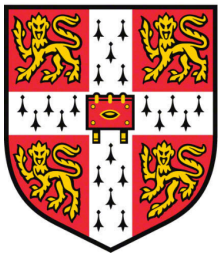




Planetary Health Report Card (Medicine): *University of Cambridge*



UNIVERSITY OF CAMBRIDGE

2023-2024 Contributing Team:

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Summary of Findings

Overall	B-
<u>Curriculum</u>	A
<ul style="list-style-type: none"> • Since the release of the initial report card, the School of Clinical Medicine has significantly enhanced the integration of pertinent planetary health topics within the curriculum through designated teaching sessions, with some incorporation into other specialty teaching. • Recommendations: Extending the teaching on planetary health and the relationship between health and environment in the preclinical curriculum is essential as a next step. This is currently undergoing discussion. Continuing to integrate planetary health principles in the clinical curriculum is recommended. 	
<u>Interdisciplinary Research</u>	C
<ul style="list-style-type: none"> • There is currently no department or institute specifically focused on interdisciplinary planetary health research, nor is there a dedicated website for this area of study.. The School of Clinical Medicine has organised events and conferences in the past year that have addressed topics related to planetary health. • Recommendations: The University should engage researchers in planetary health research even as existing projects have been discontinued. A centralised resource for related research could be created. 	
<u>Community Outreach and Advocacy</u>	D
<ul style="list-style-type: none"> • Improvement in this category has been from the delivery of postgraduate seminars and conferences relating to planetary health, such as the Sustainable Surgery symposium. These are primarily academic facing. • Recommendations: Efforts from the University at large to collaborate with local organisations could occur via student groups such as the Cambridge Climate Society. Furthermore, there is an opportunity for the medical school to establish a partnership with Cambridge Public Health. In addition, information for patients about the health aspects of climate change and environmental exposures could be added to the existing CUH climate emergency webpages. 	
<u>Support for Student-Led Initiatives</u>	C
<ul style="list-style-type: none"> • Funded opportunities for undergraduate students to take part in specific sustainability quality improvement projects within the University exist, however research opportunities must be sought by students. Promotion of existing student selected components has continued with varied uptake. • Recommendations: The clinical school could collaborate with research groups from various University departments to publicise student-selected projects and increase the diversity of these projects. 	
<u>Campus Sustainability</u>	B+
<ul style="list-style-type: none"> • The University of Cambridge’s School of Clinical Medicine has done well to maintain a satisfactory level of sustainability across the campus, with a focus on retrofitting old buildings with new technology and bringing new build areas into line with sustainable building codes. Generally, changes are very minimal since the last report - hence the unchanged grade. • Recommendations: The goals for carbon footprint reduction remain set to 2040 rather than 2030, but if changes could be implemented sooner then a more imminent goal would be recommended. A shift in energy supply from fossil-fuel based to renewables would help improve the score drastically, and would set a good precedent for the other schools at the University (The Cambridge University Endowment Fund has made a commitment to divest but has yet to do so). 	

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

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

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions providers are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and 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 in 2022, 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

1.1. 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.
<p><i>Score explanation: 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. However in the undergraduate course, students are expected to intercalate and degree subjects are offered with content that relates to planetary health. For instance, papers in the Biochemistry, Zoology, Plant Sciences and Earth Sciences Part II introduce concepts in sustainability and planetary health/One Health, although these are not necessarily linked towards planetary health/ESH. As these course is accessible in the institution to medical students, and no electives are provided in the clinical curriculum, a score of 1 remains appropriate.</i></p>	

Curriculum: Health Effects of Climate Change

1.2. 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.

Score explanation: Continuing from previous years, this topic is well-integrated into clinical content, speaking to direct and indirect effects of rising temperatures on health as part of climate change. The Year 4 Environmental Change and Health lecture discusses the relationship between increased temperatures, changing physiology and worsened health outcomes.. There is incorporation of health 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 and directed on how to present advice to mitigate risks. These topics are also further expanded on in student-led presentations on the risks heatwaves pose in the local area (new for this year).

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. There are also inclusions in a 5th year regional cardiovascular/respiratory seminar relating to the health effects of heatwaves in the East of England.

1.3. 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.

Score explanation: As present in last year’s report, the Year 1 Catastrophe, Complexity and Compassion lecture 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. The Year 5 seminar on Migrant and Refugee Health describes the impacts of catastrophic ecological threats as a driver of migration. An additional Year 5 seminar delivered regionally on Sustainable Healthcare discusses the effects of flooding and heatwaves and their relationship to health.

A new addition this year is a Year 5 psychiatry seminar on Mental Health and the Environment that aims to “describe how extreme weather events in the UK can trigger and influence mental health outcomes”. In addition, Year 4 student-led presentations include a short presentation on the effects of flooding and heatwaves to health and healthcare provision.

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

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.

0	This topic was not covered.
<p><i>Score explanation: There have been improvements to the depth and coverage of this aspect of disease transmission. In the Year 4 Communicable Disease and Environmental Hazards lecture, environmental change (including climate change) is noted as a key factor in changing patterns of Lyme disease. There is further discussion of climatic suitability for the increased spread of dengue fever by their zoonotic hosts. This theme is also elaborated in other teaching relating to planetary health, such as in the Year 4 Environmental Change and Health lecture. Furthermore, there is brief discussion in undergraduate pathology teaching. In the Year 2 lecture on Prions, Emerging Virus Infections and HIV', SARS-CoV-2 is utilised as a case study, with 'population density and movement, climate change and travel' all cited factors attributing to its spread in the handout.</i></p>	

1.5. 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: This is discussed in great depth as part of Year 4 student-led presentations on Local Environment and Health. The effects of common air pollutants as well as their health effects across the life course were discussed, as well as actions practitioners and patients can take to mitigate risk. This was conducted in conjunction with data collected about local air pollution risks in the biomedical campus and local area.</i></p> <p><i>In addition, the health impacts of air pollution is discussed in detail as part of the Year 4 Environmental Change and Health lecture, especially where they pertain to unequal distribution in deprived neighbourhoods in England. This theme is carried on in linking increased physical activity to 1.6 million fewer projected deaths due to air pollution (Year 4, Physical Activity lecture) and relating healthcare emissions to increased air pollution (Year 6, Sustainable Healthcare lecture). This is also expanded on a Year 5 Sustainable Healthcare seminar delivered on regional cardiovascular/respiratory placement, where the effects of air pollution is related to intrauterine growth restriction amongst the other respiratory health effects.</i></p>	

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

Score explanation: Coverage in lecture content is unchanged from last year. In the Year 4 Environmental Change and Health lecture, which uses an infographic to outline key physiological mechanisms of climate change to cardiovascular health. In addition, this is preceded by an illustrative case of heat-related illness, which discusses cardiovascular symptoms such as heat exhaustion and heat stroke. There is some brief coverage in a Year One lecture on Thermoregulation, but not sufficient to warrant a score beyond two points.

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

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

Score explanation: As discussed in previous reports, the Year 4 Environmental Change and Health lecture discusses many direct and indirect aspects of the mental health effects of climate change. Connections are made to increased prevalence of mood disorders and “eco-anxiety” following extreme weather events as well as long-term erosion of cultural identity for Indigenous communities and beyond. The effect of heat on cognitive performance in students is mentioned, as well as looking at the link to dementia from air pollution exposure. In addition, there is a Year 5 psychiatry seminar on Mental Health and the Environment that aims to “describe how extreme weather events in the UK can trigger and influence mental health outcomes”, with an extensive case study of eco-anxiety and PTSD in a young person.

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

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

Score explanation: There is increased coverage of this topic in the clinical curriculum this year, especially where it pertains to local environmental issues in Cambridge. Food and water security is discussed extensively in the Year 4 Nutrition, Planetary Health and Social Action lecture, looking at the relationship between diet and greenhouse gas emissions, land use, ocean health and socioeconomic benefit. In the Year 4 Environmental Change and Health lecture, there is discussion of the Flint Water Crisis and health outcomes associated with this. The impact of microplastics on food and water security is also discussed in this lecture. There are also further inclusions in seminar teaching - there is discussion of malnutrition as a growing issue due to the global effects of climate change. In addition, student-led presentations in this lecture discuss the risks to water security where it relates to pollution in local rivers.

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

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

Score explanation: Climate change education is part of the clinical school's Health for All initiative, which itself focuses on integrating teaching on inequality into the curriculum. As well as the examples mentioned below, there is now an ongoing theme of this “interconnected impact” in other lectures in the Improving Health course.

As discussed in previous reports, this is a key learning point in the Year 1 Catastrophe, Complexity and Compassion lecture. There is discussion of climate change being “disproportionately caused by the richest and disproportionately harming / killing the poorest” and this is also illustrated in a case study discussing an example of environmental racism. This is also a learning objective in the Year 4 Environmental Change and Health lecture. The exacerbation of existing vulnerabilities in society by the climate crisis is also explored as a key theme of the Year 5 Migrant and Refugee Health lecture.

1.10. 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: This is explored in various examples over many lectures. In the Year 1 Catastrophe, Complexity and Compassion lecture, there are various slides that compare current and future projections of unequal global climate change events and their impacts on health (with country-specific examples). 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”. Furthermore, there is reference in various lectures to the intersection of environmental justice and other forms of social injustice as a reference for the clinical school's Health for All initiative.

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

1.11. 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.
<p><i>Score explanation: There is increased coverage of these topics across multiple lectures, although this is mostly focused on in the clinical content. In the Year 4 Environmental Change and Health lecture, this is discussed explicitly with respect to low birth weight on exposure to water and air pollution. This is also expanded on a Year 5 Sustainable Healthcare seminar delivered on regional cardiovascular/respiratory placement, where the effects of air pollution is related to intrauterine growth restriction amongst the other respiratory health effects. The reproductive effects of certain toxins are also mentioned as part of the Year 2 Human Reproduction (HR) course. There is brief discussion of the “controversial” theory of the effects of xenoestrogens and discussion of pollutants that can delay or accelerate puberty. In the lecture focused on IVF, there is mention of environmental chemicals (such as pesticides, lead) as an idiopathic cause of poor semen quality, and environmental inducers of oxidative stress (such as BPA) having a role in female infertility. While coverage of this topic has been expanded in the clinical curriculum, there is scope to expand on this topic more thoroughly in the Year 2 HR course. Thus, the reviewer suggests a score of 2 points is still appropriate.</i></p>	

1.12. 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.
<p><i>Score explanation: A student-led session in Year 4 titled “Local Environment and Health” discusses the causes and local impacts of several human-caused environmental threats. These were mainly heat waves (due to the relative susceptibility of this area of England), water pollution in the local river, and air pollution. The latter session coincided with a project by the same students to collect and analyse data of the relative contributions and distribution of air pollution in the city of Cambridge and on the biomedical campus. The session concluded with actions and developments in the local community and how students can get involved. This is also being increasingly discussed in other course content, such as in a Year 5 regional seminar which discusses the effects of heat waves, flooding and air pollution in the east of England.</i></p>	

1.13. 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: A common theme of “other ways of knowing” as a way of incorporating the roles of Indigenous knowledge and values as a part of approaching solutions to the climate crisis. The Year 1 Catastrophe, Complexity and Compassion discusses an approach to planetary health solutions in Indigenous consensus process, citing work by Dr. Nicole Redvers (a First Nation professor). This is revisited in the Year 4 lectures on Environmental Change and Health and Introduction to Global Health. In the Environmental Change lecture, this framework to identify the determinants of planetary health is revisited. Thus, this perspective is beginning to be integrated throughout our planetary health teaching.</i></p> <p><i>In the Introduction to Global Health lecture, a guest speaker is invited to lecture on the coloniality of global health dynamics as part of questioning the underlying values of medical education or practice. While this does not directly relate to the planetary health teaching, these values do come in concert with emphasising Indigenous value systems in all aspects of teaching.</i></p>	

<p>1.14. 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?</p>	
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: There has been further expansion on this topic since last year. In the Year 1 Catastrophe, Complexity and Compassion lecture, there is a slide dedicated to disproportionate exposures to marginalised groups to occupational exposures as well as environmental exposures to pollutants. In addition, in the Year 4 Environmental Change and Health lecture reiterate this point with the context of environmental incidents (leading to environmental toxin exposure) and use a case study of exposures to air pollution based on socioeconomic status.</i></p>	

Curriculum: Sustainability

<p>1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</p>	
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 theme is addressed in multiple sessions, including lectures and in seminar groups. It is firstly introduced in the Year 4 Environmental Health and Change lecture in a slide that discusses the nutritional and environmental benefits of incorporating more plants into diets. This is</i></p>	

then discussed extensively in a session on Nutrition and Planetary Health as part of the Year 4 Fundamentals of Nutrition lecture. As discussed in other reports, this lecture explores the health and carbon footprint benefits of reducing meat consumption. 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.

1.16. 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 unchanged from last year.***

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). New for this year has been inclusions in seminars such as the Year 5 Sustainable Healthcare seminar delivered at regional placement and the Year 5 Chronic Disease/Multimorbidity seminar, which both focus on carbon hotspots within the NHS and ways to minimise this (deprescribing, waste management, etc.)

1.17. 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's 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. This is a theme now discussed in multiple seminars such as the dedicated Year 5 Sustainable Healthcare and Chronic Disease/Multimorbidity seminar. In addition for this year, this has been made into a learning outcome in the Year 4 curriculum:*

INVG012: Avoid the use of tests that are not indicated by the clinical presentation and recognise that over-investigation can potentially harm patients and put strain on healthcare resources and the environment.

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. In addition for this year, this has been made into a learning outcome in the Year 5 curriculum:*

MANG040: Recognise the health risks to individuals and the environmental implications at a population level of over-prescribing, and apply these principles to prescribing practice

3. *Social prescribing is the core concept explored in the Year 4 Lifestyle Medicine lecture, although as of writing there is scope for further links to environmental benefits/concerns from patients. The impact of social prescribing on health and environment was discussed in the Year 4 Lifestyle Medicine and Physical Activity lectures, with this being a key portion of the latter lecture. In the Year 4 Physical Activity lecture, this is related to the local population.*
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). This is also discussed in the Year 5 Sustainable Healthcare seminar during cardiovascular/respiratory regional placement.*
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. This is also discussed in the Year 5 Sustainable Healthcare seminar during cardiovascular/respiratory regional placement.*
6. *The impact of inhalers on the environment was discussed during lectures on Catastrophe, Complexity and Compassion (Year 1) and Environmental Change & Health (Year1). In addition, a Year 4 lecture on Respiratory Pharmacology describes the carbon footprint of inhalers, and 'greener' options including MART therapies.*

7. *The Year 6 Sustainable Healthcare lecture covered waste management in healthcare in the inpatient setting. **This is unchanged from last year.***

Curriculum: Clinical Applications

1.18. 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: **This is unchanged from last year.***

This is covered in the Year 4 lecture on 'Environmental Change and Health', as part of the 'Improving Health' course. A section of this lecture is dedicated to communicating the subject of climate change to patients. The lecture emphasises that communication around climate change and health is 'no different to other communication with patients'. It gives specific examples of ways to encourage patients to improve their health with limited impact on the environment - such as through active transport and healthy diets, and advises on sharing the relevant science around healthcare and climate change (such as the problems of air pollution and inhalers), whilst also maintaining a focus on patient-centred care and not blaming individuals. As per last year's report, this offers strategies to begin conversations with patients about climate change, but there is no practical implementation of this in the Clinical Communication Skills teaching, which would allow students to practise these conversations and consider how to approach them in more depth.

1.19. 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: **This is unchanged from last year.***

The 'Cambridge-Calgary' model is used to teach history-taking to Year 4 students in Clinical Communication Skills. The model includes examination of patients' 'background information', which includes (but is not limited to) environmental exposure, drug and allergy history, as well as social history, including occupational exposures). In this way, students are encouraged to ask about potential environmental history. However, a greater emphasis on environmental exposures such as food, water sources and air pollution would improve this element of the curriculum.

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<p><i>Score explanation: Following from previous reports, the student pressure to diversify the content within the medical curriculum has led to a greater presence of planetary health and sustainable healthcare in the clinical curriculum in lectures, workshops and seminar content. This is evidenced by the yearly improvement in PHRC scoring. Additionally, the School of Clinical Medicine has funded a position of Climate Change Education Fellow for nine months. Multiple outreach events to students and professionals have been organised as part of this role as well as rewriting 5 learning outcomes to promote ESH and planetary health, as detailed in other sections of the report. Furthermore, there is increased student engagement in promoting ESH/planetary health in the undergraduate curriculum as part of the Cambridge Climate Society (CCS) Education Project. This is a student-led project designed to assess, review and engage with the curriculum in seven faculties (including pre-clinical medicine) to make recommendations</i></p>	

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s) .
0	There is minimal/no education for sustainable healthcare.
<p><i>Score explanation: Following on from last year's report, there has been increased diversity and volume of planetary health/ESH content in the clinical curriculum (Years 4, 5, 6), although the bulk of this content is delivered in dedicated lectures/workshops as part of the Improving Health strand in the curriculum. There has been increased integration into other strands of the clinical curriculum, such as within Clinical Therapeutics lectures and seminars. Further details are discussed within individual metrics in this report, especially where these inclusions have been made this year. However, integration into the preclinical curriculum is still limited, with the only content in this area delivered in a standalone Year 1 lecture. While integration into other modules where relevant is now of increasing interest due to student action (including generating a report in collaboration with the relevant faculties), this is still in early stages. Thus, a score of 2 remains appropriate considering current content delivery.</i></p>	

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take

responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
<i>Score explanation: The School of Clinical Medicine has employed a Climate Change Education Fellow for this year (2023-24). Her role encompasses the integration of climate change curriculum in the clinical school curriculum and she has used findings from the PHRC to direct her work.</i>	

Section Total (63 out of 72)	87.50%
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Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u>?	
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.
<p><i>Score explanation: There is a department of Public Health and Primary Care which has researchers whose primary focus is on climate change and sustainability. ‘Global Health’ and ‘Sustainability’ are one of 5 central themes in the research of the Cambridge Public Health department. A score of 2 is justified here as there are only several faculty members whose focus is on healthcare sustainability or planetary health research. In a development from last year’s report card, the only previously highlighted planetary health-related research project within the department – the Cambridge Program to Assist Bangladesh in Lifestyle and Environmental Risk Reduction (CAPABLE) study – is no longer active.</i></p>	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?	
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. While there are university groups such as the [Cambridge Public Health 'Sustainability'](#) section and [Cambridge Zero Health and Society](#) group, these are not in themselves dedicated solely to the interdisciplinary study of planetary health. A score of 0 is therefore given, as there is no department dedicated to either occupational and environmental or planetary health research.

2.3. 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: There is no such process or drive towards there being a process for communities disproportionately affected by climate change to input into the research agenda of the medical school.

2.4. 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: While the institution has a [website for sustainability](#), this contains no reference to the connection between health and climate. The [Cambridge Zero website](#), which is partly related to the institution, does contain some information related to the health-climate intersection.

2.5. 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.
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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: The School of Clinical Medicine has co-hosted a Sustainable Surgery Symposium and was one of the main partners in running a series of webinars as part of the Cambridge Planetary Health Seminar Series. Cambridge Zero has hosted a series of research symposia each year (as of 2019), often with one on the theme of health. One recent event hosted by Cambridge Zero related to planetary health was a Planetary Health symposium. These events merit a score of 4.</i></p>	

2.6. Is your <u>medical school</u> 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 warranted here as the medical school is currently a member of the Global Consortium on Climate and Health Education, as well as Health Declares. It is not, notably, a current member of the Planetary Health Alliance.</i></p>	

Section Total (8 out of 17)	47.06%
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Are there additional research resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Community Outreach and Advocacy

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.

3.1. 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.
<p><i>Score explanation: While clinical students actively participate in established organisations (Cambridge University Science & Policy Exchange, Healthy Planet, Cambridge Zero, Cambridge Climate & Sustainability Forum, Students for Global Health), which are involved in community engagement, the medical school itself is currently not involved in such partnerships. This is unchanged from last year.</i></p>	

3.2. 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.
<p><i>Score explanation: Events focusing on Planetary Health are targeted to an academic audience rather than the wider public and community, with past events listed in the link. This is unchanged from last year.</i></p>	

3.3. 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: Planetary health and sustainable healthcare issues and opportunities are sometimes mentioned in the weekly newsletter sent to members of the Clinical School, however, this topic is not regularly spotlighted. There is a Public Health newsletter, but this is coordinated at the institution level. This is also unchanged from last year.

3.4. 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: Multiple teaching sessions on Sustainable Healthcare have been held for postgraduate individuals by the hospital trust and Clinical School, for both clinical educators and practising clinicians, although teaching sessions are not mandatory. In addition, there are many events, such as research conferences and symposiums, that have been held at the institution-level, organised by [Cambridge Public Health](#) (see also [Past Events | Cambridge Public Health](#)). An example of such an event is the Sustainable Surgery Symposium. However, there are no Continuing Professional Development courses targeting planetary health and Sustainable healthcare.

3.5. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?

2	Yes, the medical school or 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: Neither the institution nor the affiliated teaching hospitals provide materials to patients that clearly aim to educate on the link between environmental exposure and disease (sourced

[here](#)), however, the link is sometimes briefly touched upon in individual sections. For example, both the sections on '[COPD and Physiotherapy](#)' and the '[DNA Fragmentation test](#)' mention the link environmental pollutants have with both COPD and sperm cell defects.

3.6. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?

2	Yes, the medical school or 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: The Cambridge University Hospitals website contains several patient-accessible webpages covering climate change, however, only [one](#) of these briefly mentions the link with negative impacts, and this is not explored in detail.

Section Total (4 out of 14)

28.57%

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

Support for Student-Led Planetary Health Initiatives

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

4.1. 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: As part of the [Future Leaders Programme](#), Cambridge Zero provide 17 paid positions for undergraduate project assistants, one of which is for a climate education quality improvement project. This merits 2 points for this metric. Within the School of Clinical Medicine itself, sustainability initiatives and QI projects are available to be completed for those interested, but are not necessarily advertised or part of the core curriculum. In previous years, there had been evidence of sustainability QI projects being offered by the [Cambridge Green Challenge Sustainability Team](#), supported by the Living Lab. This team forms part of the wider institution, and remains active to this day.

4.2. 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: There are two main opportunities present within the degree for students to conduct research - during their intercalated year, or as part of a student selected component (SSC) during the clinical years. In both cases, students may choose from a variety of subjects. In the intercalated year, students may conduct a project from a wide range of departments, however there are none specifically tailored to planetary health or sustainable healthcare. Modules available for this year include Conservation Science and Evolution and Ecosystem, and many students write a dissertation which may

feasibly encompass planetary health themes from these modules. SSCs comprise six weeks of research conducted under a supervisor, with examples of sustainability-related projects. Therefore, opportunities are available, but in the absence of a specific research program/fellowship, a score of 1 is awarded.

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

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

Score explanation: The medical school has no such webpage - there is a page on the clinical school learning resources page entitled 'Health for All'. However, this does not constitute a webpage for the medical school at large, earning a score of zero.

4.4. 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 discussed in previous reports, Healthy Planet Cambridge (name change pending) is a student organisation advocating for the incorporation of planetary health and climate change topics within the medical school curriculum. The group actively participates in the "Health For All" initiative with a focus on sustainability, and benefits from the support and involvement of faculty members.

4.5. 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.
<p><i>Score explanation: This is unchanged from last year.</i></p> <p><i>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.</i></p>	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	
1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)
<p><i>Score explanation:</i></p> <ol style="list-style-type: none"> <i>Panels/speaker series relating to planetary health are regularly held by the wider institution, with events such as the upcoming 'climate resilient communities' community day with Cambridge Zero and similar events run by the Cambridge Climate Society.</i> <i>Cambridge Wilderness Medicine Society is the main clinical school society that runs outdoor programs for medical students, such as hikes to Snowdonia.</i> 	

Section Total (8 out of 15)	53.33%
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Are there additional student-led initiative resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Campus Sustainability

Section Overview: *This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive 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.*

5.1. 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: This is unchanged from last year's report card.</i></p> <p><i>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>	

5.2. 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
<p><i>Score explanation: This is unchanged from last year's report card.</i></p> <p><i>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". 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.</i></p>	

5.3. Do buildings/infrastructure used by the <u>medical school</u> for teaching (not including the hospital) utilize renewable energy?	
3	Yes medical school buildings are 100% powered by renewable energy
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.
<p><i>Score explanation: This is unchanged from last year's report card.</i></p> <p><i>52% is renewable at present, and although a new contract was planned for later on in 2023 no transition was made. 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.</i></p>	

5.4. 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?	
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.
<p><i>Score explanation: This is unchanged from last year's report card.</i></p>	

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.

5.5. Has the medical school or institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

2	Yes, the medical school or institution 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 or institution has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school or institution has not implemented strategies to encourage and provide environmentally-friendly transportation options.

*Score explanation: **This is unchanged from last year's report card.***

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 approximately £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. 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.

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.

5.6. 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.
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.

Score explanation: This is unchanged from last year's report card.

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.

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

3	Yes, the medical school has 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.

Score explanation: This is unchanged from last year's report card.

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.

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

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

Score explanation: This is unchanged from last year's report card.

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 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.

5.9. 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: This is unchanged from last year's report card.

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.

5.10. 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.
<p><i>Score explanation: This is unchanged from last year's report card.</i></p> <p><i>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.</i></p> <p><i>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.</i></p>	

5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?	
4	The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.
3	The institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest , but currently still has fossil fuel investments.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organised advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.
<p><i>Score explanation: This is unchanged from last year's report card.</i></p> <p><i>In October 2020, Cambridge announced a divestment plan, with a net zero target by 2038. They announced a plan to:</i></p> <ol style="list-style-type: none"> <i>1. Withdraw investments with conventional energy-focused public equity managers by December 2020.</i> <i>2. Build up significant investments in renewable energy by 2025.</i> <i>3. Divest from all meaningful exposure in fossil fuels by 2030.</i> <i>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.</i> <p><i>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</i></p>	

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](#). 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%

Back to Summary Page [here](#)

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

Grading

Section Overview

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

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

Planetary Health Grades for the University of Cambridge

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(63/72) \times 100 = 88\%$	A
Interdisciplinary Research (17.5%)	$(8/17) \times 100 = 47\%$	C
Community Outreach and Advocacy (17.5%)	$(4/14) \times 100 = 29\%$	D
Support for Student-led Planetary Health Initiatives (17.5%)	$(8/15) \times 100 = 53\%$	C
Campus Sustainability (17.5%)	$(24/32) \times 100 = 75\%$	B+
Institutional Grade	$(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 61\%$	B-

Report Card Trends

Section Overview

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

