

Planetary Health Report Card (Medicine):

University of Arkansas for Medical Sciences



College of Medicine

2024-2025 Contributing Team:

- Students: Mandeep Kaur*, Madison Nichols, Safi Alsebai, Clay Schuler, Meena Chatrathi, Cassandra Gormley
- Faculty Mentors: David Davies, PhD.

*Primary Contact: Mandeep Kaur, mkaur@uams.edu Land Acknowledgement:Little Rock sits on is the ancestral home of the Caddo, Osage, and Quapaw

Summary of Findings

| Overall Grade | C- |
|---------------|----|
|---------------|----|

Curriculum

- The University of Arkansas for Medical Sciences College of Medicine curriculum has integrated the effects of climate change throughout the systems-based courses during the first two years. For the upcoming 2024-2025 school year, a new Climate Change and Health course will be offered to fourth year medical students.
- **Recommendations:** Although there is an planetary health, climate change, and health elective now offered, several subjects could be included in the core curriculum including the carbon footprint, indigenous communities, plant based diets, and mental health in relation to climate change

Interdisciplinary Research

C-

- The University of Arkansas for Medical Sciences has multiple faculty who incorporate planetary and environmental health into their current research. However there are no current faculty members whose primary research focus is planetary health or healthcare sustainability. Additionally, our institution has not hosted a conference or symposium on the topic.
- Recommendations: The University of Arkansas for Medical Sciences could organise a conference directly
 related to planetary health. They could also join the Planetary Health Alliance and the Global Consortium
 on Climate and Health Education. Finally, a website devoted specifically to environmental and planetary
 health research at this institution could provide helpful resources and insight for those who wish to get
 involved.

Community Outreach and Advocacy

C-

- The University of Arkansas for Medical Sciences provides several educational resources to its patients and the public on environmental health exposures and risks; however, the College of Medicine could include more information on the health impacts of climate change. The institution hosts a yearly lecture related to climate and health, but the institution is not otherwise heavily involved in community education and outreach related to climate health.
- **Recommendations**: The College of Medicine could partner with an environmentally-minded organization to provide resources, classes, and involvement opportunities that broaden public understanding of the health impacts of climate change in Arkansas.

Support for Student-Led Initiatives

 \mathbf{C}

• UAMS College of Medicine (COM) provides opportunities for students to engage in sustainability and quality improvement (QI) projects through the Quality Improvement in Advanced Learners Program (QIALP), allowing students to collaborate with advanced learners on interprofessional projects. However, no dedicated sustainability grants or funding are available. Research opportunities related to planetary health exist but require student initiative as there is no formal planetary health research program or fellowship. While the Department of Environmental Health Sciences has a web page listing research projects and mentors, there is no specific platform dedicated to planetary health or sustainable healthcare initiatives. UAMS COM does not have a designated student representative advocating for sustainability in

institutional decision-making councils. Co-curricular planetary health initiatives include two student-run gardens, the Harmony Health Garden and the Interprofessional Fresh Food Coalition, which provide fresh produce to underserved patient populations. Additionally, CHIG has hosted physician panel discussions on planetary health and climate change.

Recommendations: UAMS COM should increase support for student-led sustainability initiatives by
creating a dedicated planetary health webpage with mentor contacts and project opportunities. Establishing
a student liaison for sustainability on decision-making councils and offering dedicated funding for
sustainability-focused QI projects and research would also strengthen planetary health efforts at the
institution.

Campus Sustainability

D

- The University of Arkansas for Medical Sciences continues to provide environmentally-friendly transportation and offers ample recycling opportunities across campus. UAMS has pledged to reduce carbon emissions by 50% by 2030 and hopes to obtain carbon neutrality by 2050.
- **Recommendations**: There is still much to improve with the campus sustainability. UAMS could add many guidelines to encourage sustainability for school events, supply procurement, food & beverage, and lab spaces. There can also be efforts to improve renewable energy. Additionally, UAMS could provide more accessible and greener forms of transportation.

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 analysing 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, urbanisation, 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 health professional schools' 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 health professional training. It is imperative that we hold our institutions accountable for educating health professional 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 colour, 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 health professional schools, we have created a Planetary Health Report Card that students internationally can use to grade and compare their institutions on an annual basis. This student-driven initiative aims to compare health professional 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 centred on environmental health impacts 5) 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 health professional 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/Department vs. Institution: When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department 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 including all of its campuses. 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 students 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 mould 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. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word "elective" refers to an optional course or lecture series that a 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.
- Core Curriculum: This refers to taught material that is delivered to the entire cohort of students in one year.
- Clerkship / Outreach: 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, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- Clinical rotation: This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- Community organisations: For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- Climate justice: The idea that certain population groups and geographical locations
 which are disproportionately more impacted by climate change are already
 economically and socially disadvantaged. This double vulnerability sits alongside
 pre-existing social justice concerns and should therefore shift policy and practice to
 mitigate the inequitable effects of the climate crisis.
- Extractivisim: The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- Global South: Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.
- Low socioeconomic status (SES): An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.
- Low and Middle-Income Countries (LMIC): Countries that have lower degrees of economic affluence.
- **Anthropogenic:** Created through human activity
- Marginalized communities: Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

• If there are more than one "tracks" at your institution 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). Where possible please indicate the proportion of students that are on each track.

Completed in 2022 a <u>Literature Review by Metric</u> is available for the 2022 medicine report card metrics. We are in the process of updating this review and making it more applicable to all the disciplines. However the review serves as a rough collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?

Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)

Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)

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. (1 points)

No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)

Score Assigned:

2

Score Explanation: The University of Arkansas for Medical Sciences College of Medicine offers a longitudinal fourth-year elective titled "Climate Change and Health" which explores climate change effects on individual and population health as well as strategies for health sustainability.

Curriculum: Health Effects of Climate Change

1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score Explanation: As part of the first year core curriculum, there are mentions of extreme heat and how they may disrupt core biological processes. The M1 Practice of Medicine (POM) course also mentions climate change during a Social Determinants of Health lecture, in which there is a brief discussion about how climate change will likely impact people of lower socioeconomic class. In the second year Renal module, the link between heat and health is highly discussed in relation to chronic kidney disease by Dr. Manisha Singh and again in regards to kidney stones by Dr. Nishank Jain. Warmer temperatures were also linked to the spread of Salmonella and E. coli, in a lecture in the Gastrointestinal module by Dr. Matthew Jorgenson PhD.

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

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score Explanation: In the Social Determinants of Health lecture given by Kristen Shealy, MD, she introduces the topic of extreme weather such as hurricanes and wildfires and how these events will only continue to increase as climate change occurs. She also highlights how low-income populations are most likely to be severely affected by such events.

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

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in elective coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score Explanation: In the M2 Gastrointestinal Module, a lecture titled "Bacterial infections of the GI tract" by Dr. Matthew Jorgenson, PhD, highlighted changing patterns of infectious disease. This topic was well-described - various enteric pathogens and their relationship to climate change were outlined. This lecture also included the effects of warmer ambient temperatures on Salmonella and E. Coli: increasing sea temperature promotes Vibrio growth, and increases in rainfall are associated with Campylobacter infections.

${\bf 1.5.\ Does\ your\ \underline{medical\ school}\ curriculum\ address\ the\ respiratory\ health\ effects\ of\ climate\ change\ and\ air\ pollution?}$

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score Explanation: The respiratory effects of air pollution are well addressed throughout the Pulmonary module during the M2 year. In a lecture titled "Restrictive Lung Disease" by Dr .Suzanne Jeffus MD, there is a particular emphasis on the effects of occupational exposures to environmental pathogens, such as pneumoconiosis or silicosis. The effects of asbestos are also mentioned in a neoplastic lung pathology lecture by Dr. Jeffus. A lecture on hypoxia and hypoxemia by Dr. Michael Jennings, MD, also notes that polluted water sources may cause methemoglobinemia. Lastly, there was a brief mention of increased risk of COPD due to "biomass fuel exposure and air pollution," as described by Dr. Manish Joshi, MD.

| 1.6. Does your medical school curriculum add | ress the cardiovascula | ar health effects | of climate |
|--|------------------------|-------------------|------------|
| change, including increased heat | | | |

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

0

Score Explanation: The effects of climate change on cardiovascular health were not covered in the curriculum.

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

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

| This topic was covered in elective coursework. (1 point) | | |
|---|---|--|
| This topic was not covered. (0 points) | | |
| Score Assigned: | 0 | |
| Score Explanation: The effects of climate change on mental health were not covered in the curriculum. | | |

| 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? | |
|---|--------------------|
| This topic was explored in depth by the core curr | iculum. (3 points) |
| This topic was briefly covered in the core curriculum. (2 points) | |
| This topic was covered in elective coursework. (1 | point) |
| This topic was not covered. (0 points) | |
| Score Assigned: | 3 |

Score Explanation: In the Social Determinants of Health lecture, a key lecture in the POM 1 curriculum, this topic is explored in depth. Past examples, such as the water crisis in Flint, Michigan are discussed. This case serves as a foundation for a broader conversation on how various environmental factors influence health, including access to green spaces, walkable neighborhoods, and fresh produce.

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

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

Score Explanation: In the M1 POM course, the relationship between climate change and social determinants of health is explored in a Social Determinants of Health lecture. On a broader level, the course examines how climate change, social equity, and environmental factors interact to impact health . One lecture specifically addresses the ongoing impact of climate change on health outcomes, particularly through its effects on access to food, water, and clean air. It also highlights

2

how environmental factors disproportionately affect lower socioeconomic status communities and communities of color.

| 1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally? | | |
|--|---|--|
| This topic was explored in depth by the core curriculum. (3 points) | | |
| This topic was briefly covered in the core curriculum. (2 points) | | |
| This topic was covered in elective coursework. (1 point) | | |
| This topic was not covered. (0 points) | | |
| Score Assigned: | 2 | |

Score Explanation: In the M1 POM course, the unequal regional impacts of climate change are briefly mentioned in conjunction with the Social Determinants of Health lecture. Other interest groups, such as the Global Surgery Student Alliance (GSSA) or the Climate Health Interest group have led discussion about unequal regional health impacts of climate change, but neither spent a significant amount of time delving into the subject.

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

| 1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)? | | |
|---|---|--|
| This topic was explored in depth by the core curriculum. (3 points) | | |
| This topic was briefly covered in the core curriculum. (2 points) | | |
| This topic was covered in elective coursework. (1 point) | | |
| This topic was not covered. (0 points) | | |
| Score Assigned: | 2 | |
| Score Explanation: During the M2 Endocrine and Reproductive units, Dr. Andrew Burrow MD, | | |

Score Explanation: During the M2 Endocrine and Reproductive units, Dr. Andrew Burrow MD, briefly mentions the effects of pollutant exposure on maternal and paternal reproductive health.. Adverse effects of environmental estrogens are also mentioned by Gwen Childs, PhD, in a lecture on the embryonic development of the gonads and duct systems.

1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?

This topic was explored in depth by the core curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

| This topic was covered in elective coursework. (1 point) | | |
|--|---|--|
| This topic was not covered. (0 points) | | |
| Score Assigned: | 0 | |
| Score Explanation: The curriculum does not address human-caused environmental threats in the adjacent community. | | |

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

This topic was explored in depth by the core curriculum. (3 points)

This topic was briefly covered in the core curriculum. (2 points)

This topic was covered in elective coursework. (1 point)

This topic was not covered. (0 points)

Score Assigned:

0

Score Explanation: Indigenous knowledge and values are not addressed in the current curriculum.

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

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

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

Score Explanation: In the M1 Practice of Medicine course, the intersectionality of climate change and social health determinants is discussed, especially in the lecture titled "Social Determinants of Health". There is a heavy emphasis on the connection between zip code, socioeconomic status, and health outcomes.

3

Curriculum: Sustainability

| 1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet? | | |
|--|---|--|
| This topic was explored in depth by the core curriculum. (3 points) | | |
| This topic was briefly covered in the core curriculum. (2 points) | | |
| This topic was covered in elective coursework. (1 point) | | |
| This topic was not covered. (0 points) | | |
| Score Assigned: | 0 | |

Score Explanation: Though the importance of a healthy diet with significant amounts of plant-based items is often encouraged in regards to cardiovascular, neurological, and gastrointestinal health, there are few mentions of the environmental co-benefits.

| 1.16. Does your <u>medical school</u> curriculum add systems? | ress the carbon footprint of healthcare |
|--|--|
| This topic was explored in depth by the core curr | riculum. (3 points) |
| This topic was briefly covered in the core curricu | lum. (2 points) |
| This topic was covered in elective coursework. (1 | point) |
| This topic was not covered. (0 points) | |
| Score Assigned: | 0 |
| Score Explanation: The extensive carbon footprin curriculum. | t of the healthcare system is not addressed in the |

| 1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each) | Score |
|--|-------|
| The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points) | 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 fulfil this metric. (2 points). | 2 |
| 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 point) | 1 |

| Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point) | 0 |
|---|---|
| The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point) | 0 |
| The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point) | 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) (1 point) | 1 |

Score Explanation: Socially and environmentally sustainable clinical practices are discussed in the first two years of the curriculum mostly in the Practice of Medicine courses. Sustainable clinical practices are also discussed in third-year clinical didactics in the Internal Medicine, Pediatrics, and Family Medicine clerkships in lectures, reading discussions, and case reviews. Lifestyle modifications are discussed at length throughout the curriculum, and the impact of certain clinical and prescribing practices on the supply chain, especially in the context of natural disaster, are emphasized (e.g. IV fluids during their shortage in 2024 due to storms on the US east coast).

Curriculum: Clinical Applications

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

Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)

Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 point)

No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)

0

Score Assigned:

Score Explanation: No specific strategies were introduced in clinical training for having conversations with patients about the health effects of climate change; however, in the Family Medicine clerkship's bi-weekly Philosophy of Family Medicine didactics, strategies for having conversations about systemic issues affecting patient's health were introduced, and could be used to guide student doctors if they so wished.

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?

Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)

Only elective coursework includes strategies for taking an environmental history. (1 point)

No, the curriculum does **not** include strategies for taking an environmental history. (0 points)

Score Assigned:

Score Explanation: The longitudinal Practice of Medicine course in the first two years emphasizes and adequately trains students in taking a social history, including asking about occupational and environmental exposures. These skills are re-emphasized across many of the third-year clerkships, including in Internal Medicine's pulmonology didactic, and in Pediatrics' lectures on asthma and adolescent health.

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?

Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)

Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)

No, there are **no** improvements to planetary health education in progress. (0 points)

Score Assigned:

2

Score Explanation: A fourth-year elective course called Climate Change and Health has been introduced as an option for students who are interested in furthering their understanding of the relevance of climate change in healthcare and clinical practice and its disproportionate impact on vulnerable and marginalized populations. This elective course also offers opportunities to learn how to mitigate effects of climate change for and with patients. While climate change is not the direct focus in other electives, similar themes are explored in fourth-year elective courses such as Caring for the Vulnerable Patient, Medicine Anthropology, and the new History of Medicine which will be offered beginning the 2025-2026 school year.

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

Planetary health/ESH topics are well integrated into the core medical school curriculum. (6 points)

Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)

Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s). (2 points)

There is **minimal/no** education for sustainable healthcare. (0 points)

Score Assigned: 4

Score Explanation: While these topics are integrated longitudinally appropriately and where they are appropriate in the curriculum, it is possible to integrate them that highlights the link between the system levels approach that is taught in Practice of Medicine course and didactic coursework. Increased emphasis can be placed on the fact that, in many cases, what is being discussed are environmental issues and topics regarding climate change and pollution, instead of leaving students on their own in making those connections themselves. The best example of this is Dr. Matthew Jorgenson's PhD lecture on GI bacterial infections in the second year. There is also room for climate change and its effects to be further explored in clinical clerkships, perhaps in ways similar to the discussion of other social-political determinants of health in the Family Medicine clerkship.

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?

Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)

No, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)

0

Score Assigned:

Score Explanation: UAMS College of Medicine does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Section Total (37 out of 72) 51.4%

Back to Summary Page here

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. <i>A</i> | Are there researchers engaged in pla | anetary health | research and | healthcare s | ustainability |
|----------------------|--------------------------------------|----------------|--------------|--------------|---------------|
| resea | arch at your medical school? | | | | |

Yes, there are faculty members at the **medical school** who have a **primary r**esearch focus in planetary health **or** healthcare sustainability. (3 points)

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. (2 points)

There are planetary health and/or healthcare sustainability researchers at the **institution**, but none associated with the medical school.

No, there are **no** planetary health and/or healthcare sustainability researchers at the **institution** or **medical school** at this time.

Score Assigned:

2

Score Explanation: Dr. Manish Joshi MD has published multiple articles related to the intersection of climate change and respiratory health, including a recent 2025 article that studied the interplay of climate change and respiratory health. Dr. Alice Alexander MD has delivered multiple lectures on planetary and environmental health to COM faculty, staff, and students. While these physician researchers have studied and published on topics in climate change and health it is not the primary focus of their research.

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?

There is at least one dedicated department or institute for interdisciplinary planetary health research. (3 points)

1

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. (2 points)

There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 point)

There is **no** dedicated department or institute. (0 points)

Score Assigned:

Score Explanation: The College of Medicine at UAMS still lacks a planetary health department. However, the College of Public Health does have an Environmental and Occupational Health Department that focuses on assessing and controlling the impacts of the environment on individual and population health. Research projects within this department study air pollution effects on cardiovascular and respiratory health, environmental effects on epigenetics, the study of toxins as they pertain to basic research, and the role of microbes in promoting environmental sustainability, bioremediation, and food preservation. An environmental and occupational health course is also offered for students pursuing a Masters of Public Health.

| 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? |

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. (3 points)

Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)

No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 point)

There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:

2

Score Explanation: The UAMS Translational Research Institute has an ongoing program called <u>The Community Based Participatory Research (CBPR) Scholars Program</u> that takes applications every year for grants and stipends to promote scholarly work on how climate affects community health. Its main goal being to increase community-partnered research at UAMS to better serve the research needs of the Arkansas community and ultimately to reduce health disparities in Arkansas.

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

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. (3 points)

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. (2 points)

The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)

There is **no** website. (0 points)

Score Assigned:

2

Score Explanation: The UAMS COM has the webpage <u>"Campus Operations Support Service"</u>, which provides educational information about on-campus recycling, sustainable nutrition through on-campus dining, links to sustainable transportation options, and utility energy-saving tips. It also connects research in varied departments by listing each institution's web pages ultimately giving webpage users access to research in relevant environmental health fields.

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

Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)

Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (3 points)

Yes, the **institution** has hosted a conference on topics related to planetary health in the past three years. (2 points)

The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

Score Assigned:

0

Score Explanation: UAMS has not hosted a conference or symposium on topics related to planetary health in the last three years.

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

Yes, the medical school is a member of a national or international planetary health **or** ESH organization (1 point)

No, the medical school is **not** a member of such an organization (0 points)

Score Assigned:

0

Score Explanation: The UAMS College of Public Health has joined the Global Consortium on Climate and Health Education, but the UAMS College of Medicine has not. Thus, the institution has joined the Global Consortium on Climate and Health Education in some capacity, though the medical school specifically has not.

Section Total (7 out of 17)

41.2%

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 colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.

3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?

Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)

Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)

The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)

No, there is **no** such meaningful community partnership. (0 points)

Score Assigned:

Score Explanation: In 2023, UAMS COM students, led by Dr. Andrew Morris PhD, partnered with community beekeeping organization <u>Calm and Confidence</u> to maintain UAMS beehives (can be viewed <u>here</u>). The COM currently maintains four beehives at UAMS and harvested approximately 80 lbs of honey in 2024. The initiative spreads awareness at UAMS and in the community about the critical work of bees in maintaining environmental ecosystems.

3.2. Does your <u>institution</u> offer community-facing courses or events regarding planetary health?

The **institution** offers community-facing courses or events at least once every year. (3 points)

The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)

The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)

The **institution** has not offered such community-facing courses or events. (0 points)

| Score Assigned: | 3 |
|-----------------|---|
| | |

Score Explanation: The student-led Climate Health Interest Group will host lectures periodically through the school year on sustainable healthcare and climate health by UAMS faculty, including Climate Health Disparities by Rachel Hale and an Introduction to Climate Health by Dr. Alice Alexander MD. Several talks have related to planetary and/or environmental health, including a talk in 2024 by Rachel Hale titled, "Climate Change and Health Disparities in Minority Populations." These lectures are open to both medical trainees and the interested public.

One event in May 2024 was hosted by UAMS and catered to the public. The event was titled, "Climate, Biodiversity and People: Actionable Science in a Post-Normal World" and was held as part of an annual Richard and Ellen Sandor Lecture Series. Dr. Stephen Jackson, scientist emeritus at the U.S. Geological Survey, gave the lecture. (can be viewed here). The Sandor lecture series is hosted annually and is free to the public. The series invites speakers to cover topics related to climate health, climate change, and environmentalism.

3.3. Does your <u>institution</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)

Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)

Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)

Score Assigned:

Score Explanation: No consistent communication is received related to planetary health and sustainable healthcare. The climate health and interest group at UAMS is looking to reinstitute a quarterly climate health newsletter in 2025.

0

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

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. (2 points)

Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)

There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned: 0

Score Explanation: There were no Climate Health Grand Rounds or CME offerings for this year for post-graduate providers. COPH offers a Climate Change and Public Health (ENVH 53103) course that is available to <u>non-degree seeking students</u> with a bachelor's degree and requires tuition payment. The COPH also has an <u>MPH Concentration in Climate</u>, Rural, and Global Public Health.

3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?

Yes, the **institution** or <u>all</u> **affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitalss have accessible educational materials for patients. (0 points)

Score Assigned:

2

Score Explanation: Yes, UAMS has accessible educational materials for patients about environmental health exposures that can be found through the institution's <u>website</u>. For example, the school offers educational readings and audio clips on <u>air pollutants</u>, <u>pesticides</u>, <u>poisons</u>, and <u>heat-related health</u>. The series is archived as part of a local radio show called "Here's to Your Health" hosted by UAMS' Dr. T. Glenn Pait MD.

UAMS also has information on dangerous substances found through the institution's website, on the page "<u>UAMS Library - Services to the state</u>," however, the links to all toxic-related resources are nonfunctional.

3.6. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?

Yes, the **institution** or <u>all</u> **affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:

0

Score Explanation: No, UAMS has no accessible educational materials for patients about the health impacts of climate change.

Section Total (6 out of 14)

42.9%

Support for Student-Led Planetary Health Initiatives

<u>Section Overview:</u> 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? | |

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. (2 points)

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. (1 point)

No, **neither** the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)

| ed: |
|-----|
| ed: |

Score Explanation: UAMS COM offers students the opportunity to work alongside other advanced learners (residents, fellows, attendings) to participate in the Quality Improvement in Advanced Learners Program (QIALP), which is a 9-month QI program designed to train teams to work effectively on interprofessional quality improvement project teams while using quality improvement science methodology. Through this program, UAMS COM students are able to choose projects, including those focused on sustainability; however, funding is not included and no specific sustainability grant is available.

4.2. Does your <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?

The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare research. (2 points)

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. (1 point)

There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Explanation: UAMS COM offers many opportunities for medical students to perform research across broad research areas, including planetary health. However, there is not a specific research or fellowship program for medical students at this time.

4.3. Does the <u>medical school</u> 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.

The **institution** 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. (2 points)

There is an **institution** webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information. (1 point)

There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:

Score Explanation: While the UAMS Department of Environmental Health Sciences has a <u>website</u> with research projects and potential research mentors, there is not a specific focus on planetary health or sustainable healthcare. Students would have to broadly reach out to potential mentors and request help with their own planetary health research projects.

1

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

Yes, there is a student organization **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organization at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)

No, there is **not** a student organization at my institution dedicated to planetary health or sustainability in healthcare. (0 points)

2

Score Assigned:

Score Explanation: The <u>UAMS Climate Health Interest Group</u> student organization is an interdisciplinary student group aimed at advancing sustainability initiatives within health professional schools. This group does not receive any money from the COM or community but is supported by a faculty mentor.

4.5. Is there a student liaison representing sustainability interests who serves on a medical school

or <u>institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?

Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee. (1 point)

No, there is no such student representative. (0 points)

Score Assigned:

0

Score Explanation: UAMS COM does not have a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council.

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) 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. Panels, speaker series, or similar events related to planetary health that have students as an intended audience. 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. Cultural arts events, installations or performances related to planetary health that have 0 students as an intended audience. Local volunteer opportunities related to building community resilience to anthropogenic 0 environmental impacts. Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or 0 other outings for students) 3

Score Explanation: There are two student-run gardens at University of Arkansas that help provide fresh produce for uninsured and underserved patient populations in Little Rock, AR. The Harmony Health Garden is maintained by medical student volunteers and cultivates fresh produce for patients receiving care at the Harmony Health Clinic. The Interprofessional Fresh Food Coalition consists of students enrolled 15 in graduate health programs at UAMS and helps provide produce for patients at the 12th Street Clinic and Wellness Center. Likewise, the CHIG student interest group has held several physician panel events that all students have been invited to attend to learn about planetary health and climate change.

| Section | Takal | 10 - | 4 | ~£ 1 | 5 \ |
|---------|-------|------|---|------|------------|
| Section | 10121 | 101 | | OI I | 71 |

Score Assigned:

Back to Summary Page <u>here</u>

Campus Sustainability

Section Overview: This section evaluates the support and engagement in sustainability initiatives by the 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 endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising 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 minimising environmental impact.

5.1. Does your institution have an Office of Sustainability?

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. (3 points)

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 hospital sustainability. (2 points)

There are **no salaried sustainability staff**, but there is a sustainability task force or committee. (1 point)

There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)

Score Assigned:

Score Explanation: The University of Arkansas for Medical Sciences has an Office of Campus Sustainability called "Sustainable UAMS" with multiple full-time staff dedicated to campus sustainability and advocacy; however, there is no specific staff member in charge of the medical school.

2

| 5 | .2 | н | ow | am | bit | ious | is | vour | inst | ituti | ion' | 's p | lan | to | red | uce | its | own | car | bon i | foot | pri | nt? |
|---|----|---|----|----|-----|------|----|------|------|-------|------|------|-----|----|-----|-----|-----|-----|-----|-------|------|-----|-----|
| | | | | | | | | | | | | | | | | | | | | | | | |

The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)

The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)

The institution has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate** (1 point)

0

The institution does **not** meet any of the requirements listed above (0 points)

Score Assigned:

Score Explanation: The University of Arkansas for Medical Sciences has written and signed a pledge committing to the decarbonization of the healthcare sector. In this pledge, UAMS has

formally committed to reducing emissions by 50% by 2030 and achieving net zero emissions (carbon neutrality) by 2050 (not 2030 or 2040 like the rubric specifies). While this document does describe some milestones that have already been achieved, there is not a clear Climate Action Plan that outlines the work needed to meet this goal along with what has already been achieved.

| 5.3. Do buildings/infrastructure used b | y the institution for | teaching (not in | icluding the |
|---|-----------------------|------------------|--------------|
| hospital) utilize renewable energy? | | | |

Yes, institution buildings are 100% powered by renewable energy. (3 points)

Institution buildings source >80% of energy needs from off-site and/or on-site renewable energy. (2 points)

Institution buildings source >20% of energy needs from off-site and/or on-site renewable energy. (1 point)

Institution buildings source <20% of energy needs from off-site and/or on-site renewable energy. (0 points)

Score Assigned:

0

Score Explanation: In 2021, the University of Arkansas for Medical Sciences completed a \$150 million energy project. This project involved the construction of a new diesel-powered electric generator plant that will provide 100% back-up power for the UAMS campus. In addition to constructing the new power plant, the project included the replacement of the Barton Building exterior and infrastructure as well as an upgrade to campus building control systems, interior and exterior lighting, electrical and mechanical systems. Renewable energy does not contribute to UAMS' power supply in any appreciable amount.

5.4. Are sustainable building practices utilised for new and old buildings on the <u>institution's</u> campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?

Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)

Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)

Sustainability is **not considered** in the construction of new buildings. (0 points)

Score Assigned:

3

Score Explanation: Since 2007, the University of Arkansas for Medical Sciences has incorporated many energy sustaining initiatives including the establishment of new generator capacity at the West Central Energy Plant to pull the plant off the electric grid, the first heat pump chiller in the nation, a second heat pump chiller and the largest in the nation, lighting improvements, and many other projects which together save UAMS \$8.1 million annually in utility expenses. Additionally, the recent \$150M energy project aimed to make buildings more sustainable via the replacement of the Barton Building exterior and infrastructure as well as an upgrade to campus building control systems, interior and exterior lighting, electrical and mechanical systems.

5.5. Has the <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

Yes, the 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-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)

The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)

The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)

Score Assigned:

1

Score Explanation: The University of Arkansas for Medical Sciences has limited programs to encourage environmentally-friendly transportation, and most students are not aware of these opportunities. These include bicycle parking and electric vehicle charging stations on campus as well as a carpooling program for employees. The campus is also accessible by public transit, but it is only served by two bus routes. However, the vast majority of students and employees arrive on campus by driving alone, and UAMS provides abundant free parking to those arriving by car.

5.6. Does your <u>institution</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?

Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)

The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)

There is **no** compost or recycling program at the institution. (0 points)

Score Assigned:

2

Score Explanation: The University of Arkansas for Medical Sciences provides multiple recycling bins around campus that are available to faculty and students as well as opportunities to request

bins at new locations anywhere on campus. Additionally, in 2016, the UAMS Food Recycling Project started a food recycling program dedicated to donating food waste from kitchens to food rescue/recycling organizations.

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

Yes, the institution has a**dequate** 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. (3 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)

There are **no** sustainability guidelines for food and beverages. (0 points)

Score Assigned:

0

Score Explanation: The University of Arkansas for Medical Sciences does not have any guidelines for food and beverages.

5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement?

Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)

There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:

0

Score Explanation: This University of Arkansas for Medical Sciences currently has no sustainability guidelines or criteria when making decisions about supply procurements.

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?

| Every event hosted at the institution must abide by sustainability criteria. (2 points) | | | | | | |
|---|---|--|--|--|--|--|
| The institution strongly recommends or incentivizes sustainability measures, but they are not required. (1 point) | | | | | | |
| There are no sustainability guidelines for institution events. (0 points) | | | | | | |
| Score Assigned: | 0 | | | | | |
| Score Explanation: The University of Arkansas for Medical Sciences does not have any sustainability requirements for events hosted on campus. | | | | | | |
| | | | | | | |
| 5.10. Does your <u>institution</u> have programs and more environmentally sustainable? | initiatives to assist with making lab spaces | | | | | |
| Yes, the institution has programs and initiatives environmentally sustainable. (2 points) | to assist with making lab spaces more | | | | | |
| There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point) | | | | | | |
| There are no efforts at the institution to make lab spaces more sustainable. (0 points) | | | | | | |
| Score Assigned: | core Assigned: 0 | | | | | |
| Score Explanation: The University of Arkansas for Medical Sciences does not have any campus wide programs or guidelines to assist with making lab spaces more environmentally sustainable but some researchers make their own reagents and utilize reusable material if possible. | | | | | | |
| | | | | | | |
| 5.11. Does your <u>institution's</u> endowment portfo | olio investments include fossil-fuel companies? | | | | | |
| 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. (4 points) | | | | | | |
| The institution is entirely divested from fossil fuels. (3 points) | | | | | | |
| The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments. (2 points) | | | | | | |
| The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organised advocacy for divestment. (1 point) | | | | | | |
| Yes, the institution has investments with fossil-fu change that. (0 points) | el companies and there have been no efforts to | | | | | |
| Score Assigned: 0 | | | | | | |

Score Explanation: The University of Arkansas for Medical Sciences endowment portfolio investments include fossil-fuel companies and there have been no efforts to change that.

| Section Total (8 out of 32) | 25% |
|-----------------------------|-----|
|-----------------------------|-----|

Back to Summary Page <u>here</u>

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% |
| В | 60% - 79% |
| С | 40% - 59% |
| D | 20% - 39% |
| F | 0% - 19% |

Planetary Health Grades for the University of Arkansas School of Medicine

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

| Section | Raw Score % | Letter Grade |
|---|---|--------------|
| Planetary Health Curriculum (30%) | $(37/72) \times 100 = 51.4\%$ | С |
| Interdisciplinary Research (17.5%) | $(7/17) \times 100 = 41.2\%$ | C- |
| Community Outreach and Advocacy (17.5%) | $(6/14) \times 100 = 42.9\%$ | C- |
| Support for Student-led Planetary Health Initiatives (17.5%) | (8/15) x 100= 53.3% | С |
| Campus Sustainability (17.5%) | (8/32) x 100 = 25.0% | D |
| Institutional Grade | (51.4x0.3 + 41.2x0.175 + 42.9x0.175 + 53.3x0.175 + 25.0x0.175) = 43.9 | C- |

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which **UAMS** has participated in the Planetary Health Report Card initiative.

Planetary Health Report Card Trends for University of Arkansas for

