

Planetary Health Report Card (Medicine):

Chicago Medical School at Rosalind Franklin University of Medicine and Science



CHICAGO MEDICAL SCHOOL

2022-2023 Contributing Team:

- Co-Directors: Neha Basti and Allison Monie
- M2 Section Leads: Margaret Barcinski, Ireland Flannery, Isra El-Khateeb, Melissa Levin, Noah Rubin-Saika, Alan Wang
- M1 Contributors: Immad Allahrakha, Christian Arcelona, Lucas Coker, Aayush Gupta, Stacey Kim, Jessica Liu, Ayesha Mohammad, Juvy Rabelas, Haris Sheikh, Rebecca Silver, Tarika Sivakumar, Austin Sovell, Adam Sparks, Kayla Talebi, Nathanial Ung, Jason Vaysberg

*Primary Contacts: Neha Basti <u>neha.basti@my.rfums.org</u>, Allison Monie <u>allison.monie@my.rfums.org</u>

• Faculty Mentors: Regina de Leon Gomez, MD

Summary of Findings

Overall	D
<u>Curriculum</u>	C-
 Chicago Medical School (CMS) briefly includes planetary health in several courses in the core curriculum. CMS has made efforts to include information on pollution and environmental risk factors in several of its courses. However, there is room for improvement when it comes to connecting these topics to climate change and planetary health as a whole. Recommendations: There are opportunities to make a direct connection between climate change, environmental risk factors, and patient outcomes in core curriculum courses. Many courses mention how environmental risk factors impact the development of certain pathologies, however these topics are rarely connected to planetary health and how these risk factors have been evolving over time. Additionally, the Essentials of Clinical Reasoning, Clinical Epidemiology, and Clinical Foundations of Medicine courses can further explore the impacts that environmental changes have on patient health. 	
Interdisciplinary Research	F+
 Chicago Medical School does not have anyone involved in planetary health research. Rosalind I University (RFU) recently opened a research department focusing on the socio-structural determ health and bases their research agenda on the needs of the surrounding community. Recommendations: CMS could organize frequent Grand Round presentations or host a sympose planetary health. They could also join the Planetary Health Alliance, the Midwest Climate Colla and the Global Consortium on Climate and Health Education. 	ninants of sium on
Community Outreach and Advocacy	F
 CMS has conducted efforts to establish community partnerships to promote the health of the loc community, but does not yet have outreach relating to planetary health. Recommendations: Greater support of planetary health and sustainable healthcare can be compestablishing community partnerships, school courses and events, regular coverage of planetary l sustainable healthcare, involvement of alumni, partnerships with local healthcare facilities, and materials for patients with regards to climate change and health impacts. 	pleted by nealth and
Support for Student-Led Initiatives	D
 CMS provides support for student-led initiatives as a whole through research support and studen group support. There can be more direction specifically aimed at sustainability-focused projects funding. Recommendations: CMS can offer increased support to students by designing a specific websi showcases opportunities for students related to planetary health as well as by creating a student position to represent sustainability interests on the student council. 	and te that
<u>Campus Sustainability</u>	D
 RFU has made good progress to become more sustainable by maintaining a conventional recycl program, procuring sustainable food and beverages, implementing sustainable building practice providing environmentally-friendly transportation options. Recommendations: RFU can focus on making lab spaces more sustainable, setting achievable fossil fuel divestment, and introducing sustainable guidelines for events and supply procurement 	s, and goals for

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 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 <u>Literature</u> <u>Review by Metric</u> 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

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

Curriculum: General

1. 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,

- ¹ 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: Chicago Medical School does not offer any specific courses regarding planetary health or environmental impact. However, some of the electives offered to students, for example the "Stories of Health Disparities" elective offered to fourth-year students, include readings and lectures pertaining to environmental impacts on health outcomes.

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.	
<u>Scor</u>	Score explanation: The first-year course Clinical Foundations of Medicine (CFoM) discusses the risk	

Score explanation: The first-year course Clinical Foundations of Medicine (CFoM) discusses the risk of preterm delivery due to heat exposure in the "Preventative Model of Care" lecture which provided a case study on the association of air pollution and heat exposure with preterm birth. This course also includes other clinical cases discussing the health impacts of pollution and heat.

Adverse health effects associated with extreme temperature and climate change are explorable options as a part of the student-selected Clinical Foundations of Medicine Scholarly Assignment. Clinical cases explored during CFoM workshops also discussed the effects of extreme heat, pollution, and other adverse environmental factors on health outcomes.

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:

The first-year Clinical Foundations of Medicine course curriculum holds a workshop that discusses selected clinical cases regarding extreme weather events on individual health.

The first-year Pulmonology course briefly addresses dust storms, earthquakes, and wind patterns as risk factors for the transmission of respiratory pathogens. The connection between extreme weather events and health outcomes was not established.

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.	
G		

Score explanation: Chicago Medical School's curriculum does not address the impact of climate change on changing patterns of infectious disease.

5. Does your <u>medical school</u> curriculum address the respiratory health effects of Epiclimate 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: The first-year Pulmonology course addresses the respiratory health effects of climate change and air pollution in several sessions. The lecture "Obstructive Lung Disease" covers the etiologies of chronic bronchitis, small airway disease, and centrilobular emphysema, and mentions that air pollutants are contributors toward the development of these conditions. Additionally, it was specified that asthma is a disease that has increased associations with city dwelling due to pollutants that instigate an inflammatory response. Another first-year pulmonology lecture titled "Idiopathic Pulmonary Fibrosis" mentions air pollution as an environmental risk factor for respiratory pathologies. The course mentions other environmental factors like dust and coal and the role that they play in lung pathology, but does not link these factors to climate change or planetary health.

The first-year Clinical Foundations of Medicine course includes a lecture titled "Preventative Care Medicine," which discusses associations of air pollution and heat exposure with risk for preterm birth.

The first-year Clinical Epidemiology course includes a lecture titled "Population Health & Health Disparities," which discusses how certain living conditions are more prone to expose residents to pollutants and unhealthy aerosols, affecting life expectancy. Another lecture, "Epidemiology Concepts II" discusses how environmental exposures such as air pollutants and toxins in drinking water may be correlated with adverse health indicators and health outcomes. Lastly, the lecture "Understanding Research and Principles of Study Design" uses air pollution and its effect on health outcomes as an example of an area of epidemiology research.

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

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

Score explanation: The first year Cardiology course contains a lecture titled "Cardiac Action Potential and Contraction." A slide in this lecture addresses the effect of increased heat on the cardiovascular system. It states that the temperature reflex involves thermoreceptors in skin and hypothalamus and that warmer temperatures cause the heart to beat faster. Another Cardiology lecture titled "Circulation/Microcirculation" briefly addresses the effect of increased heat on the hypothalamic regions that control the cardiovascular system.

However, the course does not elaborate on how these pathologies are affected by climate change, changes in heat patterns, or planetary health.

7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.

This topic was **not** covered.

0

Score explanation: The first-year Clinical Foundations of Medicine course offers a Scholarly Assignment option that introduces the mental health impacts of climate crisis.

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

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

Score explanation: The first-year course Scientific Foundations of Medicine briefly covers reduced food safety and security that may lead to bacterial infections, parasitic diseases, and malnutrition. For example, pathologies like marasmus and kwashiorkor were linked to geographic regions with less access to nutrient-dense foods.

The first-year Foundations for Interprofessional Practice course has a module titled, "Social Determinants of Health," which discusses the impacts of physical environment, food choices and food availability, air and water quality, safety, housing, and transit on health outcomes.

The first-year Clinical Epidemiology course discusses the Traditional Triad of Disease which includes consideration of environmental factors (climate, physical, structures, population density, social structure) and social interventions such as housing quality, sanitation, water, and other preventative services. The course also discusses the example of Flint, Michigan and how lead exposure in water may be associated with developmental problems and disease.

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

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

Score explanation: The first-year Pulmonology course includes a lecture titled "Idiopathic Pulmonary Fibrosis," which provides details regarding the prevalence of Black Lung Disease in Coal Miners. The lecture states that the prevalence of Black Lung Disease has reached its highest level in recent years, with about 20.6% of coal miners in central Appalachia showing evidence of the disease.

The first-year Clinical Epidemiology lecture titled "Population Health and Health Disparities" provided information regarding increased rates of asthma among Puerto Rican and African American children in Chicago due to disproportionate environmental exposures.

The first-year Bioethics course includes a lecture titled "Precision Medicine," which mentions the unequal impact of environmental factors and their role in exaggerating health disparities.

The second-year Patient Safety course includes a lecture titled "Payors, Providers, and Patients: Navigating the US Healthcare System," which addresses climate change as a social determinant of health and also addresses the fact that climate change and other social determinants of health affect different populations unequally.

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

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

- 1 This topic was covered in **elective** coursework.
- 0 This topic was **not** covered.

Score explanation: The CMS curriculum does not address the unequal regional health impacts of climate change globally.

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

	11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored in depth by the core curriculum.	
2	This topic was briefly covered in the core curriculum.	
1	This topic was covered in elective coursework.	
0	This topic was not covered.	
Scor	<i>Score explanation:</i> The first-year Renal course and the second year Reproductive course briefly	

<u>Score explanation</u>: The first-year Renal course and the second year Reproductive course briefly address the reproductive health effects of industry-related environmental toxins.

The first-year Renal course discusses how renal and bladder cancer risks are associated with industrial chemical and toxin exposure (aromatic hydrocarbons, aniline dyes, nitrates, nitrites, coal, and arsenic). Occupations that are associated with higher risks of bladder cancer were also mentioned, including, miners, bus drivers, blacksmiths, mechanics, and several others.

In the second- year Reproduction course, a lecture titled "Tetrology and Epidemiology of Congenital Defects" mentions that radiation and heat can affect fetal development. The lecture also explains that 5% of total major birth defects are due to maternal exposure to drugs or environmental chemicals. Another lecture in the Reproduction course titled "Schema: Infertility" discusses the adverse effects that radiation exposure, heat exposure, environmental toxins, and medication can have on sperm production and viability. Physical environment is also listed as a determinant of health, and environmental factors are mentioned as likely causes of outcome disparities in maternal/fetal medicine.

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

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

Score explanation: The first-year course Clinical Epidemiology includes a lecture titled "Population Health & Health Disparities," which mentions collaborations with the Community Health Improvement Plan to address Lake County public health issues. The lecture titled "Principles of Study Design" briefly mentions industrial pollution in Chicago and Lake County and how local health departments address environmental, water, and air safety.

The first-year Foundations for Interprofessional Practice course includes a module during which students research and analyze programs on the Lake County Health Department's website, including environmental programs.

The first-year Clinical Foundations of Medicine course has a workshop that includes a case about a previously existing local power plant and its environmental damage.

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: The CMS curriculum does not emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions.

 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 first-year course Clinical Epidemiology lecture "Epidemiology in Practice" discusses various social determinants of health, including toxin exposure and physical environment, and how these determinants relate to structural racism and racial inequities. Correlations were also made between SES, racial and ethnic background, and health outcomes, and an example was given that correlated high rates of asthma amongst minority children who lived in more highly polluted areas of Chicago.

The first-year course Principles of Professionalism, Health Care and Health Equity I goes into detail about the outsized impact of climate change on people of low socioeconomic status. It mentions how historically redlined neighborhoods face higher rates of air pollution and asthma. It also explains how race is the most significant predictor of a person living near contaminated air, water, or soil. In an infographic from "The Nation" its stated that 56% of the population near toxic waste sites are people of color, that people of color have seen 95% of their claims against polluters denied by the EPA, that people of color have 38% higher nitrogen dioxide exposure, and lastly that people of color are two times more likely to live without potable water and modern sanitation.

The first-year Clinical Foundations of Medicine course has a workshop that discusses how marginalized populations are impacted by environmental toxins.

Curriculum: Sustainability

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

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

Score explanation: The first-year Foundations for Interprofessional Practice course has a module that discusses plant-based diet and its benefits to human health as part of the "6 pillars of lifestyles medicine." The Lifestyle Medicine elective also discusses the benefits of a plant-based diet.

However, the aforementioned courses did not link plant-based diets to potential environmental impacts.

16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored in depth by the core curriculum
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: The CMS curriculum does not discuss the carbon footprint of the healthcare system.

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 anesthetic gasses 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: Over-medicalization and non-pharmaceutical management is discussed in various courses,	

Over-medicalization and non-pharmaceutical management is discussed in various courses, including the Foundation of Interprofessional Practice course and Endocrine course. However, there is no connection made between these practices and environmental impact.

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: The first-year Clinical Foundations of Medicine course Scholarly Assignment introduced communication strategies for having conversations about climate change with patients. Specific training was provided for select students via online modules. Students were also provided with Climate Rx badges which can serve as an educational resource related to patient care and planetary health.

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: The first-year Clinical Epidemiology courses includes a lecture titled "Principles of Study Design," which discusses the importance of reviewing a patient's history for environmental toxin exposure (e.g. asbestos and lead poisoning) in order to measure exposure in certain clinical studies.

The first-year Clinical Foundations of Medicine course includes a workshop that introduces the process of taking a thorough environmental history.

Curriculum: Administrative Support for Planetary Health

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

- 4 Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education.
- 2 Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education.
- 0 No, there are **no** improvements to planetary health education in progress.

Score explanation: Planetary health and climate change are areas of potential improvement that have been recognized by the CMS curriculum committee and by course professors. However, as of now there are no concrete plans as to how to better incorporate these topics into the core curriculum.

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

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

4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).
0	There is minimal/no education for sustainable healthcare.
a	

Score explanation: Planetary health, sustainable healthcare, and climate change are incorporated into a handful of individual courses. However, there is no longitudinal integration of planetary health education, and planetary health topics are often only briefly mentioned in discrete sections of certain courses.

22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?

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

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

Score explanation: There are currently no specific faculty or staff members responsible for overseeing the curricular integration of planetary health and sustainable healthcare.

Section Total (32 out of 72)

44.44%

Back to Summary Page here

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

<u>Section Overview:</u> 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 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: Chicago Medical School at Rosalind Franklin University does not currently have anyone conducting research primarily on planetary health or healthcare sustainability at this time. However, related to planetary health, the director of the Michael Reese Foundation Center for Health Equity Research at Rosalind Franklin University, researches how socioeconomic background affects the infectious disease burden in various populations. The study is looking for specific biological pathways in individuals living in communities of disadvantaged socioeconomic background that lead to adverse health events across their lifetime. The populations with high disease burden are also disproportionately affected by climate change. Similarly, a fellow at the Sinai Urban Health Institute (SUHI) that maintains a partnership with Chicago Medical school, conducts research on population healthcare disparities and social determinants of health, taking into account environmental factors.

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: Chicago Medical School at Rosalind Franklin University does not have a specific department dedicated to research on planetary environmental health, but it has an <u>Environmental</u> <u>Health and Safety department</u> and <u>OSHA department</u> under the larger school research sector. The Environmental Health and Safety department functions to provide safety training on all hazards that could arise while conducting research. This includes information on biological safety, bloodborne pathogen precautions, chemical safety, controlled substances, laser safety, and radiation safety, and provides documents such as the chemical hygiene plan, the standard operating procedures, OSHA hazards communications, and more for quick and easy reference.

Rosalind Franklin University has recently opened the <u>Michael Reese Foundation Center for Health</u> <u>Equity Research</u> which focuses on addressing the socio structural components to health but it does not have a primary focus on planetary health and climate change.

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
- ² res, there is a process in which community members impacted by chinate an 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: Chicago Medical School at Rosalind Franklin University does not currently have any members of communities disproportionately affected by climate change involved in determining the university's research agenda. At this time, there is currently no effort underway to include such community members in this process.

However, the newly opened Michael Reese Foundation Center for Health Equity Research at Rosalind Franklin University focuses on health equity and the socio structural determinants of health. This center forages relationships with the Lake County community and bases their research agenda based on their needs. But, the primary focus of this research center is not planetary health and climate change.

4. Does your institution have a planetary health website that centralizes ongoing and past research related to health and the environment? There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.

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.
	health and the environment.

0 There is **no** website.

Score explanation: Chicago Medical School at Rosalind Franklin University has a <u>website</u> detailing current and ongoing sustainability initiatives and goals including campus-wide recycling, electrical vehicle charging stations, biodegradable utensils, hydration stations, LED lighting, and a tree planting program. This website does not mention any ongoing research in sustainability and does not provide any resources for the community.

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: Chicago Medical School at Rosalind Franklin University has not hosted a conference on topics related to planetary health in the past three years and our Associate Dean of Research is not aware of a symposium at Rosalind Franklin University in the past.

6. Is your <u>medical school</u> 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: Chicago Medical School at Rosalind Franklin University is not currently a member of a national nor an international planetary health organization. However, the school has established a committee to promote GREEN programs and has established goals for LEED certification by sustainable sites, water efficiency, materials/resources, and innovation through new building construction. Additionally, Rosalind Franklin University reports conducting an independent energy audit to assess energy usage and identify potential reductions as well as assess energy costs and potential reductions.

Section Total (3 out of 17)

Back to summary page <u>here</u>

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

<u>Section Overview:</u> 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 <u>medical school</u> 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.

<u>Score explanation</u>: Rosalind Franklin University does not currently have community partnerships that work together to promote planetary and environmental health. While Chicago Medical School does have a few community associations via the Principles of Professionalism, Healthcare, and Health Equity course, the university does not actively share information, advocate for change, or provide official opportunities for students to be part of these groups. Of the few local organizations that have taken up this cause, these include the North Chicago Think Tank, Eden Restoration Project, and certain programs associated with the Round Lake Community Park District which support different environmental health causes outside the purview of the university.

2. Does your <u>medical school</u> 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: While Rosalind Franklin University does have many interactions with the community in North Chicago in terms of its Interprofessional Community Clinic (RFU's student-run	

free clinic), involvement in Community Days, and interactions with the local high school, there is no focus on community-facing courses or events to support planetary health. A strong focus is placed on health inequities and public health, though no explicit focus on planetary health.

3. Does your <u>medical school</u> 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: Rosalind Franklin University sends out update communications regularly regarding public health groups in the community or social health factors that could indirectly be perpetuated by planetary health. However, the emails only occasionally discuss sustainable healthcare topics directly	

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

and do not have a dedicated focus on planetary health and/or sustainable healthcare.

- 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: RFU does not currently provide educational activities geared towards individuals post-graduation related to planetary health and sustainable healthcare.

As part of the first-year Clinical Foundations of Medicine course, students had the opportunity to attend a training related to planetary health. Here, they were provided with Climate Rx badges which can serve as an educational resource related to patient care and planetary health. Further programs of this nature would greatly benefit students post graduation, as they may find it easier to have a greater understanding of the healthcare field and sustainability changes they can make.

5. Does your <u>medical school</u> or its primary <u>affiliated hospital</u> 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: Rosalind Franklin University is primarily a teaching facility that does offer its students some educational information on environmental health exposures, but RFU/CMS does not have its own medical center/hospital system for treating patients and instead has affiliations with many other clinical sites throughout the Chicago-land area. The clinical sites where CMS students complete their clerkships could include site-specific education or resources related to climate change and its impacts on health, but there are no formal educational materials disseminated to CMS students to give directly to patients at these sites.

The Interprofessional Community Clinic is RFU's student-run free clinic that serves uninsured members of Lake County. Information on climate change and health impacts could be given to patients in person by clinicians during their visits. Clinicians may also refer their patients to online resources not provided by RFU.

6. Does your <u>medical school</u> or its <u>primary affiliated hospital</u> 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: Since CMS has numerous affiliated clinical sites where medical students complete their rotations, it is possible that these sites could include site-specific education or resources related to climate.

The ICC is RFU's student run, free clinic that cares for uninsured members of the Lake County community. Similarly to that on environmental health exposures, information on climate change and health impacts could be given to patients in person by clinicians at ICC during their visits. Clinicians may also refer their patients to online resources not provided by RFU.

Section Total (1 out of 14)

7.14%

Back to summary page <u>here</u>

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** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum.
- 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: Chicago Medical School at Rosalind Franklin University of Medicine and Science does not offer targeted funding or support for sustainability initiatives or QI projects. However, medical students may receive mentoring from the Director of Clinical Research to design and conduct student-initiated projects.

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.
- 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: There are no specific internal funding opportunities that encourage students to engage in planetary health/sustainable healthcare research. In addition, there are no core research facilities, centers, or laboratories explicitly dedicated to these topics.

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.

	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.
	There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation: While Rosalind Franklin University does have a web page related to sustainability efforts, it does not encapsulate specific projects or mentors. This webpage is for the university's mission as a whole and is not specific for Chicago Medical School. Additionally, this webpage is located under "Strategic Initiatives" of the "About" page of Rosalind Franklin University's website and could be easier to locate.

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

- 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: Based on Engage (Rosalind Franklin University's database for student groups and events), there are no student groups related to planetary health or sustainability. There have been a few community volunteering opportunities related to planetary health, but these were not run by any student group with a planetary health focus or mission.

5. Is there a student liaison representing sustainability interests who serves on a <u>medical school</u> or <u>institutional</u> 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: Chicago Medical School does not currently have a student liaison to advocate for sustainability in the monthly curriculum improvement meetings or sustainability practices. We

recommend the addition of a working committee that leads the Problem-based learning/Legacy curriculum where student suggestions and feedback are discussed and implemented into the cases. A sustainability representative can be integrated into this new structure if available.

6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	
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)
	 e explanation: The Wilderness Medicine Group offers numerous activities for students with passion for medicine combined with their love of the outdoors. Activities include speakers on wilderness medicine and careers, skills sessions, and outdoor group activities such as hiking, climbing, and skiing. The Education and Enrichment Program at Beacon Place provides medical students the opportunity to assist students ages 5 and up in learning about outer space and the environment. Students have the opportunity to make a contribution to the community by volunteering at <u>Lambs Farm</u> through garden clean up efforts. Lambs Farm's mission is about helping people and helping people help themselves; it is about self-reliance, hard work and a nurturing

Section Total (4 out of 15)

26.67%

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.

environment, all working together to cultivate human fulfillment.

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
Score explanation: Rosalind Franklin University receives a "1" rating since the campus has a campus sustainability committee made up of students, staff, and faculty; however, there are no staff members solely dedicated to sustainability. Rosalind Franklin University prides themselves with electric vehicle charging stations, their "Tree Planting Program," and extensive recycling programs. Rosalind Franklin University's sustainability rating could increase to a 2 with hired staff completely committed to the sustainability of the campus.	

2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?		
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030	
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040	
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate	
0	The institution/medical school does not meet any of the requirements listed above	
	Score explanation:While Rosalind Franklin University has taken many different steps to create a sustainable campus, such as LEED (Leadership in Energy and Environmental Design)	

certifications for its new building projects, there are no written goals or approved plans to reduce its own carbon footprint that have been implemented.

3. Do buildings/infrastructure used by the <u>medical school</u> 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	0 Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.	
Score explanation: Rosalind Franklin University does not utilize on- or off-site renewable energy in its		

Score explanation: Rosalind Franklin University does not utilize on- or off-site renewable energy in its teaching facilities. The university is pursuing LEED (Leadership in Energy and Environmental Design) certification for its new building projects; however, this has not yet been achieved. Rosalind Franklin University also reports performing an independent energy audit; however, the findings (if completed) have not been published or were not easily accessible online.

4. Are sustainable building practices utilized for new and old buildings on the <u>medical school</u> 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: Sustainable building practices are beginning to be implemented for new buildings in a limited capacity. Campus parking lots and facilities are being retrofitted with LED lighting, and a		

in a limited capacity. Campus parking lots and facilities are being retrofitted with LED lighting, and a software program was implemented to monitor and strategically reduce energy use. The newly constructed facilities on campus are pursuing LEED (Leadership in Energy and Environmental Design) certification; however, this has not yet been achieved.

5. Has the <u>medical school</u> 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: Due to the geography and suburban location of the campus, personal vehicles are the main mode of transportation for many students. This is especially true for 3rd and 4th year medical students who attend observerships and clerkships at distant clinical partnership sites. Rosalind Franklin University does not have a teaching hospital as part of its main campus. Rosalind Franklin University counteracts the commuting burden by providing walkable on- and off-campus housing, electric vehicle charging stations, and a free shuttle bus that connects students to the extensive public transportation network of Greater Chicago. A large portion of 1st and 2nd year students take advantage of the housing provided by the school, which nearly eliminates their environmental impact of commuting.

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: Rosalind Franklin University has a thorough conventional recycling program involving many different types of material; however, Rosalind Franklin University lacks any type of composting or organic recycling program. The school also has a tree planting program which replaces diseased trees with new ones, but this does not sufficiently meet the composting requirement.

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: Rosalind Franklin University of Medicine and Science supplies campus food and beverage selections through "Food for Thought" who do local sourcing through "Gordon Food Service" and other local produce companies. They include a variety of meatless options on the menu and have generally seen a decrease in meat consumption on campus. Currently 85% of disposable plastic and packaging is sustainable. There are no specific mandatory guidelines related to food and beverage sustainability.

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

- Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
 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.
- 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: Rosalind Franklin University of Medicine and Science supply procurement guidelines note that the Minority Business Enterprise (MBE)/Women Business Enterprise (WBE) utilization goals are based on the availability of certified vendors to perform the anticipated direct subcontracting opportunities of the Utilization Plan (UP). However, the school does not employ any specific procurement guidelines regarding environmental sustainability.

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

Score explanation: There are no sustainability requirements or guidelines for events hosted by students or by faculty at Rosalind Franklin University.

10. Does your <u>medical school</u> 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: Rosalind Franklin University has not provided any programs or initiatives that encourage environmental sustainability in campus laboratories. The school's guidelines on research policy regarding used laboratory equipment only requires approval by the Executive Vice President for Research and the office of Environmental Health and Safety (EHS). However, it does not require the use of reusable equipment or any initiatives for more sustainable laboratory practices/equipment.

11. Does your <u>institution's</u> 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: Rosalind Franklin University's endowment has no direct exposure to fossil fuel securities, and the endowment's investment managers maintain policies with respect to environmental, social, and governance (ESG) factors and incorporate ESG into their investment strategies. Despite the endowment having no direct exposures to fossil fuel securities, it may invest in mutual funds, private equity portfolios, and other investments that indirectly have positions in fossil fuel. Thus, a score of "0" is awarded as Rosalind Franklin University has not specifically divested from the above 200 companies, and there have been no efforts to change that.			

Section Total (8 out of 32)

25.00%

Back to summary page <u>here</u>

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
А	80% - 100%
В	60% - 79%
С	40% - 59%
D	20% - 39%
F	0% - 19%

Planetary Health Grades for the Chicago Medical School at Rosalind Franklin University

The following table presents the individual section grades and overall institutional grade for the Chicago Medical School at Rosalind Franklin University on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(32/72) \ge 100 = 44.44\%$	C-
Interdisciplinary Research (17.5%)	(3/17) x 100 = 17.65%	F+
Community Outreach and Advocacy (17.5%)	(1/14) x 100 = 7.14%	F
Support for Student-led Planetary Health Initiatives (17.5%)	(4/15) x 100= 26.67%	D
Campus Sustainability (17.5%)	(8/32) x 100 = 25%	D
Institutional Grade	(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 26.71%	D