



Planetary Health Report Card (Medicine): *University of Cambridge*



UNIVERSITY OF
CAMBRIDGE

2022-2023 Contributing Team:

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Summary of Findings

Overall	C
<u>Curriculum</u>	B+
<ul style="list-style-type: none"> The University of Cambridge includes teaching on planetary health and sustainable healthcare, but these are focused in standalone lectures within the clinical curriculum, with only a single lecture in Year 1 outside of this. Recommendations: Further integration into both the clinical and preclinical course content where relevant would take pressure off existing lectures to cover a diverse range of topics, especially with the anticipated challenges to health the climate crisis poses. These are most relevant in preclinical courses covering pathology, homeostasis and biochemistry and within clinical communication teaching. 	
<u>Interdisciplinary Research</u>	C-
<ul style="list-style-type: none"> Whilst the School of Clinical Medicine has a few individuals working on related research, neither the clinical school nor institution have dedicated research groups or departments. Many of the criteria were met instead by university societies. Recommendations: There is opportunity for a planetary health research position or group, possibly working in collaboration with Cambridge Zero to continue symposia and develop a website to centralise research. Efforts should be made to create a process for impacted community members to advise or make decisions on the research agenda. The clinical school should also look to engage researchers in healthcare sustainability research. 	
<u>Community Outreach and Advocacy</u>	F
<ul style="list-style-type: none"> The School of Clinical Medicine has no communications team to engage with local organisations. While there are events planned to engage with planetary health, these are primarily academic-facing. Recommendations: Existing organisations involving clinical students (CUSPE, Healthy Planet, SfGH) already act with local organisations - the School of Clinical Medicine could partner with these organisations and continue to promote them. Developing community links is also recommended. 	
<u>Support for Student-Led Initiatives</u>	C
<ul style="list-style-type: none"> The School of Clinical Medicine has a student representative on its Climate Change and Sustainability Working Group, but there is generally not much energy dedicated towards supporting student projects. Student projects can be conducted as part of the Living Lab, although there appears not to be many medical students involved with this. Recommendations: To promote initiatives in sustainability and quality improvement, the medical school could collaborate with research groups from various University departments to publicise student-selected projects in this area. In addition, promotion of existing SSCs in this area should continue. 	
<u>Campus Sustainability</u>	B+
<ul style="list-style-type: none"> The School of Clinical Medicine has put good measures in place to ensure the teaching facilities and general medical school campus reach high standards regarding sustainability. Recommendations: Continue sustainability working group meetings to discuss suitable swaps and new initiatives as well as pursuing fossil fuel divestment. Liaising with site-technicians can coordinate technology and infrastructure upgrades and to promote greater use of recycling facilities. The School can encourage students to make use of public transport through provision of financial support. 	

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

Planetary Health Curriculum

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

Curriculum: General

1. Did your <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.

Score explanation: As stated in last year's report, the School of Clinical Medicine does not specifically offer student-selected modules or electives on any topic. All material is considered core, with the exception of Student-Selected Components (SSCs) that are student-led research topics on a topic of the student's choice. An ongoing SSC from Year 4 is looking at sustainability of inhalers and a previous project has looked at Indigenous mental health and climate change. However, undergraduate medical students are expected to intercalate in Year 3, and many course options allow papers to be taken to engage within planetary health. For instance, papers in the Zoology Part II course detail zoonotic pandemics and the human physical/mental health benefits of biodiversity. However, while these topics are relevant to planetary health, this is not explicitly mentioned in these lectures. As this course is accessible in the institution to medical students, and no electives are provided in the clinical curriculum, the Reviewer considers a score of 1 appropriate.

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.
<p><i>Score explanation: This topic, as established in previous reports, is covered in depth in a Year 4 lecture on Environmental Change and Health in the Improving Health course. This lecture discusses in detail the relationship between rises in global temperature and climate change, and related this to direct health effects of heatwaves. This was further illustrated by linking this to inequalities in the distribution of these health effects (the “Urban Heat Island effect”) as well as using a case-study of heat-related illness to relate this to cardiovascular disease. Students were advised on how to approach a patient directly impacted by the health risks of extreme heat. In Year 5, a seminar on Migrant and Refugee Health notes that extreme temperature related to climate change can be both the driver of the initial migration and a subsequent health risk due to dehydration.</i></p> <p><i>While a high score has been awarded due to the depth of coverage in the Year 4 lecture, the health risks of extreme heat are covered elsewhere in the curriculum without any relation to the increasing risks from climate change, such as in preclinical physiology lectures in Year 1. These stand as areas for potential development.</i></p>	

3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: Content remains much the same from last year, with the focus being on the impacts on individual and community health rather than the impact on healthcare systems. The Year 1 Catastrophe, Complexity and Compassion course details the effects of flooding in the UK. In the Year 4 Environmental Change and Health lecture, extreme weather events are covered in more detail and especially with respect to their impact on mental health, although effects on healthcare systems are covered more broadly. The lecture also discusses the disproportionate impact on vulnerable groups and discusses the increased burden on small island nations. In addition, extreme health events are classified as “environmental hazards” in a Year 4 public health lecture on Communicable Disease and Environmental Hazards, although not explicitly related to the climate crisis. This topic is covered in a Year 5 seminar on Migrant Health by a guest lecturer: a case study on displacement in Somalia where drought contributed to part of the complex emergency (alongside conflict, locusts, lack of healthcare facilities and Covid-19). Another case study on internal displacement in Pakistan is also presented: super floods in 2010 as a cause of displacement of peoples. As noted last year, while further opportunity exists to cover these impacts across the preclinical curriculum, a score of 3 is awarded due to the detail it is discussed in.</i></p>	

4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.

0	This topic was not covered.
<p><i>Score explanation: This topic is briefly visited on a number of occasions. In the Year 4 Environmental Change and Health lecture, a slide presents the links between climate change and infectious disease patterns as part of an infographic that relates many of the contributing factors to these changing patterns of disease. This slide is repeated in another Year 4 lecture on Communicable Disease and Environmental Hazards. A brief mention of the changing transmission cycles in leishmania species due to deforestation is made during Year 2 pathology (BOD) lectures.</i></p>	

5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: The contribution of air pollution to the health effects of climate change are noted as a learning objective in the Year 4 Environmental Health and Change lectures, hence a score of 3. The Year 4 lecture discusses particulate matter and nitrogen dioxide pollution over five slides, linking this to premature deaths and injustices based on socioeconomic status. This theme is carried on in linking increased physical activity to reduced air pollution (Year 4, Physical Activity lecture) and relating healthcare emissions to increased air pollution (Year 6, Sustainable Healthcare lecture) In addition, the contribution of air pollution to respiratory damage is covered in Year 1 ethics (SECHI) and physiology (HOM) material, although this is not linked to climate change.</i></p>	

6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: This is covered in a single slide in the Year 4 Environmental Change and Health lecture, which uses an infographic to outline key contributors of climate change to cardiovascular health. In addition, this is preceded by an illustrative case of heat-related illness, which discusses cardiovascular symptoms. While this meets the criteria for brief coverage, to gain full scores and a more comprehensive understanding, discussing these effects would be warranted at any additional point in the curriculum where cardiovascular health is discussed during the course.</i></p>	

7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
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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.
<p><i>Score explanation: As discussed in previous reports, the Year 4 Environmental Change and Health lecture discusses many aspects of the mental health effects of climate change. The effect of extreme weather long-term on mental illness (depression, anxiety, PTSD) is discussed. The effect of heat on cognitive performance in students is mentioned, as well as looking at the link to dementia from air pollution exposure. While not an explicit learning objective, the detail and breadth is awarded a score of 3.</i></p>	

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.
<p><i>Score explanation: The relationship between food systems, diet and health with respect to climate change is discussed in detail in the Year 4 Nutrition and Planetary Health lecture, and referred to in both the Year 4 Environmental Change and Health lecture and the Year 1 Catastrophe, Complexity and Compassion lecture. In the Nutrition lecture, this is discussed in great breadth and detail, looking at the relationship between diet and greenhouse gas emissions, land use, ocean health and socioeconomic benefit. While awarded a high score, further exploration of water use and climate change, especially when regarding local environmental issues in Cambridge, could be discussed.</i></p>	

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.
<p><i>Score explanation: Intersectionality is often an accompanying point to discussions of climate change within the lecture content on planetary health. This is often part of the clinical school's Health for All initiative, which incorporates planetary health as an aspect of integrating teaching on inequality into the curriculum. Impacts on marginalised communities is focused on in the Year 1 ethics course (SECHI) in terms of how climate change is "disproportionately caused by the richest and disproportionately harming / killing the poorest", as well as the lessened time for action in developing</i></p>	

countries. In the Year 4 Environmental Change and Health lecture, discussion of environmental toxin exposure is linked to increased exposure in predominantly Black communities as well as a general theme of “interconnected impact” in other Year 4 Improving Health lectures. The exacerbation of existing vulnerabilities in society by the climate crisis is also explored in the Year 4 Migrant and Refugee Health lecture.

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.

Score explanation: As discussed in the previous metric, there is discussion of the unequal impact of climate impacts on developing countries and regional disparities in the US in the Year 4 Environmental Change and Health lecture. In addition, there is mention of the community impact on small island developing states (SIDS), stating that “2/3 of countries with highest relative climate losses are SIDS”. Further scope exists to discuss this in other aspects of the course, such as in the Migrant and Refugee Health lecture, where there are allusions to climate-related displacement but no specific examples given.

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

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

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

Score explanation: Content explicitly discussing the reproductive health effects of pollution are included in the Year 4 Environmental Change and Health lectures, specifically illustrating the example of low birth weights and air pollution. As covered in previous reports, the reproductive effects of certain toxins are also mentioned as part of the Year 2 Human Reproduction (HR) course. The effect of xenoestrogens in puberty, as well as environmental toxins (pesticides, lead, BPA) having an effect on fertility are discussed briefly in two lectures. While these effects are noted in multiple places in the curriculum, the brief mention warrants no more than a score of 2.

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.
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2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: Both local environmental threats (flooding, pollution, heat risks) and human-caused environmental threats (microplastics) are discussed in detail in lectures in Years 1 and 4, especially with respect to their health risks. However, no specific human-caused local threats are examined within the curriculum, hence a score of 0 is awarded. Areas for potential improvement could involve communication with the medical school with local organisations (see the Community Outreach and Advocacy section) to determine key environmental threats in the local community and how these relate to health issues.</i></p>	

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.
<p><i>Score explanation: This topic is introduced in both the Year 1 Catastrophe, Complexity and Compassion lecture in the ethics (SECHI) course as well as in the Year 4 Environmental Change and Health lectures. The Year 1 lecture briefly details the roles of Indigenous knowledge and values as a part of approaching solutions to the climate crisis. The Year 4 lecture builds on this by introducing the role of decolonising planetary health and providing an American example of where Indigenous people are being involved in the decision making in healthcare. While this concept is better established in the USA, understanding the rationale behind this sets future doctors up for an intersectional perspective on health care issues.</i></p>	

14. Does your <u>medical school</u> 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?	
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.
<p><i>Score explanation: As stated before, a single example in the Improving Health (Year 4) lecture on Environmental Change and Health uses the example of regional exposure to chloroprene pollution in Louisiana to express the impact of anthropogenic toxins on marginalised communities of colour.</i></p>	

Content on differential exposure to air pollution based on SES and race appears to be taken out of the Year 1 ethics (SECHI) lecture on health inequalities and racism. Thus, a score of 2 is awarded for a brief mention in a clinical curriculum lecture only.

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.

Score explanation: This topic is covered extensively in the Improving Health lecture on Nutrition and Planetary Health (Year 4). The lecture explores the health and carbon footprint benefits of reducing meat consumption, and further illustrates this in terms of social justice benefit. In addition, this is linked to other environmental threats such as antimicrobial resistance in livestock, zoonotic infections and land and water use. The lecturer also analyses approaches to encouraging consumption of plant-based meals, such as in choice architecture.

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.

Score explanation: This is covered in depth in the Year 6 lecture on Sustainable Healthcare, although reference to this concept is made in the Year 1 Catastrophe, Complexity and Compassion lecture in terms of intervening in complex systems. Key learning objectives in the Sustainable Healthcare lecture include:

- *Describe, with examples, the different types of environmental impact resulting from healthcare provision, and how these may be measured.*
- *Identify ways to improve the environmental sustainability of health systems - in individual practice, in health service management, and in the design of care systems.*

This is discussed in terms of managing greenhouse gas emissions, pollution, waste and other “carbon hotspots” within healthcare systems. Specialty-specific issues are also discussed, such as in surgical interventions (waste, operative tools) and in general practice (PPE).

17. Does your medical school curriculum cover these components of sustainable clinical practice in the core 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)

Score explanation:

- 1. The health co-benefits of avoiding over-medicalisation and over-treatment, particularly in surgical healthcare and in prescribing in general practice was discussed in the Year 6 lecture on Sustainable Healthcare*
- 2. The environmental impact of pharmaceuticals is discussed in the Year 6 Sustainable Healthcare lecture, especially with respect to climate change and antimicrobial resistance. The effects of overprescribing are also dedicated to a slide, with links to strategies and tools used to combat it in the modern day.*
- 3. The impact of social prescribing on health and environment was discussed in the Year 4 Physical Activity lecture, using physical activity as the main example.*
- 4. Sustainable surgical practice is a focus of the Sustainable Healthcare lecture in Year 6, using the use case of a tonsillectomy to demonstrate carbon hotspots and strategies to mitigate these (with additional discussion on social prescribing to prevent these surgical cases in the first place.*
- 5. During the Year 6 lecture on Sustainable Healthcare, the use of anaesthetic gases were covered extensively in a case study on tonsillectomies by a consultant anaesthetist.*
- 6. The impact of inhalers on the environment was extensively discussed during lectures on Catastrophe, Complexity and Compassion (Year 1) and Environmental Change & Health (Year 1).*
- 7. The Year 6 Sustainable Healthcare lecture covered waste management in healthcare in the inpatient setting.*

Furthermore, a guide for GP tutors covering these points in primary care has been created for further integration into the clinical curriculum, although this is not to be implemented until at least the following year.

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 not strategies introduced for having conversations with patients about climate change

Score explanation: In the Year 4 Environmental Change and Health lecture, a slide is dedicated to prompts relating to communication with patients about climate change. These slides emphasise that while communication on this topic is “no different to other communication”, it is important to share the relevant science and to draw on techniques from lectures on changing behaviour to improve health. While this does satisfy the criteria of “introduction”, a fuller approach to this would include integration within Clinical Communication Skills teaching, including an example or role-play scenario. The ability to have these nuanced discussions offer a practical demonstration of other communication and critical thinking skills.

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.

Score explanation: Students are taught history taking via the Calgary-Cambridge model, which is introduced to them in Year 1 but elaborated on and developed in the Clinical Communication Skills course in Year 4. As part of the history, students are guided to ask about occupational history, allergens and relevant aspects of social history which may include relevant exposures. While these are not emphasised in the context of increasing threat due to climate change, strategies to incorporate this knowledge are given, hence a full score.

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.

Score explanation: As noted in last year's report, diversifying lecture content to incorporate a fuller understanding of planetary health is underway, with noted improvement in the Improving Health lecture series to incorporate concepts of planetary health into discussions of public health. Furthermore, the appointment of a member of staff to incorporate ESH/planetary health education into the clinical curriculum, as well as funding allocated for an additional teaching fellow is promising. However, these efforts must be sustained. From discussions with the Clinical School Climate and Sustainability Group in December 2022, there is interest in further incorporation of these topics into the curriculum, as well as further integration with clinicians in the local hospitals. However, as these efforts lack key details aside from the potential for funding, material efforts are hard to quantify.

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.

Score explanation: As stated in previous years, most content regarding planetary health and sustainable healthcare is covered in standalone lectures during clinical years (Years 4, 5 and 6). While the content in these lectures has been expanded on, integration into other curriculum areas is slow. A single standalone lecture in Year 1 introduces the relationship of medicine and climate change through its social and ethical context. However, scope exists in other aspects of the preclinical curriculum to integrate the biochemistry and physiology of these effects, as well as relating specific examples to discussion of pollution effects on health.

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.

Score explanation: A member of staff who had been previously engaged in integrating planetary health topics into the clinical curriculum has now had additional funding to conduct this in addition to his current role. An additional post for a dedicated teaching fellow to aid further incorporation is to be advertised.

Section Total (55 out of 72)

76.39%

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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.

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?

3	Yes, there are faculty members at the medical school who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the medical school who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution , but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.

Score explanation: The Clinical School Department of Public Health and Primary Care (DPHPC) comprises one planetary health related research project under the cardiovascular epidemiology unit's Global Health Studies theme. This is the Cambridge Program to Assist Bangladesh in Lifestyle and Environmental Risk Reduction (CAPABLE). This project consists of two faculty members with a primary research focus on planetary health. A score of 2 is given as there is a limited number of individual faculty members conducting planetary health research.

Link to CAPABLE project: <https://www.phpc.cam.ac.uk/ceu/translational-epidemiology/global-health-studies/>

2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?

3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years.
1	There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.

Score explanation: There is no dedicated department or institute for interdisciplinary planetary health research or a related website. Cambridge Public Health Sustainability (<https://www.cph.cam.ac.uk/research/sustainability>) and Cambridge Zero Health and Society (<https://www.zero.cam.ac.uk/what-we-do/research>) themes consists of faculty members with primary research focus in planetary health and healthcare sustainability. A score of 0 is given as there is, however, no department dedicated to either occupational and environmental or planetary health research.

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

3	Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda.
1	No , but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.
0	There is no process, and no efforts to create such a process.

Score explanation: A score of 0 is given as there is currently no process by which disproportionately impacted communities may give input on the medical school's research agenda.

4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?

3	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.
2	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.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.

Score explanation: There is no dedicated department or institute for interdisciplinary planetary health research or a related website. Whilst the institution has a sustainability website (<https://www.environment.admin.cam.ac.uk>), it contains no resources related to health and the environment, despite there being scope for instance in relation to the food and travel and transport themes. The Cambridge Zero blog (<https://www.zero.cam.ac.uk/who-we-are/blog>) includes health resources, though few/infrequent, hence a score of 1 is given.

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

health?	
4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.
<p><i>Score explanation: Cambridge Zero has hosted a series of research symposia each year (as of 2019), often with one on the theme of health, most recently 'climate and disease: drivers, impacts and solutions' in December 2022. Hence a score of 3 is given.</i></p>	

6. Is your medical school a member of a national or international planetary health or ESH organisation?	
1	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
<p><i>Score explanation: A score of 1 is given as the medical school is currently a member of the Global Consortium on Climate and Health Education, as well as Health Declares.</i></p>	

Section Total (7 out of 17)	41.18%
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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 medical school 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.

Score explanation: The School of Clinical Medicine has no current communications team to engage with local organisations. As such, there is no partnership with community organisations to promote planetary and environmental health from the medical school itself. At the level of the institution, there are multiple avenues where engagement is held with local organisations on planetary health, although this is mostly at the level of policy. Cambridge Zero and Students for Global Health (SfGH) have worked with Cambridgeshire & Peterborough Independent Commission on Climate (CPICC) to produce a report addressing the effects of climate change, with some links to the health benefits.

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 institution/medical school have not offered such community-facing courses or events.

Score explanation: As of writing, there have been no community-facing events of this nature from the medical school. While members of the School of Clinical Medicine engage and present at Cambridge Zero events and there are plans to create a webinar series on these topics, these are primarily

academic-facing. Extensive events are run by the institution on these topics, but again are primarily student and/or academic facing as of time of writing.

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 receive communications about planetary health or sustainable healthcare.

Score explanation: A weekly newsletter is sent to clinical students that has a 'Health for All' feature. This on occasion provides information on sustainability. However, this is unchanged from last year, as this feature predominately covers health inequality in general (and this appears to be utilised less in the last year), hence a score of 1.

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?

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

Score explanation: Continuing Professional Development (CPD) courses do not contain content on planetary health and sustainable healthcare - this has not changed from last year's report. Teaching in this area is accessible via a course on Environmentally Sustainable Healthcare (ESH). However, this is delivered by NHS Health Education England and is not part of mandatory training. Courses covering these topics are also not provided

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 centres have accessible educational materials for patients.

Score explanation: No online accessible educational materials provided by Cambridge University Hospitals provide meaningful links between environmental exposures, health and disease. A-Z Patient Information: <https://www.cuh.nhs.uk/patient-information/>

6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?

2 Yes, **all** affiliated hospitals have accessible educational materials for patients.

1 **Some** affiliated hospitals have accessible educational materials for patients.

0 **No** affiliated hospitals have accessible educational materials for patients.

Score explanation: No online accessible educational materials provided by Cambridge University Hospitals cover climate change, not its impact on health.

A-Z Patient Information: <https://www.cuh.nhs.uk/patient-information/>

Section Total (2 out of 14)

14.29%

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Support for Student-Led Planetary Health Initiatives

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

1. Does your <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the medical school or institution <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.
0	No, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

Score explanation: The position of these sustainability initiatives/QI projects is unchanged from last year and do not feature within the core curriculum, so 2 points cannot be awarded. As part of the wider institution, the Cambridge Green Challenge Sustainability Team continues to offer sustainability QI projects, with support from the Living Lab. However, funding is not guaranteed for these projects and this is not well-advertised to the medical student body. In addition, it is unclear whether any of these projects have been completed since 2016. Hence, a score of 1 is given for the opportunity being present, but it is not well encouraged by the medical school or institution.

Case studies of sustainability QI projects: <https://www.environment.admin.cam.ac.uk/getting-involved/living-laboratory-sustainability/projects>
 Living Lab: <https://www.environment.admin.cam.ac.uk/living-lab>

2. Does your <u>institution</u> offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.

Score explanation: Research can be conducted by medical students in two avenues. The most common avenue is by completing a Student Selected Component (SSC), where 6 weeks are dedicated for clinical students to conduct a research project with a mentor as provided. Only a single mentor offers projects

with planetary health and/or sustainable healthcare. Current projects advertised for 22/23 include “a practical review of time burden of inhaler use; a review of levers for accelerating decarbonisation of the NHS and learning lessons from the COVID pandemic; and a project developing 'pioneer practices' to move general practice towards net zero carbon footprint.” However, uptake in these projects is sparse, either due to a lack of interest or a lack of engagement with these issues in the student body.

The other is part of their intercalated period - either as an undergraduate in a Part II project or as part of an extended MBPhD. Part II projects can be conducted with most departments, but none are specifically dedicated to planetary health or sustainable healthcare. As part of an MBPhD, students are able to carry out funded research with any of the Clinical School departments, a biological sciences-related university department, or affiliated institutions such as the Sanger Institute in the same field. However, none of these organisations work directly on planetary health and sustainability.

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

2	The medical school has a 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.
1	There is a medical school webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
0	There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation: As previously mentioned, the School of Clinical Medicine have created a Health for All webpage as part of this initiative. However, resources on this are sparse and do not include direct links to planetary health/sustainable healthcare projects and mentors.

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 organisation with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it lacks faculty support .
0	No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare.

Score explanation: As stated in previous reports, Healthy Planet Cambridge is a student group that campaigns for greater inclusion of planetary health and climate change in the medical school curriculum. Healthy Planet Cambridge has been involved in the “Health For All” initiative, which includes a sustainability theme, and receives faculty support and engagement.

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?

1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.

Score explanation: There is a student representative that sits upon a Climate Change and Sustainability Working Group of the School of Clinical Medicine. Thus, a score of 1 is awarded. However, this shows limitations in that the representative cannot fully act as a liaison to represent the needs of the full student body. In addition, a regular meeting schedule/decision making governance framework is yet to be established. This position does not appear to be well-advertised to the medical student body, hence there is much room for improvement.

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 organise hiking, backpacking, kayaking, or other outings for students)

Score explanation:

- 1. Many speaker events are run during the academic year on planetary health that are advertised to students, either in person or remotely. These are often in association with Cambridge Zero, although undergraduate student societies (such as Cambridge SciSoc) also host speakers on these topics or on climate change more broadly.*
- 2. Cambridge Wilderness Medicine Society is the main clinical school society that runs outdoor programs for medical students, such as hikes to Snowdonia.*

Section Total (7 out of 15)

46.67%

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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 <u>medical school</u> and/or <u>institution</u> have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.
1	There are no salaried sustainability staff , but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation: There is an <u>Office</u> set up with specific staff for the role (at least one). Note this is for the hospital and university rather than just the medical school, but the medical school is covered by this. The University of Cambridge has a Sustainability Team consisting of a number of full-time staff. Each department in the University has a volunteer Energy and Environment Coordinator, who attend central sustainability meetings, share the sustainability information received from the centre and lead on green impact. Within the School of Clinical Medicine, there will be between 12-15 individuals.</i></p> <p><i>There is an Energy & Sustainability Manager for Cambridge University Hospitals, which is the hospital associated with the medical school. Despite scoring full points for this metric, as far as the writers of this report card could tell, however, there are no staff members specifically responsible for the sustainability of the medical school.</i></p>	

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 - Setting guidance and examples with policy
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate
0	The institution/medical school does not meet any of the requirements listed above

Score explanation: There is a clear and comprehensive plan in place to achieve carbon neutrality by 2040 as a result of the new Climate Change and Sustainability Working Group. The University announced a net zero target of 2038 in October 2020, and the medical school is working to abide by this. In October 2021, the medical school announced a climate emergency as a part of the Health Declare initiative (<https://healthdeclares.org/>), and committed to “set up a Climate Change and Sustainability Working Group to coordinate the School of Clinical Medicine’s response to the global climate emergency”: <https://www.medschl.cam.ac.uk/climate-emergency-declaration/>. The School of Clinical Medicine does not manage any investments. This group has now been up and running for a year, with clear guidelines on how they hope to reach carbon neutrality within the School.

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.

Score explanation: 52% is renewable at present, though this may change with a new contract later on in 2023. The School of Clinical Medicine is supplied by a green tariff using renewables generated off site but gas is used to generate the steam used for heating. An average of 52% of renewable energy was used to power the School of Clinical Medicine over the period of August 2018 - July 2021. The school is on a fixed energy contract until later in 2023 so this is unlikely to change until then.

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

3	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.
2	Sustainable building practices are utilised for new buildings on the medical school campus, but most old buildings have not been retrofitted .
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.

Score explanation: The Cambridge School of Clinical Medicine comprises a large number of buildings on the Addenbrooke’s Biomedical Campus, most of which are research institutes. All new buildings are in line with the University policy that all must reach Building Research Establishment Environmental 28 Assessment Method (BREEAM) Excellent standards or equivalent approval. The BREEAM certification encompasses a rating system for assets related to ‘energy, water, health and well-being, pollution, transport, materials, waste, ecology and management processes’.

The University's policies are applicable to buildings on the medical school campus. The School of Clinical medicine underwent large scale retrofitting 5 years ago and within the last academic year all windows have been replaced with double or triple glazing. All buildings use LED for lighting and automatic switches. Many of the research institutes on campus have been retrofitted within the past 10 years.

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-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.

Score explanation: Students are encouraged to stay at the free hospital accommodation while on placement but students often commute back for weekends and some choose to commute daily, which is not covered. Public transport is also reimbursed but taxi fares are not reimbursed. Public transport links between DGHs and Cambridge are generally poor and time-consuming with train stations often being far from hospitals. Therefore, we award one point for this metric

During clinical school years, Cambridge medical students are allocated time in Addenbrooke's hospital in Cambridge as well as at District General Hospitals (DGHs) in East Anglia. The transport options available during both placements differ significantly.

When based at Addenbrooke's hospital, students can use the Unibus service which has a discounted fare of £1 per journey for students. Cycle parking is also widely available for students at the hospital. Voi electric scooters have been approved for use by university members. Car parking at the hospital is generally not available for medical students, but allowances are made for disabled students.

The DGHs where students are based, are a driving distance between 40 minutes to 1 hour 20 minutes from Cambridge. Reimbursements are available for students who commute by car when an appropriate insurance policy is provided. Carpooling is incentivised due to a greater sum being reimbursed for more passengers. The number of students with cars at each placement is hugely variable.

Not much change here since last year's report card, but for a six month period, those travelling into Cambridge via train or car and using the park and ride could travel in from the station/Park and Ride using the bus for free.

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

2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
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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.
<p><i>Score explanation: Buildings associated with the medical school regularly have recycling bins available, and the catering providers are able to compost food waste disposed of in the correct bins, along with using biodegradable packaging in the canteens. Given it is disposed of in the correct bins, both conventional materials and organics can be recycled.</i></p>	

7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
3	Yes, the medical school has 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.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<p><i>Score explanation: The catering company CH&co are committed to increase food and beverage sustainability. They have an ISO 14001 accreditation of sustainability. The hot food available includes meat and vegan/vegetarian but there are a range of options available. Meat is available daily in sandwiches, but there are meat-free Mondays and the Sandwiches are not prepared daily, so we award three points. Meat is available daily in sandwiches, but there are meat-free Mondays and the Sandwiches are not prepared daily, so we award three points.</i></p>	

8. Does the <u>medical school</u> or <u>institution</u> apply sustainability criteria when making decisions about supply procurement?	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.
<p><i>Score explanation: Good guidance is in place but it is optional rather than enforced. The Clinical School follows the commitment to the University's Green Impact programme, which states that sustainability should be considered as part of all procurement. The University aims to meet ISO 20400 standards for Sustainable Procurement, with purchases that have 'the most positive environmental, social and economic impacts possible over [their] entire lifecycle' (ISO20400). Items purchased at the</i></p>	

Clinical School in bulk such as paper and cups are 100% recycled and often recycled itself, this applies also to the Clinical School Cafe. These remain as guidelines.

Some of the equipment used for clinical skills training is procured via Cambridge University Hospitals trust, as it is the same equipment used in the hospital. The sustainability of this equipment's procurement is therefore not considered directly in this report, however it is noted that the Clinical Skills Lab has minimal policies on reuse of clinical skills equipment e.g. reusing of packaging and equipment for practising clinical skills on mannequins.

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

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

Score explanation: The School of Clinical Medicine states that all events requiring catering must use the services provided by CH&co, the in-house caterers, who, as outlined previously, make efforts to minimise food and packaging waste. All events must abide by the sustainability guidelines.

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

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

Score explanation: Green Impact, the university environmental accreditation scheme, was introduced during the 2021 Cambridge Climate Festival and has been continued into 2022. This recognises departments and buildings for efforts made to increase sustainability. There were seven Green Impact group award winners in 2022 that were affiliated with the medical school. The Green Labs initiative, which helps labs across the University reduce the carbon-footprint of their work, is also continuing. There are guidance documents, action frameworks, and funding for energy-efficient equipment. This year there has been the continuation of the Laboratory Efficiency Assessment Framework (LEAF) to further inform labs on how to improve their carbon footprint. LEAF 31 also calculates the carbon and financial savings of the work. This is a University-wide initiative that extends to all labs, including those associated with the medical school. While it is not a program specifically rolled out by the School, the sustainability team reports a good but varied take-up of the initiative by different labs of the School. We have therefore awarded 2 points for this metric.

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	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 organised advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.

Score explanation: In October 2020, Cambridge announced a divestment plan (<https://www.cam.ac.uk/news/cambridge-to-divest-from-fossil-fuels-with-net-zero-plan>), with a net zero target by 2038. They announced a plan to:

1. Withdraw investments with conventional energy-focused public equity managers by December 2020.
2. Build up significant investments in renewable energy by 2025.
3. Divest from all meaningful exposure in fossil fuels by 2030.
4. Aim to achieve net zero greenhouse gas emissions across its entire investment portfolio by 2038, in line with the broader targets of the University.

As of January 2022, the CUEF has no direct exposure to fossil fuel companies. However, since the target to divest from all meaningful exposure in fossil fuels is quite far away, only 2 points can be awarded.

The Cambridge University Endowment Fund (CUEF) has an ongoing issue over lack of transparency, however did provide some information in a recent Q&A session in January 2022. However, they cannot list fund managers or investments due to apparently having confidentiality agreements in place - information was not provided on why such confidentiality agreements were necessary and the question remains if universities like Edinburgh can be transparent about investments then why not the CUEF?

There is extensive student support for divestment, particularly via the Zero Carbon society (<http://zerocarbonsoc.soc.srcf.net/press/>). It is also important to add that the CUEF does not include the colleges' endowments, with almost half of colleges having no commitments to tackle the climate crisis via divestment, and the remainder having goals to partially divest ranging from 2020-2030.

Unfortunately, only 10, about a third, of the colleges have commitments to fully divest from fossil fuels. While this might merit a point of 1 rather than a 2, the wider university's plans and progress, despite the limited transparency, probably would merit a score of 2. Information on college divestment: <https://xrcambridge.org/university-divestment>

Section Total (24 out of 32)

75.00%

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Grading

Section Overview

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

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

**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 School of Clinical Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(55/72) \times 100 = 76\%$	B+
Interdisciplinary Research (17.5%)	$(7/17) \times 100 = 41\%$	C-
Community Outreach and Advocacy (17.5%)	$(2/14) \times 100 = 14\%$	F
Support for Student-led Planetary Health Initiatives (17.5%)	$(7/15) \times 100 = 47\%$	C
Campus Sustainability (17.5%)	$(24/32) \times 100 = 75\%$	B+
Institutional Grade	54%	C

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which the School of Clinical Medicine at the University of Cambridge has participated in the Planetary Health Report Card initiative.

