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# Planetary Health Report Card:

## *University of Hawai'i*

### *John A. Burns School of Medicine*

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*We would like to acknowledge the Native Hawaiian people (kānaka 'ōiwi), who possess multigenerational knowledge of planetary health and on whose home land JABSOM sits upon.*

2021-2022 Contributing Team:

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## Summary of Findings

<b>Overall</b>	<b>C+</b>
<b><u>Curriculum</u></b>	<b>C</b>
<ul style="list-style-type: none"> <li>● Strength: Since July 2020, the “Learning Communities” Program fostered longitudinal relationships between first, second, third, and fourth year medical students. Students from each Learning Community were required to visit different local communities in O’ahu to learn about their respective community’s unique set of struggles, including environmental issues.</li> <li>● Weakness: Lack of curricula that address (a) the health effects of climate change, (b) the effects of anthropogenic toxins on human health, and (c) sustainable clinical practice, and integration of the aforementioned topics into the core curriculum.</li> <li>● Recommendation: The Learning Communities program at JABSOM may expand its curriculum to further explore: (1) the health effects of climate change, (2) environmental health, (3) sustainability, and (4) clinical applications for all of the above.</li> </ul>	
<b><u>Interdisciplinary Research</u></b>	<b>B</b>
<ul style="list-style-type: none"> <li>● Strengths: (1) Having a dedicated institute for planetary health research, (2) hosting conferences on topics related to planetary health, and (3) joining an international planetary health organization.</li> <li>● Weaknesses: (1) Having researchers engaged in planetary health or healthcare sustainability, (2) engaging vulnerable and underrepresented communities in the research agenda, and (3) creating a website about research related to planetary health.</li> <li>● Recommendations: JABSOM may collaborate with the UH Institute for Sustainability and Resilience, UH Office of Public Health, and UH School of Ocean &amp; Earth Science &amp; Technology to: (1) identify researchers whose primary research foci are related to planetary health or healthcare sustainability, and who may be interested in having medical students assist with research, and (2) collaborate on a website that functions as a portal to prior and ongoing research from all three UH organizations. This website may also advertise resources and opportunities for research.</li> </ul>	
<b><u>Community Outreach and Advocacy</u></b>	<b>C+</b>
<ul style="list-style-type: none"> <li>● Strength: Partnering with community organizations to promote planetary and environmental health.</li> <li>● Weaknesses: (1) Offering community-facing events about planetary health, (2) regular coverage of planetary health in school communications, (3) offering continuing medical education for planetary health, and (4) offering accessible educational material for patients about (a) environmental and occupational health exposures and (b) health impacts of climate change.</li> <li>● Recommendations: JABSOM may consider working with the UH Office of Public Health Studies (OPHS) and its professors to (1) offer a community event regarding planetary health, (2) include a section in the UH Med Weekly newsletter dedicated to planetary health, and (3) apply to The Hawai’i Consortium for Continuing Medical Education (HCCME) to start a regular CME.</li> </ul>	
<b><u>Support for Student-Led Initiatives</u></b>	<b>B</b>
<ul style="list-style-type: none"> <li>● Strength: Planetary health programs and initiatives in sustainable food systems, environmental justice, wilderness excursions, etc.</li> <li>● Weaknesses: (1) Funding for and connections to (a) initiatives and (b) research, (2) website about sustainability and planetary health, (3) student liaison for curriculum reform and sustainability best practices, (4) funding for and connections to research.</li> <li>● Recommendations: JABSOM may benefit from hiring a faculty member dedicated to working with both administration and students to advance sustainability and planetary health initiatives. Said faculty member may coordinate: (1) research projects, (2) student-led initiatives, and (3) website for the aforementioned research and initiatives.</li> </ul>	
<b><u>Campus Sustainability</u></b>	<b>C+</b>
<ul style="list-style-type: none"> <li>● Strengths: (1) Sustainable building practices, (2) sustainable lab spaces, and (3) portfolio investments divested from fossil fuel.</li> <li>● Weaknesses: (1) Plans to reduce carbon footprint, (2) utilizing renewable energy, and (3) sustainability requirements for</li> </ul>	

events.

- Recommendations: JABSOM may consider (1) transitioning to a goal of carbon neutrality using solar energy, (2) establishing food waste bins for composting, (3) negotiating with food vendors, event organizers, and shuttle services to offer locally-sourced food, waste-free events, and transportation between the school and local hospitals.

## Statement of Purpose

*Planetary health is human health.*

The Planetary Health Alliance describes planetary health as “a field focused on characterizing the human health impacts of human-caused disruptions of Earth's natural systems.” 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 civilization 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.
- **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 (for example, undergraduate departments (USA), other related departments eg 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 example).

**Many examples were copied and pasted from the 2020 and 2021 school-specific Planetary Health Report Cards and as such, can give you a sense of the level of detail requested in qualitative explanations.**

# 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*

<b>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?</b>	
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	<b>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.</b>
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>There are many elective courses offered throughout the preclinical years at the John A. Burns School of Medicine (JABSOM). The “Native Hawaiian Health: Past, Present, and Future” community health elective offers lectures and activities that engage students with environmental topics and volunteering. The course emphasizes that personal, family, and community health and wellness cannot be separated from the health of the environment.</i></p> <p><i>However, there are no electives that focus entirely on planetary health issues. A current medical student and a physician are in the process of developing a “One Health” 4-week elective that will include seminars, discussions, journal club activities, and field experiences. A One Health certificate of distinction is also in development.</i></p>	

## *Curriculum: Health Effects of Climate Change*

<b>2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?</b>	
3	This topic was explored in depth by the core curriculum.

2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>This topic was addressed briefly during the Trauma and Empathy Symposium, during required talks for MS1s, MS2s, and some residents entitled “Indigenous Healing and Resistance in an era of Climate Change Crisis” by Dr. Kalamaoka‘aina Niheu and “Trauma Informed Healthcare for Patients Experiencing Homelessness” by Dr. Sheryl Recinos. Dr. Recinos’ talk mentioned the vulnerability of the homeless community to health impacts during heat wave (and cold weather) events.</i></p>	

<b>3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?</b>	
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	<b>This topic was not covered.</b>
<p><i>There are not yet any lectures or electives that address the impacts of extreme weather events on individual health and health care systems.</i></p>	

<b>4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?</b>	
3	This topic was explored in depth by the core curriculum.
2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>The community health elective titled “Native Hawaiian Health: Past, Present, and Future” addresses the impact of climate change on infectious disease patterns in Hawaii. Students are taught about diseases that are intertwined with environmental resources. This topic is also briefly addressed through lectures or PBL cases during the MD1 health and illness unit and MD4 gastrointestinal/endocrine unit; however, due to the accessibility of this document to potential future classes at JABSOM, specifics cannot be mentioned.</i></p>	

**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.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*During the MD2 cardiovascular and pulmonary unit, lectures briefly mentioned the relationship between respiratory health and occupational or environmental exposure to toxic substances. However, there was no lecture or coursework solely dedicated to discussing the effects of climate change and air pollution on respiratory health.*

**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.
<b>0</b>	<b>This topic was not covered.</b>

*The core curriculum does not specifically address the cardiovascular consequences of increased heat.*

**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.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*Community health colloquia, along with the “Native Hawaiian Health: Past, Present, and Future” community health elective, both had lectures on the cultural and historical trauma indigenous peoples suffered as a result of loss of land and a separation from traditional ways of caring for the environment during colonization. These lectures addressed the degradation of the lo‘i (taro patches), which severely*



*crippled the water quality and sustainable food systems that had previously existed. It also talked about pollution that impacted fishponds and reef systems, and invasive species that overran native species. These lectures made a point to say that this trauma led to mental health impacts, including depression and self-destructive behavior. Additionally, a presentation on Trauma-Informed Care by Dr. Robert Pantell and Shari Bautista, LSW, acknowledged natural disasters as a “Big T” trauma event.*

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

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

*There was a core community health lecture given by a representative from Kokua Kalihi Valley (a non-profit community health center and farm) addressed the importance of food and water security and resilience for Hawaii, as well as the implications this has for both human and environmental health. This point is also addressed by Ka’ala farms, Papahana Kualoa, and other community partners that work with students in the “Native Hawaiian Health: Past, Present, and Future” community health elective. Furthermore, a required student-led seminar addressed food accessibility across Oahu. The symposium talk titled “Indigenous Healing and Resistance in an era of Climate Change Crisis” by Dr. Kalamaoka’aina Niheu also covered the history of water struggles on Oahu and mentioned water insecurity in current events like the Red Hill Water Crisis. At the beginning of medical school, students are sorted into a learning community (a.k.a. moku). This year, students visited their assigned moku area of the island, where they learned about issues including food and water security, sustainability, ecosystem health, conservation, and climate change as it pertains to their moku.*

**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.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*This topic was also addressed during the Trauma and Empathy Symposium, during required talks for MS1s, MS2s, and some residents entitled “Indigenous Healing and Resistance in an era of Climate Change Crisis” by Dr. Kalamaoka’aina Niheu and “Trauma Informed Healthcare for Patients Experiencing Homelessness” by Dr. Sheryl Recinos. Dr. Niheu’s talk identified climate change as the “greatest threat to public health.” She acknowledged that the places that contribute the least to climate*

*change (i.e. marginalized populations like Pacific Island nations) are on the front lines of climate change. Dr. Recinos' talk addressed the vulnerability of the homeless population to extreme temperatures.*

**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.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*The standard core curriculum at JABSOM addresses health disparities both locally, nationally, and internationally. However, its relation to climate change was only addressed in Dr. Niheu's talk, "Indigenous Healing and Resistance in an era of Climate Change Crisis," during which she acknowledged that while climate change is an issue affecting everyone, the places that contribute the least to climate change (e.g. Pacific Island nations) are the ones currently disproportionately affected by it.*

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

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

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

*The standard core curriculum at JABSOM does cover teratogenic substances in the MD1 embryology lectures, MD 7 life cycle unit, and MD 4 endocrine unit, but these teratogens are not currently discussed in relation to the environment. However, a lecture given by Mālama Mākua in the "Native Hawaiian Health: Past, Present, and Future" community health elective mentioned possible health impacts of environmental pollution in the underserved community of Waianae on Oahu, including reproductive health impacts.*

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

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

*There are required colloquia that discuss the environmental threats relevant to our surrounding community, specifically, the effects of overfishing and coral reef destruction on local fishing practices. The “Native Hawaiian Health: Past, Present and Future” elective explores this subject. Furthermore, at the beginning of medical school, students are sorted into a learning community (a.k.a. moku). This year, students visited their assigned moku area of the island, where some learned about environmental topics relating to that community. For example, students of the Ko'olaupoko moku learned about Hawaii's current sustainability efforts and areas of improvement, and they went on a hike to observe changing ecosystems in the Ko'olaupoko moku. Students of the Kona moku visited Lyon Arboretum, where they learned about invasive species and conservation efforts for endangered/threatened plants important for Hawaiian ecosystems and culture.*

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

3	<b>Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education</b>
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.

*JABSOM is thus far one of the only US medical schools with a department dedicated to indigenous health (Department of Native Hawaiian Health). JABSOM's core curriculum addresses Native Hawaiian health disparities in great depth through both core community health lectures and PBL cases. Native Hawaiian health philosophy is closely intertwined with environmental health. There are optional opportunities to engage in these topics through electives and research as well, and students are given the option to pursue a certificate of distinction in Native Hawaiian Health.*

**14. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?**

3	This topic was explored in depth by the core curriculum.
2	<b>This topic was briefly covered in the core curriculum.</b>

1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>As part of the standard PBL curriculum, there are cases that hint at the vulnerabilities of certain at-risk populations to anthropogenic environmental toxins. Students are encouraged to explore the consequences of such exposures. Additionally, a lecture given by Mālama Mākua in the “Native Hawaiian Health: Past, Present, and Future” community health elective talked about possible health impacts of environmental pollution in the underserved community of Waianae on Oahu.</i></p>	

**Curriculum: Sustainability**

<b>15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
3	<b>This topic was explored in depth by the core curriculum.</b>
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>A core community health lecture given by a Kokua Kalihi Valley representative addressed the importance of food security and resilience for Hawaii, as well as the implications this has for both human and environmental health. Multiple excursions into the community lo`i (taro patches) in the “Native Hawaiian Health: Past, Present, and Future” community health elective also emphasize this point. In their first years, medical students are strongly encouraged to complete nutrition modules and participate in certain diets, including plant-based diets. Certain lectures given, for instance, by Ekahi Health, also speak to the health benefits of a plant-based diet. Optional virtual events and talks hosted by JABSOM Blue Zones or the Lifestyle Medicine Interest Group also encouraged participation in a plant-based diet and conveyed its environmental benefits as well.</i></p>	

<b>16. Does your medical school curriculum address the carbon footprint of healthcare systems?</b>	
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	<b>This topic was not covered.</b>
<p><i>The carbon footprint of healthcare systems is not covered in JABSOM’s core curriculum.</i></p>	

<b>17. Does your medical school curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (1 point each)</b>	
1	<b>Waste production within the healthcare system and strategies for reducing waste in clinical activities, such as in the operating room</b>
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (See a study <a href="#">here</a> )
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally anaesthetic gas options with reduced greenhouse gas emissions
1	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	<b>The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes for obesity. This is commonly known as social prescribing in the UK.</b>
1	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
<p><i>A required Institute for Healthcare Improvement (IHI) module addressed waste production within the healthcare system. More lifestyle medicine or social prescribing approaches are being introduced to the curriculum, but so far the MD1 Health and Illness unit does include a “Healthy Living” lecture on exercise, diet, and weight control.</i></p>	

***Curriculum: Clinical Applications***

<b>18. In training for patient encounters, does your medical school’s curriculum introduce strategies to have conversations with patients about the health effects of climate change?</b>	
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	<b>No, there are not strategies introduced for having conversations with patients about climate change</b>
<p><i>JABSOM’s curriculum does not yet introduce strategies to have conversations with patients about the effects of climate change.</i></p>	

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

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

*During their third year, students are taught strategies on how to take an environmental or exposure history.*

***Curriculum: Administrative Support for Planetary Health***

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

4	<b>Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.</b>
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.

*JABSOM has had discussions on how to improve ESH/planetary health education, and improvements since the previous year have been made (e.g. a required symposium talk on climate change and indigenous health, learning community moku visits to different parts of the island to learn about local environmental topics). Faculty and administration both appear receptive to student input and upon reading the PHRC have said that discussion will take place in the preclerkship education and curriculum committees. A One Health curriculum team is currently developing an elective and certificate of distinction, and other medical students planned an interdisciplinary panel on climate change in collaboration with the University of Hawaii William S. Richardson School of Law.*

**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	<b>Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).</b>
0	There is minimal/no education for sustainable healthcare.
<i>While there are lectures or activities that address planetary health, there are no planetary health/ESH topics integrated longitudinally into the core curriculum, however, this could potentially be part of future changes to the curriculum (particularly as a part of JABSOM's learning communities or "mokus").</i>	

<b>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?</b>	
1	Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	<b>No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.</b>
<i>No such planetary health and sustainable healthcare position exists at JABSOM.</i>	

<b>Section Total (37 out of 69)</b>	<b>37</b>
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Back to Summary Page [here](#)

*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.*

<b>1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?</b>	
3	Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health <b>or</b> healthcare sustainability.
2	<b>Yes, there are individual faculty members at the School of Medicine who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.</b>
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.
<i>Faculty of the <a href="#">JABSOM Global and International Health</a> program and the Department of Tropical Medicine conduct research related to planetary health.</i>	

<b>2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?</b>	
3	<b>There is at least one dedicated department or institute for interdisciplinary planetary health research.</b>
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.
<i>The <a href="#">Institute for Sustainability and Resilience (ISR) at UH Mānoa</a> is a department dedicated to multidisciplinary environmental research, including planetary health research. The ISR aims to provide campus-wide programs in instruction and research relating to sustainability in Hawaii. Programs in</i>	



*the East-West Center on the institution campus also conduct multidisciplinary environmental research. The graduate medical program within JABSOM also has a committee for occupational or environmental health.*

**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	<b>No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.</b>
0	There is no process, and no efforts to create such a process.

*There has been discussion about developing a process by which community members can have input on the research agenda at JABSOM, but no concrete action has been taken yet.*

**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	<b>The institution has an Office of Sustainability website that includes some resources related to health and the environment.</b>
0	There is no website.

*UH Mānoa has a website that can be accessed [here](#) that provides resources that pertain to environmental sustainability. There are portions of the website dedicated to the various student-led groups at UH Mānoa that promote health and sustainability, descriptions for sustainability-based courses, and information about the UH Mānoa Sustainability Council.*

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

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

*The topic for an inter-residency global health didactic session in September included a talk from Dr. Kiefer (“Global Health: Climate Change: It’s About Health”), Dr. O’Carrol (Global Health: Climate change linked to Meteorological events and tick borne illness), Maxine Burkett, JD (Global Health: Climate Change, Public Health, and the Law), and Robert Richmond, PhD (Global Health: The Effects of Climate Change on Ecosystem and Human Health in the Pacific Islands). However, this talk was not open to medical students. The Trauma and Empathy symposium in February was open to students, which held talks including “Trauma and Empathy” by Dr. Charles Pohl, “Indigenous Healing and Resistance in an era of Climate Change Crisis” by Dr. Kalamaoka ‘aina Niheu, “Trauma Informed Healthcare for Patients Experiencing Homelessness” by Dr. Sheryl Recinos, and “Fevers, Feuds, and Diamonds: Ebola in West Africa” by Dr. Paul Farmer.*

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

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

*The University of Hawaii is a part of the Consortium of Universities on Global Health, and JABSOM joined the Global Consortium on Climate and Health Education in 2021.*

<b>Section Total (12 out of 17)</b>	<b>12</b>
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Back to summary page [here](#)

*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.*

<b>1. Does your medical school partner with community organizations to promote planetary and environmental health?</b>	
<b>3</b>	<b>Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.</b>
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>JABSOM has partnered with numerous community organizations to promote environmental health. Some of these organizations include Kokua Kalihi Valley, Ka'ala Farms, Papahana Kuaola, Paepae He'eia, Ma'o Farms, and Blue Zones.</i></p>	

<b>2. Does your medical school offer community-facing courses or events regarding planetary health?</b>	
3	The medical school offers community-facing courses or events at least once every year.
<b>2</b>	<b>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.</b>
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 medical school has not offered such community-facing courses or events.
<p><i>UH Mānoa expands its educational efforts past the campus and students to the community through annual events that focus on highlighting sustainability and provides information to the community about planetary health and the environment. One such annual event is the Agriculture and</i></p>	

*Environmental Awareness Day hosted by UH Mānoa's College of Tropical Agriculture and Human Resources. More can be found out about the event [here](#). The institution has also put on climate conferences in the past, however, these have been put on hold due to COVID-19. Instead, the [UH Better Tomorrow Speaker Series](#) organized a few talks in conjunction with the medical school that held virtual, recorded informational events on climate action.*

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

2	Yes, all students 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	<b>Students do not regularly receive communications about planetary health or sustainable healthcare.</b>

*JABSOM does not provide regular coverage of issues related to planetary health and/or sustainable healthcare. This has the potential to be a student-led initiative.*

**4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?**

2	Yes, the 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	<b>Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers</b>
0	There are no such accessible courses for post-graduate providers

*JABSOM does not regularly offer any CME courses on planetary health and sustainable healthcare topics. However, In July 2018, JABSOM offered CME for an international indigenous health conference in Hilo (Pacific Region Indigenous Doctors Congress or PRIDoC) whose primary theme and major focus was to look at the relationship with indigenous health and the health of our lands. The next PRIDoC conference upcoming in July 2022 will be held in Vancouver and will include a Climate Change Panel featuring Dr. Emmett Aluli (Clinical Faculty for the Department of Native Hawaiian Health) as well as other indigenous physicians from around the Pacific.*

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

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	<b>Some affiliated hospitals have accessible educational materials for patients.</b>
0	No affiliated medical centers have accessible educational materials for patients.
<p><i>JABSOM does not have a dedicated medical center, but it does work closely with affiliated teaching hospital systems across the state. One such hospital system is Hawaii Pacific Health (HPH). HPH regularly publishes articles on a variety of topics, including the dangers of environmental exposure. Kaiser Permanente in Hawaii, which is also affiliated with JABSOM, has resources on environmental exposures as well.</i></p>	

<b>6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?</b>	
2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	<b>Some affiliated hospitals have accessible educational materials for patients.</b>
0	No affiliated hospitals have accessible educational materials for patients.
<p><i>Kaiser Permanente Hawaii does provide resources and online materials concerning the human health impacts of climate change.</i></p>	

<b>Section Total (8 out of 14)</b>	<b>8</b>
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Back to summary page [here](#)

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

# Support for Student-Led Planetary Health Initiatives

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

<b>1. Does your institution offer support for medical students interested in enacting a sustainability initiative/QI project?</b>	
2	Yes, the institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	<b>The medical school 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.</b>
0	No, the institution does not offer opportunities or support for sustainability initiatives or QI projects.

*JABSOM encourages and supports students interested in starting sustainability projects. A few faculty who are very supportive of planetary health initiatives donated to support a “Gift to the Planet” engagement and education event put on by the Medical Students for a Sustainable Future chapter at JABSOM.*

<b>2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?</b>	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	<b>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.</b>
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.

*JABSOM does not offer a funded research fellowship dedicated to planetary health research, but there are potential unfunded research opportunities related to planetary health research with the institution if students choose to seek them out.*

**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	<b>There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.</b>

*While JABSOM does not have a specific webpage for planetary health and sustainable healthcare projects, it does have a web page dedicated to global health and international medicine, which lists some mentors and related activities and programs. This could be an area for a future student-led initiative.*

**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	<b>Yes, there is a student organization with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.</b>
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.

*In 2021, students founded the Hawaii chapter of Medical Students for a Sustainable Future (MS4SF) at JABSOM. So far, the interest group has held an introductory meeting on planetary health and a “Gift to the Planet” event that shared lifestyle tips and resources centered on planetary health and healthcare sustainability. Faculty members and Papa Ola Lokahi (Native Hawaiian Health Care) donated to support this event, which had participation representation from all 4 classes as well as faculty members.*

**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?**

<b>1</b>	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
<b>0</b>	<b>No, there is no such student representative.</b>
<p><i>There are no student representatives that serve on the institution's decision-making council advocating for sustainability best practices. However, this seems like it could be an area of promising development.</i></p>	

<b>6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)</b>	
<b>1</b>	<b>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.</b>
<b>1</b>	<b>Panels, speaker series, or similar events related to planetary health that have students as an intended audience.</b>
<b>1</b>	<b>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.</b>
<b>1</b>	<b>Cultural arts events, installations or performances related to planetary health that have students as an intended audience.</b>
<b>1</b>	<b>Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.</b>
<b>1</b>	<b>Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)</b>
<p><i>JABSOM has many of its students participate in volunteering with organic food systems and fisheries through community health electives that visit different farms or sites across the island. It also has an on-campus Māla, or Hawaiian healing plant garden, that students can volunteer to maintain.</i></p> <p><i>The Better Tomorrow Speaker series had featured lectures surrounding climate change and planetary health. These talks are open to the public, and attendees can be students of the institution.</i></p> <p><i>The institution's Climate Education Month Series in October showcased sessions with artists including "Healing through art" with Leilani Ka'ohunani Yates as well as "Exploring the intersectionality of queerness, women, and environmental oppression" with artists Mariana Monasi and Lala Nuss. A Master of Fine Arts exhibition featured an artist's use of single-use packaging to cast ceramic forms. More information on the Climate Education Month Series can be found <a href="#">here</a>, and more information about the MFA exhibition can be viewed <a href="#">here</a>.</i></p> <p><i>JABSOM has a wilderness medicine interest group and a lifestyle medicine interest group that both organize outdoors activities. The "Native Hawaiian Health: Past, Present, and Future" elective organizes a hike to Makua Valley with emphasis on respecting the environment, a paddling trip to</i></p>	



*Waikiki, and a visit to the Kanehunamoku Voyaging Academy with an option for sailing in a wa 'a (canoe). The organization that hosted the Makua Valley hike (Mālama Mākua) is closely associated with environmental justice organizations such as EarthJustice.*

*JABSOM students also travel via limited access to the Island of Kahoolawe where they camp and hike, during which time Leave No Trace principles were strictly followed.*

<b>Section Total (10 out of 15)</b>
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<b>10</b>
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Back to summary page [here](#)

*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.

<b>1. Does your medical school and/or institution have an Office of Sustainability?</b>	
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	<b>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.</b>
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>University of Hawai‘i Executive Policy on Sustainability EP4.202 established a formal, standing Sustainability Curriculum Coordination Council (SSCCC) to steward the complex and rapidly evolving dialogue about Sustainability Education. More information on that can be seen <a href="#">here</a>. Matt Lynch, director of sustainability at the Office of Sustainability, presented an annual report to the Board of Regents (the transcription of which can be viewed <a href="#">here</a>). There is currently no staff member dedicated to sustainability efforts at the hospitals or medical school.</i></p>	

<b>2. How ambitious is your medical school/institution’s plan to reduce its own carbon footprint?</b>	
4	The institution has a stated goal of carbon neutrality by 2030 or earlier and the medical school / institution has a well-defined and adequate plan in place to achieve this goal.
3	Yes, there is a stated carbon neutrality goal by at least 2040 and the medical school/institution has a well-defined and adequate plan in place to achieve this goal.
2	Yes, there is a stated carbon neutrality goal by at least 2040, but the medical school/institution has not created a plan to reach that goal or the plan is inadequate.
1	<b>There is a CO2 emission reduction goal, but it is not one of carbon neutrality.</b>
0	There is no stated goal for reduction of CO2 emissions.

*In 2015, the state of Hawaii set a goal of carbon neutrality by 2045. That same year, UH Mānoa implemented a policy that set targets for reducing energy consumption and increasing usage of renewable energy in 5-year increments, with a goal of reaching carbon neutrality by 2050. UH Mānoa began the “Carbon Neutrality Challenge” that aims to reduce the state’s carbon footprint through forest restoration. JABSOM has not yet created a plan to reach this goal.*

**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	<b>Medical school buildings source &lt;20% of energy needs from off-site and/or on-site renewable energy.</b>

*In 2005, the University of Hawai‘i Board of Regents (BOR) authorized a program with the Board of Water Supply to use cool sea water pumped from deep wells to help run the air-conditioning system at JABSOM. This project has been estimated to save JABSOM approximately \$100,000 annually and reduces the use of Oahu’s potable water. The UH institution website has a “[net zero dashboard](#)” that estimates progress towards the net zero energy goal that estimated only 7.08% of the net zero goal has been achieved. However, this estimate did not take into account recently constructed photovoltaic systems.*

**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	<b>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.</b>
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.

*The JABSOM Kakaako Waterfront Park campus is a LEED Certified, multi-structure education and research complex. It incorporates eco-friendly and biophilic design principles that can be read about [here](#), and it is situated on a remediated brownfield site. The entire campus was recently constructed in 2005, so there were no older buildings present to be remodeled.*

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

2	Yes, the medical school has implemented strategies to encourage and provide 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	<b>The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.</b>
0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.

*There is a “Biki” bike share stop conveniently located right next to the JABSOM campus. Medical students are also able to obtain a bus pass from UH for “free”; the bus pass fees are included in the tuition. However, many students are unaware of this option. There is an electric vehicle charging station available in one of the parking lots near campus. However, the medical school still largely relies on commuting via individual passenger vehicles. Due to high costs of parking, students do sometimes carpool. However, the school has not yet implemented any strategies with the intent to encourage and provide accessible environmentally-friendly transportation for students.*

**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	<b>The medical school has either recycling or compost programs accessible to students and faculty, but not both.</b>
0	There is no compost or recycling program at the medical school.

*JABSOM has bins located on campus that allow students to recycle aluminum, plastic, and paper, but there is no compost program available to students and faculty.*

**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.
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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	<b>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.</b>
0	There are no sustainability guidelines for food and beverages.
<i>JABSOM does not appear to have any sustainability guidelines for food and beverages. However, many of its vendors provide compostable food and beverage containers and utensils for food and beverages.</i>	

<b>8. Does the medical school or associated institution apply sustainability criteria when making decisions about supply procurement?</b>	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	<b>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.</b>
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.
<i>In the construction of the JABSOM campus, a construction waste management plan was implemented that recycled materials to be used for manufacturing. 20% of the materials used to build the campus were manufactured locally, thereby reducing transportation and environmental cost. It is unclear whether a sustainability criteria currently exists for general supplies.</i>	

<b>9. Are there sustainability requirements or guidelines for events hosted at the medical school?</b>	
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	<b>There are no sustainability guidelines for medical school events.</b>
<i>JABSOM does not currently have sustainability guidelines for medical school events.</i>	

<b>10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?</b>	
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2	<b>Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.</b>
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.
<i>JABSOM's anatomy and research lab spaces use low-flow fixtures and occupant sensors to reduce electricity and water demand by more than 20%, respectively. Furthermore, the cleaning products in the lab spaces are "green certified," meaning they are non-toxic and biodegradable.</i>	

<b>11. Does your institution's endowment portfolio investments include fossil-fuel companies?</b>	
4	<b>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.</b>
3	No, 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.
<i>The Board of Regents for UH voted to divest from fossil fuels for all 10 campuses in 2015. UH is now recognized as a fully divested educational institution. It also established an Office of Energy Management to increase investments in alternative energy production.</i>	

<b>Section Total (17 out of 31)</b>	<b>17</b>
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Back to summary page [here](#)

*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 to 4%) receives a “—”. For example, a percentage score of 78% would be a B+.

## Planetary Health Grades for the University of Hawai’i John A. Burns School of Medicine

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

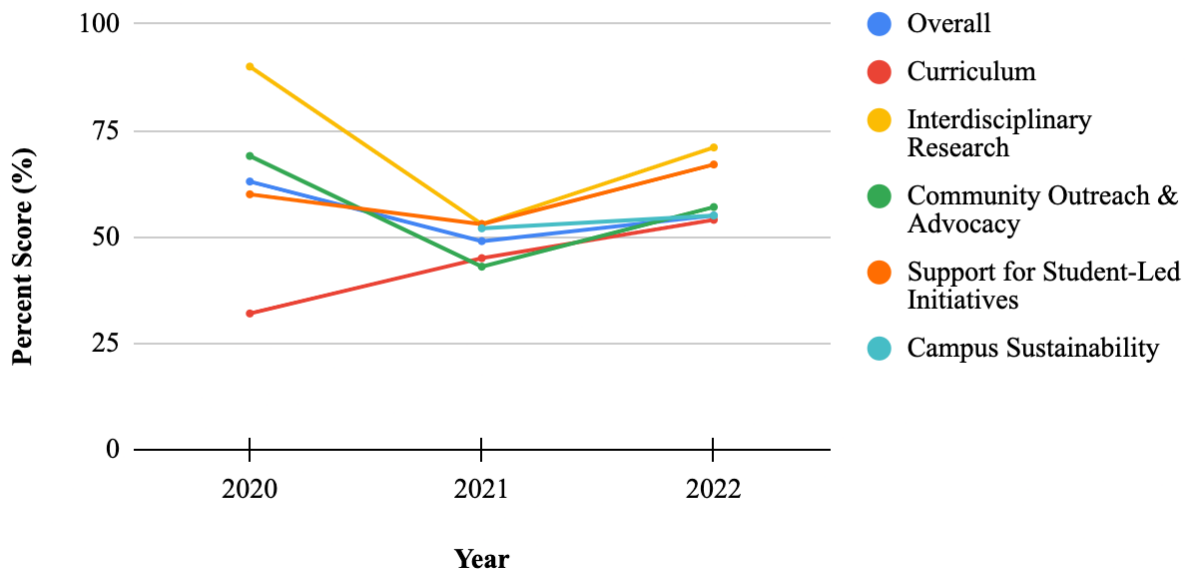
Section	Raw Score	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(37 / 69) \times 100 = 53.6\%$	C
<b>Interdisciplinary Research (17.5%)</b>	$(12 / 17) \times 100 = 70.5\%$	B
<b>Community Outreach and Advocacy (17.5%)</b>	$(8 / 14) \times 100 = 57.1\%$	C+
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(10 / 15) \times 100 = 66.7\%$	B
<b>Campus Sustainability (17.5%)</b>	$(17 / 31) \times 100 = 54.8\%$	C+
<b>Institutional Grade</b>	<b>59.7%</b>	<b>C+</b>

# Report Card Trends

## Section Overview

This graph demonstrates trends in overall and section grades for the years in which the University of Hawai'i John A. Burns School of Medicine has participated in the Planetary Health Report Card initiative.

### Planetary Health Report Card Trends for the University of Hawai'i John A. Burns School of Medicine



Note that criteria shifted significantly between 2020 and 2021, causing an initial drop in some grades that did not necessarily mean that planetary/sustainability efforts decreased in those areas.