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Planetary Health Report Card (Medicine):

Loyola University Chicago Stritch School of Medicine

2023-2024 Contributing Team:
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Summary of Findings

Overall	C

Curriculum	C-

- LUC Stritch School of Medicine (SSOM) continued to improve the for-credit elective CCGH-250 focused on planetary health. There are several standalone lectures in the preclinical curriculum that address topics related to climate change and health, but no longitudinal integration.
- **Recommendations:** Topics of planetary health should be incorporated into the core curriculum more substantially, and such material should be included in learning objectives and test questions. The Patient Centered Medicine courses could instruct students on how to counsel patients regarding climate change health effects in clinical encounters.

Interdisciplinary Research	C+

- Loyola's Public Health and School for Environmental Sustainability programs may have many climate related research opportunities, but these projects are not made available for students in the medical school. The medical school itself offers no research opportunities specifically concerning sustainability.
- **Recommendations**: Loyola SSOM could work closely with other Loyola graduate schools to facilitate interdisciplinary opportunities. The medical school could also join the Planetary Health Alliance and the Global Consortium on Climate and Health Education.

Community Outreach and Advocacy	C

- Loyola SSOM is involved with very few community-focused environmental justice programs and opportunities for community engagement.
- **Recommendations**: Opportunities exist for interdisciplinary collaboration to initiate more community outreach events regarding planetary health and environmental issues in our surrounding community. We should establish a working relationship with Loyola Medicine and Trinity Health to provide climate health related education material to patients.

Support for Student-Led Initiatives	C-

- Overall, the administration has been supportive of student led initiatives to bring broader awareness to planetary health. The school was very supportive in helping the student organization GEMS initiate a for-credit elective focusing on planetary health within the institution.
- **Recommendations**: We recommend Stritch continue this support to increase student opportunities by providing grant opportunities or a student fellowship program. There should also be a medical student representative appointed to serve on curriculum decision-making councils.

Campus Sustainability	B

- Loyola University as a whole has made impressive progress in regards to institutional sustainability. We hope we can build on these advancements within the medical school to meet sustainability goals and lessen the healthcare sector's impact on the climate crisis.
- **Recommendations**: There is still much to improve with the SSOM campus sustainability. Goals and plans are already in place at the Medical School, especially in transportation and building, but we also recommend focusing on making lab spaces more sustainable and improve/introduce sustainable guidelines for events and procurement. There should be some effort made to reach out to the medical center to try and institute changes within the hospital system as well.

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

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

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

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

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

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

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

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

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

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

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

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health.
0	No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
Score explanation: Loyola offers CCGH-250, a 5-month elective that focuses on climate change and human health. It runs throughout both spring and fall semesters. Lecture topics include 1. Respiratory Health, 2. Plastic Pollution, 3. Vector-born Disease and Flooding, 4. Toxins, Lead Poisoning, and Endocrine Disruptors, 5. Carbon Footprint, 6. Dermatology and Climate Change, 6. Physician Advocacy, 7. Heat Island Effect. This course also consists of journal clubs and final student projects.	

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: As part of the new M1 core curriculum of Loyola SSOM, the Health Systems Science course briefly (a few slides in one lecture) featured topics involving environmental racism and the disproportionate impact of heat exposure/temp differences, air pollution, industrialization, etc on	

low SES communities and communities of color, using examples and data from different Chicago zip codes. This topic was also covered in a required lecture in the new Climate Change and Human Health elective coursework.

1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: Multiple lectures in elective CCGH-250 cover this topic extensively, including specialty specific discussions.	

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: Multiple lectures in elective CCGH-250 cover this topic extensively. One required lecture focuses on vector borne diseases.	

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: Loyola SSOM has a few brief slides in the M1 and M2 core curriculum that touched upon the effects of air pollution as it pertained to asthma in children and the exacerbations of chronic and restrictive pulmonary pathology. This material was not tested on. This topic was discussed in a required lecture in elective CCGH-250.	

1.6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: This topic was discussed in a required lecture in the elective CCGH-250.	

1.7. 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: Climate anxiety and how it impacts decision making were discussed in a required lecture in the elective CCGH-250.	

1.8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: The M1 curriculum covers the importance of food and water security briefly in the Health Disparities lecture in the Behavioral Medicine and Development course. This topic was included in the tested material. This topic was discussed in a required lecture in the elective CCGH-250. However, we recommend that the relationship to climate change be more explicitly taught in the required and elective lectures.	

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?	
3	This topic was explored **in depth** by the **core** curriculum.

2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: The Health Systems Science and Behavioral Health course briefly (a few slides in one lecture) featured topics involving environmental racism and the disproportionate impact of heat exposure/temp differences, air pollution, industrialization, etc on low SES communities and communities of color, using examples and data from different Chicago zip codes. This topic was also discussed in required lectures in the elective CCGH-250.	

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
*Score explanation: T*his topic was discussed in a required lecture in the elective CCGH-250.	

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

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: This topic was discussed extensively in a required lecture given by an OBGYN in the elective CCGH-250.	

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.

0	This topic was **not** covered.
Score explanation: This topic was discussed briefly in a required lecture in the elective CCGH-250 in light of Chicago's Cancer Corridor. A few students shared their findings in the journal club as well.	

1.13. To what extent does your <u>medical school</u> emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	Indigenous knowledge and value systems are **integrated throughout** the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included **briefly** in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in **elective** coursework.
0	This topic was **not** covered.
Score explanation: Not addressed.	

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, Indigenous populations, and older adults?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: The Health Systems Science and the Behavioral Health course briefly (few slides in one lecture) featured topics involving environmental racism and the disproportionate impact of heat exposure/temp differences, air pollution, industrialization, etc on low SES communities and communities of color, using examples and data from different Chicago zip codes. The topic was not directly tested on. This topic was also addressed in required lectures in elective CCGH-250.	

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.

1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: This topic was briefly covered in Loyola SSOM's elective course called Culinary Medicine. The material was not tested.	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored **in depth** by the **core** curriculum
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
Score explanation: There is a dedicated required lecture in the elective CCGH-250 on "Health Care and the Carbon Footprint: Can we be part of the solution?".	

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)	
2	The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfill this metric.
1	The health **and** environmental **co-benefits** of **non-pharmaceutical management** of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	**Waste production** within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
Score explanation: There are Yoga for Medicine sessions throughout the semester. Each session is themed to a common health condition for which yoga and meditation can help, such as back pain,	

anxiety, insomnia, IBS. Surgical, anesthesia, inhaler, and healthcare waste products are briefly mentioned in the Carbon Footprint lecture in CCGH-250.

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?	
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: In elective CCGH-250, one lecturer briefly discussed the psycho-emotional impacts of climate change on patients and how to address them.	

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
2	Yes, the **core** curriculum includes strategies for taking an environmental history.
1	Only **elective** coursework includes strategies for taking an environmental history.
0	No, the curriculum does **not** include strategies for taking an environmental history.
Score explanation: In Loyola SSOM's Patient Centered Medicine course, students are trained to always ask about the occupation of the patient when taking the history with the intention to identify any occupational or environmental hazards that may be involved in the patient's health. This is assessed in our Objective Structured Clinical Examinations.	

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education.
0	No, there are **no** improvements to planetary health education in progress.

Score explanation: The student organization Group for Environmental Medicine and Sustainability (GEMS) is currently working with the Stritch administration to incorporate future opportunities involving planetary health education into the core curriculum and expand elective opportunities.

1.21. 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.
Score explanation: There is a single standalone lecture that covers topics in planetary health in the M1 curriculum. The material is not integrated into the core curriculum physiology or pathophysiology body systems lectures. The material was not explicitly tested on.	

1.22. Does your medical school employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	**Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
Score explanation: The student group GEMS has an advisor, but students are responsible for advocating curriculum change.	

Section Total (32 out of 72)	**44.44%**

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

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
3	Yes, there are faculty members at the **medical school** who have a **primary r**esearch focus in planetary health **or** healthcare sustainability.
2	Yes, there are individual faculty members at the **medical school** who are conducting research **related** to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the **institution**, but none associated with the medical school.
0	No, there are **no** planetary health and/or healthcare sustainability researchers at the **institution** or **medical school** at this time.
Score explanation: Loyola Parkinson's School of Public Health and the School for Environmental Sustainability has ongoing research and interest in planetary health, but none associated with the Loyola SSOM. There are interested parties in both the staff of the medical school and the students themselves, so this is a site of potential growth.	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?	
3	There is **at least one** dedicated department or institute for interdisciplinary planetary health research.
2	There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years.
1	There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research.
0	There is **no** dedicated department or institute.
Score explanation: While Loyola University has a School for Environmental Sustainability, there are currently no accessible opportunities for interdisciplinary research across graduate schools.	

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 <u>medical school</u>?	
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: No such process exists.	

2.4. Does your <u>institution</u> 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: Loyola's School of Environmental Sustainability has an up-to-date and comprehensive website used to inform fellow students and faculty about current research related to climate change, sustainability, and the environment.	

2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?	
4	Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the **institution** has hosted a conference on topics related to planetary health in the past three years.
1	The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event.

0	No, the **institution** has not hosted a conference on topics related to planetary health in the past three years.
Score explanation: Loyola School of Environmental Sustainability hosts an annual, week-long Climate Change Conference. Last year the conference hosted youth climate activists and their mentors and conducted a panel discussion on how climate change is driving displacement. The conference also hosted a panel on climate advocacy through art featuring local artists and a discussion with indigenous youth activists. This year the subject is how climate change impacts human health. The medical school's GEMS student organization has hosted many guest lecturers, with Community and Global Health Honors credit, that speak on a variety of topics across climate change and human health. Students also present articles at journal club and present their living by learning projects at a Climate Symposium at the end of the course.	

2.6. Is your medical school a member of a national or international planetary health or ESH organization?	
1	Yes, the medical school is a member of a national or international planetary health **or** ESH organization
0	No, the medical school is **not** a member of such an organization
Score explanation: The medical school is not a member of any such group. The student group GEMS is a member of Medical Students for a Sustainable Future.	

Section Total (10 out of 17)	**58.82%**

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

Community Outreach and Advocacy

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

3.1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the **medical school** meaningfully partners with **multiple** community organizations to promote planetary and environmental health.
2	Yes, the **medical school** meaningfully partners with **one** community organization to promote planetary and environmental health.
1	The **institution** partners with community organizations, but the medical school is not part of that partnership.
0	No, there is **no** such meaningful community partnership.
Score explanation: Loyola SSOM volunteers with Project CURE Chicago, which diverts unused medical products and equipment from hospitals in the US to low resourced communities, keeping millions of items out of the landfill. ENRICH garden is also a community organization that organizes volunteering for the community garden in Maywood.	

3.2. Does your medical school offer community-facing courses or events regarding planetary health?	
3	The **medical school** offers community-facing courses or events at least once every year.
2	The **medical school** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The **institution** has offered community-facing courses or events, but the **medical school** was not involved in planning those courses or events.
0	The **institution/medical school** have not offered such community-facing courses or events.
Score explanation: The medical school's Center for Community and Global Health (CCGH) organizes an annual community volunteering day for Maywood where the topics of access to clean water supply and cost of water access in the Maywood community were briefly addressed. ENRICH garden has also hosted children from the Maywood community to learn about healthy eating and growing your own produce.	

3.3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
2	Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are **sometimes** included in communication updates.
0	Students **do not** receive communications about planetary health or sustainable healthcare.
Score explanation: Loyola SSOM's GEMS student group provides monthly tips on sustainability and information on climate discussions when available. These optional guest lecture discussion sessions are advertised to the student body in the class newsletters and the Center for Community and Global Health Stritch newsletter.	

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
2	Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
1	Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are **no** such accessible courses for post-graduate providers
Score explanation: No such courses exist.	

3.5. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?	
2	Yes, **all** affiliated hospitals have accessible educational materials for patients.
1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated medical centers have accessible educational materials for patients.
Score explanation: No such materials are distributed.	

3.6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?	
2	Yes, **all** affiliated hospitals have accessible educational materials for patients.

1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated hospitals have accessible educational materials for patients.
Score explanation: No such materials are distributed.	

Section Total (7 out of 14)	**50%**

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

There have been a few grand rounds where medical students from GEMS have presented on climate change and health topics to help residents gain tools to educate their patients, one example was asthma and environmental factors.

Support for Student-Led Planetary Health Initiatives

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

4.1. Does your medical school or your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the **medical school** or **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum.
1	The **medical school** or **institution** encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate.
0	No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.
Score explanation: No support is evident. If a medical student wanted to complete a research project regarding planetary health, they would do so through various other programs through the school, but none are specifically focused on providing funding and support for sustainability related projects.	

4.2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time.
0	There are **no opportunities** for students to engage in planetary health/sustainable healthcare research.
Score explanation: Students at Loyola SSOM may elect to conduct research in any topic, but there are no explicit opportunities within the medical school to conduct planetary health related research. Students must conduct research with investigators in other graduate schools, such as the School of Environmental Sustainability or the School of Public Health.	

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

2	The **medical school** has a 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 directory specifically for healthcare projects involving planetary health through the medical school. There are no links on the Stritch Medical School site to Loyola's School of Environmental Sustainability.	

4.4. Does your medical school have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
2	Yes, there is a student organization **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.**
0	No, there is **not** a student organization at my institution dedicated to planetary health or sustainability in healthcare.
Score explanation: Group for Environmental Medicine and Sustainability (GEMS) at Loyola SSOM is a funded and registered student-led organization with a faculty advisor. GEMS' mission is to bring awareness to the subject of climate change as it relates to human health, to take initiative and advocate for change at the local level, and to form lasting relationships with the community and educational facilities to develop future initiatives related to pertinent environmental issues. GEMS is affiliated with Medical Students for a Sustainable Future, as well as Chicago Physicians for Social Responsibility.	

4.5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.
Score explanation: There is no such liaison.	

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

1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)
Score explanation: The student-led organization GEMS has invited experts to speak to Loyola SSOM students regarding topics in climate change, health disparities related to environmental health, and how healthcare systems can improve sustainability efforts (examples: Toxins, Lead Poisoning, Endocrine Disruptors on 11/14/23, Climate Change and Dermatology on 11/28/23, Global Water and Sanitation on 2/5/24). A new student-led organization at Loyola SSOM called Stritch Adventurers plans outdoor day and overnight wilderness excursions for medical students. SSOM has a community garden Project Enrich. Loyola University recently finalized participation in a community solar program where they partner with an Illinois solar farm (More info to come in the near future). There is a Wilderness Medicine interest group which hosts outdoor programs.	

Section Total (6 out of 15)	**40%**

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

Campus Sustainability

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

5.1. Does your medical school and/or institution have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of medical school and/or hospital sustainability.
1	There are **no salaried sustainability staff,** but there is a sustainability task force or committee
0	There are **no** staff members **or** task force responsible for overseeing campus sustainability
Score explanation: Loyola University Chicago has an Office of Sustainability. There is one designated staff member for sustainability at the Health Science Campus, which includes the medical school. There is NO Office of Sustainability for the Loyola Medical Center, owned by TrinityHealth.	

5.2. How ambitious is your institution/medical school plan to reduce its own carbon footprint?	
5	The institution/medical school has a **written and approved plan** to achieve carbon neutrality by **2030**
3	The institution/medical school has a **written and approved plan** to achieve carbon neutrality by **2040**
1	The institution/medical school has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate**
0	The institution/medical school does **not** meet any of the requirements listed above
Score explanation: Loyola SSOM adopted Loyola University Chicago's Climate Action plan in 2015 to reach carbon neutrality and purchase 100% renewable energy by 2025.	

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

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

Score explanation: Per the Office of Sustainability, currently due to financial setbacks, Loyola University Chicago is at 50% renewable electricity for the three main campuses, including the Health Science Campus where the medical school is located. The plans are to be 100% renewable by January 1st, 2025. Loyola as an Institution will be working with a solar developer in Illinois Double Black Diamond Solar. Currently, the institution is utilizing Market natural gas, has plans for decarbonization process in 2025.

5.4. Are sustainable building practices utilized for new and old buildings on the medical school campus, with design and construction of new buildings and remodeling of old buildings conforming to a published sustainability rating system or building code/guideline?	
3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the **majority** of old buildings **have been retrofitted** to be more sustainable.
2	Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have **not been retrofitted.**
1	Sustainable building practices are **inadequately or incompletely** implemented for new buildings.
0	Sustainability is **not considered** in the construction of new buildings.

Score explanation: Loyola's Nursing School and CTRE on the Health Sciences Campus were sustainably built LEED Gold. The Cuneo Center where the medical school is located has been retrofitted along with some energy efficient changes to the Fitness Center. Two buildings, Cancer Research and Maguire Center, have had some changes but have yet to be fully retrofitted due to possible plans to tear them down to create new buildings, which would both be built up to code LEED Gold.

5.5. 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.

Score explanation: Loyola SSOM offers public transportation through the Loyola Medicine hospital system, from the parking garages and train station to the hospital or medical school campus. Major blue line service cuts also impacted the accessibility of our campus. Loyola as an institution does not contract the Shuttles on the Health Science Campus, those shuttles are outside contracts enlisted by Trinity Health through Loyola Medical Center. Loyola Lakeshore Campus is working towards 100% Biodiesel shuttles and running Air quality tests. For the future, it might be advisable to request the institution contract their own shuttle system for the Health Science campus, thereby controlling the carbon footprint and accessibility for its students.

5.6. 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.

Score explanation: There is a recycling program at the medical school although there is significant room for improvement. The staff at the Office of Sustainability are actively working on upgrading the current recycling system and implementing a compost program, but they are not yet available. In 2022, we installed a mask recycling bin on campus. There is a small digester in the dining hall on campus which manages a small amount of organic waste.

5.7. 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 a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The medical school **is engaged** in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The medical school is **not** engaged in efforts to increase food and beverage sustainability.
0	There are **no** sustainability guidelines for food and beverages.

Score explanation: The food service and primary caterer, Handcut Foods, at Loyola's Health Science Campus, is committed to sustainable practices and is a small local company with targeted sourcing from local and sustainable enterprises. The medical school itself has not made any commitments regarding food, vendors, or catering. Some discussion about decreasing plastic use within the dining hall, however, will need to wait until compost options are available on a larger scale on campus.

5.8. Does the medical school or institution apply sustainability criteria when making decisions about supply procurement?	
3	Yes, the medical school has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The medical school is **engaged** in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The medical school is **not engaged** in efforts to increase sustainability of procurement.
0	There are **no** sustainability guidelines for supply procurement.
Score explanation: Sustainability is part of Loyola SSOM procurement policy. This is a standardized part of all procurement efforts and specific efforts are applied as required (ie. to significant waste generation or energy consumption vendor classes).	

5.9. Are there sustainability requirements or guidelines for events hosted at the medical school?	
2	Every event hosted at the medical school **must** abide by sustainability criteria.
1	The medical school **strongly recommends or incentivizes** sustainability measures, but they are **not required.**
0	There are **no** sustainability guidelines for medical school events.
Score explanation: No guideline at the medical school.	

5.10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	Yes, the medical school has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable.
1	There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are **no** efforts at the medical school to make lab spaces more sustainable.
Score explanation: Loyola's GreenLabs program applies to the Health Science Campus (and thus the medical school) and has developed resources and guidelines to address environmental impacts of lab spaces.	

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

4	The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives.
3	The institution is **entirely divested** from fossil fuels.
2	The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments.
1	The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organized advocacy** for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that.
Score explanation: According to Loyola's investment policies and guidelines, the university invests based on sustainable investment principles, but the specific investment holding is not available to the public.	

Section Total (22 out of 32)	**68.75%**

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

Grading

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

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

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

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(32/72) x 100 = 44.44%	C-
Interdisciplinary Research (17.5%)	(10/17) x 100 =58.82%	C+
Community Outreach and Advocacy (17.5%)	(7/14) x 100 = 50.00%	C
Support for Student-led Planetary Health Initiatives (17.5%)	(6/15) x 100= 40.00%	C-
Campus Sustainability (17.5%)	(22/32) x 100 = 68.75%	B
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 51.41%**	**C**

Report Card Trends

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