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Planetary Health Report Card (Medicine):

Creighton University SOM - Phoenix Regional Campus

Creighton UNIVERSITY

Arizona Health Education Alliance

2023-2024 Contributing Team:

- Students: Izabella Lach, Darby Keirns, Kathleen Moore, Robert Morrisset, Laura Stewart, Madeline Trotter
- Faculty Mentor: Patrick Swanson, PhD
- Primary Contact: Izabella Lach, ial85917@creighton.edu

Summary of Findings

Overall	C

Curriculum	C

- Creighton University SOM Phoenix Regional Campus includes topics related to planetary health in the core curriculum and in an elective course for fourth year students, but these topics lack longitudinal integration. Most of the topics pertaining to planetary health are found in two lectures within the gold track curriculum.
- **Recommendations:** We propose a more sustained integration of subjects pertaining to planetary health throughout the curriculum, especially within lectures in the body system-specific blocks, along with continued coverage of the topics as a part of the gold track curriculum.

Interdisciplinary Research	C

- Creighton University SOM Phoenix Regional Campus 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 or to expand on our involvement with the Global Health Conference Midwest hosted by the Omaha campus. Additional involvement of community members with input on research topics is needed.

Community Outreach and Advocacy	C

- While the university prioritizes community engagement, there is currently no emphasis on climate health. Strengthening relationships with the community in this regard is imperative.
- Creighton Clinical Affiliates fail to provide easily accessible and substantial information regarding the health effects of climate change and environmental exposures.
- **Recommendations**: We recommend more community facing events and the creation of accessible educational materials for patients regarding planetary health.

Support for Student-Led Initiatives	B-

- The Creighton University SOM Phoenix Regional Campus has a number of student opportunities for planetary health and sustainability exploration through research, co-curricular, and leadership activities. There is a student-founded and led Planetary Health and Sustainability Task Force, as well as Sustainability Chair positions as part of each classes' student government.
- The PRC lacks a webpage specific to planetary health and sustainable healthcare opportunities as well as Phoenix-specific faculty support for the Planetary Health and Sustainability Task. There remains room for improvement in sustainability research opportunities. The expansion of planetary health initiatives is constrained by limits in awareness, ease of use, and collaboration with faculty members.

Campus Sustainability	D+

- While the Office of Sustainability continues to do great work, there is currently no faculty member responsible for either the School of Medicine or the Phoenix Regional Campus.
- **Recommendations:** We encourage Creighton to incorporate renewable energy, particularly solar energy, into the Phoenix Health Sciences Building. Considering that there are unique needs and opportunities for sustainability in Phoenix, and that the SOM in Phoenix operates within an entirely different medical system from the Omaha campus, we also recommend dedicating a faculty member from the Office of Sustainability to encourage sustainability at 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 civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

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

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

    1. Describe how the environment and human health interact at different levels.

    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.

    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Medical School vs. Institution:** When "medical school" is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more

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

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

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

- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your medical school 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.
Score explanation: CUSOM-PRC currently offers a two-week long elective to fourth year students titled "Ecospirituality." CUSOM-OMA currently offers an elective course to first and second year students called "Intersections Between Food Security, Climate Change, and Public Health." We recommend the addition of a similar elective course for first and second year students in Phoenix.	

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: The topic of extreme heat, health risks, and climate change was discussed in mandatory classes titled "Introduction to Planetary Health" and "Planetary Health" as a part of the gold track curriculum for first year medical students. There was special emphasis placed on the high rates of heat related illness in the Phoenix area and how surface temperature varies by neighborhood. The topic	

was also briefly covered during the Component II case based learning activity titled “Hot Wheels,” in which the students were presented with a case regarding a patient experiencing heat illness. As a part of this case, the extrinsic/structural factors that increase the risk for heat stroke including extreme weather and urban heat islands were discussed.

1.3. 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.
Score explanation: This topic was covered in the lecture “Introduction to Planetary Health.” The session included a preparatory video that explained the negative impact of hurricanes and rising temperatures on access to medical supplies and medical care, either directly or inadvertently (such as through loss of electricity and power). The lecture itself also included a brief discussion on the impacts of extreme weather events. This was also covered again in the additional lecture,“Planetary Health.”	

1.4. 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.
Score explanation: This topic was addressed as part of the Component I curriculum in a lecture titled “Epidemiology,” intermittently throughout the Component I Infectious Diseases block, and again in the infectious disease lectures in the Component II Multisystem Disease block. These lectures mentioned the increased incidence of certain infectious diseases following extreme weather events. However, the lectures failed to directly address how long term changes in global weather patterns have affected the rates and geographic distributions of infectious disease, especially tropical illnesses.	

1.5. Does your <u>medical school</u> 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." The session included a preparatory video that explained the negative impact of air pollution on health including lung cancer and respiratory infections. The impacts of long term air pollution in the United States and increased mortality from COVID-19 was also discussed. The lecture itself also included a brief discussion on the impacts of climate change and air pollution. This was covered again in the additional lecture "Planetary Health." During the Respiratory Block, exposure to air pollutants was also briefly mentioned as an etiology and aggravating factor for lung diseases such as chronic obstructive pulmonary disease and asthma.

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

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

Score explanation: The cardiovascular health effects of climate change was discussed on multiple slides in the lecture "Planetary Health." This topic was also briefly mentioned as a part of the Component II Multisystem disease block in Case Based Learning (CBL) scenarios regarding hypothermia and hypothermia, their effects on cardiac health, and the high risk for fatal dysrhythmias, though the connection between climate change and increased rates of these events was not specifically mentioned.

1.7. Does your <u>medical school</u> 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 briefly mentioned in the lecture "Planetary Health." The connection between hot temperatures, reduced sleep quality, and increased rates of psychological illness was discussed. The lecture also mentioned the negative effects of air pollution on neurological and cognitive function.

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

3	This topic was explored **in depth** by the **core** curriculum.

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

Score explanation: The topic of food and water security and their impact on health was briefly discussed in the Gold Track curriculum in the lecture titled "Planetary Health." The lecture presented a description of the current water crisis in Arizona. This topic was also briefly covered as part of the gold track curriculum during the Component III Family Medicine clerkship. As part of the clerkship, students are asked to write an essay outlining their understanding and experiences working with the social determinants of health. In this assignment, students can choose to explore connections between health and food/water security. We recommend further emphasizing the connection between health, climate change, and food and water insecurity longitudinally in the Gold Track Curriculum.

1.9. Does your <u>medical school</u> 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 addressed in the lecture titled "Introduction to Planetary Health" as a part of the Gold Track curriculum. The pre-work for this lecture included an article titled "How Decades of Racist Housing Policy Left Neighborhoods Sweltering" which explored the higher temperatures, increased rates of heat related illness, and less available green space in lower SES or historically black neighborhoods and how these trends are related to histories of redlining. This topic was also discussed in the lecture titled "Planetary Health" where emphasis was placed on how vulnerable and marginalized populations are disproportionately negatively impacted by climate change. Lastly, this topic was discussed in the Multisystem Disease block in our CBL regarding hyperthermia. The CBL explored how people experiencing homelessness and elderly adults are at a higher risk for heat related illness.

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

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

Score explanation: This topic has yet to be addressed by CUSOM-PRC curriculum. We recommend that this subject be included in one of the gold track lectures during Components I and II.

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

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: This topic has yet to be addressed by CUSOM-PRC curriculum. We recommend that this subject be included as a lecture or incorporated into existing lectures during the Component II Reproductive System or Multisystem Disease courses.	

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
3	This topic was explored **in depth** by the **core** curriculum.
2	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 is covered during the Component I gold track curriculum. The relationship between geographical location and disease is discussed during a lecture titled "Service Learning: Social Determinants Underlying Health." During the session, students are instructed on how to explore epidemiological data related to exposure to environmental toxins. The lecture also included a group activity wherein students explored the disproportionate burden of exposures and environmental toxins by populations in different regions within the state of Arizona, specifically the Phoenix metropolitan area and Navajo county. Emphasis was placed on recognizing the disparities that exist between communities and the importance of recognizing the role of environmental exposures in clinical differential diagnoses.	

1.13. To what extent does your medical school emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	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.

Score explanation: The Creighton School of Medicine curriculum does not address this subject. Given the Phoenix Regional Campus's proximity to several Native American tribes and reservations, it is vital to include this discussion into the preclinical curriculum. We recommend the integration of Indigenous knowledge and value systems into the green track curriculum, which all students engage in during Component I and Component II. Furthermore, since the City of Phoenix has a land acknowledgment statement that recognizes the homeland of the O'Odham and Piipaash people, we also propose that CUSOM-PRC develop a similar land acknowledgment.

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

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 touched on during two lectures within the Component I curriculum. The "Planetary Health" lecture highlighted the rising rates of asthma among low socioeconomic status groups, Hispanic and African American communities, and children. Additionally, the issue was explored during a lecture titled "Service Learning: Social Determinants Underlying Health," which focused on lead pollution and its health effects, which disproportionately impact marginalized populations.

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?

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

Score explanation: The advantages of plant-based diets for both environmental and human health were addressed during the "Planetary Health" lecture, but the coverage was limited to just one slide. We suggest expanding on this subject by presenting it as a standalone lecture, allowing for a more in-depth exploration of plant-based eating.

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?

3	This topic was explored **in depth** by the **core** curriculum
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: The impacts of the healthcare sector on the carbon footprint were discussed in the "Planetary Health" lecture. It included information on inefficient resource use, waste generation, and emission creation in the healthcare systems.	

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core 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)
	Score explanation: These components were addressed in the "Planetary Health" lecture in which a slide was dedicated to each topic. There was minimal discussion regarding how these issues in healthcare can be mitigated, so we recommend further discussion regarding how we can reduce waste and address these concerns.

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your medical school's curriculum introduce strategies to have conversations with patients about the health effects of climate change?

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
Score explanation: This topic is not incorporated in the CUSOM-PRC clinical curriculum.	

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
2	Yes, the **core** curriculum includes strategies for taking an environmental history.
1	Only **elective** coursework includes strategies for taking an environmental history.
0	No, the curriculum does **not** include strategies for taking an environmental history.
Score explanation: Within the green track curriculum, students learn the process of conducting a comprehensive patient history during a clinical interview. Environmental and occupational exposures are integrated into the social history segment of the interview. Recommendations regarding how to ask patients about their housing status was also incorporated in the gold track curriculum in the "Homelessness" lecture.	

Curriculum: Administrative Support for Planetary Health

1.20. 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.
Score explanation: The medical school is currently working on implementing more planetary health education topics within the curriculum through case based learning sessions. These initiatives are led by students. We recommend finding a faculty member who is able to spear head initiatives to implement these topics more regularly in lectures.	

1.21. 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.
Score explanation: The planetary health/education for sustainable healthcare topics were covered in two standalone lectures. We recommend that these topics be integrated into the curriculum longitudinally.	

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	**Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
Score explanation: The Planetary Health Curriculum team has a lead faculty member at the Omaha CUSOM campus. There is currently no dedicated faculty position focused on healthcare sustainability education at the CUSOM-PRC campus. Therefore, we suggest establishing a dedicated faculty member at the Phoenix campus.	

Section Total (38 out of 72)	**52.78%**

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

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
3	Yes, there are faculty members at the **medical school** who have a **primary r**esearch 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.
Score explanation: There is at least one research project specifically dedicated to planetary health currently led by a Creighton School of Medicine faculty physician on the Phoenix Regional Campus. The project is focused on exploring the effects of the environment on development and pathogenesis of Parkinson's Disease. We recommend that the pool of faculty continue to be expanded to include more planetary health projects.	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?	
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.
Score explanation: The Sustainable Creighton Initiative was formed in 2022, including both Phoenix and Omaha campuses. This initiative is focused on the United Nations Sustainable Health Goals, however there is no specific focus on research in Phoenix as part of this initiative. However, there is no	

specific institute dedicated to interdisciplinary planetary health research. 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.

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your medical school?	
3	Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda.
1	**No**, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda.
0	There is **no** process, and **no** efforts to create such a process.
Score explanation: 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 it's 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.	

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

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?	
4	Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the **institution** has hosted a conference on topics related to planetary health in the past three years.
1	The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the **institution** has not hosted a conference on topics related to planetary health in the past three years.
Score explanation: 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, organized by the School of Medicine. The conference includes research from Creighton PRC students, but no Zoom link or other opportunities were given for students to participate.. Past posters presented in the fair included subjects such as: “Climate Change and Disaster Health Preparedness”. The conference also 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.	

2.6. Is your medical school a member of a national or international planetary health or ESH organization?	
1	Yes, the medical school is a member of a national or international planetary health **or** ESH organization
0	No, the medical school is **not** a member of such an organization
Score explanation: 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.*

3.1. 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.

Score explanation: The medical school collaborates with Mesa Farms, facilitated by The Society of St. Vincent De Paul. Here, medical students engage in volunteer activities and acquire knowledge about sustainable farming practices. This initiative aims to empower students to cultivate their own food in an eco-friendly manner while contributing to improved access to nutritious food.

While there are no direct partnerships with community organizations dedicated to promoting planetary and environmental health, efforts are continuously advancing. Sustainability chairs have been designated for each student class, and ongoing initiatives are underway to introduce a course on planetary health and explore potential partnerships in the upcoming academic year.

Furthermore, the Creighton Institute for Latin American concern arranges informative lectures with local communities in the Dominican Republic. This presents another opportunity for collaboration with the community to discuss and address issues related to planetary health.

3.2. 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 presently lacks community events centered around planetary health. Creighton University in Omaha, Nebraska, organizes an annual Global Health Conference Midwest with a focus on addressing local and global health disparities through enhanced education, advocacy, and service. Although there is currently no virtual participation option for the Phoenix medical school, we acknowledge that Creighton University hosts the event institutionally. Looking ahead, a goal for the upcoming years could involve introducing a virtual presentation and attendance option for students at the Phoenix campus.

3.3. 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 weekly newsletter for second-year medical students keeps the class informed about upcoming events, including details about planetary health and sustainability, such as those occurring during sustainability week. The introduction of sustainability chairs for each medical school class has further heightened awareness of sustainability on campus.

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

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: At CUSOM-PRC, a “Heat, Air Quality, and Human Health: Global Challenges, Local Solutions” Continuing Education (CE) course was offered in May 2023. The course discussed how planetary health is inextricably linked to human health, flourishing natural systems, and the stewardship of the earth’s natural resources. In February 2024, a “Health Professional Action in the Climate Crisis” CE was offered by CUSOM-PRC. The lecture discussed climate impacts on health, the impacts on health sector activities, and ways in which health professionals are called to action.

3.5. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?	
2	Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients.
1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated medical centers have accessible educational materials for patients.
Score explanation: Educational resources regarding environmental health exposures are not readily available for patients in our region. Although Dignity Health sets annual goals for removing mercury from its hospitals, the focus is primarily on toxin elimination and lacks comprehensive educational materials on toxins and their impact on health. We recommend further clarification and expansion of these goals and objectives in language that is accessible to all patients.	

3.6. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
2	Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients.
1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated hospitals have accessible educational materials for patients.
Score explanation: An accessible PDF titled "Sustainability Highlights" is available online from Dignity Health, released in 2019. This report is the latest available and provides insights into the influence of climate change on patient outcomes. Additionally, it outlines the healthcare company's objectives for enhancing their contribution to mitigating climate change.	

Section Total (7 out of 14)	**50.00%**

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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.*

4.1. Does your medical school or your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the **medical school** or **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* 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 offers funding for medical students interested in pursuing sustainability initiatives through the Creighton Student Sustainability Action Fund (CSSAF). In the Spring of 2023, this funding supported a Sustainability Week challenge for first and second year medical students. This funding also supported a clothes mending event in the Fall of 2023,. The event discussed fast fashion and its environmental, social, and economic toll and how to make basic alterations and repairs to old clothes to extend their usefulness. The fund also supported an event surrounding menstrual health - providing free menstrual cups and discussing the benefits of reusable menstrual products, both environmentally and financially.	

4.2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time.
0	There are **no opportunities** for students to engage in planetary health/sustainable healthcare research.
Score explanation: Creighton University School of Medicine funds an M1 Summer Research Program for students to pursue research projects under the mentorship of a faculty member from Creighton University or Arizona State University. Projects can focus on a variety of fields, including planetary health and sustainable care. Students who are interested must find and connect with mentors. The	

Research Program Manager assists students in identifying possible mentors for the program. We continue to recommend broadening the mentor list to include more faculty members involved in planetary health research, potentially through a partnership with Arizona State University's School of Sustainability.

4.3. Does the medical school have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
2	The **medical school** has a web page 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: While Creighton University School of Medicine has a webpage dedicated to helping students find research mentors and ongoing projects, this webpage lacks a specific section for planetary health or sustainable healthcare projects. We continue to encourage the development of a public-facing website to feature current planetary health projects as well as a dedicated student-specific site with contact information of mentors who are willing to work with medical students on planetary health projects.	

4.4. Does your medical school have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
2	Yes, there is a student organization **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.**
0	No, there is **not** a student organization at my institution dedicated to planetary health or sustainability in healthcare.
Score explanation: In the fall of 2022, the School of Medicine's (SOM) Planetary Health and Sustainability Task Force established a student-led section at the Phoenix Campus. This new branch collaborates with its counterpart at the Omaha Campus on various projects and has launched several new initiatives, including inviting planetary health speakers to our Professional Development Sessions in Phoenix. Despite these advancements, the Phoenix branch continues to depend on the guidance and supervision of faculty from the Omaha Campus. Efforts to foster faculty involvement and leadership at the Phoenix Campus are ongoing.	

4.5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.
Score explanation: Each medical school class has one or two dedicated Sustainability Chairs on student government who advocate for sustainable practices on the campus. Additionally, there are medical students who serve as a part of the Planetary Health and Sustainability Task Force to discuss planetary health objectives with the faculty. This task force was created to bring awareness to and innovation around planetary health in medical school curriculum, research, and student initiatives.	

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	
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)

Score explanation:

1. Students have the opportunity to volunteer every Saturday at the St.Vincent de Paul Mesa Urban Farm. The farm provides fresh, organic produce to local individuals facing food insecurities.
2. The Planetary Health Club brought in a guest lecturer for a presentation titled “Heat, Air Quality, and Human Health.” The event was open to faculty and students and took place in May, 2023.
3. Phoenix CUSOM Sustainability Chairs hosted Sustainability Week March 4-8th 2024 which promoted and encouraged eco-friendly activities.
4. The Creighton Student Sustainability Fund supported a menstrual cup event where students learned about the financial and environmental benefits of using reusable menstrual cups.
5. 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).

6. Running Club hosts running events in the local neighborhood to appreciate the nature of the surrounding school and hospital.
7. The Climbing Club explores local areas for outdoor rock climbing.

Section Total (9 out of 15)	**60%**

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

Campus Sustainability

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

5.1. Does your medical school and/or institution 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
Score explanation: Creighton University has an Office of Sustainability that serves all divisions of the university, including the Phoenix Health Science Campus in Phoenix. There are three full time staff positions within the Office of Sustainability: a Director of Sustainability Programs, a CSSAF (Creighton Sustainability Action Fund) Coordinator, and a Project and Reporting Coordinator. There is currently no branch or staff responsible for graduate medical or hospital programs. Given unique aspects of sustainability that come with the regional campus location within Phoenix, as well as differences in sustainability practices between individual healthcare systems, we encourage the University to consider hiring a staff member to focus on these areas.	

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

	Score explanation: As a Catholic institution, Creighton University has released an initiative in line with the seven goals of the Vatican's Laudato Si' Action Platform which encompass sustainable practices to reduce the impacts of climate change, including reaching carbon neutrality by 2050. The action plan details what it would take to reach this goal. While this is an improvement from previous goals, we would like to emphasize that a more ambitious timeline should be implemented as time is the key variable in mitigating the effects of climate change.

5.3. Do buildings/infrastructure used by the medical school for teaching (not including the hospital) utilize renewable energy?	
3	Yes medical school buildings are **100%** powered by renewable energy
2	Medical school buildings source **>80%** of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source **>20%** of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source **<20%** of energy needs from off-site and/or on-site renewable energy.
Score explanation: While the Omaha campus has several buildings that utilize renewable energy sources, Creighton currently does not use any renewable energy to power the Phoenix Health Science Campus. We strongly encourage the university to begin incorporating renewable energy sources for the current Phoenix Health Science Campus building, and any future buildings or expansions.	

5.4. Are sustainable building practices utilized for new and old buildings on the medical school campus, with design and construction of new buildings and remodeling of old buildings conforming to a published sustainability rating system or building code/guideline?	
3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the **majority** of old buildings **have been retrofitted** to be more sustainable.
2	Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have **not been retrofitted.**
1	Sustainable building practices are **inadequately or incompletely** implemented for new buildings.
0	Sustainability is **not considered** in the construction of new buildings.
Score explanation: There is currently one health science building on the Phoenix Regional Campus. This buildinging was designed with sustainable building goals and requirements as outlined in the design policy. The building meets Leadership in Energy and Environmental Design (LEED) Silver standard. 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.	

5.5. Has the medical school or institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?	
2	Yes, the medical school or institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school or institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised.
0	The medical school or institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options.
Score explanation: The medical school has not explicitly implemented any strategies to promote environmentally-friendly transportation options to students. Last spring, Creighton participated in the Maricopa County Travel Reduction Program survey which asked participants to report methods of transportation. With a parking garage located near the school building, most students opt to drive to school. There is bike storage available for the medical school as well as St. Joseph's hospital. There are many transportation options available to individuals living in Phoenix, including the light rail. We encourage Creighton to subsidize the cost of these transportation options to encourage students to choose environmentally-friendly transport.	

5.6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?	
2	Yes, the medical school has **both** compost **and** recycling programs accessible to students and faculty.
1	The medical school has **either** recycling **or** compost programs accessible to students and faculty, but not both.
0	There is **no** compost or recycling program at the medical school.
Score explanation: The Phoenix campus participates in conventional single-stream recycling that accepts aluminum, paper, plastic, and glass provided by Waste Management (WM). There is currently no compost program. Over the last year, more recycling bins have been placed around campus. We encourage including more, so that they can be paired with most trash bins.	

5.7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
3	Yes, the medical school has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.

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 are currently no sustainability guidelines for food and beverage services on the Phoenix campus. The three preferred caterers do not have any publicly stated sustainability goals. The Office of Sustainability is currently in the process of developing an "Event Guide" that will guide the Phoenix campus towards sustainable choices but it is not currently complete. We encourage the Office of Sustainability to have the "Event Guide" complete before the start of the next academic year.	

5.8. 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: While there are sustainability procurement guidelines, they are implemented under the condition that "quality, function and cost are equal or superior." These guidelines have not been updated since 2009. Equipment purchased or leased by Creighton should meet product specifications and requisitions for Energy STAR and EPEAT. Creighton 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 update the current guidelines and bolster efforts to increase sustainability of procurement.	

5.9. 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, particularly in regards to event waste disposal.	

5.10. 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 designated Fisher Scientific for all lab procurement. Creighton's online purchasing system (CUBuyPlus) identifies when an item or brand within the Fisher Scientific catalog is a "Trusted Sustainability Partner". The School of Medicine has a Planetary Health Task Force with a sub-committee focused on improving the sustainability of lab spaces. We encourage continued efforts from this group.	

5.11. 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: Creighton has publicly stated that it plans to phase out all investments in fossil-fuels by 2031, with the intention of investing in sustainable energy. The publicly available financial report, however, does not provide details regarding investments in particular energy companies so there is no way to provide an update regarding current investments. We encourage an updated timeline with more clearly defined goals.	

Section Total (12 out of 32)	**37.5%**

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

Grading

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

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

**Within each grade bracket, a score in the top 5% (_5 to_9%), receives a "+", and a score in the bottom 5% (_0-_4%) receives a "--". For example, a percentage score of 78% would be a B+.*

Planetary Health Grades for the 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 on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(38/72) x 100 = 52.78%	C
Interdisciplinary Research (17.5%)	(9/17) x 100 = 52.94%	C
Community Outreach and Advocacy (17.5%)	(7/14) x 100 = 50.00%	C
Support for Student-led Planetary Health Initiatives (17.5%)	(9/15) x 100 = 60.00%	B-
Campus Sustainability (17.5%)	(12/32) x 100 = 37.50%	D+
Institutional Grade	**(52.78x0.3 + 52.94x0.175 + 50.00x0.175 + 60.00x0.175 + 37.50x0.175) = 50.91%**	**C**

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which **Creighton University School of Medicine - Phoenix Regional Campus** has participated in the Planetary Health Report Card initiative.