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# Planetary Health Report Card:

## *Emory University School of Medicine*

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2020-2021 Contributing Team:

- Students: Travis Wilson, Ben Rabin, Gilda Rastegar
- \*Primary Contact: Travis Wilson, [travis.wilson@emory.edu](mailto:travis.wilson@emory.edu)

## Summary of Findings

|   |          |
|---|----------|
| <b>Curriculum</b>   | <b>B</b> |
| <ul style="list-style-type: none"> <li>Emory University School of Medicine approved in October 2019 a disseminated curriculum for the pre-clinical M1 and M2 years. Climate change and health content is integrated across modules within lectures and small group sessions. The curriculum is now in the implementation phase for the class of 2025, under the direction of Dr. Rebecca Philipsborn.</li> <li>Next Steps: Students and faculty will collaborate over the coming year to continue implementation of the curriculum. Further areas to be addressed include the standardized patient curriculum (learning to take an environmental exposure history, discussing climate change with patients), and extending formal CHE teaching to the M3 clerkship year.</li> </ul>   |          |
| <b>Interdisciplinary Research</b>   | <b>A</b> |
| <ul style="list-style-type: none"> <li>Emory’s School of Medicine works closely with the Rollins School of Public Health to ensure dissemination of quality interdisciplinary planetary health research between clinicians and scientists. Students have access to a number of opportunities to fund their research regarding climate health and sustainability through fellowships offered via a variety of avenues. Moreover, Emory provides opportunities to communicate the University’s planetary and environmental health research discoveries through frequent conferences and symposiums.</li> <li>Next Steps: In the future, Emory should push to provide agency to community members regarding research agenda decision-making. Currently, there is no obvious, formal avenue for communities disproportionately impacted by climate change to provide input to researchers pertaining to future research endeavors.</li> </ul> |          |
| <b>Community Outreach and Advocacy</b>  | <b>B</b> |
| <ul style="list-style-type: none"> <li>Emory currently offered a number of opportunities for students to engage with the immediate Atlanta community and readily disseminate these opportunities to students in frequent campus communications.</li> <li>Next Steps: Students and Faculty will work together to improve the distribution of educational material for patients pertaining to environmental health exposures and climate change and health impacts.</li> </ul>  |          |
| <b>Support for Student-Led Initiatives</b>  | <b>A</b> |
| <ul style="list-style-type: none"> <li>Emory is generally very supportive of student-led initiatives. Our student-led climate health interest group was recently funded and we have faculty mentors who are passionate and willing to assist with our sustainability/planetary health endeavors.</li> <li>Next Steps: Some of the limitations in this section can be attributed to the COVID-19 pandemic. Students were unable to host classes teaching students how to create personal compost bins outside of their homes. However, effort should be invested in developing more programs involving events led by members of local environmental justice community members as well as cultural arts events related to planetary health.</li> </ul>  |          |
| <b>Sustainability</b>   | <b>A</b> |
| <ul style="list-style-type: none"> <li>Emory has developed a well-supported sustainability culture built on the back of the Office of Sustainability. The School of Medicine benefits significantly from policies and initiatives that are already established campus-wide — the SOM liaison supplements these pre-existing policies.</li> <li>Although Emory currently only supplies approximately 10% of its buildings with renewable energy, significant advances have been made recently to improve their renewable energy, including 15,000 newly installed solar panels across the Atlanta campus. Emory should continue to work towards its greenhouse gas emission goals that require a 45 percent reduction by 2030 and net zero emissions by 2050.</li> </ul>   |          |

# Statement of Purpose

*Planetary health is human health.*

The Planetary Health Alliance defines planetary health as “a field focused on characterizing the human health impacts of human-caused disruptions of Earth's natural systems.” 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 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.

# 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 change. Therefore, it is critical that medical students are trained to understand the health effects of climate change, as well as planetary health 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 to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?  |   |
|---|---|
| 3*  | Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.  |
| 2   | Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.  |
| 1   | The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health. |
| 0   | No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.                            |
| <p><i>Score explanation: Addressed in <a href="#">new climate health curriculum</a> for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA</i></p> <p><i>Virtual <a href="#">climate change &amp; health elective</a> offered in May 2020. From the course description: “This 4 week course will cover Climate Change and Emerging Clinical Challenges, Health Equity and Social Justice, Climate Solutions for the Healthcare Sector, and Communicating about Climate Change. Students will learn about recognizing, managing, and mitigating the many-faceted consequences of climate change for health and healthcare delivery that they will face in their practice. Core lectures by climate and health experts from around the country anchor the elective.”</i></p> |   |

*Curriculum: Health Effects of Climate Change*

| <b>2. Does your medical school curriculum address the relationship between extreme temperature health risks and climate change, as well as the socioeconomic/racial disparities in extreme heat exposure?</b>  |  |
|--|--|
| <b>3</b>   | This topic was explored in depth by the core curriculum. |
| 2  | This topic was briefly covered in the core curriculum.   |
| 1  | This topic was covered in elective coursework.           |
| 0  | This topic was not covered.                              |
| <p><i>Score explanation: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA</i></p> <p><i>“● Current Small Group – Renal Physiology Problem Set #3</i></p> <ul style="list-style-type: none"> <li><i>○ Incorporate heat homeostasis into renal physiology and pathophysiology clinical scenarios</i></li> <li><i>○ LO: Understand how the kidney responds to heat stress and maintains homeostasis</i></li> <li><i>○ LO: Consider possible implications of heat stress on renal function, including AKI, rhabdomyolysis and hyperuricemia, and eventual chronic kidney disease (CKD of unknown origin)”</i></li> </ul> |  |

| <b>3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?</b> |  |
|--|--|
| 3  | This topic was explored in depth by the core curriculum. |
| <b>2</b>   | 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: Dr. Rebecca Philipsborn will be giving an intro lecture to all first-year medical students addressing the impact of extreme weather events on health and healthcare systems. Details of this lecture are included in the new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA:*

- *Current lecture – Climate and Environmental Health Introduction with Dr. Rebecca Philipsborn*
  - *LOs:*
    - *Define: Anthropocene, planetary health, climate change*
    - *Understand that the burden of climate change most greatly affects “the poor, the young, the elderly,” and “the countries that contributed least to carbon pollution” (Salas 2019)*

*In addition, this topic is covered in the first-year cardiology module, which addresses the particular difficulties that patients with LVADs have in the midst of natural disasters:*

- *Current lecture - Dr. Kunal Bhatt, “End stage CHF, LVAD, and cardiac transplant”*
  - *LOs: Identify consequences of natural disasters on healthcare infrastructure and delivery (e.g. Dr. Bhatt’s example of LVAD patients unable to charge their device due to power outage following Hurricane Maria)*

**4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?**

|          |   |
|----------|---|
| <b>3</b> | <b>This topic was explored in depth by the core curriculum.</b> |
| 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: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA*

*“○ Learning Objective: Explain the role of environmental factors in the spread of infectious disease”*

**5. Does your medical school curriculum address the cardiorespiratory health effects of climate change, including 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: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA*

- “● *Current Small Group - PFT Interpretations*
  - *Tie air pollution into clinical scenarios of respiratory disease: students should understand how environmental pollution contributes to compromised pulmonary function”*
- *Current lecture - Dr. Matthew Carazo, Congenital Heart Disease*
  - *LO: Appreciate the role of maternal heat exposure in fetal development and congenital heart disease.*
- *Current lecture - Dr. Kunal Bhatt, “End stage CHF, LVAD, and cardiac transplant”*
  - *LOs: Identify consequences of natural disasters on healthcare infrastructure and delivery (e.g. Dr. Bhatt’s example of LVAD patients unable to charge their device due to power outage following Hurricane Maria)*

**6. 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: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA*

“○ LO: Appreciate the consequences of population displacement, food insecurity and trauma on mental health and psychosocial wellbeing.”

**7. 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: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA*

“○ LO: Appreciate the consequences of population displacement, food insecurity and trauma on mental health and psychosocial wellbeing.”

**8. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, 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: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA*



- *Current lecture – Climate and Environmental Health Introduction with Dr. Rebecca Philipsborn*
  - *LOs:*
    - *Define: Anthropocene, planetary health, climate change*
    - *Understand that the burden of climate change most greatly affects “the poor, the young, the elderly,” and “the countries that contributed least to carbon pollution” (Salas 2019)*

*In Mission Statement of Curricula:*

*“At Emory University School of Medicine, our approach must be two-fold: first, to educate students on the links between climate change and health with particular emphasis on the disproportionate burden on low-income, under-resourced communities; and second, to address the healthcare system’s own carbon footprint.”*

**9. Does your medical school curriculum address the unequal 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: This topic is addressed in the new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA*

*In particular Dr. Philipsborn addresses the unequal health impacts of climate change in her introduction lecture. This topic is further discussed within the framework of a lecture pertaining to Malaria in the first-year infectious disease module.*

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

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

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

|   |  |
|---|--|
| 1   | This topic was covered in elective coursework. |
| 0   | This topic was not covered.                    |
| Score explanation: This is not addressed by our curriculum. |  |

| <b>11. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university’s surrounding community?</b>  |  |
|---|--|
| 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: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA |  |
| “Discussion of lengthening pollen season, hurricane in south GA, air pollution in Atlanta, food insecurity disseminated throughout the curriculum”  |  |

| <b>12. Does your medical school curriculum address the unique climate and environmental health challenges that have impacted and are impacting Indigenous communities?</b> |  |
|--|--|
| 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 requirements of this metric is not yet met by Emory University  |  |

| <b>13. Does your medical school curriculum address the outsized impact of anthropogenic</b> |  |
|---|--|
|---|--|

**environmental toxins on marginalized populations such as those with low SES, women, communities of color, 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: Addressed in new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA. The following small group sessions embedded within the curriculum (see Rabin et al., JMECD 2020) are proposed for the class of 2024.*

*Case-based learning: Urban Health and the Built Environment*

*LO's:*

1. Define urban heat islands, the built environment, and urbanization.
2. Articulate how the physical environment mediates behavior with implications for physical and mental health.
3. Describe how racially discriminatory policies, including historical redlining, manifest in structural inequalities, the built environment and risk of harm from environmental exposures (eg, heat).

*Environmental Justice Small Group:*

1. Define environmental justice and environmental racism.
2. Discuss the Flint water crisis and Dr. Mona Hanna-Attisha's role in advocating change.
3. Explore opportunities for trainees to advance environmental justice.

***Curriculum: Sustainability***

**14. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?**

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

*Score explanation: This topic will be addressed in 2021 and is specifically addressed in the new climate health curriculum for first-year students proposed by students Ben Rabin and Emaline Laney, with the support of Faculty Advisor, Dr. Rebecca Philipsborn, MD, MPA*

*In particular, environmental and health co-benefits of a plant-based diet are intended to be addressed in the setting of a small group discussion within the endocrine module.*

**15. Does your medical school curriculum highlight the waste generated by the healthcare system and identify ways to advocate for and implement sustainable best practices in health care?**

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

*Score explanation: This is addressed in elective coursework taught by Dr. Aparna Bole as well as some of the student projects for the course taught by Dr. Bole. It is also touched on very briefly in the intro lecture of the new core curriculum, but not enough to warrant a score of a “2”.*

**Curriculum: Clinical Applications**

**16. In training for patient encounters, does your medical school’s curriculum introduce strategies to have conversations with patients about the health effects of climate change?**

|   |  |
|---|--|
| 2 | Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum. |
| 1 | Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework. |
| 0 | No, there are not strategies introduced for having conversations with patients about climate change                      |

*Score explanation: This is not addressed in our curriculum.*

**17. In training for patient encounters, does your medical school’s curriculum introduce strategies for taking an environmental history or exposure history?**

|   |   |
|---|---|
| 2 | Yes, the core curriculum includes strategies for taking an environmental history.   |
| 1 | Only elective coursework includes strategies for taking an environmental history.   |
| 0 | No, the curriculum does not include strategies for taking an environmental history. |

*Score explanation: This is not yet addressed in our curriculum, but it is our hope to address environmental history taking with the incoming M1 class of 2025.*

***Curriculum: Administrative Support for Planetary Health***

**18. Is your medical school currently in the process of 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: Emory has significantly improved its education for sustainable healthcare and planetary health education in the past year thanks to the efforts of Ben Rabin, Emaline Laney, and their faculty advisor Dr. Rebecca Philipsborn, MD, MPA. Emory’s core curriculum for first-year students, which previously contained minimal planetary health education, now introduces climate and sustainability topics throughout each disease module.*

*As mentioned from the accepted curriculum:*

*“This thread will lay out a framework to understand how local and global climate trends - combined with environmental pollution - affect our health. It will introduce students to the important model of planetary health: that individual and societal health are inextricably linked to the health of our environment and global ecosystem. Students will also learn how our built and natural environments interact to affect our wellness by promoting healthy behavior. Finally, this thread will offer tangible learning points in areas such as infectious disease and maternal health that will prove invaluable to students entering any discipline of medicine.”*

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

|   |   |
|---|---|
| 6 | Planetary health/ESH topics are well integrated into the core medical school curriculum.                |
| 4 | Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. |
| 2 | Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).         |
| 0 | There is minimal/no education for sustainable healthcare.   |

*Score explanation: Currently Emory's newly accepted curriculum proposes at least three small-group focused learning cases to integrate planetary health themes including a general discussion of the climate crisis pertaining to healthcare waste and energy demands of the healthcare system, the role of air pollution in respiratory disease and its contributions to compromised pulmonary function, as well as the role of heat homeostasis in renal physiology. Each of these will complement a lecture series pertaining to climate impacts on health throughout the first year of pre-clinical learning at Emory.*

*Further sustainability and planetary health have been integrated into our Community Learning and Social Medicine core requirement for first and second-year students. Emory has developed a relationship with a number of environment-focused sites, of which students may select to work with over their first two years Emory.*

*Faculty and students at Emory are currently working to improve this proposed curriculum to even further integrate planetary health topics throughout the curriculum.*

**20. Bonus: Does your medical school have a program that offers incentives for faculty/departments to develop new planetary health/ESH courses and/or incorporate planetary health/ESH into existing courses?**

|    |  |
|----|--|
| 1* | Yes, the medical school has an incentive program.          |
| 0  | No, the medical school does not have an incentive program. |

*Score explanation: Emory does not currently meet the requirements of this metric.*

|                                     |              |
|-------------------------------------|--------------|
| <b>Section Total (44 out of 58)</b> | <b>75.8%</b> |
|-------------------------------------|--------------|

# 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?   |   |
|---|---|
| 4   | Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health <b>and</b> healthcare sustainability.  |
| 3   | Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health <b>or</b> healthcare sustainability.   |
| 2   | Yes, there are individual faculty members at the School of Medicine who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus. |
| 1   | There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the medical school.  |
| 0   | No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.   |
| <p>Score explanation: <a href="#">Dr. Rebecca Philipsborn, MD, MPA</a> -- Topics: Climate Change, Global Child Health</p> <p>Some Recent Publications:</p> <ul style="list-style-type: none"> <li>- <a href="#">The Unique Role of Medical Students in Catalyzing Climate Change Education</a></li> <li>- <a href="#">Climate Change and Global Child Health</a></li> <li>- <a href="#">Climatic Drivers of Diarrheagenic Escherichia coli Incidence: A Systematic Review and Meta-analysis</a></li> </ul> <p><a href="#">Dr. Jane Duggan, MD</a> -- Topics: Sustainability in Healthcare</p> <ul style="list-style-type: none"> <li>- Dr. Duggan heads Emory's OR Green Team at the hospital and participates in Emory Healthcare's Sustainability Committee as well</li> </ul> <p><a href="#">Dr. Demetrius Leon Woods, MD, MPH</a> -- Topics: Sustainability in Healthcare</p> |   |

*Some Recent Publications:*

- [Carbon footprint of robotically-assisted laparoscopy, laparoscopy and laparotomy: A comparison](#)
- [Comparison of the environmental impact of commonly used surgical approaches to hysterectomy](#)

**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: <https://www.emoryclimatehealthincubator.org/>  
 The Emory Climate and Health Research Incubator is an initiative of [Climate@Emory](#), a university-wide effort at [Emory University](#) to advance climate change scholarship, teaching, partnership, and engagement at Emory and beyond

**3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your medical school?**

|   |   |
|---|---|
| 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: Emory does not currently meet the requirements for this metric.

**4. Does your institution have a planetary health website, or a website centralizing various campus resources 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: Emory has a website devoted environment and sustainability on campus and within the Atlanta community: [Emory -- Sustainability](#)

**5. Has your institution recently hosted a conference or symposium on topics related to planetary health?**

|   |   |
|---|---|
| 4 | Yes, the institution has hosted more than one conference or symposium on topics related to planetary health in the past year, including at least one on climate change. |
| 3 | Yes, the institution has hosted 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: Yes. Emory hosted a virtual climate change & health elective and symposium offered in May 2020. Lectures and discussions can be found compiled [here!](#) In addition, in 2019 Emory

*hosted the Georgia Climate Conference, which answered questions regarding what a changing climate means to Georgia — and how to address the changing climate and health impacts in Georgia.*

**6. Has your institution or medical school joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education?**

|   |  |
|---|--|
| 2 | Yes, the medical school has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education.   |
| 1 | Yes, the institution has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education, but the medical school specifically has not. |
| 0 | No, the institution has not joined the Planetary Health Alliance or the Global Consortium on Climate and Health Education.   |

*Score explanation: Emory is a member of both PHA (Emory University as a whole) and Global Consortium on Climate and Health Education (Specifically Emory University School of Medicine).*

|                                     |              |
|-------------------------------------|--------------|
| <b>Section Total (16 out of 19)</b> | <b>84.2%</b> |
|-------------------------------------|--------------|

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

# Community Outreach and Advocacy

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

| <b>1. Does your medical school partner with community organizations to promote planetary and environmental health?</b>  |  |
|---|--|
| <b>3</b>  | Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health. |
| 2   | Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.       |
| 1   | The institution partners with community organizations, but the medical school is not part of that partnership.                     |
| 0   | No, there is no such meaningful community partnership.   |
| <p><i>Score explanation: Yes, our student-led interest group and curriculum advisors have partnered with Emory's core Longitudinal Community Learning and Social Medicine core class to add numerous community sites addressing Environmental Justice including but not limited to relationships with Emory Farmworker Project and Emory's Urban Health Initiative.</i></p> |  |

| <b>2. Does your medical school offer community-facing courses or events regarding planetary health?</b> |  |
|---|--|
| <b>3</b>  | 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 medical school has not offered such community-facing courses or events.  |

*Score explanation: Emory hosts [Climate Talks](#), an ongoing webinar series that is community-facing in that it is open to the public and recordings are available on youtube. The next lecture is scheduled for Tuesday, April 13 at 10:00 a.m. (EDT) and is one of four episodes from the lecture series that have taken place thus far in 2021.*

**3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?**

|   |  |
|---|--|
| 2 | Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare. |
| 1 | Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.            |
| 0 | Students do not regularly receive communications about planetary health or sustainable healthcare.                     |

*Score explanation: Yes, we have monthly email updates regarding coverage of issues related to sustainability and planetary health from our Office of Sustainability. Moreover, these topics are covered in Emory's on-campus magazine, "Emory Magazine": [Emory Magazine - Climate](#).*

**4. Does the medical school offer continuing medical education (CME) courses that address planetary health and/or sustainable healthcare?**

|   |  |
|---|--|
| 2 | Yes, multiple in-person or online CME courses relating to planetary health and/or sustainable healthcare are offered, including at least one with a primary focus of planetary health. |
| 1 | Yes, one in-person or online CME course related to planetary health and/or sustainable healthcare is offered.  |
| 0 | There are no CME courses on planetary health or sustainable healthcare topics.   |

*Score explanation: Up until this year Emory has not provided any CME courses addressing climate change. However, Emory is excited to offer a newly developed post-graduate course in the spring of 2021 directed by Dr. Rebecca Philipsborn, MD, MPA.*

**5. Do hospitals affiliated with your medical school 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: This metric is not currently met by Emory University |   |

|  |   |
|--|---|
| <b>6. Do hospitals affiliated with your medical school have accessible educational materials for patients about climate change and health impacts?</b> |   |
| 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: This metric is not currently met by Emory University  |   |

|                                     |              |
|-------------------------------------|--------------|
| <b>Section Total (10 out of 14)</b> | <b>71.4%</b> |
|-------------------------------------|--------------|

*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 institution offer support for medical students interested in enacting a sustainability initiative?  |  |
|--|--|
| 2  | Yes, the institution offers grants available to medical students for students to enact sustainability initiatives.   |
| 1  | The medical school 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. |
| 0  | No, the institution does not offer opportunities or support for sustainability initiatives.  |
| <p><i>Score explanation: Student-Led sustainability initiatives are well-supported by Emory. The University offers a <a href="#">General Sustainability and Social Justice Incentives Fund</a> through the Office of Sustainability. This fund allows all Emory and Emory Healthcare students, faculty and staff to request up to \$3,000 for any project or research related to sustainability at Emory and the intersections of sustainability and social justice via application every April.</i></p> |  |

| 2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare? |  |
|---|--|
| 3*  | The institution offers an explicit paid fellowship for medical students to do research related to planetary health and/or sustainable healthcare.  |
| 2   | The institution offers paid research opportunities for students and planetary health/sustainable healthcare projects would be considered eligible. |
| 1   | There are unfunded research opportunities for students to perform research related to planetary health/sustainable healthcare.                     |
| 0   | There are no opportunities for students to receive funding for planetary health/sustainable healthcare research.                                   |

Score explanation: The [General Sustainability and Social Justice Incentives Fund](#) offered by Emory's Sustainability Office, as noted in the first question of this section, will also fund planetary health and/or sustainable healthcare research initiatives. This funding is explicitly meant for research pertaining to planetary health and/or sustainable healthcare.

Moreover, Emory medical students can obtain funding for planetary health and/or sustainable healthcare research through the [Emory Primary Care Consortium Grants](#). These grants provide \$10,000 each fiscal year in grants of up to \$2,500 to support any Emory-affiliated project that involves research, quality improvement, advocacy, development of clinical decision support tools, or educational activities in support of advancements in primary care. In the the application criteria it is stated, "Project topics may center around patient safety, innovations in healthcare delivery, addressing disparities in healthcare, etc." Upon review, research pertaining to sustainability and planetary health would fall under healthcare disparities and/or patient safety. Moreover, it has been acknowledged that projects pertaining to public and environmental health have been conducted in the past. Any Emory student, resident, or faculty member (including VA faculty with an Emory appointment) may apply.

In more rare cases, graduate students who opt to take environmental health courses at the undergraduate campus are eligible to apply for the [Lester and Turner Grants](#).

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

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

Score explanation: Yes, Emory has a website dedicated to planetary health and/or sustainable healthcare activities and mentors within the medical school and outside of the medical school. It can be found at this site: <http://climate.emory.edu/bios/index.html>. Additional initiatives can be found [here](#) under the "Initiatives" tab.

**4. Does your medical school have funded, 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 funded 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 and/or funding. |
| 0   | No, there is not a student organization at my institution dedicated to planetary health or sustainability in healthcare.   |
| <p><i>Score explanation: Yes! MSCA -- Medical Students for Climate Action is the relatively newly established student-led organization that worked on completing this report card. We can be reached via <a href="#">Twitter</a> or via direct contact with Ben Rabin (<a href="mailto:benjamin.mark.rabin@emory.edu">benjamin.mark.rabin@emory.edu</a>) or via Emaline Laney (<a href="mailto:emaline.bryant.laney@emory.edu">emaline.bryant.laney@emory.edu</a>).</i></p> |  |

|  |  |
|--|--|
| <b>5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for sustainability best practices?</b>                    |  |
| 1  | Yes, there is a student representative that serves on a medical school or institutional decision-making council. |
| 0  | No, there is no such student representative.   |
| <p><i>Score explanation: Emaline Laney and Ben Rabin are student liaisons who both sit on the Emory Healthcare Sustainability Council and help advise the medical school regarding sustainability practices.</i></p> |  |

|  |   |
|--|---|
| <b>6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)</b> |   |
| 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) that follow Leave No Trace principles. |

*Score explanation: Emory's list of offerings for the various categories listed above:*

**Garden:** *The medical school has a community garden that helps cultivate food and community on Emory's campus! The [Educational Gardens](https://sustainability.emory.edu/event/med-school-garden/2019-09-23/) on campus are maintained by teams of Emory community members and are located all over campus (<https://sustainability.emory.edu/event/med-school-garden/2019-09-23/>)*

**Conferences, speaker series, symposia, or similar events:** *Emory hosted a virtual climate change & health elective offered in May 2020 for medical students, faculty, and community members throughout the world.*

**Local volunteer opportunities:** *Emory offers numerous opportunities to engage with developing community resilience to anthropogenic environmental impacts. A few will be listed below:*

*Rollins Environmental Health Action Committee*

*REHAC's mission is to encourage students to make environmentally friendly decisions in their daily lives and raise awareness about environmental justice issues in our community and around the world.*

*Slow Food Emory*

*Slow Food Emory promotes conversations and appreciation for good, clean, and fair food through volunteer workdays, cooking demonstrations, and other community events with the goal of making sustainable food adaptable and accessible for Emory students.*

*Student Sustainability Forum*

*Emory's Student Sustainability Forum is a group of student leaders from sustainability-related organizations, student publications, and student governmental associations who collaborate and learn about broader campus and community sustainability initiatives*

|                              |       |
|------------------------------|-------|
| Section Total (13 out of 15) | 86.7% |
|------------------------------|-------|

# Campus Sustainability

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

| 1. Does your medical school and/or institution have an Office of Sustainability?  |   |
|---|---|
| 3   | Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school. |
| 2   | There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.  |
| 1   | There are no salaried sustainability staff, but there is a sustainability task force or committee   |
| 0   | There are no staff members or task force responsible for overseeing campus sustainability   |
| <p><i>Score explanation: Emory has an Office of Sustainability that is responsible for University-Wide sustainability. However, the School of Medicine has a designated sustainability liaison (Shelby Smith) who directly oversees sustainable initiatives at the School of Medicine through the department of Continuing Medical Education.</i></p> |   |

| 2. Does your medical school and/or institution have a stated goal of carbon neutrality by 2050? |  |
|---|--|
| 4*  | The medical school is already carbon neutral.  |
| 3   | Yes, there is a stated carbon neutrality goal and the medical school has a well-defined and adequate plan in place to achieve this goal.   |
| 2   | Yes, there is a stated carbon neutrality goal, but the medical school has not created a plan to reach that goal or the plan is inadequate. |
| 1   | There is a CO2 emission reduction goal, but it is not one of carbon neutrality.  |
| 0   | There is no stated goal for reduction of CO2 emissions.  |

*Score explanation: Emory University has stated carbon neutrality goals and the medical school falls under that umbrella. “Emory’s goal is to reduce total GHG emissions 45% by 2030 and reach net zero emissions by 2050, from a 2010 baseline.” Further, Emory is committed to achieving carbon neutral construction for all new buildings by 2025.*

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

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

*Score explanation: Emory’s medical school buildings are currently approximately 10% powered by renewable energy at this time with hopes of being powered entirely by renewable energy by 2050.*

**4. Are sustainable building practices utilized for new and old buildings on the medical school campus, with design and construction of new buildings and remodeling of old buildings conforming to a published rating system or sustainable 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: “Emory is a leader in its commitment to sustainable buildings with over 3.6 million gross square feet of space in 35 LEED certified University and Healthcare buildings. Emory’s 2025 Vision adds LEED Silver minimum certification for all renovations, and encourages exploration of other sustainable building standards like Living Building, Fitwel, and WELL.” In 2017, [Emory](#)*

[University Hospital Tower](#) became the first Emory Healthcare building to become LEED certified. More information pertaining to sustainable building practices can be found [here](#).

**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: Emory has committed to reducing emissions through investment in and implementation of sustainable transportation solutions. A few of our current success and future changes are listed below:*

*Current:*

- *In 2005, Emory created the [Cliff Shuttle system](#), which transports around 3 million riders annually to and from Emory facilities for free. The shuttles run on a B5 biofuel blend made from campus and hospital used cooking oils.*
- *Emory developed a robust [commute options program](#) that offers resources and incentives to employees who commute by walking, biking, carpooling, vanpooling and public transit.*
- *[Electric vehicle charging](#) stations and a [CarShare program](#) for Emory students, faculty and staff encourage sustainable travel options.*
- *Emory supports a [bicycling culture](#) for those who cycle to work and around campus, offering a bike rental program, staff and student bicycling social groups, and a free bike repair shop on campus.*

*Emory's 2025 Sustainability Vision commits Emory to:*

- *Support flexible workdays so that all non-essential personnel are expected to telecommute at least one day per week by 2020.*
- *Improve air quality through enforcement of Emory's [No Idling Policy](#) and other pollution prevention actions.*
- *Shift Emory University and Emory Healthcare vehicle fleets to meet national sustainable fleet certification standards.*
- *Extend incentives for sustainable commuting to students and expand bike shares and the Cliff Shuttle.*

- Establish a carbon-reduction program that allows carbon emissions from Emory-purchased air travel to be offset by investments in a sustainability revolving fund or similar mechanism.

To see more information pertaining to Emory’s sustainable transportation initiatives please see this [website](#).

**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: Emory has easily accessible [compost and recycling bins](#) throughout all campuses. In most cases, garbage bins have been completely replaced by the former. As of 2020, 70% of campus waste was diverted from landfills due to our composting initiatives and our recycling initiatives.

A preview of Emory’s initiatives listed [here](#) are highlighted below:

Thus far:

- The [Emory Recycles](#) department began recycling white paper in 1990, and since that time, all Emory University academic buildings, residence halls, labs, clinics and offices now have a source-separated recycling and composting program.
- Emory Healthcare reduces and recycles waste generated in clinics by washing and reusing gowns and linens, reusing sharps containers and donating equipment and materials for use in other countries.
- Emory Recycles accepts waste and recyclables for any of our five streams at the [Recycling Drop Off site](#) located on Peavine Creek Drive open 24 hours a day, seven days a week.
  - To learn more about the Emory Recycling Center, take a virtual tour [here](#)
- Emory nurtures partnerships with area nonprofits [re:loom](#) and [MedShare](#) to recycle and reuse old uniforms and medical supplies.
- The student group, [Emory Food Chain](#), also recovers much of the excess food and repurposes it into meals for area food pantries and shelters. This food can then feed our neighbors and be diverted of landfills.

In the future:

[Emory’s Sustainability Vision & Strategic Plan, 2025](#) calls those at Emory to:

- All university events will be zero municipal landfill waste by 2025.
- Divert 95% of non-construction waste from municipal waste landfills (except regulated lab and medical waste) by 2025.
- Compost, recycle, or reuse at least 95% of food waste, non-hazardous animal bedding, and construction materials by 2025. To learn more about how we aim to do this, visit our [ZLW](#) page.
- Meet or exceed leading healthcare industry rates of waste reduction/reuse/recycling to 37% by 2025.

**7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections?**

|   |   |
|---|---|
| 3 | Yes, the medical school has adequate sustainability requirements for food and beverages 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: Emory provides comprehensive sustainability criteria for food provided on campus as detailed on this [website](#).

Emory’s Food and Dining initiatives from the website above are listed below:

- [Emory’s Sustainable Food Committee](#) drafted and adopted the Sustainability Guidelines for Food Purchasing in fall 2007, and provide clear goals and implementation steps for 10 categories of food. They have been revised multiple times as new research is produced, and the [current version](#) was adopted in 2016.
- Emory has a campus chapter of the international Slow Food Movement, called [Slow Food Emory](#), which advocates for “good, clean, and fair” food in a way that is accessible to all Emory students. Slow Food Emory seeks to reconnect students with the production of food and encourage student involvement with the local sustainable food community.
- The [Emory Farmers Market](#) provides a weekly place to educate about the principles of local, sustainable food production by connecting the Emory community with the local farmers and small business owners who grow and make their food.
- The annual Sustainable Food Fair is a student-run event where attendees can learn about sustainable food practices and sample tasty treats from a variety of student and community groups. The fair takes place alongside the weekly Farmers Market, in partnership with the Office of Sustainability Initiatives and Emory Dining.
- The [Oxford Organic Farm](#) at Emory, [one of the top 30 sustainable college-run farms in the nation](#), cultivates produce for Emory Dining, the Emory Farmers Market and a

community-supported agriculture produce subscription program while providing a hands-on educational experience for students across disciplines. Sign up here for [the CSA](#).

- The [Emory Educational Garden Project](#) provides gardening plots for students, faculty and staff to learn organic growing techniques, to provide access to local produce, and to build community around food production.
- Emory University signed an MOU with [The Conservation Fund's Working Farms Fund](#) to break down barriers and support next-generation farmers across metro Atlanta while boosting the supply of fresh, local, sustainably grown food for Emory's campus and hospital communities. The Working Farms Fund will purchase farmland within a 100-mile radius of metro Atlanta, place conservation easements on it to permanently protect it from development and harmful environmental practices, and lease the land to farmers with a 5- or 10-year path to ownership, selling it to them at a much lower price at the end of their lease. Read more [here](#) and watch the webinar, "[Taking Action for America's Local Food](#)," to learn more about the partnership.

In the future, Emory has committed to:

- Expand sustainable food purchases in Emory Dining to 75 percent by 2025.
- Support the Oxford Organic Farm to provide 50 percent of produce needed on the Oxford campus and 5 percent of produce needed on the Atlanta campus by 2020.
- Expand sustainable and local food purchases in catered events.
- Expand sustainable and local food purchases in Emory Healthcare to 25 percent and establish tracking system to document future gains.

**8. Does the medical school or associated institution apply sustainability criteria when making decisions about supply procurement?**

|          |  |
|----------|--|
| <b>3</b> | 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: Emory provides comprehensive sustainability criteria for supply procurement provided on campus as detailed on this [website](#).

A few of the pertinent points to date from the website above are listed below:

- In 2013, Emory became a founding member of the [Sustainable Purchasing Leadership Council](#), a non-profit organization whose mission is to support and recognize purchasing leadership that accelerates the transition to a prosperous and sustainable future.
- Emory's [Sustainable Food Guidelines](#) inform food and beverage purchasing by [Emory Dining](#) and Emory Healthcare.
- Emory contracts require minimum standards governing employee wages, benefits, and working conditions and provides increased access to minority, disadvantaged, and women-owned vendors.
- The purchase of polystyrene products is banned using Emory funds.
- Emory Human Resources' Excellence Through Leadership program developed a sustainability decision-making tool, which will help purchasers incorporate full cost accounting into purchasing decisions.

In the future, Emory has committed to:

- Support culture change towards “reduce, repair, restore, and reuse” mentality and “cradle to cradle” purchasing.
- Support procurement of local products with a sustainability-focused business incubator.
- Develop scorecards for “Emory preferred” practices and decisions which encourage full-cost accounting among vendors and contractors and integrate sustainability into selection criteria when awarding contracts.

**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: From Emory's [Sustainable Events -- Greener Gatherings Website](#): “Whether a casual staff gathering or our annual Commencement, Emory is committed to hosting events responsibly to align with our ambitious goals of reducing waste, conserving water and sourcing food sustainably.”

All University events will be Zero Landfill Waste as of 2020.

All University functions will be plastic bottle free by 2025.

In addition, Emory's [Checklist and Certification](#) is a way to encourage and empower event planners inside the Emory community to embrace sustainability principles when organizing their events



**10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?**

|   |   |
|---|---|
| 2 | Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable. |
| 1 | There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.       |
| 0 | There are no efforts at the medical school to make lab spaces more sustainable.   |

*Score explanation: “Emory’s [Green Labs program](#) establishes our reputation as a leader in managing our operations sustainably while providing the high-quality educational experiences to students, world-class research and exemplary patient care.”*

*This is a program that is essentially a voluntary program that assists Emory University and Emory Healthcare research and teaching laboratories with implementing sustainable lab operations strategies and creating a culture of sustainable lab practices. The program aims for lab sustainability in four target areas: energy and water efficiency and conservation, recycling and waste reduction, chemicals, and procurement.*

*Labs can apply for funding to implement the actions on your checklist and new innovations by submitting a Green Labs Incentives Fund Application.*

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

|   |   |
|---|---|
| 4 | The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives. |
| 3 | No, the institution is entirely divested from fossil fuels.   |
| 2 | The institution has partially divested from fossil-fuel companies.  |
| 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: “Emory University does not hold direct stock or bonds in companies producing fossil fuels and performs quarterly negative screening of its investment portfolio.”*

*For more information regarding Emory’s fossil-fuel divestment and sustainability investments, please*

visit this [website](#).

**Section Total (27 out of 29)**

**93.1%**

*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 Emory University School of Medicine

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

| Section   | Raw Score               | Grade     |
|---|-------------------------|-----------|
| <b>Planetary Health Curriculum (30%)</b>                            | 44 / 58 = 75.8%         | B+        |
| <b>Interdisciplinary Research (17.5%)</b>                           | 16 / 19 = 84.2%         | A-        |
| <b>Community Outreach and Advocacy (17.5%)</b>                      | 10 / 14 = 71.4%         | B         |
| <b>Support for Student-led Planetary Health Initiatives (17.5%)</b> | 13 / 15 = 86.7 %        | A         |
| <b>Campus Sustainability (17.5%)</b>                                | 27 / 29 = 93.1%         | A-        |
| <b>Institutional Grade</b>  | <b>110/135 = 81.48%</b> | <b>A-</b> |