Planetary Health Report Card (Medicine):

University of Connecticut School of Medicine

2024-2025 Contributing Team:

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Summary of Findings

Overall Grade	A-

Curriculum	A

- Overall, UConn has steadily improved its planetary health curriculum and now has a fairly robust system in place for first and second year medical students. Though the session "Clinical Implications of Climate Change" carries most of the weight, planetary health and sustainability topics have been increasingly interwoven throughout the other required core courses as part of a formal Climate & Environmental Health curricular thread. Climate and planetary health topics are presented in a way that connects environmental health to human health in an effort to make medical students more invested in climate topics, which thus far appears to be successful. Students and faculty alike continue to actively work on methods of integrating more planetary health topics into the medical curriculum.
- **Recommendations:** The only area of curriculum where UConn did not receive any points is the inclusion of Indigenous knowledge and value systems as essential components of planetary health solutions. One suggestion could be to discuss a topic like cultural burning as a method of maintaining ecological diversity and preventing wildfires. Such a topic could easily have a place in the "Clinical Implications of Climate Change" session for Health System Sciences. Another recommendation would be to increase the integration of climate topics to third and fourth year medical students. Currently, it is largely first and second years that benefit from UConn's robust climate curriculum, so it is important to brainstorm ways of expanding the climate curriculum more into the clinical space.

Interdisciplinary Research	A+

- The University of Connecticut has improved its planetary health research as an institution, mostly through work done by the Department of Public Health, which is technically part of the School of Medicine. Compared to previous years, the University of Connecticut is more involved in national and international organizations for climate change and planetary health, and has hosted more informational sessions/symposiums for education, awareness, and dissemination of research findings.
- **Recommendations**: Currently, much of the work being done is within the Department of Public Health, which does have medical student involvement, however UConn could still improve the visibility of the work done by the Department of Public Health and the integration with the medical and dental school proper.

Community Outreach and Advocacy	B

- The University of Connecticut has improved its community outreach and advocacy by connecting medical students to community members better. However, more could be done with patient education and news updates, as well as centralization of materials.
- **Recommendations**: We recommend the University of Connecticut Health Center (UCHC) create and publish patient education materials in a centralized online location. We also recommend more frequent and comprehensive sustainability news updates sent to the student body.

Support for Student-Led Initiatives	A-

- UConn supports student groups dedicated to planetary health. There is one medical group (Sustainability at UConn Health) that works closely with a faculty mentor and allies within the medical school. This group also works together with the Sustainability Working Group at UConn Health to help direct policy and change. In addition, UConn offers opportunities for students to participate in planetary health-related research. However, these opportunities must be explicitly sought out. UConn does offer the Environmental and Social Sustainability Small Grants program for students and has many initiatives at the undergraduate

campus.
- **Recommendations**: Considering the number of initiatives at the undergraduate level, we recommend that the medical school specifically increases its support for medical students interested in sustainable initiatives and increasing the visibility of such opportunities.

Campus Sustainability	**B+**

- UConn SOM, and as an institution as a whole, has improved efforts to be a sustainable campus. In conjunction with the wider University, sustainable building practices are utilized for new buildings and the majority of old buildings have been retrofitted to be more sustainable. The new food service company has sustainability guidelines for food and beverages. Additionally, the medical school offers environmentally-friendly transportation options.
- **Recommendations**: A designated staff member and/or committee in charge of medical school and/or hospital sustainability would be an asset in the plans to improve campus/hospital sustainability. We also recommend fully divesting from fossil-fuel companies. Additionally, though UConn overall has adequate transparency about procurement and sustainability guidelines, we recommend more transparency from the school of medicine specifically, as well as incentives or requirements for event sustainability.

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

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

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

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

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

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

specifically targeted for medical students, can meet this metric.

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

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

- **Core Curriculum:** This refers to taught material that is 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:	3
Score explanation: The medical school's Department of Public Health offers several electives on planetary health, including one called Climate Change and another course called Environmental Public Health. Medical students who are also in the MPH program can take these courses, though they are not advertised well to the rest of the medical school.	

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:	3

Score explanation: The first-year medical school curriculum at UConn contains a session in the required course Health Systems Science (HSS), titled "Clinical Implications of Climate Change" that discusses climate and heat. This topic is explored in-depth because it is discussed at length during the session and has several testable learning objectives. One example of a learning objective of the session reads "describe several key expected health implications of a warming planet, such as heat related illness." The session also discusses climate sensitive medical conditions and tests students on the clinical findings of heat exhaustion vs heat stroke. Medical students also presented such topics during the Department of Medicine Grand Rounds in January 2024.
Additionally, in Block A of Case Oriented Essentials (COrE), medical students are taught about the link between rising temperatures and adolescent development through the learning objective "recognize the connection between rising global temperatures and emotional, academic, and interpersonal development for adolescents." In Block D of COrE during the female and male reproduction sessions, students are asked to "describe the effects of heat in early pregnancy" and "describe the effects of heat on spermatogenesis."

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

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

Score Assigned:	3

Score explanation: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that discusses the increased incidence of extreme weather events due to climate change and the impacts on health. This topic is explored in-depth because it is discussed at length during the session and has several testable learning objectives. One example of a testable learning objective is "Apply basic climate science to anticipate impacts of climate change, rising temperatures, and extreme weather on social and environmental determinants of health, and assess own practice locale and beyond for climate vulnerabilities." Medical students also presented such topics during the Department of Medicine Grand Rounds in January 2024. The HSS course has another session titled "Systems Thinking and Disaster Response" that is dedicated to educating first year students on the role of physicians in natural disasters and disaster preparedness.

1.4. Does your <u>medical school</u> 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:	3
Score explanation: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that discusses climate and infectious diseases. This topic is explored in-depth because it is discussed at length during the session and has several testable learning objectives, such as "describe several key expected health implications of a warming planet, such as [...] infectious disease." Specific examples of infectious diseases that are discussed during the session include legionella, vibrio vulnificus, and leptospirosis, demonstrating how cases increase with rising heat and more extreme storms. *In the required course Case-Oriented Essentials (COrE), second year medical students in Block E (2nd semester of M2) learn about vector-borne infectious diseases in detail, in which the impact of climate change is briefly discussed in the context of tick and mosquito-borne illnesses.*	

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that discusses the respiratory health effects of climate change and air pollution. This topic is explored in-depth because it is discussed at length during the session and has several testable learning objectives. One example of a testable learning objective is "describe several key expected health implications of a warming planet, such as [...] cardiopulmonary and other conditions." Another part of the session discusses air pollution and respiratory health in the context of health co-benefits and patient counseling. One example used in the session is how physicians can counsel patients on the pollutants and health risks associated with having a natural gas stove in the home. Another HSS session, titled "Environmental Health," educates medical students on the effects of air pollution on local communities in CT. As part of the session, air quality monitors are brought into the auditorium by our public health partners for an exercise in fine particulate matter. *In Block A Unit 10 of Case Oriented Essentials (COrE), medical students are taught about the inflammatory effects of air pollution/particulate matter on the body when learning about other inflammatory diseases and arthritis. In Block D of COrE, medical students are asked to "describe the link between air pollution and chronic lung diseases, such as emphysema, and the contribution of heat on worsening lung illnesses."*	

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that addresses the cardiovascular health effects of climate change. This topic is explored in-depth because it is discussed at length during the session and has several testable learning objectives. One example of a testable learning objective is "describe several key expected health implications of a warming planet, such as heat related illness, [...] cardiopulmonary, renal, [...] and other conditions." Another part of the session discusses cardiovascular health and climate in the context of health co-benefits and patient counseling. One example used in the session is how physicians can counsel patients on eating a plant-based diet as a way to improve cardiovascular and metabolic health, while also reducing their carbon footprint. *Similarly, in Block C of the course, Delivery of Clinical Care (DoCC), students are taught about the cardiovascular health benefits of a plant-based diet. In Block A of Case Oriented Essentials (COrE), again students are tasked with learning how to counsel a patient on the environmental and cardiovascular health co-benefits of a plant-based diet.*	

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that addresses the mental health and neuropsychological effects of environmental degradation and climate change. This topic is discussed at length and includes a testable learning objective that asks students to "describe several key expected health implications of a warming planet, such as heat related illness, [...] neurological, mental health, [...] and other conditions." The session specifically discusses the increased incidence of depression, anxiety, aggression, domestic violence, PTSD and other psychiatric emergencies with rising temperatures, pollution, and natural disasters. Students are also asked to define concepts of intergenerational justice and solastalgia in the context of environmental degradation. They also learn about psychiatric medications and neurological	

conditions like MS that make patients more susceptible to climate change impacts, especially increased temperatures. *In Block A of Case Oriented Essentials (COrE), medical students are taught about the link between rising temperatures and adolescent development/mental health through the learning objective "recognize the connection between rising global temperatures and emotional, academic, and interpersonal development for adolescents."*

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. (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: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that briefly covers water and food insecurity, and the resulting effects on different populations and ecosystems around the world. Learning objectives of the session ask students to "apply basic climate science to anticipate impacts of climate change [...] on social and environmental determinants of health" and to "describe several key expected health implications of a warming planet, such as malnutrition." Students specifically learn about the worsening droughts and animal extinctions in Somalia and Tunisia, and connect such climate effects to the increasing prevalence of food and water scarcity, malnutrition, and ecosystem instability in those regions. Another HSS session called "Environmental Health" explores the effects of water pollution on health in local CT communities. As part of the session, students hear about the health impacts on a patient whose town water supply was contaminated by solvent, and practice locating brownfields and the toxins within them.	

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. (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: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that addresses the disproportionate impact of climate change on marginalized populations. This topic is discussed at length and includes testable	

learning objectives that ask students to "apply basic climate science to anticipate impacts of climate change [...] on social and environmental determinants of health, and assess own practice locale and beyond for climate vulnerabilities," and "identify and provide anticipatory guidance for vulnerable groups and individual patients with climate sensitive occupations and medical conditions." The session also discusses the concept of climate refugees. Another HSS session called "Environmental Health" explores the effects of air, soil, and water pollution on local CT communities and asks students to identify the most vulnerable and burdened populations. The session emphasizes environmental racism and environmental justice issues related to pollution.

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. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that addresses the unequal regional health impacts of climate change globally. The entire session is structured so that students explore the many effects of climate change on different areas around the world, including Tunisia, Somalia, Puerto Rico, the continental US, Bangladesh, and the Netherlands. The session also discusses the concept of climate refugees, forced migration, and displacement 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. (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 point)	
Score Assigned:	2
Score explanation: The course, Health Systems Science (HSS), has a session titled "Environmental Health," which specifically discusses the perfluoroalkyl substances (PFAS) family of chemicals and persistent organic pollutants (POPs) that can have adverse effects on reproduction. In Block D of the course Case Oriented Essentials (COrE), students learn about different teratogens, including environmental toxins.	

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. (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: The Health Systems Science (HSS) session called "Environmental Health" discusses local contaminated bodies of water that impact human and fish populations. It also discusses Superfund (polluted areas in the United States designated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)) that require a long term response to clean up hazardous contaminants) and Brownfield (previously developed land that is not currently in use due to the potential presence of a hazardous substance, pollutant or contaminant) sites in CT. An additional topic discussed in this session is the Hartford Trash Incinerator and the negative health impacts it has caused in the community. As part of the session, students hear first-hand accounts from the people in the community affected by such toxins. Another HSS session called "Toward Health Equity in Clinical Practice" briefly discusses the lack of green spaces in surrounding communities.	

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. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	0
Score explanation: At this time, Indigenous knowledge and value systems are not covered in any core curriculum sessions.	

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. (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: The "Environmental Health" session for the Health Systems Science (HSS) course emphasizes how environmental toxins disproportionately harms marginalized populations, specifically low SES, communities of color, and the homeless population. For example, there is a discussion on the Hartford Trash Incinerator and its placement within a marginalized community and how it disproportionately harms marginalized communities. As part of the session, students hear first-hand accounts from individuals representing marginalized groups who have been harmed by these toxins. Presenters include representatives from communities of color, low SES, older adults, and homeless populations. The entire theme of this session is environmental racism and justice, and students are tested on their knowledge of the disproportionate impacts of these environmental toxins, making it a topic that is explored in-depth by the core curriculum.	

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: Three of UConn's required core classes, Case Oriented Essentials (COrE), Health Systems Science (HSS), and Delivery of Clinical Care (DoCC), contain sessions focusing on a plant-based diet. These sessions highlight the environmental benefits and the health co-benefits of consuming a plant-based diet, and encourage students to think about how they would use those benefits to counsel patients on adopting a plant-based diet. The connection between plant-based diets and planetary health, along with individual health, is emphasized. Students are asked to demonstrate how they would counsel a patient on the co-benefits of a plant-based diet. Because this topic is integrated throughout these various core classes and is associated with multiple learning objectives, this topic is explored in-depth in the core curriculum.	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: The required course Health Systems Science (HSS) contains a session titled "Clinical Implications of Climate Change" that addresses the carbon footprint of healthcare systems. There is an entire portion of the session dedicated to the waste and carbon footprint generated by the healthcare system, as well as methods we can take to make healthcare more sustainable, such as "greening" the OR. A specific learning objective of this session is that students are asked to "consider what role the healthcare community should have in conveying climate-related health concerns to the public, evidence for why health professionals are in a unique position to do so, and the urgency of promoting sustainable practices in health care delivery." Another HSS session called "Environmental Health" briefly discusses the large generation of waste and waste disposal within UConn Health's surgical departments and ORs, as well as UConn Health as a whole.	

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	**Score**
The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	2
The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	0
The health **and** environmental **co-benefits** of **non-pharmaceutical management** of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	1
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)	1
The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
Waste production within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1
Score explanation: The Health Systems Science (HSS) course dedicates an entire session to the Choosing Wisely campaign, emphasizing the importance of avoiding over-medicalization, over-investigation, and over-treatment. Another HSS session called "Clinical Implications of Climate Change" discusses the carbon footprint of the U.S. healthcare industry and Health Care	

Without Harm, a global movement for environmentally responsible health care. It also briefly mentions the impact of anaesthetic gases on the atmosphere and UConn's efforts to green the OR.. Additionally, it touches on counseling about health co-benefits of climate-friendly choices. A third HSS session called "Environmental Health" briefly discusses the large generation of waste and waste disposal within UConn Health's surgical departments and ORs, as well as UConn Health as a whole. The Delivery of Clinical Care (DoCC) course has a session on nutrition and obesity, which also discusses co-benefits on non-pharmaceutical management of conditions like diabetes and obesity

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points)	
No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	2
Score explanation: The HSS session "Clinical Implications of Climate Change" explores the role of the healthcare professionals in conveying climate-related health concerns to the public. Specific learning objectives read "identify and provide anticipatory guidance for vulnerable groups and individual patients with climate sensitive occupations and medical conditions," and "consider what role the healthcare community should have in conveying climate-related health concerns to the public, evidence for why health professionals are in a unique position to do so, and the urgency of promoting sustainable practices in health care delivery." As part of the session, students are asked to demonstrate how they would talk to a patient about a climate change topic of their choice. In Block A of Case Oriented Essentials (COrE) and Block C of Delivery of Clinical Care (DoCC), students practice counseling patients on the health co-benefits of a plant-based diet. Later in Block C of DoCC, students learn how to take an environmental history.	

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: The course Delivery of Clinical Care (DoCC) dedicates an entire session in Block C (3rd academic block of M1 year) towards teaching medical students how to take an environmental/exposure and occupational history. These skills are later reinforced by the HSS session "Environmental Health," where students are asked to again practice taking an environmental history, specifically including questions about present and previous home locations, water supply, and food sources.

Curriculum: Administrative Support for Planetary Health

1.20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)	
Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)	
No, there are **no** improvements to planetary health education in progress. (0 points)	
Score Assigned:	4
Score explanation: At UConn, there are efforts to expand climate health education within the general curriculum. Though many of these efforts are student-driven, there is administrative support from physicians and professors. The Department of Medicine at UConn Health has welcomed educational efforts with a Grand Rounds session on climate change. Students have successfully incorporated more discussion of climate change and sustainability into the core curriculum through the main core courses, and continue to work on this endeavor. UConn also has a Sustainability Working Group that meets every 3 months, in which faculty, staff, and students come together to discuss how to make the institution more sustainable.	

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: Through a formal Climate & Environmental Health thread, ESH and Planetary Health topics are integrated throughout the first two years of medical school with sessions in the major core courses: Case Oriented Essentials (COrE), Health Systems Science (HSS), and Delivery	

of Clinical Care (DoCC). Years three and four of the medical school curriculum currently do not have class-wide ESH or Planetary Health education. However, individual students have taken on educational projects about climate & health in the clinical setting, such as a presentation on the climate impacts on psychiatric health during the psychiatry clerkship. There is also a medical grand rounds presentation on the clinical implications of climate change delivered to UConn attendings, residents, and medical students on internal medicine clerkships.

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:	1
Score explanation: Yes, there is a specific faculty member that has been appointed the faculty director of the Climate & Environmental Health curricular thread. They are responsible for identifying areas in the core curriculum where climate education could be strengthened and for interweaving environmental health topics throughout the various core classes and years.	

Section Total (62 out of 72)	**86.1%**

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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your 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:	3
Score explanation: The Department of Public Health Sciences, which falls under the School of Medicine does have a few faculty members whose research goals align with planetary health. For example, two researchers both research air quality and pollution and work with medical students regularly on such projects. One of these projects investigates the health impacts of exposure to particulate matter through traffic-related air pollution in households near major highways, and assesses improvement in air quality and health outcomes with the use of in-home portable air purifiers. In addition, UConn as an institution has many undergraduate departments and the Connecticut Institute for Resilience & Climate Adaptation (CIRCA) which fosters collaboration around interdisciplinary action in response to climate change.	

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 University of Connecticut has an Institute of the Environment which is dedicated towards "solving environmental problems related to climate change, sustainability, food security, pollution, and species extinction with an interdisciplinary approach." It was created in 2019 and includes over 170 faculty members across four administrative units. It also has the Connecticut Institute for Resilience & Climate Adaptation (CIRCA), which is "a multi-disciplinary, center of excellence that brings together experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions to problems arising as a result of a changing climate."

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:	3

Score explanation:

- *CIRCA's Resilient Connecticut program takes a multi-pronged approach to enhancing climate resilience in Connecticut communities, including directly partnering with specific municipalities to develop innovative concept designs, benefit/cost analyses, and implementation plans for resilience projects known as Phase III projects. Municipalities who have participated in these projects can be found here under the Phase III heading: https://resilientconnecticut.uconn.edu/planning_phases/, and include multiple environmental justice communities, such as Fair Haven, Jewett City, downtown Danbury, and Norwich. For each project, a Citizen and Technical Advisory Committee (CTAC) is convened that includes municipal staff and community representatives relevant to the specific project (for example, library staff, senior center staff, community liaisons, residents, etc.) The CTAC meets regularly throughout the project period to provide input on community concerns and priorities, preferred concept designs, and project reports. In addition to CTAC meetings, each Phase III project also includes at least two public meetings during the course of the project to gather feedback from a broader group of community residents.*
- *The Climate & Equity Grant Program, which is funded by the Connecticut Department of Energy and Environmental Protection (DEEP) and administered by CIRCA, is intended to*

fund projects that increase the capacity of vulnerable communities to mitigate, plan for, and respond to climate change impacts. The program structure and application materials are intentionally crafted to reduce the administrative burden of the applicants, most of which are community-based organizations from environmental justice communities; each application round is also accompanied by a survey sent to all applicants where they can offer anonymous feedback on how to improve the program and reduce barriers to entry. In the current grant round (2025), applicants had the option to select add-on funding to support their participation in state planning meetings related to climate change and environmental justice in addition to their grant projects, such as the Connecticut Equity and Environmental Justice Advisory Council and stakeholder meetings related to DEEP's Climate Pollution Reduction Grant process.

- *CIRCA's CT EJScreen 2.0 or Connecticut Environmental Justice Screening and Mapping Tool project established a Mapping Tool Advisory Committee (MTAC) comprising representatives from non-profit organizations and individuals with lived experience of environmental justice issues, providing them with compensation for their time and expertise. This group met six times to review and refine multiple iterations of the tool, fact sheets, and community feedback session agendas. In 2023, CIRCA also facilitated five community feedback sessions in cities such as Waterbury, Bridgeport, and Hartford, involving residents directly in hands-on demonstrations of the beta tool and collecting their oral and written input. Two of these sessions were conducted primarily in Spanish to ensure accessibility. The MTAC, feedback sessions, and additional public comment periods created a process where communities impacted by climate and environmental injustices were actively involved in advising and influencing CIRCA's research agenda and tool development, ensuring their voices and experiences shaped the final outputs.*

2.4. Does your institution have a planetary health website that centralizes ongoing and past research related to health and the environment?	
There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)	
There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)	
The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)	
There is **no** website. (0 points)	
Score Assigned:	3
Score explanation: The University of Connecticut's Office of Sustainability website acts as a central hub for sustainability initiatives, showcasing UConn's progress, ongoing research, and financial opportunities. It highlights UConn's ranking among the top 10 most sustainable universities, features current research on climate change, and provides avenues for financial support. The website also includes experiential learning opportunities, operational performance data, event calendars, and contact information.	

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?	
Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)	
Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)	
Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)	
The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)	
No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)	
Score Assigned:	4
Score explanation: Medical students can apply for funding to go to the Conference of the Parties (COP). In addition, the medical school hosted one global health symposium for social and environmental determinants of health on April 3rd, 2024. All speakers discussed climate change and the keynote speaker spoke about climate justice in Hartford. A flyer can be found here: https://www.instagram.com/p/C5GnMkqu4Yh/	

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: The University of Connecticut is now part of the United States Health Promoting Campuses Network which falls under the larger International Health Promoting Universities and Colleges Network. In April 2024, they adopted the Okanagan Charter and in doing so are now part of a national planetary health program along with 32 other U.S. institutions.	

Section Total (17 out of 17)	**100%**

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Community Outreach and Advocacy

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

3.1. Does your institution partner with community organisations to promote planetary and health?	
Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)	
Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)	
The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	3
Score explanation: The University of Connecticut School of Medicine partners with a variety of community organizations to educate students and assist in providing environmentally friendly practices. For example, the class Health Systems Science (HSS) teams up with the North United Methodist Church to educate students about the North Hartford Promise Zone, and how environmental detriment and gentrification affect people. UConn also teamed up with South Park and the Southside Institute Neighborhood Alliance to conduct trash clean-ups in Hartford. UConn SOM can improve by providing a greater number of opportunities for planetary health and to provide more information more often.	

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** have not offered such community-facing courses or events. (0 points)

Score Assigned:	3

Score explanation: The University of Connecticut School of Medicine runs an annual UConn Medical Student Health Equity Symposium for community members and medical students in the North Hartford Promise Zone in Hartford, CT. The symposium is community-facing and explores the social determinants of health related to the environment and health. More information can be found here: https://today.uconn.edu/2024/02/community-informed-learning-experience-for-uconn-med-students/

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)

Score Assigned:	1

Score explanation: The UConn Daily Digest often includes articles, research, and grants regarding environmental/planetary health. However, they are included in a way where they may get drowned out by the plethora of other information this Daily Digest provides. UConn Today also covers sustainability updates when provided. The Sustainability at UConn Health interest group sends emails regarding important planetary health events such as Earth Day. Classes such as Health Systems Science (HSS) educate students regarding sustainable healthcare and how environmental hazards affect population health.

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?
Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)
Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)
There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:	1

Score explanation: A medical grand rounds session titled "Climate Change & Health" was held for post-graduate medical providers at UConn Health. Learning objectives of this session included reviewing key topics in climate science, describing key findings of the United Nations Intergovernmental Panel on Climate Change, anticipate health impacts of a warming planet, and define climate adaptation, mitigation, health co-benefits, and incorporate these definitions into healthcare practice. Providers answered questions following the session to earn CME credit.

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?	
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	1
Score explanation: Hartford Hospital's website contains a Health Library with information on various topics, easily accessible to patients. One category in the Health Library is Environmental Health which offers information on causes and symptoms of many toxin-related illnesses, including cigarette-containing chemicals, asbestos, wood-burning stoves, pesticides and other pollutants in water, lead, radon, and carbon monoxide. *Although UConn Health does have a website for patient services for occupational and environmental health, there is no part of this website that offers educational materials for patients. We recommend adding such a section to this website to provide easily accessible environmental educational materials to patients.*	

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	1
Score explanation: The health news hub on Hartford Hospital's website contains a post titled, "Warm Winter Brings Spring Woes" explaining the harmful impacts of rising global temperatures on infectious disease spread and allergy severity.	

On their website, The Hospital of Central Connecticut does have information for patients regarding heat-related illnesses, though this resource does not explicitly mention higher global temperatures due to climate change.

Section Total (10 out of 14)	**71.4%**

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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)	
The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)	
No, this **institution** does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	2
Score explanation: Medical students can apply for a summer research project grant, which could be toward a sustainability QI should the student choose, but there are no sustainability initiative grants or funds for medical students specifically. The larger institution of UConn does have an Environmental and Social Sustainability Small Grants program for those who want to design sustainability initiatives/QI projects that medical students qualify to receive. The President's Research Investment in Sustainability Measures, Actions, Technologies, Initiatives, and Communities (PRISMATIC) Grants, which have funded research projects like designing mushroom surfboards and studying the density of the natural bee population. However, these grants are only available for UConn undergraduate students.	

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: The UConn School of Medicine provides research opportunities to students throughout each of their four years, particularly during the summer between their first and second years. Students can choose to perform research related to planetary health/sustainability only if they seek out the opportunities themselves. There is no health track or scholars program specifically for environmental health related research from the institution.

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)	
There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)	
There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)	
Score Assigned:	1
Score explanation: The larger institution of UConn has a webpage devoted to sustainability: https://sustainability.uconn.edu/. On this page, students can find information pertaining to school initiatives, ways to become involved, who to contact, and grant information. The School of Medicine does not have a page dedicated to planetary health. However, there is a web page that provides information about the medical and dental student group that is focused on planetary health, Sustainability at UConn Health: https://health.uconn.edu/student-affairs/student-organizations-and-interest-groups/	

4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my institution l 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: Sustainability at UConn Health is an interdisciplinary student group at the	

University of Connecticut School of Medicine aimed at improving sustainable initiatives and knowledge within the University of Connecticut's health center. The group is student-led with a faculty mentor Dr. Kirsten Ek.

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
Score explanation: There is a Sustainability Working Group that meets every 3 months, and the members of Sustainability at UConn Health are invited to attend these meetings. The working group is composed of UConn administrators, physicians, nurses, facilities staff, tech staff, and student representatives.	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	**Score**
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	1
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	1
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1
Score explanation:At the UConn Storrs campus there is the Spring Valley Student Farm where student's learn about sustainable community living, organic food growing methods, and the business aspects of how food is harvested, processed, and presented to the UConn dining community. UConn Storrs does panels and summits such as the The Sustainable Clean Energy Summit: Decarbonizing Society and the Grid that was held in 2024. At the Nafe Katter Theatre at	

the UConn Storrs campus held a performance of A Hundred Words for Snow by Tatty Hennessy which had themes related to climate change and climate refugees. However, all of these events are largely inaccessible to medical students. The Wellness Committee at UConn School of Medicine hosts outdoor programs for the students, as well as the Wilderness Medicine interest group. UConn does have an Connecticut Institute for Resilience & Climate Adaptation (CIRCA) which does engage with the community regarding environmental resilience, however, there does not appear to be any volunteer opportunities at the student level. The College of Agriculture, Health and Natural Resources does offer an Extension & Outreach Program for the community to volunteer and learn about becoming resilient to environmental changes but this program relies on the community seeking this out themselves.

Section Total (12 out of 15)	**80%**

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Campus Sustainability

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

5.1. Does your 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:	2
Score explanation: While the University of Connecticut has an Office of Sustainability, the School of Medicine and UConn Health does not have a designated staff member. However, UConn Health does have an official sustainability working group that meets every 3 months, composed of UConn administrators, physicians, nurses, facilities staff, information systems staff, students, etc. This working group drives most of the sustainability efforts at UConn Health, and has been responsible for improvements on campus, such as composting efforts, improved recycling signage, installation of motion-sensor lights, "greening" of the operating rooms, etc.	

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 does **not** meet any of the requirements listed above (0 points)	
Score Assigned:	5
Score explanation: Connecticut's state government has undertaken several initiatives in efforts to achieve a zero-carbon electric supply of select publicly funded agencies, institutions, and/or organizations by 2040. The University of Connecticut committed to carbon neutrality by 2030, the latest initiative of which has been implemented at UConn Health in efforts to minimize HVAC costs and footprint was in one of its outpatient facilities, as seen here. While the undergraduate institutional 2024 Sustainability Action Plan does not explicitly mention UConn Health or the medical school, the sustainability working group and its facilities membership partner closely with other departments to continue to reduce emissions and the campus' carbon footprint.	

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?	
Yes, institution buildings are **100%** powered by renewable energy. (3 points)	
Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)	
Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)	
Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)	
Score Assigned:	0
Score explanation: UConn Health purchases its energy under a contract that stipulates it is sourced from renewable options such as wind turbines, however the exact source mix is not readily available. That being said, since purchasing electricity from the new contract, energy usage has gone up while emissions down due to cleaner produced electricity. UConn Health is currently in the process of installing a hydrogen fuel cell system which would produce approximately 70% of current electrical usage on-site, but this is not yet installed.	

5.4. Are sustainable building practices utilised for new and old buildings on the institution's campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?
Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)
Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)
Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)

Sustainability is **not considered** in the construction of new buildings. (0 points)	
Score Assigned:	3
Score explanation: The University of Connecticut uses efficiency guidelines with designing and retrofitting existing buildings. There are incentives from the government that UConn has taken advantage of to reduce their energy consumption by using highly efficient systems. Newer buildings such as the Outpatient Pavilion follow LEED (Leadership in Energy and Environmental Design) principles and ratings, and older buildings undergo energy retro-commission review on a cycle basis. Efforts have been made to install timed sensor LED for all outdoor lighting, to replace existing steam traps to more efficiently convert excess heating steam into hot water, and to optimize HVAC systems across campus. UConn Health, along with its collaborators from Budderfly and Connecticut Innovations, was honored with the 2024 Innovation Award, a special distinction recognizing exceptional public sector sustainability innovation, for its 12-month pilot program with the goal of achieving net zero emissions in the academic medical center's Child Care Center in Farmington. Sustainable roofs will be installed on buildings with a white coating to avoid the heat island effect, allowing for significant energy savings.	

5.5. Has the institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?	
Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)	
The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)	
The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)	
Score Assigned:	2
Score explanation: The UConn School of Medicine currently has a shuttle that picks up medical students close to common student dwellings. This shuttle also transports students, patients, and employees around the UConn Health campuses (e.g., parking lots, buildings). The sustainability working group is seeking options to make these shuttles more environmentally-friendly by decreasing emissions, exploring contracts to procure soft hybrid (automatic engine shut-off during idling periods) or EV shuttles. Route schedules are also managed to limit waste across the system. Additionally, outdated electronic parking access gates are being replaced with upgraded technology, signage stating "no idling" has been posted around the campus, and several solar-powered pedestrian signs and traffic lights have been installed across the campus to minimize the carbon footprint attributable to commuting. Additional EV chargers have been installed in parking garages, with more scheduled for installation in the coming months.	

5.6. Does your institution have an organics recycling program (compost) and a conventional

recycling program (aluminium/paper/plastic/glass)?	
Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)	
The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)	
There is **no** compost or recycling program at the institution . (0 points)	
Score Assigned:	2
Score explanation: UConn Health is partnering with Blue Earth, a local composting facility that is supporting an organics recycling program currently being piloted by kitchen staff in the campus dining area for their food waste at their discretion, with consumer food waste being rolled into the program later in the spring of 2025. There are currently bins that are marked to collect conventional recycling located in the medical school classrooms, some hallways, and near the dining area. The bins in the classrooms look very similar to the trash bins, with lacking signage regarding what is appropriate to recycle and inappropriate items end up contaminating the recycling. UConn Health is looking into working with iRecycle to recycle a lot of the plastics that are not currently being recycled (e.g., plastic tubs for wipes).	

5.7. Does the <u>institution</u> 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:	2
Score explanation: The Health Center at the University of Connecticut changed its food service company effective January 1, 2022, to Morrison Healthcare which is part of Compass Group-USA. At this time there are no designated meat-free days or no red-meat days. However, there are non-meat options available. Morrison Healthcare is open to the idea of increasing sustainable practices such as composting food waste. As a larger institution, UConn focuses most of its sustainable dining efforts towards the undergraduate campus, which has made incredible strides towards sustainable food choices. More information for the undergraduate dining can be found here: https://dining.uconn.edu/greening-efforts/.	

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:	3
Score explanation: When appropriate, UConn Health does apply sustainability criteria when making decisions about supply procurement. Examples include disposable versus in-house sterilization on surgical and medical supplies, environmentally friendly pharmaceuticals (e.g., adapters directly attaching medication vial to IV solution bag), and anesthetics (e.g., anesthesia machines that have piston-driven ventilators that allow minimum gas flows). *The University of Connecticut as an institution has published purchasing and procurement guidelines that can be found here: https://sustainability.uconn.edu/operations/purchasing/ and here: https://policy.uconn.edu/2013/02/12/vendor-code-of-conduct//. In early 2013, the UConn Board of Trustees adopted a Vendor Code of Conduct which includes strong sections on environmental compliance and environmental sustainability including Principal Expectations regarding Environmental Compliance and Preferential Standards for environmentally sustainable products and services. However, it is not entirely clear whether the medical school specifically also abides by these regulations.*	

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?	
Every event hosted at the institution **must** abide by sustainability criteria. (2 points)	
The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)	
There are **no** sustainability guidelines for institution events. (0 points)	
Score Assigned:	1
Score explanation: UConn strongly recommends sustainability measures for events hosted at the institution and has published guidelines on how to achieve such measures, an example of which can be found here: https://sustainability.uconn.edu/2019/11/25/7-steps-to-planning-a-green-event/. However, it is not required nor entirely incentivized at the medical school or institutional level.	

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:	2

Score explanation: Overall, UConn adopted the Sustainable Design and Construction Policy that mandates the University plan, design, construct, renovate, and maintain sustainable energy and water-efficiency buildings. By that standard, all new construction projects at UConn estimated at greater than $5 million must pursue at least a LEED (Leadership in Energy and Environmental Design) Gold Rating. Most information regarding lab spaces is about the undergraduate campus, where the Science 1 Building is LEED Gold certified and a few other science/lab buildings are LEED Silver certified. For the medical school specifically, as a result of facilities energy sustainability team efforts, UConn Health recently installed lab hood controls in all research labs to limit air flow during unoccupied periods.

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:	2

Score explanation: The Sustainability Working Group and various student organizations at UConn have been advocating for complete fossil fuel divestment. Currently, the UConn Foundation endowment reports a 0.06 percent direct investment in fossil fuels, which they state is expected to wind down to zero by 2025. They state they are committed to evaluating investment opportunities on ESG factors. As previously described, UConn has adopted the Sustainable Design and Construction Policy that mandates the University plan, design, construct, renovate, and maintain sustainable, energy and water-efficiency buildings and has invested in renewable energy resources, though has not yet completely divested from fossil fuels.

Section Total (24 out of 32)	**75%**

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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+.*

[Please input your scores HERE]

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(62/72) x 100 = 86.1%	A
Interdisciplinary Research (17.5%)	(17/17) x 100 = 100%	A+
Community Outreach and Advocacy (17.5%)	(10/14) x 100 = 71.4%	B
Support for Student-led Planetary Health Initiatives (17.5%)	(12/15) x 100= 80%	A-
Campus Sustainability (17.5%)	(24/32) x 100 = 75%	B+
Institutional Grade	**(86.1x0.3 + 100x0.175 + 71.4x0.175 + 80x0.175 + 75x0.175) = 82.95%**	**A-**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which University of Connecticut has participated in the Planetary Health Report Card initiative.