

Planetary Health Report Card (Medicine):

University of Leicester



2022-2023 Contributing Team:

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Summary of Findings

Overall	
Curriculum	C +

- University of Leicester includes various aspects of Sustainable healthcare into the new, reformed curriculum featuring specific LOs about sustainability/planetary health. They also offer elective opportunities to develop this understanding as SSCs.
- **Recommendations:** The evaluated topics are often only briefly discussed so could be covered in more detail.

Interdisciplinary Research

 \mathbf{C}

- The University of Leicester has webpages and resources to guide students into researching sustainability, however these are not med school specific.
- **Recommendations**: Leicester Medical School could build their own resources to aid students in researching sustainability. They could also join the Planetary Health Alliance and the Global Consortium on Climate and Health Education.

Community Outreach and Advocacy

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- University of Leicester Medical School has little community outreach relating to planetary health. Leicester Teaching Hospitals does have some accessible educational materials for patients.
- **Recommendations**: More community partnerships relating to planetary health. A medical school website page featuring sustainable healthcare communications. Post-graduate courses on PH and/or sustainable healthcare.

Support for Student-Led Initiatives

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- The University of Leicester has one student group dedicated to planetary health- The Sustainable Medicine society. This is supported well by the student union and faculty within the medical school. In addition the University has opportunities for students to participate in co-curricular planetary health programs through various societies (Sustainable Medicine, Go Green, Nutritank, Hiking, Planet Change, Students for Global Health).
- **Recommendations**: The medical school could create opportunities for students to participate in co-curricular planetary health programs through SSCs, volunteering programs and seminars run by faculty.

Campus Sustainability

C+

- The University of Leicester Medical school has made good progress in becoming a sustainable campus including fossil fuel divestment, using fully renewable energy on site, and setting carbon neutrality goals. The Medical School building is also the largest PassiveHaus, built to minimise the school's carbon footprint
- **Recommendations**: Educate students and staff on ways to maximise usage of PassiveHaus building in order to maximise efficiency. Compost bins and sustainable event guidelines should be implemented.

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 analysing 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, urbanisation, 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 colour, 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 centred on environmental health impacts 5) medical school campus sustainability.

Definitions & Other Considerations

Definitions:

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilization and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable
 healthcare involves ensuring the ability to provide good quality care for future generations by
 balancing the economic, environmental, and social constraints and demands within health
 care settings. A sustainable healthcare system maintains population health, reduces disease
 burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 - 1. Describe how the environment and human health interact at different levels.
 - 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 - 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Medical School vs. Institution: When "medical school" is specified in the report card, this
 only refers to curriculum and resources offered by the School of Medicine and does not
 include offerings from other parts of the university (e.g. undergraduate departments (USA),
 other related departments (e.g. Public Health, Population Health departments). In contrast,
 when "institution" is specified in the report card, we are referring to the university more

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

- Environmental history (Metric #19 in Curriculum Section): This is a series of questions providers are taught to ask during medical encounters that elicit 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 mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- Clerkship: This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

	1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.	
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.	
1	The medical school does not have any electives whose primary focus is ESH/planetary health, 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.	
Leicester offers a sustainable health in primary care SSC for third year students, and a global health SSC which explores sustainable health and climate change		

Curriculum: Health Effects of Climate Change

2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
5 slides in year 1 drawing links to the impact of the result of climate change (specifically temperature)	

5 slides in year 1 drawing links to the impact of the result of climate change (specifically temperature) on the world and healthcare. A mention of extreme heat and its health impacts globally in the revised population science curriculum.

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.

Mentioned number of deaths and cause of death due to extreme weather in public health lecture, but not explored in more detail

4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?

- 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.

5 slides in 2nd year dedicated to exploring how increasing levels of contaminated water can lead to the spread of disease. A mention of what types of diseases might change due to climate change in 2nd year too

5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?

- 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.

2 slides dedicated to discussing the impact of air pollution on COPD and asthma in a year 2 lecture. Another mention of Urbanisation and pollution as a risk factor for Paediatric allergy prevalence. I slide used to demonstrate how poor environmental control can lead to spread of influenza infections At a university day in 4th year, a local GP talked about inhalers and overprescribing medication causing impact on climate change. Including inhaler technique for dry powder inhalers (which are better for environment)

A dedicated Learning objective in the revised curriculum for 2nd year population science

6. Does your medical school curriculum address the cardiovascular health effects of climate

chan	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.	

In year 1, 9 slides used to demonstrate how noise pollution affects cardiovascular disease, in the context of interpreting a cross sectional survey. A mention of increased heat causing arrhythmia as as mechanism of increased heat causing CVS issues

7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

This topic was not covered within the Leicester medical school curriculum - core or electively

8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

An image showing the cycle of increased heat and its knock on effects on food security and local/global effects

9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, 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.

5 slides in year 2 comparing the disparity between wealth/pollution of the top 10% and the bottom 50% drawing links to the impact of the resulting climate change (specifically temperatures) on the world and healthcare.

10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
This topic was not covered within the Leicester medical school curriculum - core or electively	

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

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

During the reproductive unit, 1 slide is dedicated to discussing environment vs genetics, with brief information mentioning how the environment can affect Genotype. Such as Radiation, Chemicals and Mutagens

12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

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 <u>medical school</u> emphasise 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.	
This	This topic was not covered within the Leicester medical school curriculum - core or electively.	

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

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

This topic was covered in elective coursework.

This topic was not covered.

During a population sciences lecture in Year 2 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 they have less means to adapt to the climate and at a higher risk of exposure to pollution and toxins.

Curriculum: Sustainability

15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

A year 4 university day mentioned the effect of a plant based diet on climate change, as well eating less having an impact too

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

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 gets students to pitch the innovations to decrease the carbon footprint of healthcare institutes.

17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	In the Health Education and Prevention (HEP) unit at the University of Leicester HEP, social prescribing is explained and promoted which includes referring the patient to social prescribers

to encourage examples such as exercise classes and support groups to help manage their condition. The disadvantages of overprescribing and polypharmacy were also covered but it was not directly linked to the climate and effects of increased waste.

Also mentioned STOPP START and deprescribing as a sustainable practice. Social prescribing is a longitudinal theme throughout Leicester's curriculum, particularly in GP and CHDD tutorials.

Anaesthetic gas and inhaler impact on environment discussed on university day.

Curriculum: Clinical Applications

18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change
This topic was not covered within the Leicester medical school curriculum - core or electively	

	19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
2 Yes, the core curriculum includes strategies for taking an environmental	nistory.	
1 Only elective coursework includes strategies for taking an environmental history	ory.	
0 No, the curriculum does not include strategies for taking an environmental his	tory.	

During the compassionate caring holistic detective (CHHD) sessions at the University of Leicester, when taking a respiratory history, students are taught to ask about exposure to asbestos, mould and smoking. This is also reinforced during Year 3 placements on the wards.

Curriculum: Administrative Support for Planetary Health

20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?		
4	4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	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.

Revised curriculum with two new lectures and associated learning objectives dedicated to Planetary health and sustainable health care, as well as introducing it as a longitudinal theme by revisiting it in 4th year. Dr Kumaravel said "As the co-chair of Public Health educators in Medical Schools SIG, I offered a workshop for all members on how we can integrate this topic into our curricula – both teaching and assessments. We invited experts and I have since revised our curriculum to reflect what we learnt at the workshop."

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). O There is minimal/no education for sustainable healthcare.

Discussed in second year and once again in 4th year at a university day, which is predominantly where longitudinal themes are taught

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

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

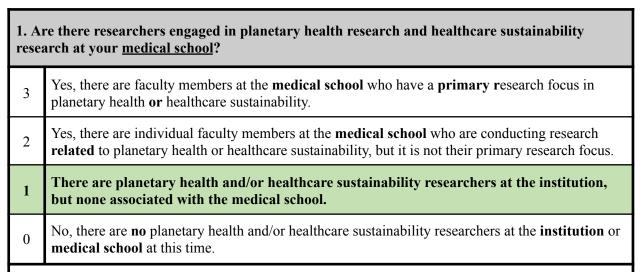
No specific staff member, however the new public health lead Dr Kumaravel is co-chair of Public health educators in the UK and is very keen on pushing introducing this into our curriculum (and other UK med schools curriculums too)

Section Total (41 out of 72) 41

Back to Summary Page here

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 emphasised.



There are 8 researchers with a focus on planetary health linked to the university of Leicester, one of which has an association with sustainable healthcare research. This research project through the Centre for Environmental Health and Sustainability (CEHS) investigates the links between air pollution and COVID-19 mortality rates. This is not connected to the medical school. https://le.ac.uk/research/sustaining-world/experts

2. Is there a dedicated department or institute for interdisciplinary planetary health research at your $\underline{\text{institution}}$?

There is at least one dedicated department or institute for interdisciplinary planetary health research.

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.

There is an Occupational and Environmental Health department, but no interdisciplinary department or institute for planetary health research.

There is no dedicated department or institute.

The University of Leicester has the Centre for Environmental Health and Sustainability which is currently conducting numerous research projects and involves an interdisciplinary team. You find out more detail about the centre at their website linked here: https://le.ac.uk/cehs

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? 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. Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda. No, but there are current efforts to establish a process for community members to advise or

No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda.

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 <u>institution</u> have a planetary health website that centralises ongoing and past research related to health and the environment?

- There is an **easy-to-use**, **adequately comprehensive** website that **centralises** 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.
- There is a website that attempts to centralise various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
- The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment.
- 0 There is **no** website

Yes, the University of Leicester has as an "Earth and Environment" page detailing past and current research related to sustainability and planetary health and the researchers involved.

We also have a page detailing our sustainable development goals and the change happening on campus.

The medical school does not have a separate website page related to this.

https://le.ac.uk/research/sustaining-world

https://le.ac.uk/social-impact

5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?

- Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year.
- Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year.

2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

The University of Leicester held an 'After COP26' event, details in this link: https://www.eventbrite.co.uk/e/after-cop26-implications-for-university-of-leicester-tickets-1897432561 87#

6. Is your <u>medical school</u> a member of a national or international planetary health or ESH organisation?

Yes, the medical school is a member of a national or international planetary health **or** ESH organisation

0 No, the medical school is not a member of such an organisation

The University of Leicester is not a member of an international planetary health or ESH organisation. **Recommendation:** The University should consider joining both the <u>Planetary Health Alliance</u> and the <u>Global Consortium on Climate and Health Education</u>.

Section Total (8 out of 17)	47%
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Back to summary page <u>here</u>

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 colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.

1. Does your <u>medical school</u> partner with community organisations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organisations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organisation to promote planetary and environmental health.
1	The institution partners with community organisations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
University partners with NADA, a sustainable shop on campus	

2. Does your <u>medical school</u> offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The institution/medical school have not offered such community-facing courses or events.
The University of Leicester does not offer community facing courses related to planetary health.	

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

Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare.

0	Students do not receive communications about planetary health or sustainable healthcare.
	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.

Not through the medical school, but university Green Bubble society collaboration provides weekly updates. Information about the society can be found here:

https://www.leicesterunion.com/voice/campaigns/current/greenbubble/

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

- Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
- Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
- 0 There are no such accessible courses for post-graduate providers

No materials were identified

- 5. Does your <u>medical school</u> or its primary <u>affiliated hospital</u> have accessible educational materials for patients about environmental health exposures?
- 2 Yes, all affiliated hospitals have accessible educational materials for patients.
- 1 Some affiliated hospitals have accessible educational materials for patients.
- No affiliated medical centres have accessible educational materials for patients.

At UHL and Queens Hospital Burton there are display boards around the hospital regarding sustainable medicine and leaflets for patients to read. However not at ALL sites

- 6. Does your <u>medical school</u> or its <u>primary affiliated hospital</u> have accessible educational materials for patients about climate change and health impacts?
- 2 Yes, **all** affiliated hospitals have accessible educational materials for patients.
- 1 **Some** affiliated hospitals have accessible educational materials for patients.
- 0 No affiliated hospitals have accessible educational materials for patients.

No materials were identified.

Back to summary page $\underline{\text{here}}$

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 <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project?		
2	Yes, the medical school or institution <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 or institution encourages sustainability QI projects (to fulfil 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.	

No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

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. Information about the fund can be found here - https://leicesterstudent.com/2022/11/02/the-seed-fund/

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.

Although there is some teaching on how to do a QI project, it is not specifically aimed at sustainable initiatives.

2. Does your <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?

- The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
- There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time.

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

No opportunities were identified. **Recommendation:** Consider engaging medical students in ongoing sustainable healthcare research.

- 3. Does the <u>medical school</u> have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.
- The **medical school** has a web page 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.
- There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

https://le.ac.uk/research/sustaining-world/experts

Not specific to medical school

- 4. Does your <u>medical school</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?
- Yes, there is a student organisation with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
- Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.**
- No, there is **not** a student organisation 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. You can find more information about the society here:

https://www.leicesterunion.com/opportunities/societies/findasociety/16997/

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

- 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.

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 <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)

- 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.
- Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
- 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.
- 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.
- Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)

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.

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.

The Plan-It Change society also hosts regular events with speakers for students to learn more about this topic.

https://www.leicesterunion.com/opportunities/societies/findasociety/10656/

The Hiking society organises regular hikes locally and adopts a 'leave no trace' policy to minimise litter. (Not currently running, aiming to re-start next academic year)

https://www.leicesterunion.com/opportunities/societies/findasociety/hikingsociety/

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. https://www.leicesterunion.com/opportunities/societies/findasociety/16997/

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

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 endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising 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 minimising environmental impact.

1. Does your medical school and/or institution have an Office of Sustainability?			
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.			
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.			
There are no salaried sustainability staff , but there is a sustainability task force or committee			
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. https://le.ac.uk/social-impact/what-we-are-doing/people

2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?			
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030		
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040		
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate		
0	The institution/medical school does not meet any of the requirements listed above		
	The Social IThe 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) utilise 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. The building was built to largely run off its own energy supply from things like a ground heat air exchanger system and heat recovery ventilation, as well as other sustainable features. However, sometimes this is not enough and energy consumption is greater than could be met by these systems alone, so other energy sources are utilised.

Annual energy consumption was reduced by 80% as compared to the previous building. Unfortunately, an exact figure cannot be found for the percentage of renewable energy used so this is an estimate. Please see links below for more detail.

https://www.willmottdixon.co.uk/projects/university-of-leicester-centre-for-medicine https://www.passivhaustrust.org.uk/projects/detail/?cId=83

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

Yes, sustainable building practices are utilised for new buildings on the medical school campus and the majority of old buildings have been retrofitted to be more sustainable.

Sustainable building practices are utilised for new buildings on the medical school campus, but most old buildings have not been retrofitted.

Sustainable building practices are inadequately or incompletely implemented for new buildings.

Sustainability is not considered in the construction of new buildings.

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

https://le.ac.uk/social-impact/what-we-are-doing/managing-our-campus/sustainable-construction and https://le.ac.uk/about/making-a-difference/sdgs/biodiversity.

5. Has the <u>medical school</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

2	Yes, the medical school has implemented strategies to encourage and provide environmentally-friendly transportation options such as safe active transport, public transport, or carpooling and these options are well-utilised 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.		

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.

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.

The medical school also has a bike shed, offered bike locks and a university shuttle bus is available for students to utilise when travelling to their accommodation

Information can be found in the campus development brochure -

https://le.ac.uk/about/campus-development

6. Does your <u>medical school</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?

- Yes, the medical school has **both** compost **and** recycling programs accessible to students and faculty.
- 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.

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

- Yes, the medical school has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.
- 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.
- 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.
- 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 $\underline{\text{medical school}}$ or $\underline{\text{institution}}$ apply sustainability criteria when making decisions about supply procurement?

- Yes, the medical school has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement.
- There are sustainability guidelines for supply procurement, but they are **insufficient or optional.**The medical school is **engaged** in efforts to increase sustainability of procurement.
- There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is not engaged in efforts to increase sustainability of procurement.
- 0 There are **no** sustainability guidelines for supply procurement.

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 Us 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 here).

The medical school is not currently engaged in efforts to increase sustainability of procurement. https://le.ac.uk/social-impact/what-we-are-doing/managing-our-campus/waste-and-recycling

9. Are there sustainability requirements or guidelines for events hosted at the medical school?

Every event hosted at the medical school must abide by sustainability criteria.
 The medical school strongly recommends or incentivizes sustainability measures, but they are not required.
 There are no sustainability guidelines for medical school events.

No guidelines were identified

$10.\ Does\ your\ \underline{medical\ school}\ have\ programs\ and\ initiatives\ to\ assist\ with\ making\ lab\ spaces\ more\ environmentally\ sustainable?$

- Yes, the medical school has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable.
- 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?

- The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.
- 3 The institution is **entirely divested** from fossil fuels.
- The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments.
- The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment.
- 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 diversified 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. https://le.ac.uk/about/making-a-difference/climate-change/divestment

Section Total (18 out of 32)

56%

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

^{*}Within each grade bracket, a score in the top 5% ($_5$ to $_9\%$), receives a "+", and a score in the bottom 5% ($_0$ - $_4\%$) receives a "--". For example, a percentage score of 78% would be a B+.

Planetary Health Grades for the University of Leicester School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(41/72) \times 100 = 56.94\%$	C+
Interdisciplinary Research (17.5%)	$(8/17) \times 100 = 47.06\%$	С
Community Outreach and Advocacy (17.5%)	(2/14) x 100 = 14.29%	F
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	В
Campus Sustainability (17.5%)	$(18/32) \times 100 = 56.25\%$	C+
Institutional Grade	49.33%	С

Report Card Trends

Section Overview

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

Planetary Health Report Card Trends for University of Leicester

