



Planetary Health Report Card (Medicine): *Indiana University School of Medicine*



SCHOOL OF MEDICINE

INDIANA UNIVERSITY

2022-2023 Contributing Team:

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Summary of Findings

| | |
|---|----|
| Overall | C |
| <u>Curriculum</u> | C- |
| <ul style="list-style-type: none"> IUSM integrates social determinants of health into its core curriculum. Students gain an understanding that environmental exposures have a disproportionate impact on marginalized communities. Recommendations: Planetary Health connections in the curriculum should be made more explicit, with more dedicated time. The medical school should identify Planetary Health as a priority theme throughout the curriculum and include that material in learning objectives and test questions for each course. | |
| <u>Interdisciplinary Research</u> | C |
| <ul style="list-style-type: none"> IUSM is a member of Global Consortium on Climate and Health Education and of the Association for the Advancement of Sustainability in Higher Education. IUSM lacks an institute for interdisciplinary Planetary Health research that emphasizes the impacts of anthropogenic environmental changes on health. IUSM may draw from existing centers and groups such as Richard M. Fairbanks School of Public Health, IU School of Public Health, Paul H. O'Neill School of Public and Environmental Affairs, Center for Urban Health, Sustainable Development Goals Working Group, Environmental Resilience Institute, and its partnership with Moi University. Recommendations: The medical school should provide funded planetary health research opportunities for students and could start by offering planetary health research projects through their summer research program [Indiana University Medical Student Program for Research and Scholarship (IMPRS)]. | |
| <u>Community Outreach and Advocacy</u> | D+ |
| <ul style="list-style-type: none"> Indiana University has a centralized Office of Sustainability website that links the sustainability efforts at every IU campus. There is an opportunity to add a section for future Planetary Health initiatives on the website. The institution collaborates with local governments and organizations, but the medical school is not directly involved in these interactions nor facilitates collaborations by itself. Recommendations: IUSM 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 medical students to be a part of this work. | |
| <u>Support for Student-Led Initiatives</u> | B |
| <ul style="list-style-type: none"> IUSM has a local chapter of Medical Students for a Sustainable Future supported by faculty. Recommendations: It would be beneficial for IUSM to have a student liaison representing sustainability interests who serves on a decision-making council. | |
| <u>Campus Sustainability</u> | C |
| <ul style="list-style-type: none"> IU has implemented robust strategies to encourage and provide environmentally-friendly transportation options for students and to reduce the environmental impact of commuting. IU has a dedicated Office of Sustainability and a Climate Action Planning Committee, but has yet to divest from fossil fuels or to release a formal plan for carbon neutrality. Recommendations: IUSM has many opportunities to improve its sustainability practices: divest from fossil fuels, re-implement composting, use renewable energy for campus buildings, and implement programs to make labs more environmentally sustainable. | |

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

Planetary Health Curriculum

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

Curriculum: General

| 1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year? | |
|--|---|
| 3 | Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year. |
| 2 | Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year. |
| 1 | The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health. |
| 0 | No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. |
| <p><i>Score explanation:</i> Though unable to this year, IUSM will offer “Climate Change and Health” to third and fourth year medical students beginning next year. The 4 week-long course will cover climate change and clinical challenges, climate change solutions, and climate’s impact on healthcare inequities and social injustice. Students will also be required to partner with a local community agency that focuses on environmental or climate advocacy to volunteer with on a weekly basis.</p> <p>Recommendations: Although one course is substantially better than no courses at all, there are several opportunities to introduce the subject to first and second year students, such as in a similar manner as the Mind-Body Elective.</p> | |

Curriculum: Health Effects of Climate Change

| 2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change? | |
|--|--|
| 3 | This topic was explored in depth by the core curriculum. |
| 2 | This topic was briefly covered in the core curriculum. |
| 1 | This topic was covered in elective coursework. |
| 0 | This topic was not covered. |

Score explanation: The first-year medical student (MS1) course Foundations of Clinical Practices 1 includes a lecture titled, “Poverty, Neighborhood, and Environment”, which discusses systemic effects of climate change on healthcare. The MS1 course Fundamentals of Health and Disease also includes an “Environmental Injury” lecture and small group, which examine the effects of and links between extreme heat exposure, climate change, and health in depth.

3. Does your medical school 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: IUSM’s MS1 course Fundamentals of Health and Disease includes a lecture titled, “Environmental Injury”, that examines the effects of extreme weather events on individual health. Students then participate in an in depth discussion on the subject in a small group setting.

4. Does your medical school 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: IUSM's MS1 course Fundamentals of Health and Disease has a lecture titled, “Environmental Injury” that discusses the impact of climate change on human health and infectious disease. Furthermore, there will be an elective titled “Climate Change and Health” that focuses on the effect of climate change on infectious and vector-borne illnesses incorporated into next years’ curriculum. The elective was not included in the grade for this years’ report card.

5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?

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

Score explanation: IUSM's MS1 course Fundamentals of Health and Disease has a lecture titled, "Environmental Injury" that discusses the impact of surface ozone and smog as well as particulate pollution on respiratory health with an explicit learning objective to "Describe the main types of air pollution and understand the different clinical disease consequences that may occur from exposure". Furthermore, there will be an elective titled "Climate Change and Health" offered beginning next year that focuses on the effect of climate change on respiratory illnesses, such as allergies and asthma. The elective was not included in the grade for this years' report card.

6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat?

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

Score explanation: The MS1 course Fundamentals of Health and Disease includes an "Environmental Injury" lecture and corresponding small group, which explores the cardiovascular health effects of climate change, including responses to increased heat; the learning objectives for these sessions related to cardiovascular health effects are:

- "Understand the reciprocal connection between human impact on the environment and the environment's impact on human health."
- "Understand the different types of injuries induced by the physical environment including the basic definitions of trauma, thermal injuries, hyper and hypothermia and ionizing radiation."

Additionally, next year there will be an elective course "Climate Change and Health Elective" that discusses how "Climate change leads to greater rates of heat-related illnesses, allergies and asthma, infectious and vector-borne conditions, maternal-fetal illnesses, and mental health concerns." The elective was not included in the grade for this years' report card.

7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?

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

Score explanation: This topic was not covered in IUSM core curriculum or elective coursework.

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

| | |
|--|--|
| 3 | This topic was explored in depth by the core curriculum. |
| 2 | This topic was briefly covered in the core curriculum. |
| 1 | This topic was covered in elective coursework. |
| 0 | This topic was not covered. |
| <p><i>Score explanation:</i> The relationships between health, individual food and water security, and environmental health is covered in didactic and small group sessions “Structural & Social Determinants of Health - Poverty, Neighborhood, & Environment” in the MS1 course Foundations of Clinical Practices 1; however, “environmental health” refers more to socioeconomic status, the neighborhood patients grow up and live in, and air pollutants. The connection between these things and ecosystem health/climate change is not clearly defined or discussed.</p> <p>Recommendations: It should be a relatively straightforward adaptation to explicitly make the connection between ecosystem health/climate change and above listed topics.</p> | |

| | |
|--|--|
| 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. |
| <p><i>Score explanation:</i> The MS1 course Foundations of Clinical Practices 1 includes both didactic and small group sessions titled “Structural & Social Determinants of Health - Poverty, Neighborhood, & Environment” that discusses the items listed above in depth.</p> | |

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|---|--|
| 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. |
| <p><i>Score explanation:</i> Though not offered this year, next year the elective course Climate Change and Health Elective will explore “...climate’s impact on healthcare inequities and social justice.” The elective was not included in the grade for this years’ report card.</p> | |

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

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

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

Score explanation: This topic was not covered in IUSM core curriculum or elective coursework.
Recommendations: These topics could be integrated into the second year medical student (MS2) course Endocrine, Reproduction, Musculoskeletal, and Dermatology in the lecture, “Prenatal & Postnatal Growth” or in one of the male/female “Reproductive Disorders” lectures.

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: Foundations of Clinical Practice 1 includes modules (didactic and small-group discussion) addressing planetary health/ESH: “Social Determinants of Health” and “Poverty, Neighborhood, and Environment.” Videos and data specific to Indiana were part of the assigned module material. In the past, students used to conduct a neighborhood drive-through to better understand the community local to the medical school. This year it was conducted virtually during the interdisciplinary group meeting/project.

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: This topic was not covered in IUSM core curriculum or elective coursework.

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

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

2 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 MS1 Course Foundations of Clinical Practice 1 (didactic and small-group discussion) addresses planetary health/ESH in the modules, “Social Determinants of Health” and “Poverty, Neighborhood, and Environment.” These address the unequal distribution of exposure to anthropogenic environmental pollutants, such that low SES, women, communities of color, children, homeless populations, and older adults are more likely to experience higher exposure rates and adverse effects.

Curriculum: Sustainability

15. Does your medical school 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: This topic was not covered in IUSM core curriculum or elective coursework. Curriculum addresses the health benefits of a plant-based diet, but does not link these health benefits to environmental benefits.

Recommendations: The MS1 course Foundations of Clinical Practices 1 provides “Whole Food, Plant Based Resources from ACLM [American College of Lifestyle Medicine]”, which could be expanded to tie the link between health & environmental co-benefits. Additionally, the MS2 course Gastrointestinal System and Nutrition has multiple lectures and small groups in which this link could be integrated, e.g. the small group session “Nutrition and Dietary Practices”.

16. Does your medical school 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: This topic was not covered in IUSM core curriculum or elective coursework.

| 17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each) | |
|---|--|
| 2 | The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment |
| 2 | The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfill this metric. |
| 1 | The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. |
| 1 | Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated |
| 1 | The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions |
| 1 | The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. |
| 1 | Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) |
| | <i>Score explanation:</i> The MS1 course Foundations of Clinical Practices 1 discusses “Lifestyle Medicine” in several lectures and identifies the treatment options listed in the description above. However, the environmental impacts of these treatments is never explicitly discussed. |

Curriculum: Clinical Applications

| 18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change? | |
|---|---|
| 2 | Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum. |
| 1 | Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework. |
| 0 | No, there are not strategies introduced for having conversations with patients about climate change |

Score explanation: This topic was not covered in IUSM core curriculum or coursework.

Recommendations: This topic could be integrated into the module and didactic session on “Poverty, Neighborhood, and Environment” in the MS1 course Foundations of Clinical Practices 1.

19. In training for patient encounters, does your medical school’s 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: Students are trained in the course Foundations of Clinical Practices 1 to take a full patient history, including environmental exposures such as travel, toxic and harmful substance exposure, and occupational exposure.

Curriculum: Administrative Support for Planetary Health

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

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|---|--|
| 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 school is working toward making minor improvements to better incorporate planetary health education in both core curriculum and electives. Environmental change and human health risks due to environmental exposures are taught in two separate lectures in FCP I. Lecturers from Host Defense have incorporated a brief climate change discussion related to Lyme disease distribution. An elective in Climate Change and Health will soon be offered to fourth year medical students. The elective was not included in the grade for this years’ report card.

IUSM MS4SF leadership is working with individual course directors to incorporate more planetary health topics into existing curriculum. For example, MS4SF worked with the Fundamentals of Health and Disease course director to update the Environmental Injury lecture and small group. MS4SF has also identified areas where FCP can easily expand on environmental health and climate change in the future.

Curriculum Council Steering Committee has approved the development of a core ESH/planetary health curriculum with session objectives, which will be required for each pre-clinical course.

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

| | |
|---|--|
| 6 | Planetary health/ESH topics are well integrated into the core medical school curriculum. |
| 4 | Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. |
| 2 | Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s) . |
| 0 | There is minimal/no education for sustainable healthcare. |
| <p><i>Score explanation:</i> MS1 course Foundations of Clinical Practices I covers environmental health in depth in a standalone lecture titled, “Understanding the Impact of Neighborhood, Poverty, and Environment on Health” and MS1 course Fundamentals of Health and Disease addresses the topic in a standalone lecture titled, “Environmental Injury”. These are the main two lectures within the core curriculum addressing planetary health/ESH.</p> | |

| | |
|---|--|
| <p>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?</p> | |
| 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. |
| <p><i>Score explanation:</i> Though there is not an appointed faculty member responsible for overseeing this integration at IUSM, there is one faculty member who is currently working on improving awareness.</p> | |

| | |
|-------------------------------------|----------------|
| Section Total (30 out of 72) | 41.67%% |
|-------------------------------------|----------------|

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

Interdisciplinary Research

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

| 1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u> ? | |
|--|---|
| 3 | Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability. |
| 2 | Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus. |
| 1 | There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school. |
| 0 | No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time. |
| <p><i>Score explanation:</i> There are planetary health and healthcare sustainability researchers at the institution (IUPUI), but none directly associated with the medical school. IUPUI has both the Richard G. Lugar Center for Renewable Energy and the IUPUI Center for Urban Health. The mission of the Lugar Center is to “promote research excellence in renewable energy through collaborative efforts among faculty in the disciplines of engineering, chemistry, physics, biology, and environmental affairs and public policy”. There are currently 42 research members from IUPUI or Indiana University working for the Lugar Center. The Center for Urban Health “works closely with community-based partners to promote environmental justice”. The center is extremely involved with the community, and is led by Dr. Gabriel Filippelli, whose research includes work on pollutant distribution and human exposure, in addition to engaging communities to reduce their own exposure.</p> | |

| 2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u> ? | |
|--|--|
| 3 | There is at least one dedicated department or institute for interdisciplinary planetary health research. |
| 2 | There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years. |
| 1 | There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research. |
| 0 | There is no dedicated department or institute. |

Score explanation: The School of Science at IUPUI has both the Center for Earth and Environmental Science (CEES) and the Center for Urban Health. As mentioned above, the purpose of the Center for Urban Health is to build research collaborations that enhance health and sustainability for urban populations. The CEES focuses specifically on water resources and the CEES’s research is about how pollution and climate change are affecting water systems, and the resulting impact on human health. The Richard M. Fairbanks School of Public Health has a Global Health research department that is affiliated with the Consortium of Universities for Global Health (CUGH). The mission of the CUGH is to “supports academic institutions and partners to improve the wellbeing of people and the planet through education, research, service, and advocacy.”

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?

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|---|--|
| 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 no process for communities to give input or make decisions about the research agenda, and there is no information about whether the medical school is trying to create such a process.

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: The IUPUI Office of Sustainability maintains a [website](#) with information about funding opportunities, sustainability-focused internships, and current operations within the realm of planetary health and sustainability. The website also provides links to the sustainability pages of each IU campus. However, there are minimal resources relating directly to health and the environment.

| 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. |
| <p><i>Score explanation:</i> IUPUI is hosting the Indiana Sustainability and Resilience Conference on February 17, 2023. The conference “connects Hoosier climate leaders to the knowledge, tools, and resources that can accelerate climate action and resilience efforts in Indiana”.</p> | |

| 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 |
| <p><i>Score explanation:</i> IUSM is a member of Global Consortium on Climate and Health Education and of the Association for the Advancement of Sustainability in Higher Education.</p> | |

| | |
|------------------------------------|---------------|
| Section Total (9 out of 17) | 52.94% |
|------------------------------------|---------------|

Back to summary page [here](#)

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

Community Outreach and Advocacy

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

| 1. Does your medical school partner with community organizations to promote planetary and environmental health? | |
|--|--|
| 3 | Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health. |
| 2 | Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health. |
| 1 | The institution partners with community organizations, but the medical school is not part of that partnership. |
| 0 | No, there is no such meaningful community partnership. |
| <p><i>Score explanation:</i> IUPUI partners with community organizations to promote environmental health, e.g. IUPUI annually hosts the Indianapolis Sustainability and Resilience Conference for sustainability professionals from Indiana (hiatus for COVID but resumed this year). The conference is “designed to showcase local successes, share best practices, engage in place-based problem solving, and facilitate collaboration to advance sustainability in the Hoosier state”.</p> <p>Indiana University also collaborates with K-12 educators around the state and the WonderLab Museum of Science, Health, and Technology to help K-12 science educators “effectively teach the science and policy of climate change” through the Educating for Environmental Change program. The program offers longer summer sessions as well as one day workshops for educators to attend.</p> <p>The Resilience Cohort of the Indiana University Environmental Resilience Institute at IU Bloomington has partnered with more than 30 local governments to conduct greenhouse gas inventories and provide guidance to these communities in adopting and acting to reduce local emissions.</p> | |

| 2. Does your medical school offer community-facing courses or events regarding planetary health? | |
|---|---|
| 3 | The medical school offers community-facing courses or events at least once every year. |
| 2 | The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. |

| | |
|---|--|
| 1 | The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events. |
|---|--|

| | |
|---|---|
| 0 | The institution/medical school have not offered such community-facing courses or events. |
|---|---|

Score explanation: IUSM does not offer community-facing courses or events regarding planetary health. However, the Environmental Resilience Institute at IU Bloomington features resources for Indiana Residents. This past year, the Resilience Institute has hosted many seminars and talks from environmental experts as listed on their calendar of events, e.g. in September of 2022, there was a panel titled “Understanding the most significant climate legislation in US history—the Inflation Reduction Act”. The institute also has ongoing seminar series that are open for the public to attend, such as the Environmental Science Seminar Series.

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: Medical students receive weekly communications from IUSM via the INScope newsletter and MD Student News. At times, various sustainable healthcare topics have been part of the newsletter, such as IU joining in efforts to fight mosquito and tick-borne diseases with a focus on developing an insecticide that will not impact honey bees or other insects.

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: The institution or main affiliated hospital do not provide such accessible courses for post-graduate providers. IU does use The Center for Physician Education, but there are no courses offered related to climate/the environment.

5. Does your medical school or its primary affiliated hospital have accessible educational

| materials for patients about environmental health exposures? | |
|---|--|
| 2 | Yes, all affiliated hospitals have accessible educational materials for patients. |
| 1 | Some affiliated hospitals have accessible educational materials for patients. |
| 0 | No affiliated medical centers have accessible educational materials for patients. |
| <p><i>Score explanation:</i> One of the affiliated hospitals, Eskenazi Hospital, has a panel in the patient portal (“Search Medical Library”) where patients can search a phrase and it links them to medically relevant information in MedLine Plus, including information about environmental health exposures.</p> | |

| 6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts? | |
|--|--|
| 2 | Yes, all affiliated hospitals have accessible educational materials for patients. |
| 1 | Some affiliated hospitals have accessible educational materials for patients. |
| 0 | No affiliated hospitals have accessible educational materials for patients. |
| <p><i>Score explanation:</i> One of the affiliated hospitals, Eskenazi Hospital, has a panel in the patient portal (“Search Medical Library”) where patients can search a phrase and it links them to medically relevant information in MedLine Plus, including information about climate change and health impacts.</p> | |

| | |
|------------------------------------|---------------|
| Section Total (5 out of 14) | 35.71% |
|------------------------------------|---------------|

Back to summary page [here](#)

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

Support for Student-Led Planetary Health Initiatives

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

| 1. Does your <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project? | |
|--|---|
| 2 | Yes, the medical school or institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum. |
| 1 | The medical school or institution encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available and there is no requirement to participate. |
| 0 | No, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. |
| <p><i>Score explanation:</i> According to the IUPUI Sustainability Website, there is a Greening IUPUI Grant that are awarded to projects that not only advance campus sustainability but also improve IUPUI's STARS score. A total of \$25,000 is awarded annually to fund these projects per website. However, this option is only available to those who are on the Indianapolis campus and there is not a requirement to participate.</p> <p>In addition, the South Bend campus will be offering an elective starting next year that is available for 3rd/4th year students called Climate Change And Health.</p> | |

| 2. Does your <u>institution</u> 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. |
| <p><i>Score explanation:</i> IUSM does not offer a specific research program or fellowship pertaining to planetary health/sustainable healthcare research. However, there are opportunities for students to engage in research independently.</p> | |

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

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

Score explanation: There is no specific website affiliated with IUSM that provides information pertaining to planetary health and/or sustainable health care projects. In addition, the [IUSM SIG \(Student Interest Group\) website](#) does not mention the MS4SF (Medical Students 4 Sustainable Future) SIG.

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: IUSM is an affiliate chapter of Medical Students For A Sustainable Future (MS4SF). IUSM MS4SF has faculty support, and students are eligible to request funding from the medical school.

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: There is not a student liaison who represents sustainability interests on any of the decision-making councils at IUSM.

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: [IU Sustain](#), there are several student groups that meet this requirement, including a Campus Kitchen (Indianapolis), a student-run food rescue that promotes sustainable food practices. In Bloomington, students can volunteer at a [campus farm](#).

IUPUI hosts an [Indiana Sustainability and Resilience Conference](#), which is an annual gathering for sustainability events. This event is also advertised for students to attend.

The Environmental Resilience Institute's [McKinney Midwest Climate Project](#) (MMCP) is "... helping to advance the transition to sustainable and climate-friendly practices in Indiana and the Midwest. Through partnerships with communities, businesses, and nonprofits, the project is engaging students in sustainability and environmental career training, and empowering the region to adopt high-impact solutions that address climate change."

KanKan cinema hosted a film series called [Newtok](#), which is about a small town called Newtok, Alaska dealing with the effects of climate crises. This film was presented in conjunction with the IUPUI Arts & Humanities Institute, who also hosted a subsequent discussion pertaining to planetary health. The KanKan cinema and IU MS4SF also hosted a viewing of the movie, Dark Waters.

The Indianapolis campus and the Evansville campus hosted a trash pickup day to clean up the White River and the Ohio River respectively. In addition, the Indianapolis campus partnered with [Keep Indianapolis Beautiful Inc.](#) and [Friends of the White River](#) on the trash pickup day to learn about planetary health in the downtown Indianapolis area.

IUSM has a [Wilderness Medicine SIG](#), which allows opportunities for wilderness and outdoors programs such as hiking, backpacking, kayaking, etc.

| | |
|-------------------------------------|---------------|
| Section Total (10 out of 15) | 66.67% |
|-------------------------------------|---------------|

Back to summary page [here](#)

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

Campus Sustainability

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

| 1. Does your 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 |
| <p><i>Score explanation:</i> There is an institutional Office of Sustainability but no staff designated to sustainability at the hospital or medical school. There is also a new Climate Action Planning Committee.</p> | |

| 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 |
| <p><i>Score explanation:</i> IU has created a Climate Action Planning Committee that is actively working on developing a plan to address the institution's carbon footprint; however, they have not yet released a formal written plan. Their most recent update (12/1/22) suggests that they are developing a plan to achieve carbon neutrality by 2040. Additionally, their meeting presentations can be viewed here.</p> | |

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: IUSM buildings do not source energy needs from off-site or on-site renewable energy. The institution does track its Greenhouse Gas usage, energy expenditure, and has a plan to divest from fossil fuels; the medical school has not released any specific data or statements.

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: IU as an institution has implemented LEED certified projects across multiple campuses (South Bend, Bloomington, Evansville, Indianapolis, Kokomo) and states that “[69 percent of eligible newly constructed or renovated building spaces are LEED certified](#)”, but most of the projects are new constructions and not retrofitted buildings.

Examples of retrofitted medical school buildings: [Medical Research and Library Building West Wing Renovation](#) (LEED gold) on the Indianapolis campus.

Examples of newly constructed medical school buildings: Health Sciences Building (LEED gold) on the Bloomington campus, [Neuroscience Research Building](#) (LEED Gold) on the Indianapolis campus, [Stone Family Center for Health Sciences](#) (LEED gold) on the Evansville Campus.

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

| | |
|---|---|
| 2 | Yes, the medical school has implemented strategies to encourage and provide environmentally-friendly transportation options such as safe active transport, public transport, |
|---|---|

| | |
|---|---|
| | or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. |
| 1 | The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised. |
| 0 | The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options. |
| <i>Score explanation:</i> Students on the Indianapolis and Bloomington campuses are provided access to free or discounted bus passes for travel around campus and the surrounding city. Multiple IUSM campuses also have bike racks, bike paths, and easily accessible online information for biking/walking resources. | |

| 6. Does your <u>medical school</u> 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. |
| <i>Score explanation:</i> All buildings offer recycling receptacles and the medical schools are included in a recycling program, but composting is not offered. IU Bloomington used to have a composting program before the COVID-19 pandemic, but their partner has since ceased operations and they have yet to establish a new program. | |

| 7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)? | |
|---|---|
| 3 | Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability. |
| 2 | There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability. |
| 1 | There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability. |
| 0 | There are no sustainability guidelines for food and beverages. |
| <i>Score explanation:</i> IU engages in “sustainable procurement,” wherein “green” purchasing of papers, cleaning products, furniture, carpets, some food items, among others, is encouraged. The dining services contractor for IU hosts low-impact dining events with plant-forward options. Furthermore, the dining contractor for IU has a vegan dining program that makes diverse, complete-protein vegan options available to every member of the campus community at every meal. The Office of | |

Sustainability also has a Green Event program that encourages a variety of sustainability practices including vegan/vegetarian options and ways to reduce food waste.

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: University Procurement Services complies with the following state statute: Recycled Paper Products - Statute #IC 20-12-67 et seq. This states that there is a price preference of 10% for supplies that meet at least one of the following descriptions:

1. At least 50% of the volume of the original components of the supplies consisted of recycled materials.
2. The cost of purchasing recycled materials consisted of at least 50% of the cost of producing the supplies.
3. A percentage by weight or volume of recycled materials which the commissioner of the department of environmental management determines by rule is eligible for procurement preference under this chapter. Further, the Office of Procurement Services recommends buying sustainable products with these labels: Biopreferred, Cradle to Cradle Certification, Electronic Product Assessment Tool, Energy Star, Forest Stewardship Council Certified Paper, Green Building Standards, Green Seal Environmental Standards, and WaterSense.

IUPUI also has a commitment to local purchasing (~60% of funds are spent locally), and DEI and Women-owned businesses.

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: IU has a goal to host 200 Green Events this year, and organizations who host Green Events will be placed in a drawing to win \$500 dollars. Criteria to be classified as a Green Event include the utilization of sustainable advertising (not paper flyers), hosting the event in a LEED building, the encouragement of attendees to walk, bike, or use public transportation to get to the event, avoiding excess waste by buying materials in bulk with recyclable packaging and using reusable glasses, and having vegan/vegetarian or organic/locally produced food and beverages at the event.

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: University Procurement Services complies with the following state statute: Recycled Paper Products - Statute #IC 20-12-67 et seq. This states that there is a price preference of 10% for supplies that meet at least one of the following descriptions:

1. At least 50% of the volume of the original components of the supplies consisted of recycled materials.
The cost of purchasing recycled materials consisted of at least 50% of the cost of producing the supplies.
A percentage by weight or volume of recycled materials which the commissioner of the department of environmental management determines by rule is eligible for procurement preference under this chapter. Further, the Office of Procurement Services recommends buying sustainable products with these labels: Biopreferred, Cradle to Cradle Certification, Electronic Product Assessment Tool, Energy Star, Forest Stewardship Council Certified Paper, Green Building Standards, Green Seal Environmental Standards, and WaterSense.

However, IU is not a part of the Green Laboratory program.

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

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

Score explanation: In 2014, IU passed the [Resolution](#) regarding fossil fuel divestment of the IU Foundation Endowment, which stated that by the conclusion of Spring 2020, the University Administration, Board of Trustees, and the IU Foundation should immediately cease any new investments in fossil fuel companies or in commingled assets that include holdings in fossil fuel companies. IU currently has invested 71 million dollars in sustainable industries such as renewable energy or sustainable forestry, but this represents only 3% of their investment pool.

Section Total (15 out of 32)

46.90%

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

Grading

Section Overview

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

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

Planetary Health Grades for the Indiana University School of Medicine

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

| Section | Raw Score % | Letter Grade |
|---|---------------------------|--------------|
| Planetary Health Curriculum (30%) | $(30/72) * 100 = 41.67\%$ | C- |
| Interdisciplinary Research (17.5%) | $(9/17) * 100 = 52.94\%$ | C |
| Community Outreach and Advocacy (17.5%) | $(5/14) * 100 = 35.71\%$ | D+ |
| Support for Student-led Planetary Health Initiatives (17.5%) | $(10/15) * 100 = 66.67\%$ | B |
| Campus Sustainability (17.5%) | $(16/32) * 100 = 50\%$ | C |
| Institutional Grade | 48.43% | C |

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which Indiana University School of Medicine has participated in the Planetary Health Report Card initiative.

Planetary Health Report Card Trends for Indiana University School of Medicine

