



Planetary Health Report Card (Medicine):

*Larner College of Medicine at the
University of Vermont*



The University of Vermont
LARNER COLLEGE OF MEDICINE

2023-2024 Contributing Team:

- Students: Chellam Nayar MS3*, Haley Bayne MS2, Oona Davies MS1, Charlotte Evans MS3, Stefanie Geiger Kelsey MS3, Jonah Levine MS2, Tyler McGuire MS3
- Faculty Mentors: Robert Inglis MD, Megan Malgeri MD, David Rand DO, Christine Vatovec PhD
- *Primary Contact: Chellam Nayar, chellam.nayar@med.uvm.edu

Summary of Findings

Overall	C+
<u>Curriculum</u>	C
<ul style="list-style-type: none"> • LCOM does briefly include discussions on planetary health topics in the preclinical curriculum. Most of these discussions happen during the student-led Social Medicine Theme of the Week presentations, and there is occasional mention in preclinical courses. However, it is not until the third-year Global Health bridge week and the fourth-year elective course Ecosystem Change and Human Health that specific sessions are held on planetary health. • Recommendations: Sessions on planetary health can be delivered in the preclinical curriculum, in PCR or FoCS. Discussions with patients about planetary health could be introduced in a clinical skills session. 	
<u>Interdisciplinary Research</u>	B
<ul style="list-style-type: none"> • UVM boasts the Osher Center for Integrative Health, which established a planetary health program within the first six months of operation. UVM organizations, such as the Gund Institute for the Environment, have related themes but with no direct mention of planetary health. LCOM is not a member of a planetary or ESH organization, but did host a planetary health related retreat for teaching faculty in early 2024. • Recommendations: LCOM should continue holding conferences pertaining to planetary health. LCOM could also look to offering more planetary health research opportunities, even if through UVM resources. 	
<u>Community Outreach and Advocacy</u>	C+
<ul style="list-style-type: none"> • LCOM works with several community organizations as part of first year medical student orientation community service projects and for public health projects during students' 2nd year, but only one out of more than 80 projects in the last three years mentions planetary health. Both UVM and the UVM Health Network have community outreach focused on planetary health, but LCOM has no direct engagement. • Recommendations: LCOM could work with community and state organizations that focus on planetary health for long-term partnerships that could build over time. They could also partner more closely with the UVM's Office of Sustainability and UVMMC's Sustainability Council who do engage in this work. 	
<u>Support for Student-Led Initiatives</u>	C
<ul style="list-style-type: none"> • LCOM supports an Environmental Health Student Interest Group and offers a few community-partnered green agriculture activities during medical school orientation. An interested student could carve a niche for themselves in Planetary Health by seeking open-ended funding resources or forming individual relationships with faculty who do this work. • Recommendations: The medical school could offer increased opportunity to students by establishing a dedicated support structure for students interested in planetary health. 	
<u>Campus Sustainability</u>	B
<ul style="list-style-type: none"> • UVM prides itself on its focus on campus sustainability in the form of a Comprehensive Sustainability Plan, fossil fuel divestment, sustainable procurement, compost and recycling across campus, and entirely renewable electricity. However, heating and cooling is accomplished with on-site natural gas, and access to composting bins is limited on the LCOM campus. LCOM does not have unique sustainability guidelines, initiatives, or dedicated faculty members. • Recommendations: LCOM could create unique event and supply guidelines, and improve incentives for green transportation. Having an LCOM representative involved in the UVM Office of Sustainability or UVMMC's Sustainability Council could also increase awareness and continuity in sustainable efforts. 	

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

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

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

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

Other considerations:

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

Added to our resources in 2022, the Planetary Health Report Card [Literature Review by Metric](#) collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	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.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation: At the University of Vermont LCOM, FM-1127 “Ecosystem Change and Human Health” is a 4 week elective offered to fourth year medical students. Topics include environmental health, ecosystem change, climate change, biodiversity, and how these intersect with human health, amongst others. Curriculum includes weekly discussion sessions of assigned readings and materials, self-directed learning in a topic of interest, and an associated presentation and project (op-ed, lit review, etc.).</i></p>	

Curriculum: Health Effects of Climate Change

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

Score explanation: Changes in weather patterns, including extreme heat, are addressed in a lecture on climate change and human health during the third year Global Health bridge week and also discussed in the elective course fourth year course “Ecosystem Change and Human Health.”

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

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

Score explanation: The impacts of extreme weather events on human health are covered in a lecture on climate change and human health during the third year Global Health bridge week and addressed in the elective course fourth year course “Ecosystem Change and Human Health.”

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

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

Score explanation: There is a first-year lecture entitled “Mycology” that briefly showed changing niches of various fungi, and the topic was verbalized during in-class discussion in other lectures on malaria, Lyme disease, and other vector-borne illness. It is addressed in direct connection to climate change in the third year Global Health bridge week and in the “Ecosystem Change and Human Health” elective fourth year course.

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

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

Score explanation: The respiratory effects of climate change and air pollution are addressed in the second year “Cardiac, Respiratory, Renal” second year course, specifically with regards to lung

disease, and then also during the third year Global Health bridge week and the elective course fourth year course “Ecosystem Change and Human Health.”

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

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

Score explanation: The cardiovascular health effects of climate change are addressed in the fourth year elective course “Ecosystem Change and Human Health.”

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

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

Score explanation: The mental health effects of climate change were mentioned only in passing in the core curriculum in relation to “eco-anxiety” and increased mental illness burden in refugees of climate disasters (Global Health bridge). However this topic is covered thoroughly in the fourth year elective “Ecosystem Change and Human Health.”

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

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

Score explanation: This theme is covered in multiple core and elective courses in the first year curriculum (A&D, NMGI, PCR, and SMTW) including such topics as the Flint water crisis within a larger discussion on water security, microbial infections caused by contaminated water, chronic and acute malnutrition, and how human health is impacted by rurality. This topic is covered again during

the third year Global Health bridge with a greater emphasis on climate change's impact, and also in the elective "Ecosystem Change and Human Health" fourth year course.

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?

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

Score explanation: The disproportionate impact of climate change on certain populations is covered in the third year Global Health bridge week, in elective first and second year sessions (SMTW) on environmental justice, and in the fourth year elective "Ecosystem Change and Human Health."

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?

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

Score explanation: The unequal impacts of climate change on a global scale are covered throughout the Global Health bridge week taken in LCOM students' third year. One lecture entitled "Impact of Climate Change on Human Health" specifically discusses malnutrition, safe water, air pollution, and extreme heat and the variable burden and impact of these issues within the US and globally. As part of the lecture, students research individual countries' predominant threats to human health from climate change and compare each country across the class.

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

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

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.

0	This topic was not covered.
<p><i>Score explanation: In the first-year Medical Neuroscience course, the “ANS Pharmacology” lecture describes acute poisoning with organophosphates like the pesticide parathion, and links the topic to an optional material (SMTW) on how chronic exposure to chemicals can lead to cognitive, endocrine, and prenatal changes. In the second-year course, Human Development and Reproductive Health, two sessions cover this topic. First, “Teratology” discusses drugs and environmental exposures that can cause developmental abnormalities, including heavy metals, industrial toxins, and agrottoxins. Second, “Where It All Begins: Male and Female Fertility and Where It Can Go Wrong” discusses the many possible causes of infertility which includes information on environmental chemicals that negatively impact fertility including air pollution, pesticides, and heavy metals.</i></p>	

1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university’s surrounding community?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The discussion on organophosphate exposure during MedNeuro specifically highlights increased exposure in rural areas, like Vermont. The discussion during A&D on niche expansion of Lyme and Blastomycosis also focuses on Vermont. The SMTW presentation on Rural Health emphasizes how farming and pesticides affect the health of Vermonters and others who live in rural or agricultural areas.</i></p>	

1.13. To what extent does your <u>medical school</u> emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	Indigenous knowledge and value systems are integrated throughout the medical school’s planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: At the Larner College of Medicine, the importance and contributions of indigenous knowledge are not discussed in relation to climate change and environmental health.</i></p>	

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?	
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3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: Environmental justice and the disproportionate impact of environmental toxins and climate change on marginalized populations are topics that were briefly covered in multiple courses including PCR1 and 2, multiple SMTWs, and A&D. One recurring discussion point is how the Flint water crisis and lead toxin exposure disproportionately impact marginalized populations.</i></p>	

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: While numerous first year classes within the “Nutrition, Metabolism, and Gastrointestinal” course emphasized the individual health impact of reducing animal protein and increasing plant-based nutrition, the environmental benefits were not mentioned.</i></p>	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The carbon footprint of the healthcare system is mentioned in passing during the first year Medical Neuroscience lecture “IV and Inhaled Anesthetics” in the context of the relative greenhouse gas impact of each anesthetic, as well as scavenging in the OR. The contribution of the healthcare industry to a country’s overall carbon footprint was also briefly discussed in the third year Anesthesia and Global Health bridge weeks.</i></p>	

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)	
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2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
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 fulfill this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anesthetic gasses on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anesthesia or choosing less environmentally harmful anesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
<p><i>Score explanation: While there is robust discussion of over-medicalization, over-investigation, and overtreatment in the curriculum through the Choosing Wisely campaign, these discussions do not discuss the environmental benefit. The Med Neuro “IV and Inhaled Anesthetics” class and the third-year Anesthesia Bridge week did touch on the environmental impact of various gasses and the carbon footprint of the OR. Several of these other topics have come up in conversation during the third year, but are not explicitly part of the curriculum.</i></p>	

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school’s</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
<p><i>Score explanation: The LCOM curriculum does not include strategies for having conversations with patients about the health effects of climate change. There is discussion in the elective course “Ecosystem Change and Human Health” about the role of physicians in the climate crisis, but there is not specific guidance on how to have such conversations with patients.</i></p>	

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

2	Yes, the core curriculum includes strategies for taking an environmental history.
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.

Score explanation: Students at LCOM are taught how to take a social history with standardized patients that includes standard items such as travel, accommodation, occupation, etc., and important exposures (areas with endemic malaria, city vs alternative water source, asbestos, etc.) to ask about when appropriate are discussed throughout the preclinical and clinical curricula.

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?

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

Score explanation: The medical school is open to conversations regarding integrating more social medicine (including planetary health) education into medical education, and recently created and filled a new position of Director of Social Medicine. This director is also the course director for the Global Health Bridge week and included a session on climate effects on health starting for the Class of 2025. Otherwise, most of these integrations are taking place through the student-designed, elective "Social Medicine Theme of the Week" topics.

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

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

Score explanation: The aforementioned topics are covered throughout the curriculum. While most discussions during the pre-clinical courses are brief, these discussions do happen in courses scattered throughout the first and second years, and are often accompanied by a more focused discussion in the

student-led Social Medicine Theme of the Week presentations. Some topics are then addressed again during the clerkship “bridge weeks,” especially the Anesthesia bridge week, and the Global Health Bridge week, where a new course on climate effects on health was introduced for the Class of 2025. The elective course “Ecosystem Change and Human Health” is offered in the fourth year. With the exception of the bridge week course and fourth-year elective, most of these discussions are very brief.

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

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

Score explanation: There is a Director of Social Medicine but they do not specifically have a role in integrating planetary health and sustainability into the medical curriculum.

Section Total (38 out of 72)

38

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

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u>?	
3	Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation: At the University of Vermont, the Gund Institute for Environment has fellows and affiliates that work on planetary health, many of whom also have an LCOM affiliation or do collaborative projects with LCOM faculty. There is a lot of public health, environmental epidemiology, and occupational health research within LCOM related to climate change. There is also a large grant being put together on how climate affects health that is being spearheaded within LCOM. Currently, there are no LCOM faculty who primarily focus on planetary health, but there are several physicians in the state who do focus on this field.</i></p>	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?	
3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	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.
1	There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.
<p><i>Score explanation: The Osher Center for Integrative Health (https://www.uvm.edu/osher/planetary-health) at the University of Vermont has a newly founded</i></p>	

research team focused on environmental health. They are working on building their networks and identifying their research scope. Their current focus is a project investigating health outcomes in patients that receive CSA Farm Share prescriptions. Additionally, the Gund Institute for Environment (<https://www.uvm.edu/gund>) has a strong interest in subjects related to planetary health, but they do not use the term explicitly.

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 medical school?

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

Score explanation: For the Gund Institute for Environment (UVM) to fund anything (via a Gund Catalyst Award), the project must demonstrate links to several research themes, which includes Equity and Environmental Justice. When they added this theme, they partnered with the UVM Provost's Office to offer seed grants earmarked for environmental justice research.

For LCOM, one main conduit for research funding is the Community Engagement and Outreach (CEO) Core within the Northern New England-Clinical and Translational Research Network grant (NNE-CTR). The CEO Core functions to increase research input, access, and participation among individuals, communities, trainees, and investigators across the whole NNE region.

With all this said, communities who may be particularly impacted by environmental change and injustice are not directly included in decision making processes in the medical school. There are no plans to change current practices.

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

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

Score explanation: The Osher Center for Integrative Health (<https://www.uvm.edu/osher/planetary-health>) has a website dedicated to keeping track of past and current projects, as well as sharing about educational initiatives.

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

4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

Score explanation: UVM hosts numerous educational talks and experiences on planetary health and climate change. For example, the Laura Mann Integrative Healthcare Lecture Series and the Integrative Practitioner Forum (<https://www.uvm.edu/osher/eventsand>) has hosted topics related to planetary health (i.e., COVID and climate crisis, back in 2021). Other initiatives include:

- September 8, 2023: Gund XChange Lecture entitled “Aligning Healthcare With Planetary Health”*
- September 18: UVM’s Institute for Agroecology “Seeding Transformation” conference on food systems, agriculture, and health*
- December – Grand Rounds Lecture in Primary Care related to planetary health*

At the medical school, the focus of LCOM Teaching Academy’s annual Snow Season Retreat in 2024 was planetary health. The plenary speaker gave a presentation on “Integrating Planetary Health into Medical Education.” Also at this conference there was a presentation on how planetary health matters for any specialty and what clinicians can do about it.

2.6. Is your medical school a member of a national or international planetary health or ESH organization?

1	Yes, the medical school is a member of a national or international planetary health or ESH organization
0	No, the medical school is not a member of such an organization

Score explanation: The Larner College of Medicine is not a member of a national or international planetary or ESH organization. UVM’s Gund Institute for Environment has been listed as a member of the Planetary Health Alliance for several years. The Gund Institute director also leads the United Nation’s IPBES Nexus Assessment, which is assessing the planetary health interlinkages among biodiversity, water, food, and health.

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

Community Outreach and Advocacy

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

3.1. Does your <u>medical school</u> partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation: UVM Larner College of Medicine (LCOM) partners with multiple organizations including the Intervale Center and The Burlington Parks and Recreation Department. Work with the Intervale Center involves students volunteering in maintenance of gardens and the natural environment to include removal of invasive species. Students get an education on sustainable agriculture that is aimed at less industrialized and more sustainable practices. Work with the Burlington Parks and Recreation Department has included park and community garden maintenance.</i></p> <p><i>LCOM also has annual public health projects in which first and second year medical students interface with community organizations to investigate a public health concern. One project in 2022 worked with Give Way to Freedom to look at human trafficking and how climate change increasingly puts people at risk of being trafficked.</i></p> <p><i>Lastly, the Environmental Health Student Interest Group has worked with local organizations including the Vermont Climate Health Alliance to produce educational videos and published editorials in local papers calling for passage of legislation that would improve Vermont's sustainability.</i></p>	

3.2. Does your <u>medical school</u> offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.

1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The institution/medical school have not offered such community-facing courses or events.
<p><i>Score explanation: The University of Vermont has an Office of Sustainability through which undergraduate students can become “Eco Reps.” This group of students focuses on transportation, food, and waste to improve campus and community sustainability and thereby planetary health. Through this program, the institution has developed several long term community partners including Champlain Valley Waste District, MapleFest, and Green Mountain Transit, and regularly puts on events including a spring Eco Fair that both students and community members engage in. LCOM does not have community facing events on planetary health.</i></p>	

3.3. Does your <u>medical school</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not receive communications about planetary health or sustainable healthcare.
<p><i>Score explanation: UVM occasionally sends updates or guidance relating to sustainability. These include encouraging students to carpool instead of driving individually and updates on recycling and composting to reduce waste. However, this is not specific to LCOM.</i></p>	

3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
2	Yes, the 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.
1	Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are no such accessible courses for post-graduate providers
<p><i>Score explanation: The UVM Medical Center annual training requirements ensure all employees review environmental concerns, especially in regards to proper waste disposal, with the aim of increasing recycling and minimizing waste. This training is completed via a required online module.</i></p>	

3.5. Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?	
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2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated medical centers have accessible educational materials for patients.
<p><i>Score explanation: The University of Vermont Medical Center has the Frymoyer Community Health Resource Center which is in a physical office in the main hospital in Burlington and is open five days a week. As part of that office there is a subset called the Environmental Health and Safety Office which works to prevent environmentally-caused health issues. Through this center, patients can ask for personalized assistance about medical conditions, injury prevention, and specific ways to reduce or eliminate environmental health exposures.</i></p>	

3.6. Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?	
2	Yes, the medical school or all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Score explanation: The UVM Medical Center recently won a Climate Resilience-Gold award for a project aimed at improving health care access by expanding and removing barriers to telehealth. The goal was that more people would have access to care and simultaneously reduce the amount that people would need to drive, thus reducing carbon emissions. As part of this initiative, patients were encouraged to be open to telehealth appointments as a more environmentally friendly alternative when an in person visit wasn't necessary. Patients who can't come to the main hospital can access these services remotely by submitting an email or calling the office to set up an appointment to get their questions answered.</i></p>	

Section Total (8 out of 14)	8
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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 medical school or your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the medical school or institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	The medical school or institution encourages sustainability QI projects (to fulfill 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.
0	No, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

Score explanation: LCOM and UVMMC have multiple research groups and funding sources available to students, none of which are explicitly focussed on environmental concerns, although some address downstream disease states related to environmental exposures at a pathophysiological level. There is no dedicated funding or requirement to participate in sustainability QI projects; however, UVM has a Sustainable Campus Fund instituted in 2008 which offers financial support for selected sustainability projects from undergraduate and graduate students.

4.2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.

Score explanation: Larner College of Medicine students have many avenues available to pursue internal grants and funding sources, however none are focused on environmental determinants of health or sustainability concerns. An interested student could carve this niche for themselves, but the onus is on the student to find support and create the programming. Graduate and undergraduate funding at the Rubenstein School of Environment and Natural Resources is not available for medical students under usual circumstances, nor is funding from the Food Systems Research Center.

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

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

Score explanation: The UVM medical center offers this landing page on sustainability efforts being made: <https://www.uvmhealth.org/medcenter/about-uvm-medical-center/environmental-leadership>. However this page lacks easy contact information for student mentors and is not conducive to facilitating student endeavors. This page operates as an advert for the Greenification of the UVMCC and includes an outdated 2019 year end sustainability report. Research opportunities or ways to get involved for students are absent.

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

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

Score explanation: The Environmental Health Student Interest Group is the bastion of planetary health engagement and sustainable healthcare at the Larner College of Medicine. This is a student-led group with a faculty advisor that is eligible for the same internal funding as all other student interest groups.

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

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

Score explanation: This position does not currently exist at the Larner College of Medicine.

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)	
1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)
<p><i>Score explanation: New-student orientation at the Larner College of Medicine includes options for volunteering at the local Intervale Community Farm (a sustainably-operated local agriculture cooperative) and an overnight camping and hiking excursion. The larger UVM institution has a number of programs that focus on agroecology and fishery. They also host speakers and discussions on food systems and climate change.</i></p>	

Section Total (8 out of 15)	8
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Are there additional student-led initiative resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Campus Sustainability

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

5.1. Does your <u>medical school</u> and/or <u>institution</u> have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.
1	There are no salaried sustainability staff , but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation: University of Vermont has a robust Office of Sustainability with multiple full-time staff including a director, as well as waste, transportation, and projects managers and student interns; however, there is no dedicated sustainability office or personnel for the medical school. The University of Vermont Medical Center has a Sustainability Council which is made up of multiple hospital employees and serves the hospital, but these are volunteer roles with no full-time or salaried member specifically dedicated to sustainability.</i></p> <p><i>Office of Sustainability Office of Sustainability The University of Vermont (uvm.edu)</i></p> <p><i>Environmental Leadership (uvmhealth.org)</i></p>	

5.2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?	
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate
0	The institution/medical school does not meet any of the requirements listed above

Score explanation: In April, 2023, University of Vermont released an institution-wide “Comprehensive Sustainability Plan,” with achieving carbon neutrality by 2030 as a central goal. The plan outlines specific steps for achieving this goal in the areas of Decarbonization, Operations, Governance and People, and Research and Learning.

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

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

Score explanation: Since 2015, UVM has purchased 100% renewable electricity, primarily from hydropower (not on-site); as of 2023, this accounts for ~99.9% of UVM’s electricity usage with ~0.1% from on-site non-combustion sources. For heating and cooling, UVM utilizes an on-site Central Heating and Cooling District Energy Plant that runs on natural gas and reliably supplies heating, cooling, and hot water. Other sources used include propane and fuel oil. In 2023, about 34% of UVM’s total energy usage was electricity, with medical school facilities using about 69% electricity.

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

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

Score explanation: The Given Building and the Robert Larner, MD Medical Education Center are the primary Larner College of Medicine teaching and administrative buildings. The Courtyard at Given, where LCOM’s administrative offices reside, is LEED Gold Certified. The new Firestone Medical Research Building was built to meet a minimum of LEED Silver Certification. The Environmental Design in New and Renovated Buildings Policy (effective 2011) requires all UVM new buildings and major renovations to be built in order to comply with a minimum of LEED Silver Certification standards. UVM employs a Retro-Commissioning engineer to lead retro-commissioning of older buildings.

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

2	Yes, the medical school or 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-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school or institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school or institution has not implemented strategies to encourage and provide environmentally-friendly transportation options.

Score explanation: UVM students can use local Green Mountain Transit Bus services for free, in addition to the on-campus bus service (CATS). UVM provides discounted memberships for students to CarShare VT, and to Bird bike sharing. UVM also offers bicycle rentals and repairs to students. Carpooling is encouraged, and all students who purchase a parking pass must complete an online training module including a module about environmentally-conscious transportation. Carpooling is encouraged, however carpooling and other modes of environmentally-friendly transportation are not incentivized or widely-used across the medical school

5.6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?

2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.

Score explanation: UVM and LCOM offer both composting and recycling, with recycling bins located in most LCOM classrooms. Composting is available in all UVM dining locations including at the medical school.

5.7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

3	Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.

1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<p><i>Score explanation: UVM Dining applies sustainability criteria in its food and beverage purchasing, including requiring 35% of food purchases to be made from Vermont producers or locally-grown/raised food products. Vegetarian and vegan options are offered, however there are no meat-free days or a no-red-meat policy. The Campus Sustainability Plan, which encompasses Sodexo Dining (which includes LCOM dining options), includes the goal of increasing total spending on Vermont grown/raised food to 25% by 2030.</i></p>	

5.8. Does the <u>medical school</u> or <u>institution</u> apply sustainability criteria when making decisions about supply procurement?	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.
<p><i>Score explanation: UVM has published sustainability criteria to be applied when purchasing chemically-intensive products and services, consumable office products (i.e. encouraging 100% recycled paper goods), IT equipment and tech, food service providers, garments and linens, transportation and fuels, but excluding provided services and furniture. UVM has guidelines in place for purchasing, with some requirements and some general guidelines, including the following language: "UVM is especially interested in products and services that align with its sustainability goals as demonstrated by a Bidder's emphasis on social and/or environmental responsibility. Each Bidder is requested and encouraged to include information in its Proposal about how it will further UVM's relevant sustainability goals. When applicable, Bidders may also be asked to address specific sustainability criteria related to their products and services." The UVM Comprehensive Sustainability Plan also includes the goal of continuing to "improve purchasing practices and increase sustainable purchasing."</i></p>	

5.9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u>?	
2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required .
0	There are no sustainability guidelines for medical school events.
<p><i>Score explanation: There are no sustainability guidelines for medical school events.</i></p>	

5.10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.
<p><i>Score explanation: Development of a program to green campus labs by increasing efficiency of fume hoods and recycling lab supplies is one of the goals of UVM's overarching "Comprehensive Sustainability Plan," additionally, newly-constructed buildings and building renovations at UVM are required to meet at minimum of LEED Silver certification.</i></p>	

5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?	
4	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.
3	The institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.
<p><i>Score explanation: In 2020, UVM ended new direct investment in fossil fuels and committed to fully divest from public investments in fossil fuels by July 2023 by allowing pre-existing multi-year private investments to lapse without renewal. The statement also pledged to continue investing in opportunities that focus on sustainability, climate change mitigation, and other Environmental, Social, and Governance issues. The UVM Socially Responsible Investing Advisory Council provides recommendations to the Vice President for Finance and Administration on sustainability investments and funding Sustainable Campus Fund projects in areas of infrastructure, academics, co-curricular activities, and research.</i></p>	

Section Total (21 out of 32)	21
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Are there additional sustainability resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Grading

Section Overview

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

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

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

Planetary Health Grades for the University of Vermont Larner College of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(38/72) \times 100 = 53\%$	C
Interdisciplinary Research (17.5%)	$(12/17) \times 100 = 71\%$	B
Community Outreach and Advocacy (17.5%)	$(8/14) \times 100 = 57\%$	C+
Support for Student-led Planetary Health Initiatives (17.5%)	$(8/15) \times 100 = 53\%$	C
Campus Sustainability (17.5%)	$(21/32) \times 100 = 66\%$	B
Institutional Grade	$(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 59\%$	C+