

# **Planetary Health Report Card:** University of Leicester



2021-2022 Contributing Team:

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## **Summary of Findings**

Overall	C-
Curriculum	D-
<ul> <li>The University of Leicester briefly mentions planetary health (PH) in the curriculum, but lacks long integration. In the first and second years, PH is discussed during population sciences, respiratory ar reproduction lectures, and history taking workshops.</li> <li>Recommendations: Specific teaching on the impacts of climate change on health and the impacts on the climate should be added. Teaching on the impacts of extreme weather events on health shou covered. Teaching during practical history-taking sessions should cover taking a focussed pollutant history and cover the environmental impact of metered dose inhalers. The relationship between me and the neuropsychological effects of environmental degradation should be addressed. The Health Enhancement Programme should include the environmental/health benefits of a plant based diet.</li> </ul>	gitudinal nd of healthcare ld be t exposure ntal health
Interdisciplinary Research	С
<ul> <li>There is a dedicated Centre of Environmental Health and Sustainability for interdisciplinary research research is not directly aimed at medical students nor is it conducted by medical faculty.</li> <li>Recommendations: The Leicester Medical School could organise a conference directly related to S healthcare which could be hosted by members of the medical faculty interested in planetary health. also join the Planetary Health Alliance and the Global Consortium on Climate and Health Education more partnerships with the Centre of Environmental Health and Sustainability.</li> </ul>	ch but Sustainable They could on and foster
Community Outreach and Advocacy	F
<ul> <li>Other than University initiatives, there is little PH community outreach by the medical school.</li> <li>Recommendations: More community PH projects and research. A medical school website page fe sustainable healthcare communications. Post-graduate courses on PH and/or sustainable healthcare</li> </ul>	aturing
Support for Student-Led Initiatives	В
<ul> <li>The University of Leicester and the Medical School support student planetary health groups.More opportunities, such as research projects and medical school sponsored grants could be offered.</li> <li>Sustainable Medicine, a medical society, receives Student Union funding but there other institution societies like 'Plan - it change' and 'Students for Global Health.'</li> <li>Recommendations: The medical school could create opportunities for students to participate in co planetary health programs through SSCs, volunteering programs and seminars run by faculty.</li> </ul>	al PH -curricular
Campus Sustainability	B-
<ul> <li>The University of Leicester Medical school has made good progress in becoming a sustainable carrincluding fossil fuel divestment, using fully renewable energy on site, and setting carbon neutrality Medical School building is also the largest PassiveHaus, built to minimise the school's carbon foot</li> <li>Recommendations: Educate students and staff on ways to maximise usage of PassiveHaus buildin maximise efficiency. Compost bins and sustainable event guidelines should be implemented.</li> </ul>	pus goals. The print. g in order to

### **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 "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." 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 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.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
  - 1. Describe how the environment and human health interact at different levels.
  - 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
  - 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Medical School vs. Institution: When "medical school" is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (for example, undergraduate departments (USA), other related departments eg 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 this year, the Planetary Health Report Card <u>Literature Review by Metric</u> collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

### **Planetary Health Curriculum**

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

#### Curriculum: General

1. Did your 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.
No, there are currently no elective courses regarding Education for Sustainable Healthcare or Planetary Health.	

### 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.
No, this topic is not currently covered in either the core curriculum or elective coursework.	

**3.** Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?

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

No, this topic is not currently covered in either the core curriculum or elective coursework.

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

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

No, this topic is not currently covered in either the core curriculum or elective coursework.

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

3 This topic was explored in depth by the core curriculum.
2 This topic was briefly covered in the core curriculum.
1 This topic was covered in elective coursework.
0 This topic was not covered.
• During the respiratory system module during semester 3, asthma was covered in a lecture and the effects of environmental pollution and mould as triggers for asthma was mentioned.
• During the year 4 Paediatrics allergies lecture by Dr David Luyt urbanisation was mentioned

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

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

No, this topic is not currently covered in either the core curriculum or elective coursework.

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

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

No, this topic is not currently covered in either the core curriculum or elective coursework

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

- 3 This topic was explored in depth by the core curriculum.
- 2 This topic was briefly covered in the core curriculum.
- 1 This topic was covered in elective coursework.
- 0 This topic was not covered.
  - During a lecture titled 'an introduction to Global Determinants of Health' in Year 1 by Dr Hsu the contribution of human activity and population size to global environmental changes was briefly discussed.

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

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
•	During a population sciences lecture by Dr Hsu in year 2 titled 'an introduction to global determinants of health,' the adverse effects of climate change were explained to affect lower socioeconomic classes and homeless populations more as these communities typically have

less means to adapt to climate change and are at a higher risk of exposure to pollution and toxins.

# **10.** Does your medical school curriculum address the unequal regional health impacts of climate change globally?

3	This topic was explored in depth by the core curriculum.	
2	This topic was briefly covered in the core curriculum.	
1	This topic was covered in elective coursework.	
0	This topic was not covered.	
No. t	No this topic is not currently covered in either the core curriculum or elective coursework	

### 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.
  - During the reproductive unit in year 2, air pollution was mentioned to affect the genotype of the child.

# **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.

No, this topic is not currently covered in either the core curriculum or elective coursework however the Sustainable Medicine society at the University of Leicester have organised seminars detailing the human-caused impacts on climate change with a focus on healthcare.

# 13. To what extent does your medical school emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.

No, this topic is not currently covered in either the core curriculum or elective coursework

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

3 This topic was explored in depth by the core curriculum.
2 This topic was briefly covered in the core curriculum.
1 This topic was covered in elective coursework.
0 This topic was not covered.
• During a population sciences lecture by Dr Hsu in year 1 titled 'an introduction to global determinants of health' the adverse effects of climate change were mentioned to affect the lower socioeconomic classes and homeless more as the communities typically have fewer means to adapt to the climate and are at a higher risk of exposure to pollution and toxins as they are more commonly present in built-up city areas and have less exposure to clean water.

Curriculum: Sustainability

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

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

No, this topic is not currently covered in either the core curriculum or elective coursework however a student-led society called Nutritank at the University of Leicester has run workshops explaining the benefits of a plant-based diet such as decreased CO2 emissions, less land required to farm cattle and the increased efficiency of the food chain. One interactive workshop involved a live feed to a farm and provided seeds to grow your own cress.

### 16. Does your medical school curriculum address the carbon footprint of healthcare systems?

- 3 This topic was explored in depth by the core curriculum
- 2 This topic was briefly covered in the core curriculum.
- 1 This topic was covered in elective coursework.
- 0 This topic was not covered.
  - No, this topic is not currently covered in either the core curriculum or elective coursework.
  - However, the student-led Sustainable Medicine society at the University of Leicester organised a series of Sustainable seminars which included a session that broke down the carbon footprint of healthcare systems and provided an opportunity for students to offer ways to minimise this.
  - Also, another student-led project called MedTech is currently running a project which encourages students to pitch ideas about innovations that can decrease the carbon footprint of healthcare institutes.

# **17.** Does your medical school curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (1 point each)

1Waste production within the healthcare system and strategies for reducing waste in clinical<br/>activities, such as in the operating room1The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry<br/>powdered inhalers over metered-dose inhalers.

1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally anaesthetic gas options with reduced greenhouse gas emissions
1	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on de-prescribing 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 for obesity. This is commonly known as social prescribing in the UK.
1	The health and environmental co-benefits of avoiding over-medicalisation, over- investigation and/or over-treatment
	• In the Health Education and Prevention (HEP) unit at the University of Leicester, social prescribing is explained and promoted which includes referring the patient to social prescribers to encourage socialising, exercising and volunteering as a means to help them cope with their medical conditions. Examples include exercise classes and support groups. The disadvantages of overprescribing and polypharmacy were also covered but these were not directly linked to the climate and effects of increased waste.

#### **Curriculum: Clinical Applications**

18. 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 no strategies introduced for having conversations with patients about climate change

No, this topic is not currently covered in either the core curriculum or elective coursework

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

2 Yes, the core curriculum includes strategies for taking an environmental history.

1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.
	<ul> <li>During the compassionate caring holistic detective (CHHD) sessions at the University of Leicester, students are taught to ask about exposure to asbestos, mould and smoking when taking a respiratory history.</li> <li>This is also reinforced during Year 3 placements on the wards.</li> </ul>
	• In a COPD lecture, pollution was also mentioned to be a known cause for the condition.

#### Curriculum: Administrative Support for Planetary Health

20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?
 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.
 • After a meeting with the head of the medical school, Professor Holland, he explained how new

• After a meeting with the head of the medical school, Professor Holland, he explained how new public health faculty are currently being employed and this year, faculty have tried to introduce topics such as the global sustainable goals into their Year 4 University day.

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

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

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

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

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

The medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Section Total (16 out of 69)

16

Back to Summary Page here

### **Interdisciplinary Research**

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

1.Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
3	Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health or 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.
	<ul> <li>The Centre for Environmental Health and Sustainability at the University of Leicester is an initiative that aims to conduct research on sustainable healthcare matters. For example, Professor Anna Hansal is conducting research on air pollution.</li> <li>Although the Centre is not run by medical school faculty, it does receive support from the medical school</li> </ul>

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.

• The University of Leicester has the Centre for Environmental Health and Sustainability which are currently conducting numerous research projects and includes an interdisciplinary team.

# **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.

No, there is currently no process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at our medical school.

4. Does your institution have a planetary health website that centralizes ongoing and past research related to health and the environment?	
3	There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
2	There is a website that attempts to centralize various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.
	<ul> <li>The University of Leicester has an institutional website that describes ongoing and past research, the health protection research unit, and the people involved.</li> <li>However, more information can be included to encompass campus activities and various sustainable health society work. The website is not currently updated regularly.</li> </ul>

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

4	Yes, the <b>medical school</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the <b>institution</b> 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.
	<ul> <li>The University of Leicester held an 'After COP26' event, details in this link: <u>https://www.eventbrite.co.uk/e/after-cop26-implications-for-university-of-leicester-tickets-189743256187#</u></li> <li>The Sustainable Medicine society also hosts talks and seminars but this is not specifically hosted by the institution</li> </ul>

6. Is your medical school a member of a national or international planetary health or ESH organization?

- 1 Yes, the medical school is a member of a national or international planetary health or ESH organization
- 0 No, the medical school is not a member of such an organization

The medical school is not a member of such an organization.

#### Section Total (8 out of 17)

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

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

8

### **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 medical school partner with community organizations to promote planetary and environmental health?

- 3 Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
- 2 Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
- **1** The institution partners with community organizations, but the medical school is not part of that partnership.
- 0 No, there is no such meaningful community partnership.
  - The university has contracts with a Nada zero waste store on campus, as well as various community organisations that come in to do workshops and crafts on campus.
  - However, the medical school is not a part of the partnership specifically.

# **2.** Does your medical school offer community-facing courses or events regarding planetary health?

3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The medical school has not offered such community-facing courses or events.
No, the medical school does not offer community-facing courses or events regarding planetary health. However, the institution offers community facing carbon literacy courses that include carbon footprint engagement activities.	

**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.

No, students do not regularly receive communications about planetary health or sustainable healthcare. There are institutional websites that address sustainable healthcare issues and events but students do not regularly receive updated communications.

https://le.ac.uk/research/sustaining-world https://citizen.le.ac.uk/blogs/hot-topics/

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

<b>T</b>	
0	There are no such accessible courses for post-graduate providers
1	Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
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 on planetary health.

There are no such accessible courses for post-graduate providers

5. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?
 2 Yes, all affiliated hospitals have accessible educational materials for patients.
 1 Some affiliated hospitals have accessible educational materials for patients.
 0 No affiliated medical centers have accessible educational materials for patients.
 0 At University Hospital Leicester, there are display boards around the hospital regarding sustainable medicine and leaflets for patients to read.

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.

There are no accessible educational materials for patients at Leicester's affiliated hospitals.

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

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

### Support for Student-Led Planetary Health Initiatives

<u>Section Overview:</u> 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/QI project?	
2	Yes, the institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	The medical school 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, the institution does not offer opportunities or support for sustainability initiatives or QI projects.
	<ul> <li>The SEED Fund stands for Sustainable Enterprise and Environmental Development and is a joint University of Leicester and Students' Union (SU) concept to support your project ideas. There is approximately £2000 to spend split for projects relating to the UN Sustainable Development Goals. You can apply for up to £500 and lead your own sustainability or community project.</li> <li>With guidance from the Social Impact Team and SU, applicants will be asked to fill in a proposal and present their idea to the student working group (with the SU and social impact team) who will distribute the SEED fund. The focus is on enabling a wide variety of people to become more involved in the sustainability practices within the University to instigate positive change.</li> <li>Although there is some teaching on how to do a QI project, it is not specifically aimed at sustainable initiatives.</li> </ul>
2. D	oes your institution offer opportunities for medical students to do research related to

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.

planetary health and/or sustainable healthcare?

# There are no opportunities for students to engage in planetary health/sustainable healthcare research.

No, the institution does not offer opportunities for funded research.

0

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.

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.

- 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.

No, the medical school doesn't have a web page where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school.

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

- 2 Yes, there is a student organization with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
- 1 Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare but it lacks faculty support.
- 0 No, there is not a student organization at my institution dedicated to planetary health or sustainability in healthcare.
  - The Sustainable Medicine society is a student-led society under the Leicester Medical Student's Union. They aim to increase student awareness about sustainability issues and promote sustainable healthcare practice through interactive and educational lectures. They have had meetings with the head of the medical school and members of faculty have given talks about sustainable healthcare practice.

**5.** Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?

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.

1

- Sustainability is part of the remit of an elected Students' Union officer and the Students' Union president convenes the <u>Green Bubble</u> a network of student societies working on and campaigning for enhanced environmental sustainability.
- In addition, there are student representatives on University-wide working groups related to sustainability: Environmental Management Working Group, Education for Sustainable Development Working Group and Biodiversity Working Group.

6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	
1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience. ?
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students)
	<ul> <li>Students at Leicester are able to grow vegetables in the Oadby student village vegetable plot and the Nutritank society has also run workshops that promote greener agriculture and food choices.</li> <li>A Go Green volunteering week is organised annually to encourage greener lifestyles, this includes allotment sessions where students are given sustainable meal prep ideas, sustainable bag making sessions, numerous sustainability talks and a blog.</li> <li>The Planet Change society also hosts regular events with speakers for students to learn more about this topic.</li> <li>The Hiking society organises regular hikes locally and adopts a 'leave no trace' policy to minimise litter.</li> </ul>

• The Sustainable Medicine society has organised a Sustainable Seminar series this year which aims to increase understanding of the healthcare impact on climate change through interactive workshops.

### Section Total (10 out of 15)

Back to summary page here

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

10

### **Campus Sustainability**

<u>Section Overview:</u> 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
	• The Social Impact Team all work under the university (but not the medical school specifically) to improve sustainability and social awareness at Leicester University. <u>https://le.ac.uk/social-impact/what-we-are-doing/people</u>

2. How ambitious is your medical school/institution's plan to reduce its own carbon footprint?	
4	The institution has a stated goal of carbon neutrality by 2030 or earlier and the medical school / institution has a well-defined and adequate plan in place to achieve this goal.
3	Yes, there is a stated carbon neutrality goal by at least 2040 and the medical school/institution has a well-defined and adequate plan in place to achieve this goal.
2	Yes, there is a stated carbon neutrality goal by at least 2040, but the medical school/institution 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.
	• The University has set two targets for reducing carbon emissions: to be carbon neutral by 2030 (scope 1 and 2 carbon emissions) and to be net zero by 2040 (all scopes). This reflects

the scale of the various emissions and the level of control the University has to reduce the carbon-intensity of activities. Further details about the University's approach are available from https://le.ac.uk/about/making-a-difference/climate-change/net-zero/avoid

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.
•	The medical school is one of the largest PassivHaus buildings in the UK but does not use only renewable energy.

4. Are sustainable building practices utilized for new and old buildings on the medical school campus, with design and construction of new buildings and remodeling of old buildings conforming to a published sustainability rating system or building code/guideline?

- <sup>3</sup> 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.
  - The medical school in Leicester is the largest PassivHaus and new university student accommodation has been built that is more sustainable than the previous buildings. <u>https://le.ac.uk/about/campus-development</u>
  - The University aims for all new-build construction and renovation projects over £1 million to achieve EPC ratings of 'A' and BREEAM 'excellent' at design stage. The University has developed a biodiversity design guide for construction projects to ensure that each project results in a net gain for biodiversity, through enhancing existing habitats and creating new spaces. Further details are available from <u>https://le.ac.uk/social-impact/what-we-are-doing/managing-our-campus/sustainable-construction</u> and <u>https://le.ac.uk/about/making-a-difference/sdgs/biodiversity</u>.

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.			
	<ul> <li>The university aims to encourage the adoption of sustainable modes of transport by making investments, such as improvements to pedestrian and cycling routes and crossings. It also discourages commuting by car and where car journeys are necessary, discourages single-occupancy journeys by reimbursing carpooling and offering transport recommendations instead.</li> <li>The university is also introducing additional electric car charging points across campus and the Hospital Hopper bus is free for healthcare staff to travel between the UHL hospitals.</li> <li>The medical school also has a bike shed, offered bike locks and a university shuttle bus is</li> </ul>			

- The medical school also has a bike snea, offered bike locks and a university shuffle bus available for students to utilise when travelling to their accommodation
- Information can be found in the campus development brochure <u>https://le.ac.uk/about/campus-development</u>

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.

• No compost specific bins but other recycling bins are present in the medical school.

• However, food waste bins are being trialled at University student accommodation

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)?

Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.

- There are sustainability guidelines for food and beverages, but they are insufficient or optional. 2 The medical school is engaged in efforts to increase food and beverage sustainability. There are sustainability guidelines for food and beverages, but they are insufficient or 1 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.
    - The Medical school has a LSP catering outlet in line with the rest of the university which is covered by an ethical catering policy that includes sustainable food and drinks guidance: https://www.yourlsp.com/ethical-catering/
    - Leicester Services Partnership (Here for U), the catering and retail partnership between the University and the Students' Union, has a Sustainable Food Policy. This includes creating menus so that at least 50% is vegetarian, sourcing suppliers within a 50 mile radius, offering discounts for hot drinks purchased in reusable cups, and requiring all the fish that is served to be sustainably sourced or Marine Stewardship Council approved. Also, a new store called NADA has been set up on the university campus which promotes zero waste by bringing your own containers for food items.
    - The medical school specifically however is not engaged in efforts to increase food and beverage sustainability other than that used by the university itself.

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

- Yes, the medical school has adequate sustainability requirements for supply procurement and is 3 engaged in efforts to increase sustainability of procurement.
- There are sustainability guidelines for supply procurement, but they are insufficient or optional. 2 The medical school is engaged in efforts to increase sustainability of procurement.

There are sustainability guidelines for supply procurement, but they are insufficient or 1 optional. The medical school is not engaged in efforts to increase sustainability of procurement.

- 0 There are no sustainability guidelines for supply procurement.
  - The University of Leicester follows the Sustainable Procurement Guidance which provides a • menu of sustainability risk mitigations and added value options for including in tenders/contracts, including in relation to demand management and product efficiency, as is relevant and proportionate to the contract in question.
  - The University's Sustainable Procurement guidance [internal access only] explains how wider social, economic and environmental benefits may be gained through procurement contracts. This includes environmental issues to be considered when drafting specifications, method statement questions and tender evaluation criteria, such as the durability and reparability of products, the recycled content of products, 'take back' arrangements for packaging, and logistics planning to consolidate deliveries and minimise vehicle mileage. The Working With <u>Us</u> page explains the benefits of this approach for suppliers (see 'Not just about price' section).

- Guidance for the pre-procurement stage stresses the need to see whether research equipment or specialist machines can be borrowed from elsewhere within the University or from another university, before committing to a new purchase (extract of guidance is available <u>here</u>).
- The medical school is not currently engaged in efforts to increase sustainability of procurement.
   <u>https://le.ac.uk/about/making-a-difference/sdgs/responsible-consumption-production</u>
   <u>https://le.ac.uk/social-impact/what-we-are-doing/managing-our-campus/waste-and-recycling</u>

#### 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.

There are no sustainability guidelines for medical school 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.

The medical school does not currently have any initiatives to assist lab spaces in becoming more environmentally sustainable as the dissection room is under strict legal regulation.

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 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.
• The University has allocated 11% of the portfolio (half of the private asset allocation) to impact investing. This is invested in businesses that have a direct, measurable social and environmental return alongside a financial return. The impact investing portfolio is diversifi across eight themes and investment areas, five of which are focused on climate: sustainable agriculture, sustainable transport, waste & materials, ecosystem services and clean energy. Also the university has directly divested from all fossil fuels. <u>https://le.ac.uk/about/making-difference/climate-change/divestment</u>	

#### Section Total (19 out of 31)

19

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

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

### Grading

#### **Section Overview**

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

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

#### Planetary Health Grades for the Leicester School of Medicine

The following table presents the individual section grades and overall institutional grade for the Leicester School of Medicine on this Leicester School of Medicine Planetary Health Report Card.

Section	Raw Score	Letter Grade
Planetary Health Curriculum (30%)	(16 / 69) x 100 = <b>23.19%</b>	D-
Interdisciplinary Research (17.5%)	(8 / 17) x 100 = <b>47.06%</b>	С
Community Outreach and Advocacy (17.5%)	(2 / 14) x 100 = <b>14.29%</b>	F
Support for Student-led Planetary Health Initiatives (17.5%)	(10 / 15) x 100= <b>66.67%</b>	В
Campus Sustainability (17.5%)	(19 / 31) x 100 = <b>61.29%</b>	В-

Institutional Grade	40.08%	C-

### **Report Card Trends**

#### **Section Overview**

This graph demonstrates trends in overall and section grades for the years in which The University of Leicester medical school has participated in the Planetary Health Report Card initiative.



### PHRC Trends for the University of Leicester Medicine

Year