



Planetary Health Report Card (Medicine):

*Creighton University SOM- Phoenix
Regional Campus*

Creighton
UNIVERSITY
**Arizona Health
Education Alliance**

2022-2023 Contributing Team:

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Summary of Findings

Overall	C
<u>Curriculum</u>	C-
<ul style="list-style-type: none"> Creighton University School of Medicine Phoenix Regional Campus (SOM PRC) does include planetary health in the curriculum. The majority of planetary health topics are discussed within the gold track curriculum lectures of components I and II, including one student interest selective. There is room for improvement in this area, as the majority of planetary health information came from two lectures and one selective during component II only. Recommendations: Currently, a majority of the planetary health related topics have been briefly addressed in a single gold track curriculum lecture. We recommend a more longitudinal integration of these topics as well as an increase in lectures covering these topics more in depth. Specifically, case based learning could include questions related to planetary health and indigenous populations. A lecture in each organ system that outlines the effects of climate on health outcomes specific to that system would be beneficial. 	
<u>Interdisciplinary Research</u>	C
<ul style="list-style-type: none"> Creighton University SOM PRC does have current efforts to expand research in the realm of planetary health and is part of the Global Consortium on Climate and Health Education. Recommendations: Identify and engage with faculty who are able to mentor students in planetary health research. It would be useful to host a local conference within the institution specific to planetary health. Additional involvement of community members with input on research topics is needed. 	
<u>Community Outreach and Advocacy</u>	D+
<ul style="list-style-type: none"> Creighton University SOM PRC has little community outreach and engagement relating to planetary health. Creighton Clinical Affiliates do not offer accessible and meaningful information on the health impacts of climate change and environmental exposures. The university has a strong focus on community engagement, however this does not include a current focus on climate health. The expansion of relationships with the community is needed. 	
<u>Support for Student-Led Initiatives</u>	B-
<ul style="list-style-type: none"> The Creighton University SOM PRC has a student founded and led Planetary Health and Sustainability Task Force, as well as Sustainability Chair positions on class student government. Each of these were initiated and carried out by students. There are ample opportunities for student initiative and funding for academic projects and research within the medical school. The awareness and ease of use and collaboration with faculty members are limiting factors to expansion in sustainability initiatives. 	
<u>Campus Sustainability</u>	D+
<ul style="list-style-type: none"> Creighton University as an institution has seen improvement towards sustainability goals. There is a dedicated Office of Sustainability, however these initiatives are not housed on the Phoenix campus and this improvement is not reflected on the Phoenix Campus. Recommendations: Incorporate renewable energy and composting in the health science building. We also encourage more in depth partnership with the Office of Sustainability and a clear outlining of sustainability goals for the Phoenix campus. 	

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human 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.
- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimizes use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 1. Describe how the environment and human health interact at different levels.
 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Medical School vs. Institution:** When “medical school” is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more

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

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

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation: Creighton University School of Medicine - Phoenix Regional Campus (CUSOM PRC) does not currently offer any elective courses focused specifically on planetary health. However, the Student Interest Selective offered to M1 and M2 students titled “The Health Effects of Nature and Art Exposure” explores the benefits of exposure to the natural world on human health. During this elective, students are asked to identify research supporting the benefits of nature in conditions like Alzheimer’s disease, Parkinson’s disease, dementia, depression, anxiety, ADHD, and cardiovascular disease. It also briefly touches on the importance of community “green spaces.” While this selective does a great job underscoring the importance of the natural world and humanity’s place within it, we do not think that it adequately addresses topics directly related to planetary health and education for sustainable healthcare. We suggest the addition of a course specifically focused on the relationship between human health and climate health.</i></p>	

Curriculum: Health Effects of Climate Change

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

0	This topic was not covered.
<p><i>Score explanation: The Class of 2026 was introduced to the concept of planetary health as a part of the gold track curriculum that all students participate in. In a lecture titled "Introduction to Planetary Health", there were connections made between environmental degradation and climate change to their effects on human mental and physical health. Prior to lecture, students were expected to watch and reflect upon a lecture titled "Climate 101: What Every Clinician Needs to Know", explores these concepts and places them into clinical perspective, showing the importance of understanding how climate-driven factors influence health and healthcare delivery. Throughout this lecture, several slides emphasized global rising temperatures, the effects of heat on the human body, and the secondary effects of rising temperatures (such as the increase in ground level ozone and its impact on antibiotic resistance in the United States).</i></p> <p><i>An additional lecture "Planetary Health", given in collaboration with faculty and a current student, discussed the connection between rising global temperatures and worsening chronic conditions.</i></p>	

3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: This topic was covered in the lecture "Introduction to Planetary Health". Throughout this lecture, several slides emphasized the impacts of extreme weather events. It discusses how hurricanes are getting stronger, lasting longer, intensifying more quickly, and slowing down less frequently with climate change. It also discusses how they negatively impact access to medical supplies and medical care, either directly or inadvertently (such as through loss of electricity and power). This was also covered in the additional lecture "Planetary Health".</i></p>	

4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: There have been no explicit connections made between the changing environment and its role in infectious diseases in the core curriculum. The topic in general was briefly discussed as part of the Component I curriculum in a lecture titled "Epidemiology". We suggest that the specific impact of climate change on patterns of infectious disease be taught during the Infectious Disease block, as well as during the case based learning sessions.</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.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: This topic was covered in the lecture “Introduction to Planetary Health”. Throughout this lecture, several slides emphasized the impacts of air pollution on health including lung cancer, hypertension, and respiratory infections. The impacts of long term air pollution in the United States and increased mortality from COVID-19 was also discussed. This was also covered in the additional lecture “Planetary 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.
0	This topic was not covered.

Score explanation: This topic was briefly mentioned as a part of Component II. One lecture discussed hypothermia and hyperthermia with relation to environmental temperature. This lecture also discussed the impact of extreme weather events on cardiovascular health. This was also covered in the additional lecture “Planetary Health”. There is room for improvement here including a more in depth discussion of the impact of increasing environmental 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.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: This topic was covered in the lecture “Introduction to Planetary Health”. Throughout this lecture, several slides emphasized the positive impacts of green spaces on mental health. This was also covered in the additional lecture “Planetary Health” with a specific connection to mental health.

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

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

Score explanation: This topic was briefly covered as part of the gold track curriculum during the Component III Family Medicine clerkship. As part of the clerkship students write an essay outlining their understanding and experiences working with the social determinants of health during the clerkship. As part of this, connections are drawn between health and food/water security. This was also covered in the additional lecture “Planetary Health”, with discussion regarding food and water access in Arizona as well as rising temperatures. There is room for further emphasis on ecosystem health and climate change. We also suggest the addition of a lecture to the Component I/II gold track curriculum that highlights the realities of food and water security in the Phoenix area and its relationship to the current water crisis in Arizona.

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

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

Score explanation: This topic was covered in the lecture “Introduction to Planetary Health”.. There was discussion on environmental degradation and climate change with relation to their effects on human mental and physical health. Emphasis placed on the fact that vulnerable and marginalized populations are disproportionately negatively impacted by climate change. This lecture shared experiences from engaging with communities around the world and how climate change has affected these communities (such as pollution and small farming communities). This was also covered in the additional lecture “Planetary Health” with a focus on how those experiencing homelessness are disproportionately affected by climate change.

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

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

1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: This topic has not been addressed by the CUSOM-PRC. We suggest this topic be covered in one of the gold track lectures during Components I and II.</i>	

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

11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: This topic has not been addressed by the CUSOM-PRC. We suggest this topic be covered in a lecture during the Component II Reproductive System course.</i>	

12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: This topic was covered as a part of the Component I gold track curriculum. A lecture titled "Service Learning: Social Determinants Underlying Health" discussed the relationship between geography and disease. Throughout this class period, students explored epidemiological data related to exposure to environmental toxins. Students spent time looking at the burden of these toxins by zip code in the state of Arizona and then discussed the short and long term effects of these exposures. Emphasis was placed on recognizing the disparities that exist between communities, particularly in the Phoenix metropolitan area, and the importance of recognizing the role of environmental exposures in clinical differential diagnoses.</i>	

13. To what extent does your <u>medical school</u> emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education

2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: This topic has not been addressed by the Creighton SOM - Phoenix Regional Campus. The school is located near several Native American tribes and the inclusion of this discussion in the preclinical curriculum is necessary. We suggest incorporating this topic into the green track curriculum that all students participate in throughout Component I and Component II. In addition, the City of Phoenix has a land acknowledgement statement that acknowledges the location within the homeland of the O’Odham and Piipaash people. We suggest that CUSOM-PRC also create a similar land acknowledgment.</i></p>	

<p>14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?</p>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: This topic was briefly covered in the “Planetary Health” lecture, with emphasis on increasing prevalence of asthma in populations with lower socioeconomic status, African American and Hispanic communities, and children.</i></p>	

Curriculum: Sustainability

<p>15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</p>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The benefits of plant-based diets on environmental and human health were discussed in the “Planetary Health” lecture. This was confined to one slide. We recommend that this topic be presented as a stand alone lecture with a deeper exploration of plant-based eating.</i></p>	

16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored in depth by the core curriculum
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: This topic was addressed in the “Planetary Health” lecture. Specific information regarding healthcare supply chain costs, hospital waste, and resource waste was discussed.</i>	

17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfill this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
<i>Score explanation: These components were discussed in the lecture “Planetary Health”. Throughout this lecture there was one slide dedicated to each of the following: surgical waste, inhaler impacts, healthcare clinical waste. This focused on the negative effects of each component, however minimal information on how to mitigate these concerns and make improvements was given. We recommend that there be an increased focus on strategies to reduce waste and alternative options.</i>	

Curriculum: Clinical Applications

18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
<i>Score explanation: This topic has not been addressed by the Creighton SOM - Phoenix Regional Campus.</i>	

19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
2	Yes, the core curriculum includes strategies for taking an environmental history.
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history course.
<i>Score explanation: As a part of the green track curriculum students are taught how to complete a full patient history during a patient interview. Environmental and occupational exposures are included as a part of the social history section of the interview.</i>	

Curriculum: Administrative Support for Planetary Health

20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<i>Score explanation: The medical school is currently working to improve planetary health education. Students are involved with adding climate related topics to case based learning sessions, identifying faculty who will incorporate these topics into lectures, and creating more elective courses in planetary health during preclinical and clinical years. All of these are student initiatives and students creating the content. We would encourage the medical school to identify faculty who can lead and help integrate this content into the curriculum. Additionally, integration has been at a slow pace and has been slow to identify faculty who are knowledgeable in these areas.</i>	

21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s) .
0	There is minimal/no education for sustainable healthcare.
<i>Score explanation: The planetary health and education for sustainable healthcare topics are addressed in 2 standalone lectures. There is currently no longitudinal integration across Components I, II and III.</i>	

22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	Yes , the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	No , the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
<i>Score explanation: The Planetary Health Curriculum team for both the Phoenix and the Omaha CUSOM campuses has a lead faculty member. This is an additional and self appointed role to his faculty position within the core curriculum in Omaha. Currently, there is no counterpart for this role in Phoenix. We suggest creating a faculty role specific to healthcare sustainability education.</i>	

Section Total (32 out of 72)	44.44%
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Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Interdisciplinary Research

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

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u> ?	
3	Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation: There is at least one research project specifically dedicated to planetary health currently lead by a faculty physician. The project is a cross-campus endeavor, including both Phoenix and Omaha students, and is focused on exploring the effects of climate change on anxiety levels in undergraduate students. We recommend that the pool of faculty continue to be expanded to include more planetary health projects.</i></p>	

2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u> ?	
3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years.
1	There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.
<p><i>Score explanation: There is no department dedicated to planetary health research. The Sustainable Creighton Initiative was formed in 2021, including both Phoenix and Omaha campuses. This initiative is focused on the United Nations Sustainable Health Goals, however there is no specific focus on</i></p>	

research in Phoenix as part of this initiative. As such we have given ourselves a score of “0”. This program could be an avenue for creating a department specific to planetary research.

Additionally, the [MD/MPH Arrupe Global Scholars Program](#) was started in 2022. This program allows students to pursue an MD/MPH degree through exploration of global health and health equity. While there is no specific focus on planetary health, this program would be a way to incorporate climate equity research into the curriculum.

3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your medical school?

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

Score explanation: There is currently no process in place to involve community members in research decisions. However, the School of Medicine Phoenix Regional Campus is continuing to expand its involvement with the community through service work, advocacy, and research. As the Creighton University Arizona Health Education Alliance continues to grow this will be an opportunity to specifically focus on involving the community in research agendas.

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

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

Score explanation: Creighton University has a [sustainability webpage](#) through the Global Engagement Office. This website is the main resource for information on sustainable efforts, the Sustainable Creighton Initiative, action fund availability, and undergraduate programs. This website includes events, leaders in planetary health, and funding opportunities. However, there is not a specific list of research mentors in planetary health. We recommend that a list of research efforts be added under the “academic” tab of the institution sustainability page to ease accessibility. We also recommend that a

specific research interest group be created for planetary health and listed on the School of Medicine research webpage.

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

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

Score explanation: Creighton University hosts an annual Global Health Conference Midwest which includes information dedicated to planetary health. The conference is a interdisciplinary effort between multiple professional programs including the School of Medicine. The conference is available to the Phoenix campus via zoom. In 2022 this included a session on “Climate Change and Disaster Health Preparedness”. The conference allows submissions related to Native American Health, Community initiatives, Advocacy and Health Policy, Education, Basic, Translational, and Clinical Research, Global System studies, and Health Immersion. Each of these categories presents an opportunity for research on planetary health.

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

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

Score explanation: Creighton School of Medicine has been a member institution of the Global Consortium on Climate and Health Education since 2021. As an extension of the Omaha institution, this also pertains to the Phoenix Regional Campus however we recommend that this be explicitly stated and that participation in it increases.

Section Total (9 out of 17)

52.94%

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

Community Outreach and Advocacy

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

1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation: The medical school partners with Mesa Farms, through The Society of St. Vincent De Paul, where medical students volunteer and learn sustainable methods to cultivate their own food in a sustainable way and help to increase access to healthy food.</i></p> <p><i>Although there are no direct partnerships with a community organization to promote planetary and environmental health, efforts are continually improving with the designation of sustainability chairs for each class of students. There are current ongoing works in order to establish a course on planetary health and possible partnerships for the following academic year. Additionally, the Creighton Institute for Latin American concern organizes informational lectures with the local communities in the Dominican Republic. This would be another opportunity to partner with the community and discuss planetary health.</i></p>	

2. Does your medical school offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The institution/medical school have not offered such community-facing courses or events.

Score explanation: The School of Medicine Phoenix Regional Campus does not currently offer community events focused on planetary health. Creighton University in Omaha Nebraska hosts an annual [Global Health Conference Midwest](#) that aims to address health disparities locally and globally by improving education, advocacy, and service. At this time there is no virtual option for the Phoenix medical school to participate, however the event is still hosted by Creighton University as an institution and thus we have included it here. A goal for the coming years could include a virtual presentation and attendance option for students on the Phoenix campus.

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	Students do not receive communications about planetary health or sustainable healthcare.

Score explanation: The first-year medical student class has a weekly newsletter updating the class about upcoming events, which includes information about planetary health and sustainability, such as events during sustainability week. The implementation of sustainability chairs for each medical school class has also improved awareness for sustainability on campus.

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

Score explanation: CUSOM-PRC and its affiliated institution, St. Joseph's Hospital, have no accessible Continuing Medical Education (CME) related to planetary health and sustainable healthcare.

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	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated medical centers have accessible educational materials for patients.

Score explanation: There are no accessible educational materials for patients about environmental health exposures in our area. While Dignity Health does have annual goals on removing mercury from all their hospitals, it focuses on the elimination of toxins and lacks educational information about toxins and health. We suggest these goals and purposes be further outlined in verbiage that is accessible for all patients.

6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.

Score explanation: Dignity Health has an accessible pdf online titled, "[Sustainability Highlights](#)" which was released in 2019. This is the most recent report containing information on the impact of climate change on patient outcomes. It also contains the healthcare company's goals to improve their impact on climate change.

Section Total (5 out of 14)	35.71%
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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.*

1. Does your medical school or your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the medical school or institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	The medical school or institution encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available and there is no requirement to participate.
0	No, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

Score explanation: Creighton University actively encourages and provides funding for medical students interested in pursuing sustainability initiatives through the [Creighton Student Sustainability Action Fund](#) (CSSAF). However, without a director within the Office of Sustainability Programs, the program had difficulty supporting students with sustainability initiatives. A new director will fill the position early this year with much anticipation for new initiatives.

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

Score explanation: The School of Medicine funds the MI Summer Research Program where students can work with any mentors on any projects, including planetary health and sustainable healthcare. If interested, students must find and connect with mentors outside of Creighton University.

The Research Program Manager is working with Arizona State University to bring in more mentors. We recommend broadening the mentor list to include faculty members who are involved in planetary health research. This could also include more research institution partnerships with local institutions.

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

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

Score explanation: Creighton University does not have a medical-school specific webpage for planetary health or sustainable healthcare projects.

We encourage the creation of a webpage to discuss planetary health projects and initiatives currently ongoing at the School of Medicine. Through the new partnership with Arizona State University, mentors who are willing to work with medical students on planetary health projects can be identified and consolidated on the new webpage.

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

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

Score explanation: The SOM's Planetary Health and Sustainability Task Force initiated a student branch on the Phoenix Campus in the fall of 2022. This branch coordinates projects with the Omaha Campus, and has also started many new initiatives, including inviting planetary health speakers on our Professional Development Session at Phoenix. The first will take place on May 2, 2023.

While SOM's Planetary Health and Sustainability Task Force has been brought to the Phoenix Campus, faculty lead is predominant at Omaha Campus. We encourage the involvement of faculty from the Phoenix Campus.

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

1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.
<p><i>Score explanation: Currently there are 3 medical students who serve as a part of the Planetary Health and Sustainability Task Force to discuss planetary health objectives with the faculty. The student branch of the task force grew to 15 students on the Phoenix Campus. This task force was created to bring awareness to and innovation around planetary health within the medical school. Students and faculty members meet to discuss expanding planetary health objectives in medical school curriculum, research, and student initiatives. Additionally, each class (M1 and M2) has a dedicated sustainability chair on the student government, which is unique to the Phoenix campus.</i></p>	

<p>6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)</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	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)
<p><i>Score explanation:</i></p> <ol style="list-style-type: none"> <i>Students have the opportunity to volunteer every Saturday at Mesa Urban Farm, which provides fresh produce to the uninsured and underserved populations served for patients at the St. Vincent de Paul Clinic.</i> <i>Phoenix CUSOM Sustainability Chairs hosted Sustainability Week between January 30 - February 3, which promoted and encouraged eco-friendly activities, as well as learning about the community group Rusty Spoke, a community bike organization.</i> <i>The Hiking Club meets to form a community and relationships with the surrounding nature to foster engagement with health and climate.</i> <i>The Wilderness Medicine Club is involved with the annual Advanced Wilderness Life Support Certification Course, and volunteers with the annual MedWAR (Medical Wilderness Adventure Race).</i> <i>Running club hosts running events in the local neighborhood to appreciate the nature of the surrounding school and hospital.</i> <i>The climbing club explores local areas nearby for climbing.</i> 	

Section Total (9 out of 15)	60.00%
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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.*

1. Does your <u>medical school</u> and/or <u>institution</u> have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.
1	There are no salaried sustainability staff , but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation: Creighton University has an Office of Sustainability that serves the entire university, including our Phoenix campus. The office supports three full-time staff members including a director, project and reporting coordinator, and an assistant. There are also 2-5 student interns at any given time. There is not a specific branch or individual for graduate medical or hospital programs. Given the unique nature of sustainability within a medical school or hospital, we encourage the University to consider hiring a staff member to focus on these areas.</i></p>	

2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?	
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate
0	The institution/medical school does not meet any of the requirements listed above
<p><i>Score explanation: Creighton University as an institution has released a Sustainable Initiative which includes carbon goals. The goal is to reduce carbon emissions by 50% by 2028 and reach neutrality by 2050. There is a reasonable action plan to achieve these goals. Although this is an improvement from</i></p>	

prior goals, neutrality by 2050 still does not meet report card criteria and we would encourage the University to recognize climate change as a timely concern and determine ways to reduce emissions sooner than 2050.

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

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

Score explanation: There is currently no use of renewables on the Phoenix campus. We highly encourage the university to begin incorporating renewable energy sources for the Phoenix building.

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

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

Score explanation: On the Phoenix campus, there is one medical school building that was built with sustainability in mind outlined by [design policy](#). The Phoenix building reaches LEED Silver standards, although no official certification was pursued. Certification is not pursued as costs contributed to purchasing certification are diverted to maintenance of standards. All buildings on campus are regularly recommissioned to ensure compliance with this standard and recent recommission by Optimized Systems ensured all standards were being met. There are no older buildings on the Phoenix campus that would need to be retrofitted.

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,
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	or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.
<p><i>Score explanation: The medical school specifically has not implemented any strategies to encourage or provide environmentally-friendly transportation options and driving seems to be the primary form of transportation for the majority of students. The Phoenix campus does have bike storage for the medical school and at St. Joseph's hospital. Additionally, there was a student-led week funded by the Creighton Student Sustainability Action Fund (CSSAF) in partnership with a local community bike organization that encouraged sustainable transportation. Given the abundance of public transportation in Phoenix, we encourage the University to work with students to determine interest in student bus passes or other transportation programs.</i></p>	

6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass) ?	
2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.
<p><i>Score explanation: Creighton Phoenix has conventional recycling within the medical school building but no compost program. We would recommend the recycling bins to be increased in frequency and paired with trash bins. As composting does not fall under purview of facilities maintenance on any campus, compost must be a student or staff initiative. We encourage pursuit of an initiative in partnership with the Office of Sustainability.</i></p>	

7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging) ?	
3	Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.

Score explanation: There is no evidence that there are sustainability guidelines for food and beverages. We recommend the institution address this gap in policy.

8. Does the medical school or institution apply sustainability criteria when making decisions about supply procurement?

3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.

Score explanation: Creighton does have [sustainability procurement guidelines](#), however, sustainable options are chosen when “quality, function and cost are equal or superior” or when deemed practical. The University has also published a [study on green purchasing](#) during the academic year of 2014-2015, in conjunction with the U.S. Environmental Protection Agency (EPA) and UNO’s Nebraska Business Development Center which outlines data on current sustainable purchasing and makes recommendations. We encourage the University to utilize these recommendations to strengthen policy on purchasing.

9. Are there sustainability requirements or guidelines for events hosted at the medical school?

2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required .
0	There are no sustainability guidelines for medical school events.

Score explanation: There are currently no guidelines for medical school events. We recommend that the student government implement requirements, specifically for composting.

10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?

2	Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.

Score explanation: Creighton has a School of Medicine Planetary Health Task Force with a sub-committee focused on making lab spaces more sustainable. The subcommittee is a relatively new entity and although there are no current guidelines, there are efforts to create energy saving initiatives and ways to reduce lab waste through shared purchasing and sharing of materials. Neither options listed fit the current efforts perfectly, but we felt a score of 1 was reasonable given current efforts, although there is still room for improvement. This is applicable for all of Creighton, but there are no Creighton lab spaces specific to the Phoenix campus. We recommend continued efforts from this group and publishable guidelines for all campus labs.

11. Does your institution's endowment portfolio investments include fossil-fuel companies?

4	The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.
3	The institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.

Score explanation: In a [message to campus](#) December 31, 2020, President Hendrickson announced that Creighton has committed to “exit from its holdings in private fossil fuel investments within the next 10 years.” We recommend that Creighton publish an updated divestment goal with a more clearly defined timeline.

Section Total (12 out of 32)

37.50%

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

Grading

Section Overview

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

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

Planetary Health Grades for the Creighton University School of Medicine Phoenix Regional Campus

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(32/72) \times 100 = 44.44\%$	C-
Interdisciplinary Research (17.5%)	$(9/17) \times 100 = 52.94\%$	C
Community Outreach and Advocacy (17.5%)	$(5/14) \times 100 = 35.71\%$	D+
Support for Student-led Planetary Health Initiatives (17.5%)	$(9/15) \times 100 = 60.00\%$	B-
Campus Sustainability (17.5%)	$(12/32) \times 100 = 37.50\%$	D+
Institutional Grade	$(44.44 \times 0.3 + 52.94 \times 0.175 + 35.71 \times 0.175 + 60.00 \times 0.175 + 37.50 \times 0.175) = 45.91\%$	C