
Planetary Health Report Card:

Harvard Medical School

2019-2020 Contributing Team:

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Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance defines 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 standardized and reproducible Planetary Health Report Card that medical students nationally can use to grade and compare their home institutions. This medical-student-driven initiative aims to compare medical schools on the basis of discrete metrics in four 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. This project is inspired by the [Racial Justice Report Card](#), an initiative from White Coats 4 Black Lives that has led to substantial impactful change at medical schools around the country.

Planetary Health Curriculum

Section Overview: This section evaluates the integration of relevant planetary health topics into the medical school curriculum. Harvard Medical School (HMS) is unusual in having two parallel MD curricula, Pathways and Health Sciences and Technology (HST). HST has 30 students per year, while Pathways has about 135 students per class. In some cases, two scores were given to reflect different grades for HST and Pathways. In these cases, the average of the scores was taken in calculating the total points.

Metric	HST Points	Pathways Points	Descriptor
1.1 Did your medical school offer elective courses to engage students in planetary health in the last year?	1	1	Yes, the medical school has offered such elective courses in the last year.
	0	0	No, the medical school has not offered such elective courses in the last year.
1.2 Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.3 Does your medical school curriculum address the environmental co-benefits of a plant-based diet in its nutrition lectures?	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.4 Does your medical school curriculum address the potential mental health effects of environmental degradation and climate change?	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.5 Does your medical school curriculum address the effects of	2	2	The metric is met by the core curriculum.

industry-related environmental exposures (e.g. air pollution, pesticides) on pregnancy?	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.6 Does your medical school curriculum address endocrine disrupting chemicals and their effects?	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.7 Does your medical school curriculum address the relationships between individual patient food security, ecosystem health, and climate change?	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.8 Does your medical school curriculum address the effect of air pollution on respiratory and cardiovascular health?	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.9 Does your medical school curriculum address the relationship between heat-related illnesses and climate change?	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.10 Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins and climate change on vulnerable populations such as those with low	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.

SES, women, minorities, indigenous communities, children, and the elderly?			
1.11 Does your medical school curriculum identify ways to advocate for and implement sustainable best practices in health care? (for example, avoiding unnecessary OR waste)	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.12 Does your medical school curriculum address important environmental threats that are relevant to the university's surrounding community? (for example, fires in California)	2	2	The metric is met by the core curriculum.
	1	1	The metric is met by elective coursework.
	0	0	The metric is not met.
1.13 Does your institution have graduate or non-medical undergraduate level courses on planetary health open to medical student enrollment free of charge?	2	2	There are graduate or undergraduate level courses open to free medical student enrollment.
	1	1	There are graduate or undergraduate level courses but they are not open to free medical student enrollment.
	0	0	There are no graduate level courses related to planetary health
1.14 In training for patient encounters, does your medical school's curriculum introduce strategies to have conversations with patients about the	1	1	Yes, there are strategies introduced for having conversations with patients about climate change.

health effects of climate change?	0	0	No, there are not strategies introduced for having conversations with patients about climate change.
1.15 In training for patient encounters, does your institution's curriculum introduce strategies for taking an environmental history or exposure history?	1	1	Yes, the curriculum includes strategies for taking an environmental history.
	0	0	No, the curriculum does not include strategies for taking an environmental history.
1.16 Does your medical school have an ongoing program that offers incentives for faculty/departments to develop new planetary health courses and/or incorporate planetary health into existing courses?	1	1	Yes, the medical school has an incentive program.
	0	0	No, the medical school does not have an incentive program.
Section Total (out of 28)	9	20	

Score explanations:

1.1 Elective Courses

HMS offers one elective course, entitled [“Human Health and Global Environmental Change”](#) and taught by Dr. Aaron Bernstein, that engages students in planetary health. However, this course is offered primarily through the Harvard T.H. Chan School of Public Health (HSPH) and is scheduled in such a way that it is very difficult for medical students to participate. There is also a [One Health clinical elective](#) that focuses on comparative medicine at the Franklin Park Zoo, but looks at the intersection of environmental, animal, and human health.

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1.2 Infectious Disease

HST's Microbiology course includes a lecture by Dr. Bernstein on “Climate Change and Infectious Diseases” that discusses patterns of disease that are changing with our changing climate. Dr. Bernstein's lecture in the Pathways Foundations course, “Clinical practice in the climate change era,” also briefly covered this subject.

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1.3 Diet and Sustainability

Nutrition as a whole is given little attention in the core HMS curriculum. In Essentials II, Dr. Gaurab Basu's lecture entitled "Climate Change: An Ecological and Health Equity Crisis" included one slide on the health co-benefits of sustainable diets. HST students, however, do not take Essentials II. An elective course entitled "Metabolism, Nutrition, and Lifestyle Medicine" includes a lecture by Walter Willett on Food and Sustainability. The associated reading was "Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems."

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1.4 Mental Health

Dr. Bernstein's lecture in Foundations and his lecture in Essentials II, entitled "Climate change: The world's biggest health problem you've never heard about (at least until now)," touched on higher rates of suicide with rising temperatures and reduced mental health risks with more green space. Graphics included in Dr. Basu's Essentials II lecture "Climate Change: An Ecological and Health Equity Crisis" also mention the mental health effects of climate change. The subject was not however significantly addressed and is not included in courses taken by HST students.

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1.5 Environmental Exposures in Pregnancy

Dr. Bernstein's lecture in Foundations briefly discussed pyrethroids in fertilizers that may have harmful effects on pregnancy. However, this course is not taken by HST students, and was only briefly included.

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1.6 Endocrine Disrupting Chemicals

Neither the HST nor Pathways curriculum discussed endocrine disrupting chemicals.

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1.7 Food Security

Food security is briefly addressed in Dr. Gaurab's lecture in Essentials II, but this course is not taken by HST students. Two sessions in Dr. Bernstein's elective course "Human Health and Global Environmental Change" are dedicated to the effect of climate change on food supplies and potential solutions to increase resiliency.

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1.8 Air Pollution

The contributions of air pollution to cardiovascular and respiratory health were not covered by either curriculum. Dr. Bernstein's lectures in Foundations and Essentials II mentioned the effects of ozone and smog that increase with rising temperatures, but did not explicitly address the effects of air pollution on cardiovascular and respiratory health. HST's Respiratory Pathology course includes a lecture on Interstitial Lung Disease that covers the effects of occupational dust exposures such as silica and asbestos. Homeostasis I in the Pathways curriculum similarly covered this material, but neither curriculum addressed widespread air pollution as opposed to occupational exposures.

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1.9 Heat-Related Illnesses

Dr. Basu's Essentials II lecture "Climate Change: An Ecological and Health Equity Crisis" included a case describing renal disease as a result of heat exposure. He further covered the increase in dangerously hot days that will occur with climate change. Dr. Bernstein's lectures in Foundations and Essentials II also addressed this subject. However, these courses are only taken by Pathways students. One session of Dr. Bernstein's elective course "Human Health and Global Environmental Change" discusses heat-related illness.

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1.10 Environmental Determinants of Health

Dr. Basu's Essentials II lecture "Climate Change: An Ecological and Health Equity Crisis" addressed the disproportionate impact of climate change on vulnerable populations. He covered both the differential impact on equatorial, poorer countries, and how vulnerable populations and minorities within MA are disproportionately affected. This subject was also addressed in Dr. Bernstein's lecture in Essentials II. Again, HST students do not take this course.

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1.11 How to Advocate for Sustainable Practices

Dr. Basu's lecture in Essentials II and Dr. Bernstein's lectures in Essentials II and Foundations all discussed the enormous carbon footprint of the healthcare sector and the resulting need for advocacy around sustainability in medicine. Several avenues for this advocacy were discussed. However, these courses are not taken by HST students.

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1.12 Area-Specific Environmental Threats

While the use of pyrethroids in MA and increasing local temperatures were briefly covered in Dr. Bernstein's Foundations lecture and Dr. Basu's Essentials II lecture respectively, area-specific threats were never explicitly addressed.

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1.13 Graduate-Level Planetary Health Courses

There are many courses on various climate change-related subjects that are offered at Harvard at the graduate and undergraduate levels. For example, there is a course on "Food and the Global Environment" offered by HSPH. There are few Harvard courses directly focused on planetary health, but students are able to cross-register at MIT, which offers a course called "Planetary Change and Human Health." A course on "[The Health Effects of Climate Change](#)" is also offered through Harvard's EdX online learning platform.

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1.14 Patient Encounters

No strategies for having conversations with patients about health and climate change were discussed in the curriculum.

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1.15 Environmental History

Session #6 of Interviewing and Communication Skills briefly discussed taking an environmental and occupational exposure history. In HST's Introduction to Clinical Medicine, environmental and occupational exposure histories were mentioned in some resources but never addressed in class.

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1.16 Faculty Incentives

To the best of our knowledge, HMS does not have an incentive program to encourage teaching on planetary health.

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Interdisciplinary Research in Health and Environment

Section Overview: This section evaluates the quality and quantity of interdisciplinary research in health and environment at the medical school.

Metric	Points	Description
2.1 Does your institution have a planetary health website, or a website centralizing various campus resources related to health and the environment?	1	There is a website that centralizes various campus resources related to health and the environment.
	0	There is no website.
2.2 Has your institution hosted a conference on planetary health in the past 3 years?	1	Yes, the institution has hosted a conference on planetary health in the past three years.
	0	No, the institution has not hosted an interdisciplinary health conference in the past three years.
2.3 Are there researchers engaged in planetary health research at your institution?	3	Yes, there is a department, institute, or center devoted to planetary health.
	2	Yes, there are individual faculty members who are doing research on topics immersed in planetary health.
	1	Yes, there are individual faculty members who are doing research that is related to planetary health.
	0	No, there is no research on planetary health at this time.
2.4 Is there a dedicated department or institute for multidisciplinary environmental and planetary health research?	1	There is a dedicated department or institute.
	0	There is no dedicated department or institute.
2.5 Is there active recruitment of researchers who focus on planetary health issues?	1	There is active recruitment.
	0	No recruitment efforts are made.

2.6 Is there quantitatively and qualitatively meaningful research that has been authored or co-authored by researchers from your institution on planetary health issues?	2	Yes, researchers from my institution have produced a substantial body of impactful research related to planetary health.
	1	There has been some research related to planetary health generated by researchers from my institution, but it is lacking in quantity and/or quality.
	0	There are no studies authored or co-authored by university researchers on these issues.
2.7 Has your institution joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education?	1	Yes, the institution has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education.
	0	No, the institution has not joined the Planetary Health Alliance or the Global Consortium on Climate and Health Education.
Section Total (out of 10)	9.5	

Score Explanations

2.1 Planetary Health Website

Several interdisciplinary research institutes primarily based at the Harvard T.H. Chan School of Public Health (HSPH) have rich planetary health programming and publish comprehensive information on their educational and research initiatives, including the [Harvard Global Health Institute](#), the [Center for Climate, Health, and the Global Environment](#) (C-CHANGE) and the [Harvard Chan-National Institute of Environmental Health Sciences](#) (NIEHS) Center for Environmental Health. No centralized website exists that aggregates information on opportunities to engage in research across campus, however. Therefore a score of 0.5 was awarded.

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2.2 Planetary Health Conference

The [inaugural Planetary Health Annual Meeting](#), the signature conference of the [Planetary Health Alliance](#) was hosted at Harvard Medical School in the spring of 2017. Since then, the University has hosted several planetary health-related conferences, including [Human Health in a Changing Climate](#), [Climate Change, Migration, and Health](#), and [Climate Change and Infectious Diseases](#), all in 2017, [The Medical Response to Climate Change](#) in 2018, and [Foods, Farms, Fisheries, and Forests](#) and [The Climate Crisis and Clinical Practice](#) in 2020.

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2.3 Planetary Health Individual Researchers

Several interdisciplinary research institutes primarily based at HSPH host a large faculty of

interdisciplinary researchers at the [Harvard Global Health Institute](#), [C-CHANGE](#), and the [Harvard Chan-NIEHS Center for Environmental Health](#). In addition, the [HSPH Department of Environmental Health](#) hosts faculty whose research mission centers on the health impacts of environmental degradation and exposure.

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2.4 Institute for Multidisciplinary Research on Health and the Environment

Several interdisciplinary research institutes primarily based at HSPH host a plethora of planetary health educational and research initiatives, including the climate change and health-focused research conducted by faculty at [Harvard Global Health Institute](#), and [C-CHANGE](#), and work on broader environmental degradation and its impacts on human health by faculty of the [Harvard Chan-NIEHS Center for Environmental Health](#).

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2.5 Recruitment of Planetary Health Researchers

Yes, the [Department of Environmental Health at HSPH](#) actively recruits researchers in planetary health. They focus primarily on pollutant concerns such as heavy metals and air pollution.

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2.6 Meaningful research

Harvard faculty have published important research across subfields in environmental and planetary health over decades. For example, in the study of particulate matter's effects on human health, Harvard researchers produced one of the foundational reports [linking air pollution to increased mortality](#) in 1993, and during the COVID-19 pandemic in 2020 HSPH researchers found a [connection between long-term particulate matter exposure and COVID-19 mortality](#), specifically.

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2.7 Planetary Health Alliance

The [Harvard University Center for the Environment](#) and HSPH are founding institutional members of the Planetary Health Alliance and hosted the Alliance's [inaugural Planetary Health Annual Meeting in 2017](#) at HMS. Both HMS and HSPH are members of the Global Consortium on Climate and Health Education.

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Community Outreach and Advocacy in Environment and Health

Section Overview: This section evaluates the quality of medical school engagement in community programming and outreach and advocacy efforts associated with the environment and health.

Metric	Points	Description
3.1 How often does your institution offer community-facing courses or events regarding planetary health and the environment?	2	The institution offers such community-facing courses or events at least once every year.
	1	The institution offers such community-facing courses or events less than once per year.
	0	The institution does not offer such community-facing courses.
3.2 Does your institution interface with community organizations to promote planetary and environmental health?	1	Yes, the institution formally interfaces with one or more community organizations to promote planetary and environmental health.
	0	No, there is no such community partnership.
3.3 Does your institution have regular coverage of issues related to planetary health in its primary campus magazine?	2	Yes, there is an article related to planetary health in the majority of issues.
	1	In the past year, there has been at least one article related to planetary health.
	0	There has been no mention of planetary health in the last year in the campus magazine
3.4 Does the institution offer continuing medical education courses that address planetary health?	2	Yes, one or more in-person CME courses are offered.
	1	Yes, one or more online CME courses are offered.
	0	There are no courses.
3.5 Does your institution provide opportunities for medical student engagement in developing community resilience to anthropogenic environmental impacts?	1	Yes, the institution has provided opportunities.
	0	No, the institution has not provided opportunities.

3.6 Does institutional marketing (posters, billboards, etc) address climate change or the relationship between health and the environment?	1	Yes, institutional marketing addresses the intersections between climate and health.
	0	No, institutional marketing does not address these intersections.
3.7 Does your medical center have accessible educational materials for patients about environmental health exposures?	1	Yes, the medical center has accessible educational materials.
	0	No, the medical center does not have accessible educational materials.
3.8 Does your institution's endowment portfolio investments include fossil-fuel companies?	3	No, the institution is entirely divested from fossil fuels.
	2	The institution has partially divested from fossil-fuel companies.
	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.
Section Total (out of 12)	4.5	

Score Explanations

3.1 Community-facing courses

The Center for Climate, Health, and the Global Environment (C-CHANGE) at Harvard T.H. Chan School of Public Health (HSPH) hosts nearly monthly [seminars and workshops](#) open to the broader community. HSPH also hosts and films panels with government and business leaders on topics including environmental health and climate change through [The Forum series and the Leadership Studio](#). Harvard University's Graduate School of Arts and Sciences also hosts an office, [Science in the News](#), dedicated to hosting public-facing seminars on emerging issues in science. The series hosted two workshops on planetary health-related topics in 2018. A course on "[The Health Effects of Climate Change](#)" is also offered to the public through Harvard's EdX online learning platform.

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3.2 Community organizations

HSPH hosts the [Environmental Justice Student Organization](#), which partners with local community

organizations to raise awareness of and address environmental injustices. The Harvard Chan-National Institute for Environmental Health Sciences (NIEHS) Center for Environmental Health's [Community Engagement Core](#) works with a number of community organizations, including hosting "Science Days" at The Dorchester Winter Farmers Market and partnering with the Cambridge Science Festival.

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3.3 Coverage in campus magazine

In [2017](#), the quarterly [Harvard Medicine magazine](#) dedicated an entire issue to topics in planetary health, and has had articles featuring environmental health and climate change in [2012](#), [2016](#), and [2018](#). There have been no pieces on planetary health in nearly two years, however.

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3.4 Continuing education courses

Despite [offering several dozen courses](#) for Continuing Medical Education credit in 2020, several of which, such as culinary medicine, cardiovascular medicine, COPD, infectious diseases, toxicology, and healthcare disparities, could provide meaningful discussions of planetary health topics, none of the available courses cover issues in planetary health. Beth Israel Deaconess Medical Center (BIDMC), in partnership with Harvard Medical School, does offer an interdisciplinary fellowship in [Climate and Human Health](#) for emergency physicians seeking further training in planetary health issues.

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3.5 Community outreach

Harvard University has many opportunities for students across the University to initiate and promote sustainability initiatives, including the Office of Sustainability's [Council of Student Sustainability Leaders](#), but none of these provide opportunities to assist in increasing the broader community's resilience to anthropogenic environmental impacts.

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3.6 Marketing

There are no permanent or currently-exhibited displays related to climate change or the effects of the environment on health. Past posters and advertisements on campus that related to planetary health advertised specific events for a limited period of time, such as the student-organized symposium in 2018, [The Medical Response to Climate Change](#).

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3.7 Patient educational materials

The availability of accessible materials to patients is uneven across the primary teaching hospitals for Harvard medical students, including BIDMC, Brigham and Women's Hospital (BWH), Boston Children's Hospital (BCH), Cambridge Health Alliance (CHA), McLean Hospital, and Massachusetts General Hospital (MGH). Even among hospitals with an occupational and environmental health service (BIDMC, BWH, CHA, and MGH), only [BWH](#) and [CHA](#) provide resources accessible to patients on their sites about the impact of environmental factors on health. BWH has a comprehensive accounting of the [impacts of pollution on lung diseases](#) as well as a [series of entries](#) in their Adult Health Library on environmental health, including the effects of air pollution, lead poisoning, and chemical and radon exposure. BCH also

maintains an [extensive series of pages](#) on heavy metal poisoning in children for patients and families, as well as links to state and federal government resources on environmental exposures. Therefore, a score of 0.5 was awarded.

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3.8 Investments

The vast majority of the nearly \$40 billion Harvard University endowment is maintained in undisclosed investments, but of the portion that is disclosed, [about 1.4% is maintained in fossil fuel-related interests](#). Campaigns to pressure the University to divest have been ongoing since early 2014, and in the last year a student organization, [Divest Harvard](#), and a faculty organization, [Harvard Faculty for Divestment](#), have renewed calls to the University to divest. In February 2020, the Faculty Council of Harvard Medical School and the Harvard Faculty of Arts and Sciences [voted overwhelmingly](#) to divest the University's endowment from fossil fuel interests. No further action has been taken by the Harvard Corporation.

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University Support for Student-Led Planetary Health Initiatives

Section Overview: This section evaluates the extent and quality of institutional support for student-led planetary health initiatives, such as funding, programming, etc.

Metric	Points	Description
4.1 Does your medical school offer a year-long fellowship for medical students to enact an initiative related to planetary health?	1	The medical school offers an explicit year-long fellowship for medical students to enact an initiative related to planetary health.
	0	There is no explicit practicum or year-long planetary health fellowship open to medical students.
4.2 Does your medical school have a website where medical students can learn about applying for funding for planetary health initiatives?	1	Yes, there is a website where medical students can learn about applying for funding for initiatives related to planetary health.
	0	No, there is no such website.
4.3 Does your institution have a website where medical students can find the contact information of mentors for planetary health initiatives?	2	The institution has a webpage that lists faculty involved in planetary health.
	1	The institution has a general website or directory that lists faculty and staff members' research and/or academic interests, but is not planetary health specific.
	0	There is no simple means of locating potential mentors for planetary health initiatives.
4.4 Does your medical school have funded, registered student groups dedicated towards fostering a culture of planetary health engagement and scholarship on campus, supported by faculty advisors?	2	Yes, there is a funded 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 and/or funding.
	0	No, there is not a funded student organization at my institution dedicated to planetary health or sustainability in healthcare.

<p>4.5 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)</p>	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	Conferences, speaker series, symposia or similar events related to planetary health that have students as the intended audience.
	0	Cultural arts events, installations or performances related to planetary health that have students as the intended audience.
	1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students) that follow Leave No Trace principles.
Section Total (out of 10)	6	

Score Explanations

4.1 Fellowship opportunity

Harvard Medical School (HMS) does not offer any year-long research or practicum in planetary health. Students have the ability to propose their own project with a mentor of choice with guidance from the Scholars in Medicine Office and their academic advisors and [apply for funding from the medical school](#), but no specific funding opportunities or structured programs exist in planetary or environmental health.

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4.2 Funding application website

HMS's Scholars in Medicine Office provides an opportunity to apply for [internal research-year funding grants](#) as well as detailed lists of fellowship opportunities offered through Harvard University or through external agencies. None of these lists includes a fellowship specifically in planetary or environmental health. Harvard University's Office of Sustainability provides [grants for student sustainability initiatives](#), but this is just one opportunity and is not tied to planetary health projects.

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4.3 Mentor contact information

The online faculty lists of Harvard's interdisciplinary research institutes in planetary health, including the climate change and health-focused [Harvard Global Health Institute](#) and [Center for Climate, Health, and the Global Environment](#) (C-CHANGE) at Harvard T.H. Chan School of Public Health (HSPH), and the broader environmental degradation and health impacts- oriented [Harvard Chan-National Institute of Environmental Health Sciences](#) (NIEHS) Center for Environmental Health, provide contact information and research abstracts for potential research project mentors in planetary and environmental health.

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4.4 Registered student group

HMS's [Students for Environmental Awareness in Medicine](#) (SEAM) organization consists of 85 student members led by an 8-member executive board who advocate for increased attention to environmental health in the medical curriculum, conduct campaigns to increase the Longwood Medical Area's sustainability, organize co-curricular seminars and conferences for their classmates to learn about planetary health, such as the [Medical Response to Climate Change](#) in 2018, and engage with the broader community to reduce climate pollution and mitigate the effects of climate change. SEAM has benefited from the mentorship of many faculty advisors across HMS, HSPH, and Harvard's affiliated teaching hospitals. In addition, HSPH hosts the [Environmental Justice Student Organization](#), which partners with local community organizations to raise awareness of and address environmental injustices.

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4.5 Miscellaneous programs and initiatives

- **Garden:** The Countway Library of Harvard Medical School hosts a [Community Garden](#) open to all members of the Harvard Longwood Medical Area community for local gardening. Annually, the Countway Library hosts an autumn harvest festival with community musicians to celebrate sustainable, community-oriented urban horticulture.
- **Conferences, speaker series, symposia, or similar events:** Most recently, a group of faculty mentors to the Harvard Medical School Students for Environmental Awareness in Medicine hosted the [Climate Crisis and Clinical Practice Symposium](#) that targeted clinical trainees and professionals.
- **Cultural arts events, installations, or performances:** To date, there have been no artistic events or installations at HMS or Harvard University highlighting issues in planetary health.
- **Wilderness or outdoor programs:** Both the Harvard Chan School of Public Health's [Hikers Club](#), which is also open to medical students, and the first-year educational adventure trip (FEAT), an annual weekend of wilderness activities for incoming medical and dental students, use Leave No Trace practices on their wilderness excursions.

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Grading

Section Overview

This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is an average of the section grades. 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%

Planetary Health Grades for Harvard Medical School

The following table presents the individual section grades and overall institutional grade for Harvard Medical School on this medical-school-specific planetary health report card.

Section	Raw Score	Grade
Planetary Health Curriculum	14.5 / 28 = 52%	C
Interdisciplinary Research in Health and Environment	9.5 / 10 = 95%	A+
Community Outreach and Advocacy in Environment and Health	4.5 / 13 = 35%	D+
University Support for Student-led Planetary Health Initiatives	6 / 10 = 60%	B-
Institutional Grade	Average of four scores above= 61%	B-