Planetary Health Report Card (Medicine):

Rush Medical College

2022-2023 Contributing Team:

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Summary of Findings

Overall	C

Curriculum	C+

- Since last year's report, Rush Medical College (RMC) has made progress incorporating planetary health into its core curriculum. However, this improvement mostly comes from a single session in the M2 year. Designated faculty and students are now advocating for curricular change.
- **Recommendations:** Curricular materials should be modified so that planetary health is integrated longitudinally into the preclinical and clinical curriculum. Existing relationships between Rush University and the surrounding community should be leveraged to teach these topics. Students, faculty, and staff are continuing discussions with leadership to make necessary change toward a planetary health-focused future.

Interdisciplinary Research	C

- There is an informal consortium of interdisciplinary planetary health researchers associated with RMC and and Rush University Medical Center (RUMC) that has grown considerably in the past year; however, they are not funded or supported directly to do this work, nor are they recognized as a true operating research team by the institution.
- **Recommendations**: RMC and RUMC should create spaces for faculty working on planetary health research to be recognized and funded. Summer research funding for RMC students should be specifically designated for students working on planetary health projects.

Community Outreach and Advocacy	C-

- RMC has multiple meaningful partnerships with community stake-holders, including student and faculty involvement in planetary health education initiatives and multiple city gardening programs. Rush has recently started utilizing Patient Pass to provide educational materials to patients with some that address environmental impacts on health, however they do not address the impact of climate change on health.
- **Recommendations**: The medical college should work to actively encourage students to participate in planetary health related initiatives in order to maintain key relationships with community stake-holders. The institution would benefit from the addition of a centralized planetary health information page to its website with a focus on the impact of climate change on human health and sustainable healthcare practices.

Support for Student-Led Initiatives	B

- RMC supports student planetary health endeavors through the Office of Student Life and Engagement. The Planetary Health Club is an interdisciplinary health student organization established in 2023. Rush Students for Social Responsibility is a medical student organization established in 2020.
- **Recommendations**: RMC could further support student initiatives via the addition of planetary health-focused awards and research opportunities for students. We additionally suggest the creation of a student liaison position to represent sustainability interests on the Rush University Student Council.

Campus Sustainability	D+

- The institution's Office of Sustainability is steadily making progress towards a more sustainable campus, from establishing environmentally-friendly transportation options to the beginnings of recycling and compost programs.
- **Recommendations**: Current goals include reducing the institution's CO_2 emissions and developing sustainable food and beverage guidelines.

Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

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

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

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

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

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

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

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

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

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

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

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

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

1. Did your 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: *Rush Medical College offers the Health Equity & Social Justice Leadership Program (HESJLP), which is an elective track consisting of up to 20 students per cohort. The HESJLP gives students the opportunity to engage in enhanced clinical training and experiences focused on themes of global and local health equity/social justice, including planetary health. Students in the program participate in a curriculum specifically geared toward a career focused on vulnerable populations, health equity and global health. The class is graded on a pass/fail basis and students are allowed to opt out of the program if they desire.*	

Curriculum: Health Effects of Climate Change

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

Score explanation:

The M2 elective curriculum in Rush University's Health Equity and Social Justice Leadership Program provided a lecture to students about the effects of climate change on health and environmental justice topics. Examples of specific events in Chicago were provided including the Chicago heat wave.

This year Rush Medical College introduced a new Climate Justice session as a part of the M2 core curriculum Sexuality and Reproduction block. In the required pre-reading materials, students were assigned to read the New York Times article titled "How Climate Migration will reshape America." This article discussed several environmental disasters and the impact they had on the health and economies of the affected communities. Additionally, students were provided with definitions and examples of climate justice in "What is Climate Justice" from Yale Climate Connection, as well as an article from the British Medical Journal titled "Ten practical actions for doctors to combat climate change." Students could also choose to watch an optional 1-hour video titled "Cooked: Survival by Zip Code," which discusses the events leading up to the Chicago Heat Wave of 1995 and city's responses to the specific communities that were impacted. There are current plans to include more educational materials regarding climate change and health within the curriculum in other blocks.

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:

As with last year, Rush Medical College offers an elective, EMD 717 Disaster Medicine, which addresses the effects of extreme weather events on individual health and the emergency response protocols of healthcare systems. This includes natural disasters such as hurricanes, blizzards, earthquakes, etc. This elective curriculum is open to M3 and M4 students.

The new M2 Climate Justice session as a part of the M2 core curriculum Sexuality and Reproduction block, provided students with multiple required readings regarding extreme weather events and the impact on individuals and their communities. These articles included "How Climate Migration will Reshape America" from the New York Times, "What is Climate Justice" from Yale Climate Connection, and "Ten practical actions for doctors to combat climate change" from the British Medical Journal. Students could choose to watch an optional video tilted "Cooked: Survival By Zip Code," which revolved around the Chicago Heat Wave of 1995. There are current plans to further address extreme weather events and the impact on individuals and the healthcare system, beyond this single session.

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:

In Rush Medical College's M1 Host Defense Host Response (HDHR) block, there is an Advocate Role Session titled "Intro to Populations and Systems" that discusses how infectious disease is related to public health achievements, levels of infection prevention, and social determinants of health. One of the three articles for students to read is from the Healthy People 2020 initiative, which defines social determinants of health and gives examples of different determinants. Under the "examples of physical determinants" section, there is a single bullet point listed as "natural environment, such as green space (e.g., trees and grass) or weather (e.g., climate change)." Additionally, in the HDHR block, the self-study guide for Case 5: Walter Peters contains the following brief sentence: "Climate change and global warming are bringing major changes to the epidemiology of infectious diseases by altering microbial and vector geographic range." However, the curriculum fails to go in-depth about the mechanisms by which climate change impacts infectious disease patterns. This metric has not changed from last year's report.

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:

In the M1 core curriculum, the topic of respiratory health effects of climate change and air pollution is not extensively covered. There is mention that air pollution is involved in exacerbating COPD and asthma. As part of the M2 elective curriculum in Rush University's Health Equity and Social Justice Leadership Program, students were given a lecture about the effects of climate change and health. It briefly covers the general effect of air pollution on respiratory illnesses.

In this year's M2 Climate Justice session's required reading, one of the examples of climate justice states "communities of color are often more at risk from air pollution, according to both the NAACP, the American Lung Association, and countless research papers."

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:

In the M1 curriculum section of the Vital Fluids block, which focuses on the cardiac and renal systems, there is a small section investigating the effects of heat stroke on a young healthy patient's renal function.

This year in the core curriculum, the M2 Climate Justice session's required reading briefly mentions "seniors, people with disabilities, and people with chronic illnesses may have a harder time living through periods of severe heat." Additionally, students could watch the optional "Cooked: Survival by Zip Code" video which recaps the Chicago Heat Wave of 1995.

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:

In Rush Medical College's M1 Brain, Behavior, and Cognition block, the self-study guide for Case 8: Mario Gomez has a single bullet point listing one of the triggers for migraines as "environmental triggers (change in weather)" but does not specify environmental toxins or climate change. There is no other discussion of mental health as it relates to climate change and planetary health in the curriculum. This metric has not changed from last year's report.

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:

As with last year, the M1 elective course Health Equity and Social Justice Leadership Program, had a lecture that was dedicated to food insecurity and health. It includes a discussion with the local urban agricultural organization, Farm on Ogden, about its contribution to its community. The class discusses food insecurity, its health and social impacts, and the role of medical professionals. The project

VeggieRx, by Rush University and Farm on Ogden, is also described during this lesson as an example of the medical community taking part in the food security of patients. This project includes providers "prescribing" produce boxes for patients if they screen positive for food insecurity. Farm on Ogden will then provide these patients with boxes as well as educational sessions on cooking and nutrition.

This year in the core curriculum, the M2 Climate Justice session's required reading mentions "Prolonged drought and flooding can affect food supply or distribution, making it harder for people to access affordable, healthy food." Additionally, in the required article about actions doctors can take to combat climate change, there is a tip to "5. Influence food menus wherever we go—ask for local food, less meat, and less processed food; a low carbon diet is a healthy diet. Drink tap water."

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:

As with last year, the Health Equity and Social Justice Leadership Program elective at Rush Medical College hosts a lecture entitled "Environmental Injustice and Its Impact on Health." This module investigates the links between industrial exploitation of marginalized communities, prevalence of asthma in populations with toxic exposures such as to air pollution, and their effects on human health, including their role in the severity of coronavirus cases, specifically in the Chicagoland area.
This year, the core curriculum M2 Climate Justice session had multiple required readings including specific examples of climate change disproportionately affecting people of color, people with disabilities, older adults, immigrant communities, and indigenous peoples. Additionally, the optional documentary "Cooked: Survival by Zip Code," heavily discusses the populations that were disproportionately affected by the 1995 Chicago Heat Wave.

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:

As with last year, Rush Medical College offers a Global and Community Health elective for M3 and M4 students. The course description states that students have "the opportunity to read and discuss in the

area of primary health care, as defined by the World Health Organization (1978). Students will obtain a framework for addressing common diseases in an underserved community setting from a clinical, epidemiologic and public health perspective. In addition to the didactic portion of the course, the student will spend 2-4 weeks in a developing country within an underserved community under the supervision of Rush faculty. The course will focus on the social determinants of population health, ***including the impact of the environment****, poverty, social structure and culture on health status and health care. The course will include the epidemiology, diagnosis, treatment, control, and prevention of selected diseases of importance in underserved settings. Students will use this knowledge to develop a plan for working in disadvantaged communities providing primary health care, either locally or internationally. Students must have a faculty sponsor at Rush, as well as a physician at the site responsible for supervision of the students work. Students must complete the on-line curriculum and reading self study prerequisites prior to departure for their work in the community and must submit a completed project within 1 week of the completion of the elective."*

This year, while there was a new Climate Justice session in the core curriculum, the required readings focused on unequal regional impacts within the United States, and did not discuss unequal regional impacts globally.

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

11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation:

The M1 and M2 curricula do not address formally the reproductive effects of environmental toxins. This metric has not changed from last year's report.

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:

As with last year, the elective Health Equity and Social Justice Leadership Program hosts a lecture entitled "Environmental Injustice and Its Impact on Health." This module investigates the links

between industrial exploitation of marginalized communities, toxic exposures such as to air pollution, and their effects on human health, including their role in the severity of coronavirus cases, specifically in the Chicagoland area.

This year in the core curriculum, the M2 Climate Justice session featured a panel of guest speakers including representatives from Rush University's Department of Health Systems Management, Office of Sustainability, Department of Emergency Medicine, and Rosalind Franklin University's Department of Pediatrics. During the discussion, students asked questions about Rush's plan as an institution to promote system-wide sustainability, what net-zero emissions look like on a healthcare-level system, and the political advocacy that Rush and other medical schools undertake with the City of Chicago to offset the environmental impacts on marginalized communities.

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:

This year in the core curriculum, the M2 Climate Justice session included required readings in which there is one example of climate justice affecting indigenous communities, "Some indigenous communities are already seeing their homes and livelihoods lost to rising sea levels or drought. For example, the Biloxi-Chitimacha-Choctaw tribe has lost nearly all of its land and is relocating to higher ground."

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:
As with last year, in the elective Health Equity and Social Justice Leadership Program, there is a lecture dedicated to addressing environmental injustice with a focus on Chicago. It describes events such as the Chicago Heat Wave and air pollution to better understand how environmental toxins burden certain populations, focusing on it as a social determinant of health. This year in the core

curriculum, the M2 Climate Justice session provided required readings describing examples of climate change affecting specific communities, including but not limited to communities of color, immigrant communities, older adults, those in subsidized housing, people with disabilities, etc. Additionally, there was an optional video that provided an in-depth review of the 1995 Chicago Heat Wave.

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:

As with last year, In the M1 core curriculum, specifically the Food to Fuel block, a plant-based diet is briefly mentioned as an alternative diet for patients with cirrhosis and type 2 diabetes, but not for the population at large.

This year, in the M2 Climate Justice Session, there is a required article that discusses tips for physicians to combat climate change. Some of the points vaguely mention eating a "healthier diet" consisting of "local food, less meat, and less processed food." However there is no explicit mention of a plant-based or vegan diet.

The topic of plant-based diets does not receive its own section of the curriculum, however there are plans to incorporate this topic into the Nutrition section of the core curriculum and to increase resources available to students in order to educate their patients during their clinical rotations.

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:

In the core curriculum, the M2 Climate Justice session featured a panel of guest speakers including representatives from Rush University's Department of Health Systems Management, Office of Sustainability, Department of Emergency, and Rosalind Franklin University's Department of Pediatrics. During the discussion, students asked questions about how Rush is working to reduce its carbon footprint. The panelists also provided information comparing the carbon footprints of healthcare systems across the country and the globe. This would be awarded 3 points.

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: *In the core curriculum at Rush Medical College, there are no lectures on waste generation by the hospital system. Lectures do include teaching the importance of non-pharmaceutical management of conditions including diet and nutrition, physical activity, and mental health maintenance. These lectures focus on the health benefits and not on the added environmental benefits of these activities. Additionally, there are brief lectures on the importance of medication reconciliation throughout medical school, especially during clinical years. It is mentioned most during lectures about caring for the elderly population and taking off unnecessary medications.* *This metric has not changed from last year's report.*	

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:

Currently at Rush Medical College, there are no specific training sessions, simulated patient encounters, or Communication Skills Assessments or OSCE labs that explicitly address conversations about the health effects of climate change. The Communicator role sessions in the M1 & M2 years present teaching points relating to dealing with difficult emotions, breaking bad news, and helping patients make behavior changes, which are related skills when holding conversations on planetary health. However, the communication strategies introduced and assessed in the simulated patient encounters can be used broadly in conversations with patients, and do not specifically name or address planetary health. This metric has not changed from last year's report.

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 the M1 Host Defense and Host Response (HDHR) block, there is a detailed explanation of how to take a pediatric history in the self-study guide for Case 3: Jenna Wilson. The pediatric history outline includes taking a social and environmental history. In the printed text and the accompanying PowerPoint, there are statements that recommend documenting parents' occupations, current living conditions, the presence of smoke detectors, dust exposure, lead exposure, problems with cockroaches and other environmental contaminants.

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:

Rush Medical College is still in the process of improving planetary health education. The new M2 Climate Justice Session in the core curriculum was a huge step towards this progress. A group of students, along with physicians, and other faculty members including the Advocate Role Leader and

Assistant Dean for Inclusive Excellence, Equity, and Learning have been working with the Rush Medical College administration to incorporate education regarding climate change and climate justice into the curriculum. The group is currently working on drafting a letter to advocate for revising and adding climate education to lecture materials, class sessions, and simulated patient encounters.

21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
6	Planetary health/ESH topics are **well integrated** into the core medical school curriculum.
4	**Some** planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).**
0	There is **minimal/no** education for sustainable healthcare.
Score explanation: *This year in the core curriculum, the M2 Climate Justice session was presented as a standalone discussion session.* *There are opportunities and plans to integrate ESH longitudinally into the preclerkship, clerkship, and elective curricula. Such efforts would not overwhelm the amount of information presented to medical students, and would provide much-needed exposure to planetary health to coming generations of physicians.*	

22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	**Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
Score explanation: *The specific faculty member responsible for overseeing the integration of planetary health and sustainable healthcare into the curriculum is the Advocate Role Leader, who is actively working to incorporate these concepts into the Advocate curriculum as well as the Basic Sciences curriculum.*	

Section Total (42 out of 72)	**58.33%**

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

Interdisciplinary Research

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

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your 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: *Score explanation: There are individual investigators affiliated with the Rush Medical College and the broader institution who have recently submitted manuscripts for publication concerning healthcare sustainability and interdisciplinary planetary health education. However, there are no investigators within Rush University who are primarily focused on planetary health research nor is there a centralized department to fund or support this research.*	

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 there is a workgroup within the Medical Center Engineering specifically focused on environmental sustainability improvements at Rush University, this workgroup has an operational focus and is not funded to conduct research.

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:

Rush Medical College is a participant organization in the Chicago Area Patient-Centered Outcomes Research Network (CAPriCORN) Consortium, a partnership of 11 local research institutes joined together to investigate ways of improving health care focused on the people living in Chicago. CAPriCORN research initiatives are driven by input from an established Patient Community Advisory Committee (PCAC) and the Health & Medicine Research Policy Group (HMPRG) composed of patients, community members, caregivers, advocates, and healthcare providers. The PCAC and HMPRG allow for input from a wide variety of community voices about the research priorities of CAPriCORN.

Rush University, with the University of Chicago, is a co-leader of the Institute for Translational Medicine (ITM). The ITM is a NIH Clinical and Translational Science Award (CTSA) program dedicated to improving health in Chicago and around the world. Rush Medical College faculty member James Mulshine, MD is the ITM Community and Collaboration Core Leader, overseeing city-wide research collaborations between community members, organizations, industry, and researchers.

Through the WestSide ALIVE program, a collaboration between Rush and local pastors, there has been work to improve the health of urban, segregated communities in Chicago. There is an ongoing effort within this collaboration to improve mental health and physical screening programs in communities severely lacking these resources, and to open the dialogue among more community members disproportionately impacted by healthcare and environmental injustices.

Currently, there is not a process where community members can make decisions regarding the planetary health research agenda, namely because we do not have a specific department dedicated to this research. This metric has not changed since last year's report.

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:

While there are some individual departments such as the Department of Anesthesia that have public web pages dedicated to their planetary health efforts, there is not a centralized internal nor publicly available website with resources for research projects in planetary health. There is a website in progress to centralize individual research efforts in this space; however it is not currently published.

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:

Rush University hosted a student-led conference for Earth Day in 2022 in order to showcase planetary health research and educate interested students and staff on climate change. This is planned to become an annual event. While medical students were engaged with this event, it was not directly organized by the medical college.

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:

Rush Medical College is not a member of such a national or international organization. Rush Health System is a member of Practice Greenhealth which includes membership for all faculty and students; however, the medical college is not a member individually and this resource is not advertised to students. Rush University is also a member of the Consortium of Universities for Global Health (CUGH), which is involved with work on healthcare sustainability. However, CUGH does not have medical school memberships specifically. This would be awarded 0 points.

Section Total (8 out of 17)	**47.06%**

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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

***<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.
Score explanation: *Score explanation: Rush Medical College partners with multiple community organizations to promote planetary and environmental health. The Rush Community Service Initiative Project, 5+1=20, Rush students educate high school and middle school students at 11 Chicago Public Schools on the five most prevalent diseases (asthma, hypertension, diabetes, cancer, and HIV) in the surrounding area. This includes modules on asthma and environmental justice, helping students to understand why there are higher rates of asthma in their communities and how they can advocate for the health of their community. Additionally, 5+1=20 tests soil lead levels with students at 6 middle schools in the Pilsen area due to the close proximity of the H. Kramer metal smelting facility. The soil testing complements modules on community gardening and nutrition. Rush also partners with Healthy Hood Chicago and BEET Chicago. Rush students and faculty participate in city gardening at two healthy hood garden locations and the BEET Chicago North Lawndale garden.*	

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:

The institution/medical school have not offered community-facing courses or events regarding 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:

Students at Rush Medical College receive intermittent emails regarding issues related to planetary health and sustainability. For example, students received information about recycling used masks on campus. This communication provided further information regarding materials used in the mask that make them recyclable, specified where drop-off boxes were located within the hospital, and a link to more information about the mask recycling program at Rush University Medical Center.

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?	
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:

Rush University does not offer any courses related to planetary health and sustainable healthcare for post-graduate providers.

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:

RUSH University System for Health utilizes Patient Pass for diagnosis-specific supplemental educational material that can be provided to patients as a part of the After Visit Summary following discharge from inpatient admissions, Emergency Department visits, and ambulatory clinic visits at all health system clinical sites. Certain diagnoses, such as asthma and COPD, describe environmental factors of concern that may exacerbate the illness. The library of diagnosis-specific educational materials can also be accessed by patients through their MyChart portals.

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:

There are no online resources about climate change health impacts available at any of the RUSH University System for Health clinical sites.

Section Total (6 out of 14)	**42.86%**

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

Support for Student-Led Planetary Health Initiatives

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

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:

Rush Medical College offers the Dean's Fellowship in the summer between the M1 and M2 years. To be eligible, students must find and develop a research project which is either self directed (with advising from faculty), or as part of a research project currently underway (with advising from principal investigator). Students receive a stipend and are largely free to pursue whatever topic interests them. While a legitimate avenue to pursue a sustainability initiative/QI project, it is not a protected or guaranteed avenue to do so. Several barriers exist: availability of sustainability/QI projects, availability of faculty advisors, its self directed (and sometimes inadequately supported) nature, and lastly, the project's existence contingent on acceptance into the Dean's Fellowship.

Regarding other avenues, the Office of Student Life and Engagement at Rush University, including the medical college, provides support and coordination to student organizations. One of these organizations includes the Students for Social Responsibility which holds several events a year on topics such as climate change, sustainability, and environmental threats. Similarly, the Rush Planetary Health Club which is under construction, will aim to utilize their funding to help support student projects surrounding sustainability/QI initiatives. While a great first step, there is no specific allotted funding for a sustainability initiative or QI project.

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:

Rush Medical College offers the Dean's Fellowship in the summer between the M1 and M2 years (see above for more details on the Dean's Fellowship). This avenue requires significant student initiative on their own and also requires acceptance into the fellowship. However, there is a Greening the OR Cohort at Rush that provides interested students with research opportunities.

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

Rush University Medical Center's Environmental Sustainability Team (EST) has a website that highlights sustainability at Rush. The EST works with student organizations, such as Rush Students for Social Responsibility (SSR) and the Rush Planetary Health Club (PHC) on education and projects for sustainable practices within the University. The website contains educational articles on topics including public health and climate change. It has resources for repurposing at Rush and other recycling programs such as the Mask Recycling Program. It also provides links to outside resources for further education on sustainability in healthcare. This is accessible by any student or faculty in the Rush system and is used regularly by the environmental-specific organizations, Rush SSR and PHC.

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:

There is a Rush University Medical College student group*: Students for Social Responsibility (SSR)*

"Holds educational events throughout the year around topics such as climate change and health, hospital sustainability, and environmental toxins. Brings in health care professionals to discuss these issues and what actions we can take to address them. Fights for these issues through letter writing and communication with local and state representatives. Collaborates with other Rush student organizations to share our message and promote a healthier Chicago. Works with the Rush leadership to improve the sustainability of our own health system by bettering our recycling, reducing single use plastics, and promoting the start of composting."

There is a Rush University Medical Center student group*: Rush Planetary Health Club*

"The purpose of this organization shall be bringing together students, and interested parties who share a common passion of Environmental Sustainability and Planetary Health, to discuss, engage, and participate in multiple opportunities across campus and the community. The aim of the organization is to provide opportunities for volunteer, independent study projects and/or university wide events per semester throughout the University."

There is a Rush Community Service Initiative Program: Student Support Collective:

"The purpose of this organization focuses on providing resources for medical students at Rush University Medical Center, who may not have equitable access to these resources, such as scrubs and textbooks. The organization focuses on the social equity aspect of sustainability. The Student Support Collective participates in the Environmental Sustainability Team Office Supply Swap, every Friday as well as a means to provide school supplies for medical students, while also diverting office supplies from landfill."

The student led organizations listed above all have faculty advisors that support and supplement the organizations' mission, value, and goals.

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:

Currently there is a student representative for the curriculum committee within the Rush Medical College. The student representative for the curriculum committee works closely with the faculty of the

medical school and is working towards incorporating more sustainability/planetary health interests into the curriculum at Rush.

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)

Score explanation:

1. *Rush University does have a partnership with Farm on Ogden for an initiative called VeggieRx. Providers will "prescribe" produce boxes for patients if there is concern for food insecurity and Farm on Ogden will provide free produce boxes as well as educational sessions on cooking and healthy eating. There is also a Rush group called 5+1=20, which involves students going to local middle schools to teach various health topics including environmental health topics. In addition to this, the Rush Central Kitchen has adopted a Kitchen Organic Waste program that was started by a student initiative in efforts to divert kitchen organic waste from landfill to composting.*
2. *Chicago has multiple organizations and groups that provide speakers and events related to planetary health with students invited. Rush University's Students for Social Responsibility has hosted panels with speakers talking about climate change and health, sustainability at Rush, and planetary health as a whole. Chicago's Chapter of Physicians for Social Responsibility and other medical school environmental organizations have held educational events that are open to all students as well. The new Rush Planetary Health club will aim to host at least one university wide event focused around sustainability/planetary health awareness per semester.*
3. *Students for Social Responsibility has partnered with the Health Equity and Social Justice Leadership Program (a four year medical student elective program) to provide classes with themes of environmental justice. They have had representatives from Chicago's Little Village Environmental Justice Organization (LVEJO) and from the Southeast Side's Environmental Task Force to discuss local issues. The Rush Environmental Sustainability Team hosts an*

annual Earth Month celebration, where education and engagement events are held throughout the month of April, such as an Environmental Justice panel or a Health Equity Cohort panel .

4. *There is no visual or performing art at Rush with themes of planetary health.*
5. *There are no specific volunteer opportunities held for building community resilience to anthropogenic environmental impacts. However, the Rush PHC will be working towards hosting volunteer events on a semester basis that can focus on building community resilience. During Earth Month, the Rush Environmental Sustainability Team has hosted volunteer opportunities, such as a Tree Planting Day etc, with plans to continue annually.*
6. *There is a Rush Wilderness Medicine group on campus that provides educational lectures for students. They have held backpacking trips and outings to a local climbing gym.*

Section Total (11 out of 15)	**73.33%**

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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.*

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: *Rush University Medical Center has an Environmental Sustainability Team (EST) consisting of a core Sustainability Department with currently two full time employees (EST Manager and Coordinator), as well as a Health Systems Management Student Intern and Program Analyst working part time. The Sustainability Department within the EST serves to oversee and implement Sustainable efforts at the hospital with the support of Sustainability Champions from clinical and non-clinical areas, several working groups, and a partnership with the university.*	

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:

	Rush University System for Health has committed to the HHS Health Sector Climate Pledge, demonstrating a commitment to reduce scope 1 & 2 greenhouse gas emissions by 50% by 2030 and achieve net zero across all scopes by 2050. The Environmental Sustainability Team has a plan to meet these milestones, but it has not yet been signed off by senior leadership.

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	Medical school buildings source **<20%** of energy needs from off-site and/or on-site renewable energy.

Score explanation:

Although Rush University Medical Center currently purchases all brown power from Constellation, there is a 25% renewable energy goal by 2025 through the Healthcare Anchor Network Impact Purchasing Commitment (HAN-IPC). With Rush's commitment to meet the HHS pledge to reduce Scope 1 and 2 greenhouse gas by 50% by 2030, an additional goal to procure 100% renewable electricity for the medical school buildings by 2030 has been made. There are plans to install solar panels on the university buildings in the future, but the project has been placed on hold as further funding is required

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:

Rush University Medical Center currently supports sustainable building practices for new buildings as the three most recently constructed buildings on RUMC's campus have been or are currently seeking LEED certification. The majority of buildings have some form of retrofitting, however, it is not thorough. Additionally, this past year Rush University Medical Center opted into ComEd's energy efficiency program to pursue the following projects: installation of more efficient HVAC equipment, upgraded LED light fixtures, and monitoring-based commissioning (MBCx). Rush was awarded

ComEd's MBCx Project of the Year for over $200,000 saved with an annual energy reduction of 2,213,924 kWh.

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:

Rush University Medical Center offers multiple options for students to reduce the environmental impact of commuting. Students are offered a Ventra UPass which provides free use of Chicago CTA Buses and Transit. RUMC is also a Divvy bike campus where students are offered a discounted annual membership. In addition to these services, RUMC has shuttle services to and from Union Station and the campus. Ride sharing/carpooling is also encouraged through the use of LUUM for commuting.

6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?	
2	Yes, the medical school has **both** compost **and** recycling programs accessible to students and faculty.
1	The medical school has **either** recycling **or** compost programs accessible to students and faculty, but not both.
0	There is **no** compost or recycling program at the medical school.

Score explanation:

Rush University Medical Center currently does not have a composting program accessible to students, but there is a recycling program that has been implemented in the medical school buildings with new recycling bins placed in exterior spaces across the school. Although composting is not yet available for students on campus, Rush has begun a Kitchen Organic Waste Composting program, so far collecting more than 19.6 tons of organic waste to be taken to an offsite anaerobic compost facility.

7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

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

Score explanation:

Sustainable food purchasing at Rush University Medical Center includes local businesses but not necessarily locally sourced material. The medical school is not directly engaged in these efforts. RUMC is currently following Sustainability guidelines that Healthcare Without Harm have put forth regarding food purchasing. These efforts are further being amplified through the Healthcare Anchor Network - Impact Purchasing Commitment (HAN-IPC) sustainable food targets. This target was initially 20% Sustainable food spend by 2025, however that goal has already been met and has since been increased to 25%. There are discussions to revisit and increase the goal.

8. Does the <u>medical school</u> or <u>institution</u> 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:

The medical school is currently not engaged in efforts to increase sustainability procurement, however Rush University Medical Center is associated with the Rush Anchor Mission Team/Rush Local and part of the HAN-IPC. This includes making conscious decisions to support our local communities through procurement regarding furniture, food and other local spend. There are currently no protocols to be followed regarding Sustainable procurement – only guidelines and recommendations. These recommendations are in line with HAN-IPC goals, and developed through working with Vizient and the Rush Supply Chain Team to identify medical products that are free of chemicals of concern, as well as being environmentally preferred sourced.

9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u>?	
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:

Currently, there are no sustainability guidelines for medical school events. Several different vendors incorporate recycling containers and silverware etc., thus it becomes difficult to have a set of guidelines for each vendor to follow. Many medical school events are held off site as well, and would be held to the standards of the off site venue rather than Rush University Medical Center's. This metric has not changed since last year's report.

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:

The Environmental Sustainability Team has begun offering My Green Lab Certification sponsorships in an effort to improve the sustainability of research by reducing energy, water, waste, and money used in the lab. At the moment, five labs on campus have registered to become My Green Lab Certified.

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:

Rush University Medical Center has an investment committee that oversees its endowment portfolio. Although over 65% endowments are in global equity, the institution has investments with fossil fuel companies. Though students have reached out to inquire, there has not been any formal advocacy

regarding divestment from fossil fuels. Faculty within the Sustainability Department are working to advocate for divestment, however there is still significant room for organized advocacy from students.

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

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

Grading

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

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

Planetary Health Grades for the Rush Medical College
The following table presents the individual section grades and overall institutional grade for Rush Medical College on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(42/72) x 100 = 58.33%	C+
Interdisciplinary Research (17.5%)	(8/17) x 100 = 47.06%	C
Community Outreach and Advocacy (17.5%)	(6/14) x 100 = 42.86%	C-
Support for Student-led Planetary Health Initiatives (17.5%)	(11/15) x 100= 73.33%	B
Campus Sustainability (17.5%)	(12/32) x 100 = 37.50%	D+
Institutional Grade	**52.63%**	**C**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which Rush Medical College has participated in the Planetary Health Report Card initiative.