolidated into one annual or biannual conference. There are also many sustainability organizations within Philadelphia that host annual meetings with which TJU can collaborate with in order to host these meetings.

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

Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	1
Score explanation: *As of 2025, Sidney Kimmel Medical College (SKMC) at Thomas Jefferson University was listed as a member institution of the Global Consortium of Climate and Health Education (GCCHE) among the U.S. medical schools. This membership shows SKMC's commitment to providing increased climate change and sustainability topics within the medical school curriculum as one of the 298 national and international organizations on this list. They can be viewed on the list of members here.* *Recommendation: Include more information about their efforts as part of the GCCHE on the SKMC website. When you click on the link to SKMC on the GCCHE member list, there's no mention of this membership or their work as part of this program.*	

Section Total (8 out of 17)	**47%**

Back to Summary Page here

Community Outreach and Advocacy

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

3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?	
Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)	
Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)	
The **institution** does not partner with community organisations, but has participating in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	3
Score explanation: *In the "Bridging the Gaps (BTG)" program at Sidney Kimmel Medical College, students are paid to engage in a variety of service opportunities for 7 weeks in the summer after their first year of medical school. A possible placement for this program is at Urban Tree Connection which is an organization whose mission is to "build a neighborhood-rooted food and land system through community leadership development based strategies in West Philadelphia". Another possible placement is Sankofa Community Farm at Bartram's Garden, a group whose mission is "creating food sovereignty, promoting community health and supporting youth development. Using an African focus for their work, the farm relies on local leadership to foster connections with the land, increase access to healthy foods and build a sense of belonging for all who walk through its doors." However, no Jefferson students were involved in this particular placement in the summer of 2024.* *While the above satisfies this 3 points in this category, our team would like to highlight the below initiatives that could be relevant to this category as well:* *First, the "Fresh Rx: Go for the Greens" program is a free weekly market held year-round at Jefferson Einstein Hospital. This initiative targets food insecurity with fresh produce from a volunteer-maintained garden in Norristown.* *Additionally, the "Park in a Truck" program was launched by Jefferson's Landscape Architecture program in the College of Architecture and the Built Environment. This program helps communities convert empty lots in Philadelphia into parks. TJUH works with city officials, local developers, and*	

community organizers to identify potential spaces, raise money, and "allow those who live nearby to actually construct and maintain a park of their own."

3.2. Does your institution 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/medical school** have not offered such community-facing courses or events. (0 points)	
Score Assigned:	2
Score explanation: *Thomas Jefferson University's "Institute for Smart & Healthy Cities" is designed to support the "research, innovation, and education that is happening across the university focusing on transforming urban environments into healthy cities." According to the website page describing this initiative, part of the mission is to "educate the public about the complex interrelationship of climate change." An annual symposium has been held for the past four years, however the symposium is advertised as being "attended by academics, scientists, entrepreneurs, and leaders in architecture, engineering, population health, and city government." While these events are in theory accessible by the greater public, they are not primarily created for a community audience.*	

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)	
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	0
Score explanation: *In the past year, SKMC students may have received approximately 10 emails from the institution referencing planetary health, climate change, or sustainability. These emails advertised events that*	

incorporated themes of climate change, such as an art installation containing themes of climate justice, or contained links to popular news stories featuring climate change. None of these communications featured information on sustainable healthcare.

Given that these emails do not regularly contain information about planetary health or sustainable healthcare, we were unable to award the institution any points.

Recommendation: Create a section of the weekly SKMC update emails dedicated solely to sustainable healthcare and planetary health news (whether directly related to SKMC or not).

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)	
Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)	
There are **no** such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	0
Score explanation: *The Thomas Jefferson University Office of Continuing Professional Development offers several online and/or live courses for post-graduate providers; unfortunately, none of the past or upcoming courses listed focus on planetary health or sustainable healthcare.*	

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?	
Yes, the **medical school** 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:	2
Score explanation: *Patients have access to the Jefferson Medical Library through Elsevier to search keywords and find informational documents and videos. This can be accessed through the Jefferson MyHealth app or*	

website by going to the Menu, Resources, and then clicking "Search Medical Library." An example of a search for pesticides brings up the following article (link). This will also bring up other articles regarding secondhand smoke, radon, lead poisoning, agriculture related injuries, chemical burns, and more. However, there are no general articles regarding environmental exposure or environmental toxins, which could be a helpful addition to this resource. It would be beneficial if this resource was made available on the Jefferson Health website and accessible by patients outside of the Jefferson Health system.

All patients of Jefferson Health and affiliate hospitals should have access to the above resource using the MyHealth app or website.

Additionally, during specific natural disaster events, topics such as smog/pollution/wildfire smoke are discussed with patients. Our team was unable to find specific educational material created for patients on certain topics (smog, pollution). We identified two articles focused on injuries that result from fire smoke inhalation in the Elsevier database.

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 **medical school** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	0

Score explanation:

Based on our team's research, Thomas Jefferson University Hospital does not provide information to patients about the health impacts of climate change.

Patients have access to the Jefferson Medical Library through Elsevier to search keywords and find informational documents and videos. This can be accessed through the Jefferson MyHealth app or website by going to the Menu, Resources, and then clicking "Search Medical Library." An example of a search for pesticides brings up the following article (link). This will also bring up other articles regarding secondhand smoke, radon, lead poisoning, agriculture related injuries, chemical burns, and more. However, there are no articles available on this website about the health impacts of climate change or environmental health. For example, there are articles that focus on heat exhaustion and heat stroke but do not address the health impacts of the increasing frequency of extreme heat events as a result of climate change.

Section Total (7 out of 14)	**50%**

Back to Summary Page here

Support for Student-Led Planetary Health Initiatives

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

4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)	
The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)	
No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	0
Score explanation: *Currently, there is no evidence that TJU as an institution actively and specifically encourages sustainability initiatives/QI projects. While there is a portion of the Phase 1 curriculum titled "Scholarly Inquiry," which requires students to start and complete a research project within their first 2 years, there is no information available on this course's website about sustainability QI projects or researchers partaking in such research to work with.* *While Jefferson directs users to grants under the EPA, the institution itself does not offer any financial incentive or specific sustainability QI projects for any of its programs.* *Moreover, it does not appear to offer any environmentally proactive rotations and electives from the residency programs it offers. Upon combing through all descriptions of Jefferson offered residencies and their respective educational offerings, environmentally based opportunities are either extremely hidden or simply not there:* *https://www.jeffersonhealth.org/about-us/academic-programs/graduate-medical-education/residency-programs*	

4.2. Does your institution offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?
The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)

There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time. (1 point)
There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Assigned:	1

Score explanation:

At SKMC, there are opportunities for medical students to perform research related to planetary health topics through independent research or Scholarly Inquiry, particularly through certain tracks such as Population Health. However, these opportunities are not strictly environmentally-focused and require student initiative to synthesize and advocate their own sustainability QI project. Furthermore, there is no track specifically delineated for planetary health and/or sustainable healthcare.

While Jefferson directs users to grants under the EPA, the institution does not offer any financial incentive or incentives to specific sustainability QI projects.

Looking more broadly at TJU as an institution, there does appear to be an Infectious Diseases and Environmental Medicine Division under the Department of Medicine. However, review of their recent publications reveals a distinct lack of environmental medicine projects. Moreover, they offer a fellowship for Infectious Diseases but not for Environmental Medicine

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 medical school, but it lacks key information. (1 point)
There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:	1

Score explanation:.

Sidney Kimmel Medical College does not have a medical school specific website with information related to planetary health and/or sustainable healthcare activities and mentors within the medical school. However, there is a Thomas Jefferson University Department of Sustainable Environments website (link) that provides faculty, research and community engagement opportunities, and

information on graduate degrees that all speak about building sustainable buildings, cities, and landscapes.

There is also a website from the Jefferson Institute for Smart and Healthy Cities (link) which is a collaboration between College of Architecture, College of Population Health, and Kanbar College of Design, Engineering, and Commerce that provides research opportunities, grants, and education on building healthy cities in urban environments in the face of climate change which are not open to medical students.

Recommendations: On the Scholarly Inquiry page in Canvas, there can be a web page that lists faculty mentors focused on climate change as well as links to Jefferson Institute for Smart and Healthy Cities and Jefferson's College of Architecture to connect medical students to other aspects in the University that work on sustainable projects.

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 medical school dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organisation at my medical school 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

Score explanation:

Sidney Kimmel Medical College has one student organization with faculty support called JeffEARTH dedicated to planetary health/sustainability in healthcare. JeffEARTH focuses on educational events and service opportunities to promote sustainability and cost-effective methods in both healthcare and in students' daily lives.

Recommendations: There can be more involvement of sustainability efforts in addressing healthcare waste and management and more work in connecting healthcare workers (i.e., physicians, medical students, nursing students, etc.) with sustainable initiatives and events at the Thomas Jefferson University Hospital.

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

Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)

No, there is no such student representative. (0 points)	
Score Assigned:	1

Score explanation:

Currently at Sidney Kimmel Medical College (SKMC), a student liaison team for curricular feedback is present, however, the team is not specific for sustainability best practices. Furthermore, there is no dedicated liaison group that is dedicated to sustainability, or position or committee dedicated to sustainability on the student council, which has warranted a score of 1 for SKMC.

Recommendation: The appointment of a student liaison that is responsible for sustainability practices and can help influence future decision making on campus.

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	**Score**
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0
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:

Currently, Thomas Jefferson University has a multitude of health programs/initiatives that all students are encouraged to participate in.

In terms of agricultural and sustainable food systems projects, Jefferson's landscape architecture program (link) has developed a new way of approaching agriculture and sustainability in education by using innovative tools. Through these tools, students have been able to think across multiple perspectives, which helps address inequalities in agriculture and sustainable food systems. Furthermore, there is the Student Nutritional Awareness Council (SNAC), that raises awareness of nutrition topics to Jefferson students. Lastly, there is a current vertical garden initiative with the Office of Campus and Community Engagement (OCCE, link) and student organization JeffEARTH to help learn about sustainability in urban environments.

Throughout the year, there are panels on planetary health during which lecturers from diverse fields come to speak to students on campus. In 2024, the Jefferson Institute of Smart and Healthy Cities Symposium was held by the College of Architecture and the Built Environment and brought together experts from various fields (public health, architecture, and others) to address the topic of "Mitigating Climate Change Effects in Cities" (link).

There were unfortunately no cultural arts events related to planetary health at Jefferson, not warranting a point in this category.

At Jefferson, volunteer opportunities about building resilience to environmental impacts were directed to students. Through Jefferson's landscape architecture program, high-quality green spaces were built in under-resourced neighborhoods that are the most impacted by environmental impacts like heat islands. By reshaping empty lots, Thomas Jefferson University has helped to impact Philadelphia's urban landscape by planting trees and other plants that help address the anthropogenic environmental impacts that disadvantaged communities face. Furthermore, the vertical garden initiative has collaborated with JeffEARTH and OCCE that has helped work with local middle schools by providing vertical gardens as a way to learn about biology while simultaneously teaching about sustainable ways of living. Excess produce from these vertical gardens are donated to local food banks/community organizations. Also, JeffEARTH partakes in community cleanup events every Earth Day.

Through Jefferson student organizations like Team Recreation and Expedition Club (TREC), students are offered opportunities to participate in weekend hikes, skiing trips, rock climbing, and other wilderness activities throughout the year. Furthermore, the Wilderness and Disaster Medicine Society at Jefferson hosts an annual conference that provides outdoor trips to train students in wilderness emergency medicine. Lastly, Adventure Club through Jefferson's Recreation and Fitness center, hosts outdoors events that promote student activity and engagement. In 2024, they hosted a beach trip in Wildwood, kayaking on the Schuylkill river, a ski trip, and hikes at Wissahickon Valley Park.

Additionally, the Wilderness and Disaster Medicine Society (WDMS) hosts a biennial conference where students receive lecture-based and hands-on education on wilderness emergency medicine. They also held a skills session in the spring of 2024 to teach students how to make splints in low-resource settings.

Information for JeffEarth, TREC, WDMS, and other student organizations at Jefferson can be found here.

Section Total (10 out of 15)	**67%**

Back to Summary Page here

Campus Sustainability

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

5.1. Does your institution 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:	0
Score explanation: *Jefferson has been taking some steps to a more sustainable future through the institution of many educational programs to create engineers and entrepreneurs to be leaders in sustainability, but they have not implemented an office of sustainability anywhere across the institution. There is one specific faculty member that has been appointed as the head of the Jefferson Sustainability Committee, but this program initiative is still underway and has not yet been officially implemented by the medical school or institution.*	

5.2. How ambitious is your institution's 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/medical school does **not** meet any of the requirements listed above (0 points)

Score Assigned:	0

Score explanation:

Some efforts have been made by energy engineers at Jefferson to commit to a 2050 carbon neutrality agreement as outlined by the United States Department of Health and Human Services, but no promises have been made by Jefferson. The current efforts to sustainability and decreasing carbon footprints include: 1) a carbon offsetting program where trees are planted to offset carbon emissions from the medical helicopter program named JeffSTAT and 2) the institution of the new Honickman building which has been ranked LEED gold due to its sustainability features such as efficient plumbing and energy efficient lighting.

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:

Jefferson has partnered with Aelux to reduce its carbon footprint from electrical usage by replace lightbulbs with T8 or T12 fluorescent bulbs. This has resulted in a decrease of 9,000 tons of CO2 emission! Additionally, Thomas Jefferson University's East Falls Campus purchases green-e Renewable Energy Certificates (RECs) as part of the American College & University Presidents' Climate Commitment (ACUPCC) agreement, which is why Thomas Jefferson University has been awarded 1 point for this category. However, there is no current infrastructure for renewable energy.

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 intitution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)
Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)

Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)
Sustainability is **not considered** in the construction of new buildings. (0 points)

Score Assigned:	1

Score explanation:

Based on our team's research, across the Jefferson enterprise there are 7 LEED certified buildings. Within the medical school, there is 1 LEED silver certified building (901 Walnut St). While most of the older buildings within the medical school campus have been renovated to some degree, there are no published specifications online on whether or not these renovations improved sustainability. New construction at the institution (namely the Honickman Center) has sustainability elements built in, with the building achieving LEED Gold certification, but it is unclear if this is the guideline for all new construction.

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

Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)
The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)
The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)

Score Assigned:	1

Score explanation:

Thomas Jefferson University advertises public transportation options on its website, but does not offer free passes for students. Due to being in a city, almost all students walk or bike to on-campus locations. There are some bike racks stationed throughout campus for commuters.

For 3rd and 4th years, transportation to most clinical sites requires the use of a car and it is emphasized during orientation students will require access to their own car. For students with special circumstances (i.e. children at home, lack of valid driver's license, etc), Sidney Kimmel Medical College offers "Public Transit Restrictions" so individuals will not require the use of a car for clinical rotations and instead be placed at locations accessible by public transportation. However, for those on the Public Transit Restriction, there is no financial assistance with public transportation fees. Of note, the Phase 2 staff has emphasized to students that the "lack of a car" or the inability to financially afford a car are not viable excuses to obtain the Public Transit Restriction. SKMC also does not assist with carpooling options – in the past students have put this together themselves.

There is one Jefferson-provided shuttle offered to two sites (Methodist, Navy Yard) that are also accessible by public transportation. No other locations offer this option.

Recommendations: Provide SEPTA Key Advantage UPass for students who apply - at the minimum for 3rd and 4th year students who are in rotations, but ideally 1st and 2nd year students as well. Provide a formal carpool list for 3rd years on rotations with some sort of financial incentive (i.e. Visa card to pay for some of the gas on a monthly basis).

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 medical school. (0 points)	
Score Assigned:	1

Score explanation:

Thomas Jefferson University and Sidney Kimmel Medical College has a program that recycles all aluminum, glass, paper, and plastic products. They also bale their cardboard for collection. There are slim Jim blue recycling containers throughout the University for the students and staff so they can discard their recycling with small fact sheets on the recycling bins that tell you what to recycle.

Similarly, the Waste Management at Center City and East Falls campuses have active recycling programs through their vendors. The Thomas Jefferson University offices in Scott Memorial Library also have receptacles for both trash and recycling. There is no organics recycling program or compost program at TJUH or Sidney Kimmel Medical College. There is no recycling program for on campus housing

Recommendations: Making sure there is a recycling receptacle next to each trash can in the buildings of TJUH and Sidney Kimmel Medical College to make sure students and faculty are aware of recycling options. Implement recycling options for on campus housing Possible implementation of a composting program at TJUH or Sidney Kimmel Medical College.

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 a**dequate s**ustainability 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:	0

Score explanation:

At the Thomas Jefferson University East Falls campus, they utilize a vendor called Parkhurst, and they strive to use locally sourced food. This includes plant-based and vegan options and using more recyclable take-out containers. However, at the Thomas Jefferson University Center City campus where Sidney Kimmel Medical College is housed, the University does not have its own food service. The Thomas Jefferson University Hospital's cafeteria utilizes Aramark, and the Thomas Jefferson University uses 3 to 4 different vendors for catering for different campus events depending on event type and menu needed. However, there is no information regarding sustainability guidelines for food and beverages at the Sidney Kimmel Medical College despite reaching out to different school provosts, environmental management, and other leaders in food management and food delivery in the medical school system. The Office of Student Life and Engagement will attempt to make food sustainable when they have control over their food provider There is also no website or other accessible information for students to learn about sustainability guidelines for food or beverages on the campus.

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

Score explanation:

While Thomas Jefferson University does not have sustainability guidelines in place for supply procurement, the university purchases supplies through Premier, an organization that applies environmental impact criteria when selecting medical supply contracts. Premier applies environmental sustainability criteria when choosing which suppliers to partner with for specific medical supplies. This could involve factors like the supplier's manufacturing processes, waste reduction strategies, or product sustainability (e.g., choosing reusable over disposable items, using

environmentally friendly packaging). Jefferson benefits from these contracts by gaining access to medical supplies that align with the university's sustainability goals. Premier also helps with improving supply chain efficiency. For example, through their contracts, Jefferson can consolidate vendors and suppliers, which reduces the number of deliveries or truckloads to their facilities. This decreases transportation-related emissions, contributing to a greener supply chain.

Thomas Jefferson University uses Service Line Analytics tools to identify supplies that are often wasted in operating rooms. The Energy Services department is currently pursuing Joint Commission Sustainable Healthcare Certification.

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?	
Every event hosted at the institution **must** abide by sustainability criteria. (2 points)	
The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)	
There are **no** sustainability guidelines for institution events. (0 points)	
Score Assigned:	0
Score explanation: *Our team was unable to find any information about incentives for events hosted at Thomas Jefferson University to follow any sustainability requirements or guidelines. Currently there are no sustainability criteria or guidelines for events hosted by the medical school.*	

5.10. Does your institution have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)	
There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)	
There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)	
Score Assigned:	1
Score explanation: *In the "Guide to Laboratory Safety at Thomas Jefferson University" (link) there are guidelines on ways to minimize hazardous waste products thus making the lab space more environmentally sustainable. The guide reveals Thomas Jefferson University's moral obligation to "minimize waste volume generated by his/her laboratory," and includes a variety of methods on how to accomplish this waste minimization. The document also outlines how to recycle and reuse specific laboratory containers like solvent/reagent containers in an effort to reduce waste.*	

Overall, this guideline on how to make the lab space more environmentally friendly earns 1 point. However, there are no existing programs or initiatives by Thomas Jefferson University to make these spaces more environmentally sustainable.

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?	
The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)	
The institution is **entirely divested** from fossil fuels. (3 points)	
The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)	
The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)	
Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)	
Score Assigned:	0

Score explanation:

As of 2021, Thomas Jefferson University reported the value of endowment funds as $1.533 billion, which was a 62.9% increase within that fiscal year. When searching EDGAR on the U.S. Securities and Exchange Commission website (link), there are no publicly reported investments for Thomas Jefferson University or Sidney Kimmel Medical College found within the last 25 years. On the Form 990 submitted to the IRS for the fiscal year ending in June 2022, Thomas Jefferson University listed its total investment income as $19,436,848 (link). Within this amount, $587,172 was listed as " unrelated business income" under Form 990-T. The most recent 990-T form that our team was able to find on the IRS website was for the fiscal year ending in June 2022, which did not list any specific investments or private equity funds made by the institution.

Thomas Jefferson University
Notes to Consolidated Financial Statements
June 30, 2022 and 2021

6. INVESTMENTS

Investments are presented in the consolidated balance sheets under the following classifications (in thousands):

	2022	2021
Short-term investments	$1,350,713	$2,531,594
Assets whose use is limited, current	27,878	737
Long-term investments	2,725,639	1,699,470
Assets whose use is limited, noncurrent	375,694	85,630
	$4,479,924	$4,317,431

A summary of investments at June 30, 2022 and 2021 is as follows (in thousands):

	2022	2021
Cash equivalents	$337,305	$157,044
Equity securities	69,196	21,159
Fixed income securities	437,312	597,004
Funds:		
Global equity	1,481,296	1,570,316
Fixed income	1,142,349	1,070,370
Real estate	135,379	137,356
Other mutual funds	13,086	34,481
Private equity	475,402	324,941
Real estate	2,257	3,309
Hedge funds	101,565	102,255
External trusts	170,202	145,052
Investments subject to equity method and other	114,575	154,144
	$4,479,924	$4,317,431

As of 2022, $475,402 of the university's investments were towards private equity, and $101,565 was towards hedge funds based on the above report (link). However, there is no public information on whether any of these investments are towards fossil fuel companies.

Based on our team's research, Jefferson is not listed on ExxonMobil, Chevron, or Shell's list of philanthropy recipients.

Section Total (7 out of 32)	**22%**

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 Sidney Kimmel Medical College at Thomas Jefferson University
The following table presents the individual section grades and overall institutional grade for Sidney Kimmel Medical College at Thomas Jefferson University on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(42/72) x 100 = 58.33%	C+
Interdisciplinary Research (17.5%)	(8/17) x 100 = 47.06%	C
Community Outreach and Advocacy (17.5%)	(7/14) x 100 = 50%	C
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	B
Campus Sustainability (17.5%)	(7/32) x 100 = 21.88%	D-
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 49.98%**	**C**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which Sidney Kimmel Medical College at Thomas Jefferson University has participated in the Planetary Health Report Card initiative.