Planetary Health Report Card (Medicine) 2026:

Bristol Medical School

2025-2026 Contributing Team:

- Students: *Lakshmi Aggarwal, Manjote Sahota*
- Faculty Mentors: *Professor Trevor Thompson, Professor Kate Tilling*

*Primary Contact: Lakshmi Aggarwal (l.aggarwal.2023@bristol.ac.uk)

Summary of Findings

Overall Grade	A+

Curriculum	A+

- Bristol Medical School strongly integrates the impacts of climate change on planetary and human health into the curriculum. Its particular strengths include the health impacts of air pollution, heatwaves and extreme weather events. Preclinical students are taught about planetary physiology and homeostasis, and clinical students look more directly at what makes sustainable healthcare - such as reducing over-prescribing. Carbon Literacy Training is delivered to all ~300 Y1 students, teaching them how to reduce their carbon footprint as individuals and clinicians.
- **Recommendations:** We continue to advocate for a dedicated lecture on deprescribing, as well as developing a Carbon Literacy Training toolkit that is specific to medical students.

Interdisciplinary Research	A+

- Bristol Medical School has faculty members whose primary focus is planetary health and a dedicated interdisciplinary research institute. The institution longitudinally integrates planetary health into its curriculum and research initiatives, offering collaborative programmes and PhD opportunities.
- **Recommendations:** Bristol Medical School's MBChB programme should seek to take advantage of the wealth of planetary health researchers at the institution to offer more opportunities for students to engage with the topic.

Community Outreach and Advocacy	A+

- Bristol Medical School actively engages with community organisations to promote planetary and environmental health through partnerships and educational initiatives. The new Facts4Life 'Healthy Planet, Health People' student choice project has greatly enhanced community engagement. The University of Bristol offers many lecture series/conferences aimed at students, staff and a wider external audience.
- **Recommendations:** Bristol Medical School should aim to grow its online presence with an expansion of accessible educational materials aimed at the general public on the BMS Sustainability website and blog.

Support for Student-Led Initiatives	A+

- Bristol Medical School provides substantial support for student-led sustainability projects through the Sustainability Advocate role and the option to carry out the Y5 Quality Improvement project on a sustainability-related topic. Research opportunities in planetary health exist through a wide variety of student choice projects. A public-facing sustainability webpage and internal sharepoint also provides easy access to information on ongoing initiatives.
- **Recommendations**: Bristol Medical School should look to host more events related to planetary and human health that are specifically aimed at students, such as a Sustainable Healthcare Conference.

Campus Sustainability	A

- The University of Bristol has an Office of Sustainability and sustainability guidance for most areas such as events, food and beverages, travel, labs and supply procurement. It has a plan for carbon neutrality by 2030.
- **Recommendations**: The University of Bristol should increase their utilisation of renewable energy in all buildings and infrastructure and mandate that all events abide by certain sustainability criteria.

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 health professional 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 health professional training. It is imperative that we hold our institutions accountable for educating health professional 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 health professional schools, we have created a Planetary Health Report Card that students internationally can use to grade and compare their institutions on an annual basis. This student-driven initiative aims to compare health professional 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) 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 health professional 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/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department 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 including all of its campuses. 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 (Curriculum Section):** This is a series of questions students 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. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a 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.

- **Core Curriculum:** This refers to the taught material that is delivered to the entire cohort of students in one year.

- **Clerkship / Outreach:** 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, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.

- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).

- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.

- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.

- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.

- **Extractivism:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to the

historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.

- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.

- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.

- **Anthropogenic:** Created through human activity

- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Scoring Matrix

- Elective coursework (1 point): This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.
- Brief coverage in the core curriculum (2 points): This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. At minimum brief inclusion would qualify as inclusion in a single lecture slide in a single year.
- In depth coverage in the core curriculum (3 points): This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats. **Other considerations:**
- If there are more than one "tracks" at your institution 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). Where possible please indicate the proportion of students that are on each track.

Updated in 2025, a complete literature review by metric is available for the 2024/25 Medicine Report Card Template. This largely translates across disciplines although we are hoping to expand this process across all of our covered disciplines. A link to the 2025 literature review by metric is available here.

Planetary Health Curriculum

Section Overview: ***This section evaluates the integration of relevant planetary health topics into the medical school curriculum.*** *Today's health professional students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that 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 medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)	
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. (1 point)	
No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	3

Score explanation: The University of Bristol MBChB21 curriculum offers several student choice projects at the end of year three which engage students in education for sustainable healthcare or planetary health.

- *Sustainability in Theatre*
- *Sustainability in Paediatric Theatres*
- *Nutrition for clinical conditions - the evidence and practical skills (Culinary Medicine)*
- *An evaluation of healthcare carbon footprint*
- *A breath of fresh air: what does it mean to be well?*
- *Sustainable diets*
- *Migration and Health*
- *Exploring Yoga, Complementary Health and Wellbeing Practices*

There are also student choice projects offered at the start of year two:

- *Sustainability: Reduce Waste by Reducing Single Use Gowns, Drapes and Incos*
- *Anaesthesia and the Environment*
- *Cooking for Pleasure, the Planet and Your Pocket*
- *Facts4Life: Healthy People, Healthy Planet*
- *Reducing Stress with Nature Connection*

- *'Rub Don't Scrub'*

The new Y2 student choice project where students partner with the community organisation Facts4Life continues to be offered. The project involves going into local primary schools and teaching children about health, disease and wellness. There is a specific module called 'Healthy planet, healthy life', where they focus on 'The Importance of Nature and Environmental Awareness', 'The Environment as a Living Ecosystem', and 'Looking to the Future - Integrating Sustainability into Daily Life'. Seven students participated in its inaugural year.

The Y3 Migration and Health project includes a lecture on 'Migration and Climate Change: myths, mechanisms and mitigations', which covers the relationship between different types of migration, climate change and the concomitant health impacts. It discusses how climate change can trigger movement, for instance natural disasters, environmental degradation and extreme heat. The learning objectives are listed below.

Migration and Climate Change lecture - Learning Objectives:

- *Describe how climate change may influence patterns of human migration*
- *Critically examine contested narratives about climate migration*
- *Explore possible policy and public health responses to climate-linked migration*

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: This year we delivered a new lecture for second-year medical students in the Chest Pain block called 'Dangerously Hot: The New Clinical Frontier.' The learning objectives are listed below.

'Dangerously Hot: The New Clinical Frontier' lecture - learning objectives:

- *Understand the nature of heatwaves*
- *Understand the nature of heat stress and heat stroke*
- *Understand the clinical management of heat stroke*
- *Have practical knowledge for "What to do in a Heatwave" as an individual and for health care systems*

The lecture featured the University of Bristol's own Dr Eunice Lo, who is a Senior Research Fellow in Climate Change and Health investigating how extreme weather and climate change affect

human health. It discussed the impact of extreme heat on the cardiovascular system, what to do in a heatwave as an individual and community-based interventions to reduce exposure.

This topic is also covered in depth by Professor Trevor Thompson in his annual lecture on 'Planetary Physiology' to Y1 students and 'Planetary Pathology' to Y2 students. In these lectures the effects of climate change such as increasing extreme weather events and the ramifications on populations which are the most vulnerable are discussed.

The relationship between climate change and health impacts also features heavily in the Carbon Literacy training undergone by all Y1 students. There is a pre-lecture delivered by Prof. Thompson and five modules of eLearning discussing many aspects of this. One of the five modules is entitled 'Impacts of climate change on our environment and our health'. It also forms one of the four modules in the face-to-face session.

There is a Y2 student choice project called 'Environmental Physiology with a UK Based field trip', which explores how environmental conditions such as extreme heat affect human physiology,, helping students understand the clinical risks associated with rising temperatures and climate change.

1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: This topic is covered in depth by Professor Trevor Thompson in his annual lecture on 'Planetary Physiology' to Y1 students and 'Planetary Pathology' to Y2 students. In these lectures the physical as well as neuropsychiatric effects of increasing extreme weather events such as heatwaves, floods and storms are discussed.

Heatwaves are the main focus of the new lecture to Y2 students this year, 'Dangerously Hot: The New Clinical Frontier.' The learning outcomes are all centred around heatwaves and their impact on individuals' health and healthcare systems. There is a case study centred around an elderly woman experiencing chest pain and other adverse health effects during a heatstroke.

The Carbon Literacy training undergone by all Y1 medical students also looks at this - for instance exploring the prevalence of PTSD in flood victims.
Additionally, the Y1 Global Health lecture mentions the adverse health impacts of extreme weather events, citing the Philippines as an example - as they experience multiple typhoons annually that

destroy homes and lead to overcrowding, allowing gastrointestinal and infectious diseases to run rampant.

1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: Y1 students at Bristol Medical School receive a lecture on 'Global Health', which discusses the increase in zoonoses & food-, water- and vector-borne diseases due to climate change. The changing patterns of infectious diseases such as malaria and dengue fever are also addressed. *Professor Thompson discusses the impact of climate change on infectious diseases in his lectures on'Planetary Pathology' to Y2 students and 'Planetary Physiology' to Y1 students.*	

1.5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: Bristol Medical School's Y2 curriculum now includes a specialist lecture delivered by clinical research fellow Dr. George Nava on the cardiorespiratory health effects of particulates called 'The harms of air pollution (and the solutions)'. This lecture takes a deep dive into the most important air pollutants to human health and their impacts across different body systems, how particulates are distributed across the world and the ways that public health and individual actions can reduce the impact of pollution. It also considers how one might translate this knowledge into clinical practice and gives an appreciation of the communities most affected by particulates. *The Carbon Literacy Training delivered to all Y1 medical students addresses many climate change-related impacts on respiratory health. This features heavily throughout all three elements of the Training. The face-to-face session discusses effects such as the increase in wildfires from*	

climate change creating smoke and other air pollutants. It also talks about rising temperatures and carbon dioxide levels and how this can increase airborne allergens. Another important impact looked at in this session is warmer temperatures from climate change increasing the frequency of days with unhealthy levels of ground level ozone - a harmful air pollutant and component of smog that is associated with asthma exacerbations, reduced lung function and premature death.

Prof. Thompson also discusses the impact of air particulates on respiratory health in his Y2 lecture on 'Planetary Pathology'.

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?

This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: This is the main focus of the new lecture delivered to Y2 students in the Chest Pain block called 'Dangerously Hot: The New Clinical Frontier.' The learning objectives are listed below.

<u>'Dangerously Hot: The New Clinical Frontier' lecture - learning objectives:</u>

- *Understand the nature of heatwaves*
- *Understand the nature of heat stress and heat stroke*
- *Understand the clinical management of heat stroke*
- *Have practical knowledge for "What to do in a Heatwave" as an individual and for health care systems*

The lecture discussed the impact of extreme heat on the cardiovascular system, what to do in a heatwave as an individual and community-based interventions to reduce exposure. It also featured a case study of an elderly woman suffering from cardiovascular problems, amongst others, during a national heatwave.

Professor Thompson delivers a lecture on 'Planetary Pathology' to Y2 students at Bristol Medical School, where he discusses in depth the health effects of increased heat, including the increased risk of strokes and heart attacks.

In Dr Nava's lecture on 'The harms of air pollution (and the solutions)', he addresses some of the cardiovascular impacts of high particulate exposure - such as arrhythmias, congestive heart failure and ST-Segment depression.

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

This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: Prof. Thompson's Y2 lecture on 'Planetary Pathology' looks at some of the mental health impacts of climate change.

Prof. Thompson's Y3 lecture on 'Sustainable Healthcare' features the Hogg Eco-Anxiety Score.

This is also discussed in Dr Nava's lecture on 'The harms of air pollution (and the solutions)', where conditions such as neurodegenerative diseases, cognitive impairment and depression are linked with high exposure to particulates.

The Carbon Literacy training undergone by all Y1 medical students also discusses neuropsychiatric effects of climate change, for instance exploring the prevalence of PTSD in flood victims.

There is a Y4 CBL case that looks at a patient who was in a car crash due to a storm, and discusses conditions such as anxiety and PTSD that can occur as a result of experiencing these extreme weather events.

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

Score explanation: This is the crux of the 'Global Health' lecture delivered to Y1 students at Bristol Medical School, where the planet is described as a living organism and climate change as a disease of the system. The learning objectives are listed below.

<u>'Global Health' lecture - learning objectives:</u>

- *Introduce Global/Public Health Helical Theme*
- *Consider social determinants of health*
- *Understand the 17 Sustainable Development Goals*
- *Explain the drivers and implications of climate change*

- *Understand the concept of Planetary Health and its intrinsic connection with the health of human civilisation*
- *Consider the environmental impacts of globalisation*
- *Explain the relationship between climate change, health impacts and social determinants of health.*

Professor Thompson also discusses this in depth in his 'Planetary Physiology' lecture to Y1 students, where the focus is on homeostasis, ecosystems and living symbiotically.

There are also several student choice projects offered in year three related to this:
- *'Nutrition for clinical conditions - the evidence and practical skills (Culinary Medicine)'*
- *'Sustainable diets'*
- *'Migration and Health'*
- *'Nature and Me': child and adolescent psychiatry, film and story telling with young people'*
- *'Cooking for Pleasure, the Planet and Your Pocket'*

1.9. 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?

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

Score Assigned:	3

Score explanation: The effects of climate change on marginalised populations and those most at risk are discussed in depth in the 'Planetary Pathology' lecture in the second year of Bristol Medical School. Here, the short- and long-term impacts of flooding, droughts, rainforest destruction and more are explored.

The impacts on older adults, children and those living in the Global South are mentioned in Dr Nava's lecture on 'The harms of air pollution (and the solutions)'.

The Carbon Literacy training undergone by all Y1 medical students also discusses the outsized impacts on many of the aforementioned groups. One of the four modules in the face-to-face session features a discussion of health impacts of climate change and which groups are most vulnerable.

There is a behavioural and social sciences lecture on 'Inequities in Health' delivered to Y1 students, which addresses the climate emergency, the countries most responsible, the countries most affected, and the impact this has on health inequalities.

There is a Y3 student choice project called 'Migration and Health', which includes a lecture on 'Migration and Climate Change: myths, mechanisms and mitigations'. It looks at communities disproportionately affected by climate change: those experiencing water scarcity, food insecurity and climate-linked conflict; those who can't afford insurance; those living near deltas sinking due to human activity; those living near the equator experiencing extreme heat, water shortages, high salinity and poor water quality.

Another Y3 student choice project called 'GPs at the Deep End' focuses on homelessness and migrant healthcare, and examines healthcare inequities experienced by these groups - which often involve different aspects of climate change.

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: The unequal regional health impacts of climate change globally are studied in Prof. Thompson's 'Planetary Pathology' lecture, in cases such as the melting of the Tuni glacier, heatwaves in Greenland, droughts in Iraq and more. The learning objectives of this lecture are listed below.

<u>'Planetary Pathology' lecture - learning objectives:</u>

- *The concept of planetary physiology*
- *The concept of planetary boundaries*
- *Anthropogenic impacts on the planetary system*
- *The implications for human health*
- *The ask of medical students as global citizens*

This is also briefly mentioned in Dr Nava's lecture on 'The harms of air pollution (and the solutions)', but it is mostly focused on the specific impacts of particulates and air pollution.

Prof. Thompson also discusses this heavily in his Carbon Literacy pre-lecture called 'Let's get (carbon) literate!' There are slides with maps depicting the CO2 emissions per capita and the vulnerability to climate change, to demonstrate that those who contribute the least greenhouse gases will be the most impacted by climate change. In the face-to-face session, students consider various health impacts of climate change and the communities that are most vulnerable, and create a poster to illustrate this.

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides, microplastics)?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: The reproductive health effects of environmental toxins such as air pollution are discussed in depth in Dr Nava's lecture on 'The harms of air pollution (and the solutions)'. The inflammatory impact of particulate matter in the placenta and effects of increased PM2.5 exposure such as poor sperm health, increased risk of miscarriage, low birth weight and pre-term birth are addressed.	

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: Dr Nava's lecture on 'The harms of air pollution (and the solutions)' addresses the environmental threats in the surrounding community. Case studies of the city of Bristol, as well as London and the whole of England, are discussed - especially in terms of the areas suffering from the highest levels of PM2.5 exposure. The link between pollution, urbanisation and deprivation is also examined. Mitigation efforts such as congestion charges and ultra-low emission zones and their efficacy so far are also mentioned in this lecture.	

1.13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: Professor Helen Lambert delivers a lecture in the first year of Bristol Medical School on 'Medical Diversity'. Indigenous knowledge such as traditional, complementary, and alternative medicine form the basis of this lecture, with systems such as Traditional Chinese Medicine (TCM), Japanese and Ayurvedic medicine discussed.

Professor Trevor Thompson also addresses this in his Y1 'Planetary Physiology' lecture. The lecture discusses the long history of Indigenous Peoples living harmoniously with the Earth and how their knowledge is vital to protecting biodiversity. It also talks about the importance of including Indigenous environmental stewardship at the forefront of any planetary health frameworks.

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?

This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: This topic is covered in depth by Dr Nava's lecture, 'The Harms of Air Pollution (and the Solutions)'. The learning objectives are listed below.

*'**<u>The Harms of Air Pollution (and the Solutions)' - learning objectives</u>***

- *Describe the nature of air-born particulates*
- ***Understand how particulates are distributed across the world***
- *Understand the impact of particulates across different body systems*
- ***Appreciate the communities most likely affected by particulates***
- *Understand some of the ways that public health and individual actions can reduce the impact of pollution*
- *Consider how you might translate this knowledge to clinical practice*

A Y1 lecture in 3D (Disability, Disadvantage, Diversity) on 'Intersectionality and bias' discusses the case study of Cancer Alley in Louisiana - where the demographics are predominantly Black and low-income people, and the risk of cancer is 50 times greater than the national average.

Curriculum: Sustainability

1.15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 point)	
Score Assigned:	3

Score explanation: The benefits of a plant-based diet for the person and environment are taught in depth within Prof. Thompson's lecture on 'The true cost of Pringles'. One of the intended learning outcomes for this lecture was to 'be increasingly curious about the relationship between health and food'. It discusses health benefits such as the reduction in coronary heart disease risk from consuming whole grains. It also addresses the environmental benefits of a plant-based diet and there are graphs showing a breakdown of diet emissions by food type, the share of cereals allocated to animal feed and the greenhouse gas emissions per kg of food product - where the top five are beef, lamb, mutton, prawns and cheese.

The global learning objective of this lecture was 'to deepen the student's understanding of what constitutes a healthy diet to be able to conduct "healthier eating" lifestyle consultations with Patients.'

The Mediterranean Diet also features heavily throughout the Y1 curriculum, with references to it in lectures, effective consulting (EC) tutorials and CBL cases. In one EC tutorial, students role-play with an actor to counsel them on the efficacy of the Mediterranean Diet - both in terms of their own health and the benefits to the planet.

There are a few Y3 student choice projects called 'Cooking, culinary medicine and conversations on nutrition' and 'Sustainable diets' that focus on how diet and nutrition can play a key role in reducing the burden of chronic disease, whilst simultaneously being beneficial to planetary health.

There is also a Y2 student choice project on 'Cooking for Pleasure, the Planet and Your Pocket', which explores how plant-based and sustainable dietary choices can improve human health while reducing the environmental impact of food systems.

1.16. Does your medical school curriculum address the carbon footprint of healthcare systems?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)
This topic was covered in **elective** coursework. (1 point)
This topic was **not** covered. (0 points)

Score Assigned:	3

Score explanation: The carbon footprint of healthcare systems as a topic is thoroughly reviewed in Prof. Thompson's 'Sustainable Healthcare' lecture, delivered to Y3 students at Bristol Medical School. This lecture focuses on carbon emissions generated by the UK's National Health Service. Students are shown an instructional video that we created last year on how to consult with patients on swapping from metered dose inhalers to dry powder inhalers.
This is the main theme of the Carbon Literacy Training undergone by all Y1 medical students. They are shown a breakdown of the biggest carbon emitters in the NHS and taught about scope 1,2 and 3 emissions. Case studies of good practice such as the virtual removal of the anaesthetic gas desflurane in the South-West region are discussed in the face-to-face session. Students are tasked with coming up with as many categories of carbon-emitting events involved in the diagnosis, treatment and post-operative care of a patient undergoing hip arthroplasty. Every student also calculates their own carbon footprint, and discusses ways in which to reduce this, as well as making individual and group pledges to take their own carbon action.

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	**Score**
The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	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. (2 points) .	2
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 point)	1
Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	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 point)	1
The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	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) (1 point)	1

Score explanation:

1. *Prof. Thompson's lecture to Y3 students on 'Sustainable Healthcare' discusses the issues of overdiagnosis and overtreatment, citing examples like arthroscopic surgery in the elderly*

for degenerative knees and how it was found to be associated with numerous harms medically as well as contributing to excess waste and carbon emissions.

2. *The 'Sustainable Healthcare' lecture also discusses swapping out MDI propellants and powerful CHG anaesthetic agents like desflurane, as it has a carbon equivalence twenty times greater than alternatives like sevoflurane. The environmental benefits of deprescribing are covered in Dr Jenny Scott's lecture called 'Introduction to prescribing and deprescribing'. In addition to the health benefits of reducing polypharmacy, overproduction of medicines due to overprescribing and the associated carbon emissions from the pharmaceutical manufacturing process are discussed here.*

3. *Non-pharmaceutical management is widely emphasised in Bristol Medical School as the school is a big advocate of holistic healthcare. This is most evident in the Foundations of Medicine unit in Y1 and the multitude of student choice projects offered. Some examples of the student choice projects include 'Sustainable Diets', ''Nature and Me': child and adolescent psychiatry, film and story telling with young people' and 'A breath of fresh air: what does it mean to be well?'*

4. *Prof. Thompson's lecture to Y3 students on 'Sustainable Healthcare' cites case studies such as arthroscopic surgery in the elderly for degenerative knees, which has ceased to be recommended as it has now been found to be associated with numerous harms medically as well as contributing to excess waste and carbon emissions.*

5. *The 'Sustainable Healthcare' lecture discusses the environmental harms of powerful CHG anaesthetic agents, and why they should be swapped out as gases like desflurane have a carbon equivalence twenty times greater than alternatives like sevoflurane.*

6. *Last year, we created an instructional video for medical students explaining how to consult patients on swapping from a metered dose inhaler to a dry powder inhaler. The video was shown during Prof. Thompson's 'Sustainable Healthcare' Y3 lecture. This has also been introduced as an assessable concept within the CPSA / OSCE competencies.*

7. *The 'Sustainable Healthcare' lecture mentions reducing single-use plastic consumption and waste, as well as being wary of why you are donning and doffing protective equipment and if it is indeed necessary.*

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 point)

No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)

Score Assigned:	2

Score explanation: The Carbon Literacy training undergone by all Y1 medical students involves making pledges to lower their carbon footprint, and is put into the context of the NHS and healthcare at large. In the face-to-face session, students discuss various health impacts of climate change, consider the communities who are most vulnerable to these and create a poster to illustrate some of these.

In the lecture to Y3 students on 'Sustainable Healthcare' delivered by Professor Thompson, he shows an instructional video that we created last year, explaining how to have consultations with patients to discuss swapping from a metered dose inhaler to a dry powder inhaler. This has also been introduced as a CPSA-/OSCE-assessable concept. Metered dose inhalers are significant contributors to the NHS' carbon emissions, so the video was designed to teach students how to have conversations with patients about this and making the swap to dry powder inhalers.

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?
Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)
Only **elective** coursework includes strategies for taking an environmental history. (1 point)
No, the curriculum does **not** include strategies for taking an environmental history. (0 points)

Score Assigned:	2

Score explanation: This is part of Bristol Medical School's core curriculum. Taking a social history for exposure within the basic clerking framework is taught by most hospital academies, for instance if they were a labourer and worked with asbestos often (occupational hazards).

Many aspects of an environmental/exposure history are discussed in effective consulting tutorials, such as in the Y2 Breathlessness session - where the patient was experiencing COPD exacerbations from their job as a taxi driver.

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?
Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)
Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)
No, there are **no** improvements to planetary health education in progress. (0 points)

Score Assigned:	4

Score explanation: Bristol Medical School is very active in this regard. Prof. Trevor Thompson and Prof. Kate Tilling have been appointed as the co-leads for sustainability in the medical school. Several ESH lectures are delivered by Prof. Thompson.

On top of this, the Medical School has opted to fund a student-led Sustainability Advocate role - Lakshmi Aggarwal (third-year medical student) and Manjote Sahota (second-year medical student). This scheme was formerly administered by Bristol SU and is now managed by the University of Bristol's ESD team. It allows students to access paid employment for working in partnership with school and faculty staff to embed sustainability into all aspects of the academic experience. In her role, Lakshmi has attended the programme management committee meeting with some of the most senior members of staff in the medical school, and presented on the theme of sustainability. She has proposed several reforms to integrate sustainability into the curriculum even further.

Bristol Medical School are also contributing to the national framework of ESH, with Prof. Thompson, Lucy Westover and Lakshmi Aggarwal authoring two chapters for the book 'Education for Sustainable Healthcare: Stories, Strategies and Solutions from the ESH Alliance' and the team working on developing a Carbon Literacy Training toolkit specific for medical students.
Education for Sustainable Healthcare: Stories, Strategies, and Solutions from the MSC ESH Alliance

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

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

Score explanation: Bristol Medical School has created a new helical theme called 'Planetary Health and Sustainability'. A helical theme is a formal structure within the MB21 curriculum. Each theme captures an aspect of medical education that is not exclusive to any particular specialty and is considered essential in the formation of a well-rounded medical graduate. It is a mechanism for championing themes that would potentially get lost in a specialism-based curriculum, are of universal importance and are in danger of being marginalised. The helical theme is most evident in the Carbon Literacy Training delivered to all Y1 students, Professor Thompson's Y1 'Planetary Physiology' lecture, Prof. Thompson's Y2 'Planetary Pathology' lecture, Prof. Thompson's Y3 'Sustainable Healthcare' lecture, Dr Nava's Y2 'The harms of air pollution (and the solutions)

lecture, the Y2 lecture called 'Dangerously Hot: the new clinical frontier' and much more. The overarching learning objectives of the helical theme are listed below.

'Planetary Health and Sustainability' helical theme - learning objectives:

- *Describe how the environment and human health are interdependent*
- *Show the knowledge and skills to improve the sustainability of health systems*
- *Discuss how the doctor's duty to promote health is influenced by the state of the environment*

1.22. 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?	
Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	1
Score explanation: Bristol Medical School has appointed Prof. Thompon and Prof. Tilling as the co-leads for sustainability in the Medical School. Specialist Sustainability Officer Lucy Westover also works on embedding sustainability into BMS, taking the lead on delivering Carbon Literacy Training for all Y1 students and postgraduates, achieving Gold LEAF certification in our labs and contributing to BMS' Climate Action Plan. *For the second year, Bristol Medical School has employed two student Sustainability Advocates (Lakshmi Aggarwal, third-year clinical medical student and Manjote Sahota, second-year pre-clinical medical student). They are able to examine the course from both a pre-clinical and a clinical point of view.*	

1.23. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: This is the crux of the Carbon Literacy Training delivered to all Y1 medical students; it teaches them what they can do both as citizens and as clinicians to advocate for change in terms of the environmental and structural determinants of health. This is most evident through	

the pledges each participant makes at the end of the session. They are spurred on to climate action by creating both individual and group pledges to reduce their carbon footprint. Throughout the pre-lecture, eLearning and face-to-face session, they are tasked with discussing the biggest factors behind the climate crisis, evaluating the impacts on health these may have and coming up with ways to address this. For instance, the students consider the communities most vulnerable to the health impacts of climate change and create a poster to draw attention to some of these. They also discuss environmental and health co-benefits of different actions, and come up with an 'elevator pitch' to propose a new idea that is beneficial to both the planet and individuals' health.

This is also heavily discussed in many Health Equity and Justice lectures/symposiums/tutorials delivered throughout Y1 and Y2. In these sessions, a mixture of clinicians, citizens and activists talk about the importance of the role of a doctor in structural determinants of health such as housing and the relationships between environmental change and health. Jo Hartland - Associate Professor of Health Justice Education - specifically speaks about the need for doctors to be engaged with local and national politics to effect systemic change in the sessions.

Section Total (73 out of 75)	**97.3%**

Back to Summary Page here

Interdisciplinary Research

Section Overview: ***This section evaluates the quality and quantity of interdisciplinary planetary health research at the 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, institutions 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 institution?	
Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)	
No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)	
Score Assigned:	3

Score explanation: The University of Bristol Medical School has several faculty members who have a primary research focus on planetary health research and healthcare sustainability:

- *Dr Eunice Lo*
  Dr Eunice Lo - Our People
- *Dr Adam Trickey*
  Dr Adam Trickey - Our People
- *Dr Dann Mitchell*
  Professor Dann Mitchell - Our People

  People – Bristol Climate Dynamics Group

The Cabot Institute for the Environment and the Elizabeth Blackwell Institute for Health Research at the University of Bristol are collaborating on a project called the 'Climate Change and Health Research Programme". The programme brings together experts from different disciplines to understand and address the health impacts of climate change.
Climate Change and Health | Elizabeth Blackwell Institute for Health Research | University of Bristol

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?	
There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)	
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. (2 points)	
There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 point)	
There is **no** dedicated department or institute. (0 points)	
Score Assigned:	3
Score explanation: The Elizabeth Blackwell Institute for Health Research within the University of Bristol works alongside the Cabot Institute for the Environment to incorporate planetary health in research that is either being planned or conducted at the university. *Climate change and health | Cabot Institute for the Environment | University of Bristol* *The Cabot Institute for the Environment is a diverse community of experts focusing on protecting the environment and identifying ways of living more cohesively with our planet. The institute delivers evidence-based solutions to tackle the challenges of food security, water, low carbon energy, city futures, environmental change, and natural hazards and disaster risk.* *Cabot Institute for the Environment | University of Bristol* *Elizabeth Blackwell Institute for Health Research | University of Bristol*	

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 institution?	
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. (3 points)	
Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)	
No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 point)	
There is **no** process, and **no** efforts to create such a process. (0 points)	
Score Assigned:	3
Score explanation: The University of Bristol is involved in many schemes that engage members of local communities that are disproportionately impacted by climate change in research. *Bristol Medical School hosted a 'Research Inclusion Seminar' in June 2025 to share good practice on including underserved communities in research.*	

The Health Research Ambassador project involves four Health Ambassadors led by community partners CaafiHealth. They are a team of individuals from minoritised ethnic communities who effectively act as bridges between researchers and communities. Part of their work is building relationships with communities and having conversations about health and research. The other aspect of their work is working with researchers directly on individual projects, helping with different things across the research cycle e.g. bringing people together for patient and Public Involvement and Engagement (PPIE) activities pre-research bid so that communities can help develop research agendas. Some of them have roles on steering committees both for research and healthcare service organisations and have worked with researchers at the medical school.

There are community-led coffee mornings held at the UoB Barton Hill micro-campus which are open to all researchers locally. Researchers come along to chat about their projects and the community and researchers can share knowledge and ideas, allowing people from the local community in Barton Hill to feed in views.
Initiatives | NIHR Health Protection Research Unit in Evaluation and Behavioural Science

Several researchers are a part of the local Diverse Research Engagement Network - a space where community members, organisations and researchers can come together to share ideas, support research.
Diverse Research Engagement Network - Bristol Health Partners

The School of Business held an informal session in November 2025 sharing their sustainability-related research with members of the local community, allowing them to feed back on the research agenda.

The University of Bristol's Cabot Institute for the Environment has ongoing research projects which connect our researchers with those most impacted by climate change, who often do not have a say in policy decisions - for example, those from the poorest backgrounds, those who are disabled, and those who are from an ethnic minority background. These ongoing projects have influenced the Cabot Institute's focus on just transition, and we seek to ensure that no one is left behind as we transition to a low carbon economy. The position of those most vulnerable is a priority for this research strand.

The Cabot Institute for the Environment and the Brigstow Institute are currently working on a joint initiative called From the Personal to the Planetary, which is funding the appointment of ten fellows to bring together a community of environmental researchers, activists and artists to help inform future research strategies on environmental change.

In our work on Just Transition, our community members work with specific groups, including people living with disability and people working in lower paid jobs to understand how transitions in energy and shifts in skills should be designed in a way that ensures they benefit. This has included looking at the evidence of what interventions work best to ensure a just transition to green skills.

In research we support modelling Leptospirosis transmission in slums in Brazil. Community engagement has been a central element to understand how exposure to contaminated water occurs and to understand what interventions, often based on direct community involvement, are needed to reduce exposure.

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?	
There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)	
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. (2 points)	
The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)	
There is **no** website. (0 points)	
Score Assigned:	3
Score explanation: The University of Bristol website has a succinct subpage which is easy to use and centralises resources. It includes a section on what they're currently involved in across a variety of sectors including upcoming opportunities and projects for both students and staff . It also contains information on the Green Apple Scheme – which provides grants of up to £1500 for sustainability projects *Sustainability | University of Bristol* *The Cabot Institute for the Environment has an extensive website featuring its six main research themes (water, low carbon energy, environmental change, food security, natural hazards and disaster risk, city futures), events, student opportunities and much more.* *Cabot Institute for the Environment | University of Bristol* *Additionally, Bristol Medical School developed our own Sustainability webpage last year.* *Sustainability | Bristol Medical School* *Furthermore, the medical school internal SharePoint now has a main sustainability page featuring the Sustainability Team within the medical school, contacts, how to get involved with a list of ongoing projects, Carbon Literacy Training information, publicly uploaded planetary health lectures (MedAll) and volunteering opportunities in and around Bristol University.*	

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?
Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)
Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)
Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)

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

Score Assigned:	4

Score explanation: The Population Health Science Institute (PHSI) at the University of Bristol often holds external and internal conferences.
Events

The 5th National Meeting on Climate Impacts and Risks was hosted in September 2025 at the University of Bristol.
National Climate Impacts & Risks Meeting (NCI-RM)

The Cabot Annual Lecture, 'Rethinking food and nutrition for the planet', was held in October 2025 - focusing on how we can secure sufficient quantity and quality of food in the face of increasing global challenges.
2025: Cabot Annual Lecture 2025 | Cabot Institute for the Environment | University of Bristol

2.6. Is your institution a member of a national or international planetary health or ESH/ESV organisation?
Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 point)
No, the institution is **not** a member of such an organisation. (0 points)

Score Assigned:	1

Score explanation: The University of Bristol is a member of the Environmental Association for Universities and Colleges (EAUC), which is the leading body for sustainability in the post-16 education sector in the UK and Republic of Ireland.
EAUC

In February 2024, Bristol Medical School became a member of the Planetary Health Alliance (PHA).
Additionally, BMS is heavily involved in the Medical Schools Council Education for Sustainable Healthcare Alliance - with Professor Thompson, Lucy Westover and Lakshmi Aggarwal authoring two chapters of a book released in March 2026 entitled 'Education for Sustainable Healthcare: Stories, Strategies and Solutions from the ESH Alliance'.
Education for Sustainable Healthcare: Stories, Strategies, and Solutions from the MSC ESH Alliance

Section Total (17 out of 17)	**100%**

Back to Summary Page here

Community Outreach and Advocacy

Section Overview: ***This section evaluates a school's 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 institution partner with community organisations to promote planetary and environmental health?	
Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)	
Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)	
The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	3
Score explanation: Bristol Medical School has partnered for the second year with the local Facts4Life organisation on the project 'Healthy Planet, Healthy People'. It is delivered by second and third-year medical students in schools all around Bristol. The project involves going into local primary schools and teaching children about health, disease and wellness. In the 'Healthy planet, healthy life' module, they focus on 'The Importance of Nature and Environmental Awareness', 'The Environment as a Living Ecosystem' and 'Looking to the Future - Integrating Sustainability into Daily Life'. In its inaugural year, five schools were recruited with 7 students participating. The project received amazing feedback, with the 'Healthy planet, healthy life' module being particularly well-received as the children had been learning about climate change and renewable energy in geography and could understand the link between the health of the planet and the health of individuals. *Prof. Trevor Thompson also runs a Y3 student choice project called 'Migration and health', in which involvement in community organisations such as 'The Phoenix Project' and 'Care4Calais' forms a key part of the project.* *The University of Bristol partners with multiple community organisations regarding planetary and environmental health on projects such as 'From the Personal to the Planetary' and '(de)Bordering' run by the Brigstow Institute, as well as several projects within The Cabot Institute for the Environment.*	

3.2. Does your institution offer community-facing courses or events regarding planetary health?	
The **institution** offers community-facing courses or events at least once every year. (3 points)	
The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)	
The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)	
The **institution** has not offered such community-facing courses or events. (0 points)	
Score Assigned:	3

Score explanation: The Cabot Institute for the Environment and the Elizabeth Blackwell Institute for Health Research have been running a series of Climate Change and Health seminars, open to staff, students and a wider external audience. Several seminars have run so far, entitled 'Interlinked: temperature, species and health'; 'People, heat and health: heat exposure and health risks in low income communities'; 'Health implications of climate action planning: trade-offs, co-benefits and research gaps'; 'UK Heat Health: modelling and lived experiences'.

The institution also hosted an open lecture called 'From Data to Stories: Communicating Science in a Climate of Change', drawing on case studies such as urban wetland change in Patagonia and habitat risk models for pudú deer.

The University of Bristol also hosted the fifth National Climate Impacts & Risks Meeting in September 2025, which focused on climate impacts and health-related climate impacts.
National Climate Impacts & Risks Meeting (NCI-RM)

The University of Bristol's Cabot Institute for the Environment has run several other events, such as 'Rethinking food and nutrition for the planet', 'From the Personal to the Planetary: Bridging Racial and Climate Justice', and 'Carbon Markets, forests and Indigenous alternatives.'
2025 | Cabot Institute for the Environment | University of Bristol

The University of Bristol held an event in July 2025 on 'Civic engagement for climate change and Sustainability', aimed at school sustainability leaders and governors with sustainability link roles.
2025: Civic engagement for climate change and sustainability | School of Education | University of Bristol

Bristol Medical School has continued its partnership with the local organisation Facts4Life, sending medical students into primary schools to teach about planetary and individuals' health.

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)

Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	2

Score explanation: The Bristol Medical School Sustainability Blog is shared with all students and linked on the BMS Sustainability webpage.
Bristol Medical School | Sustainability | Blog

The Cabot Institute for the Environment has a weekly newsletter - one for the public and one for staff/students - that anyone can subscribe to.
Subscribe to our newsletter | Cabot Institute for the Environment | University of Bristol

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?

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. (2 points)	
Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)	
There are **no** such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	2

Score explanation: Bristol Medical School currently holds a bronze accreditation as a Carbon Literacy educator and are working towards silver accreditation. So far over 450 members of staff and students have been certified with Carbon Literacy. The training consists of two three-hour face-to-face seminars. To become certified, participants also have to commit to two pro-climate pledges. Between March 2025 and now, 195 Y1 students and 78 individuals post-graduation received their certification.
The Carbon Literacy Project

Over 60 postgraduates at the University of Bristol have participated in a Climate Fresk since March 2025. Participants work together to identify causes and effects related to climate science, based on facts from the scientifically-backed IPCC reports. They are taught the fundamental science behind climate change and empowered to take action. Many of the participants have subsequently undergone facilitator training and have facilitated Fresks for other postgraduates, undergraduates and even secondary school pupils.

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

Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated medical centres have accessible educational materials for patients. (0 points)	
Score Assigned:	2
Score explanation: The Integrated Care Board for Bristol, North Somerset and South Gloucestershire (BNSSG) has created a locally produced patient information leaflet on air pollution and its impacts on health. It discusses the increased risk of asthma, pneumonia, stroke, heart attacks, lung cancer and much more. The leaflet also talks about the groups that are most vulnerable to these adverse health effects, how to minimise one's exposure to air pollution and how to reduce one's contribution to it.	

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	2
Score explanation:The Integrated Care Board for Bristol, North Somerset and South Gloucestershire's (BNSSG) Healthier Together platform provides accessible patient-facing educational material on the health impacts of climate-related environmental exposures. The "Hot Weather Advice" resource outlines the risks associated with extreme heat, including dehydration, heat exhaustion and heatstroke, and highlights populations most vulnerable such as older adults and those with chronic conditions. It also provides practical guidance on reducing exposure, including maintaining hydration, avoiding peak sun exposure and keeping indoor environments cool. Additionally, BNSSG has created a patient information leaflet on air pollution, worsening air quality and their impacts on health (see 3.5).	

Section Total (14 out of 14)	**100%**

Back to Summary Page here

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 institution offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)	
The **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. (1 point)	
No, the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	2

Score explanation: The University of Bristol provides funding for sustainability initiatives through its Green Apple Scheme. Both staff and students can apply for £500-£1500 for projects such as talks on sustainable careers, the development of course materials, student-led outreach and organising interdisciplinary events.

Bristol Medical School advertised an opportunity for Y5 students to apply to be academy sustainability representatives, working with the Sustainability Advocates to roll-out initiatives - as well as assisting on projects being carried out by trust sustainability teams and clinical teaching fellows e.g. reducing single-use plastic waste in catheter teaching at the BRI.

BMS also funds x2 student Sustainability Advocates within the Medical School who effectively carry out a Quality Improvement Project through initiatives like the PHRC.

Y5 medical students also have to complete a guided audit/quality improvement project; BMS has pushed for students to implement sustainability into the focus of their nine-week projects during their primary care block. Students are given a guide with sections on 'Sustainability in Healthcare', 'Health inequalities and Sustainability' and 'Sustainability Quality Improvement - SusQI'. The guide discusses the carbon footprint of the NHS, the disproportionate impacts of climate change on the most deprived communities and examples of areas to investigate e.g. overprescribing and medication waste recycling.

4.2. Does your institution offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?	
The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)	
There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek them out and carry them out in their spare time. (1 point)	
There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	2
Score explanation: There are several student choice projects facilitated by Bristol Medical School which offer this. The majority of these occur in Y3: ● *'Sustainable Diets' - an introduction to overall sustainable healthcare* ● *'Sustainability in Theatre'* ● *'Sustainability in Paediatric Theatres'* ● *'Nutrition for clinical conditions'* ● *'An evaluation of healthcare carbon footprints'* *There is also potential for this in the audit/QI project during the primary care block in year five.* *Bristol Medical School advertised an opportunity for Y5 students to apply to be academy sustainability representatives, working with the Sustainability Advocates to roll-out initiatives - as well as assisting on projects being carried out by trust sustainability teams and clinical teaching fellows e.g. reducing single-use plastic waste in catheter teaching at the BRI.*	

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)	
There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)	
There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)	
Score Assigned:	2
Score explanation: Bristol Medical School has a public-facing Sustainability webpage on their main medical school website. *Sustainability | Bristol Medical School*	

Furthermore, the medical school internal SharePoint has a main sustainability page featuring the Sustainability Team within the medical school, contacts, how to get involved with a list of ongoing projects, Carbon Literacy Training details, sustainability-related student choice projects, publicly uploaded planetary health lectures (MedAll) and volunteering opportunities in and around Bristol University.

4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)	
No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	2
Score explanation: The University of Bristol employs 11 Sustainability Advocates from eight schools across the institution - including two from Medicine - to work on embedding sustainability throughout all aspects of the academic experience. They are supported by the Education for Sustainable Development Team - Josie Maskell and Chris Preist - as well as specific faculty advisors. For Medicine, these are Prof. Thompson and Prof. Tilling. *There are also several sustainability-related student societies affiliated with Bristol SU, such as Bristol University Conservation Group, Climate Conversations, Earth Justice Society, Environmental Social and Governance Society and Bristol Sustainability Finance Society.*	

4.5. Is there a student liaison representing sustainability interests who serves on a department or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative who serves on a department or institutional decision-making council/committee. (1 point)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
Score explanation: *For the second year, Bristol Medical School has employed two student Sustainability Advocates (Lakshmi Aggarwal, third-year clinical medical student and Manjote Sahota, second-year pre-clinical medical student). This year, they have been allocated an overall 0.32 FTE, up from 0.24 FTE in the previous year.* *These students collaborate with the medical school in multiple ways, offering perspectives from both ends of the course. Lakshmi has attended the programme management committee meeting,*	

which is one of the highest-level decision-making committees involving the most senior members of the medical school, and presented on the theme of sustainability. She has proposed several ideas to integrate sustainability even further into the curriculum.

Lakshmi has also attended the CEAG (climate action group) meetings, where various members of the medical school come together and discuss ways in which to lead and provoke change within the school, and work together on the Climate Action Plan.

4.6. 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)	**Score**
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)	1

Score explanation:

1. *Bristol Medical School offers many student choice projects in Y2 and Y3 involving agriculture: a placement at Pipers Farm; volunteering at a community garden; trips to Bristol Botanical Gardens and Hippocratic Botanical Gardens.*

2. *The University of Bristol's Cabot Institute for the Environment has run several panels and lecture series for students. One example is the Climate Change and Health seminars, open to staff, students and a wider external audience. Several seminars have run so far, entitled 'Interlinked: temperature, species and health'; 'People, heat and health: heat exposure and health risks in low income communities'; 'Health implications of climate action planning: trade-offs, co-benefits and research gaps'; 'UK Heat Health: modelling and lived experiences'.*

3. *Bristol Medical School held a 'Safe Space' talk on politicising medicine, featuring a doctor who has been involved with environmental activism.*

4. *The University of Bristol held the 'MSc in Science Communication for a Better Planet 2026' art showcase exhibition in February 2026. Students created powerful art pieces on climate change, taking you on a journey from eco-anxiety to eco-hope.*

5. *The University of Bristol promotes many volunteering opportunities related to building community resilience: community farms and gardens that aim to tackle food insecurity by supplying fresh vegetables to local charities (as well as delivering social prescribing); nature nurture sessions restoring natural green spaces at sites of nature conservation interest to boost biodiversity; litter picking in the community.*

6. *Bristol Medical School offers many student choice projects in Y2 and Y3 involving wilderness or outdoor programmes:*

- *'Explore the role of portable ultrasound in low resource and wilderness settings'*
- *'What strategies can be employed in the remote and expedition setting to decrease the risk of exertional heat injury?'*
- *'Expedition Medicine in the High Atlas Mountains'*
- *'Prehospital Emergency Medicine in the Alps'*
- *'Preparing for a diving expedition'*
- *'A breath of fresh air: what does it mean to be well?'*
- *'Nature and Me': child and adolescent psychiatry, film and story telling with young people'*
- *'Exploring Yoga, Complementary Health, and Wellbeing Practices in Coastal North Devon'*

  They all include practical components such as hiking, diving and nature-based outdoor activities

Section Total (15 out of 15)	**100%**

Back to Summary Page here

Campus Sustainability

Section Overview: ***This section evaluates the support and engagement in sustainability initiatives by the 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 institutions, 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 institution have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)	
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 hospital sustainability. (2 points)	
There are **no salaried sustainability staff,** but there is a sustainability task force or committee. (1 point)	
There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	3
Score explanation: *The institution has an Office for Sustainability with multiple full-time staff. The Sustainability Team comprises Transport, Circular Economy, Estates, Energy and Sustainable Science sub-teams, who work towards reducing carbon emissions across all of the institution's operations and buildings.* *The hospital academies that partner with Bristol Medical School also have sustainability staff but they are under the National Health Service and are not directly associated with the Medical School. However, the university does have a CAP (Climate Action Plans) Coordinator for each school - for the Medical School this is Paul Savage.* *Bristol Medical School also employs a Specialist Sustainability Officer - Lucy Westover - who leads on greening labs and delivering Carbon Literacy Training to staff and students.* *Contacts | Sustainability | University of Bristol*	

5.2. How ambitious is your institution's plan to reduce its own carbon footprint?
The institution has a **written and approved plan** to achieve carbon neutrality by **2030** (5 points)
The institution has a **written and approved plan** to achieve carbon neutrality by **2040** (3 points)

The institution has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate** (1 point)	
The institution does **not** meet any of the requirements listed above (0 points)	
Score Assigned:	5
Score explanation: The University of Bristol has pledged to become a net zero carbon campus by 2030 - making significant and rapid changes to reduce carbon emissions to the lowest amount and offsetting as a last resort. Every School and Division across the University is developing and implementing bespoke Climate Action Plans to outline the steps they are taking and will take to cut their carbon footprint. The institution has also pledged to decrease the transport footprint, ensure students have the opportunity to undertake education for sustainable development, and develop a strategy to include social and environmental considerations into the procurement process. *Climate action and net zero carbon | Sustainability | University of Bristol* *Our pledges | Sustainability | University of Bristol* *Many NHS hospital academies that partner with the University of Bristol such as the Bristol Royal Infirmary have also set similar goals to be net-zero/carbon-neutral by 2030.*	

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?	
Yes, institution buildings are **100%** powered by renewable energy. (3 points)	
Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)	
Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)	
Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)	
Score Assigned:	1
Score explanation: The institution's average renewable energy use is just over 20%, with off-site wind forming the majority of this and on-site solar contributing ~0.6%. The University of Bristol is on track to meet its targets of capping grid gas use at the 2014/15 total of 83.5GWh and reducing kWh use from grid gas and electricity per staff and student in full-time education by a third by 2030. *The Building Energy Management Systems, upgraded in 2021, enables the institution to reprogram the control systems to review, identify and eliminate energy waste. For example, making sure that a building is not being cooled when it is also being heated. It also helps to reduce both gas and electricity consumption through actions including control changes, building system optimisation measures and additional metering. Implementing these controls at the Arts and Social Science Library (the biggest library on campus) across one year reduced gas use by enough to heat 25 homes a year.* *The new Temple Quarter Enterprise Campus will connect to one of the UK's most innovative heating systems, delivered by Vattenfall and the University. The project plans to export heat from its*	

own computer servers and cooling system back into a citywide heat network, helping to heat other local buildings and reduce carbon emissions.
Affordable and clean energy evidence | About the University | University of Bristol

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

Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted.** (2 points)

Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)

Sustainability is **not considered** in the construction of new buildings. (0 points)

Score Assigned:	2

Score explanation: The University of Bristol requires a minimum rating of BREEAM Excellent for all new-build construction projects. While we aspire to high levels of environmental performance in all of our buildings, the same standard is not always achievable on refurbishment projects due to the diverse range of building types and functions of the university, and there is no set standard for retrofitting old buildings.
How Does BREEAM Work?

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

Yes, the 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. (2 points)

The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)

The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)

Score Assigned:	2

Score explanation: *The University of Bristol's sustainable transport initiatives include:*

- *cycle to work scheme for staff*
- *free cycle basic repair and service clinics*
- *student discount on cycle locks and lights*
- *staff bus fare discounts*

- *interest-free loans for bus and train season tickets for staff*
- *car share parking permits for staff*

Transport | Sustainability | University of Bristol

Bristol Medical School provides free accommodation for clinical years students who are on placement outside of Bristol, to reduce commutes. Travel is reimbursed to GP placements and BMS encourages any students who drive to carpool. Students declare annually whether they will be driving a car in Bristol and this information is used to group students together for GP placements.

5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?	
Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)	
The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)	
There is **no** compost or recycling program at the institution. (0 points)	
Score Assigned:	2
Score explanation: *The University of Bristol has both compost and recycling programs accessible to students and staff.* *Waste and resource management	Sustainability	University of Bristol*	

5.7. Does the institution apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
Yes, the institution has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability. (3 points)	
There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)	
There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)	
There are **no** sustainability guidelines for food and beverages. (0 points)	
Score Assigned:	3
Score explanation:The University of Bristol has sustainability requirements for catering, such as 'Meat-free Mondays', with a sustainable food and beverage strategy put in place. The strategy takes an innovative approach to catering practices, such as repurposing banana peels and coffee grounds, banning plastic bottles, stopping selling plastic drink containers and converting all cooking oil into biofuel. *Food	Sustainability	University of Bristol*	

Vegan or vegetarian food is provided as the default at all medical school events, conferences and meetings.

5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?	
Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)	
There are **no** sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	3
Score explanation: The University of Bristol has a procurement policy, valid from 2023-2028, that includes a section on sustainable sourcing - involving considering the life cycle impacts of goods, giving a preference to Fairtrade or equivalent goods and ensuring all procurement tenders contain sustainability specifications. *Procurement Policy* *The institution's procurement team has earned the CIPS Ethical Mark and appears on its ethical register.* *Sustainable procurement | Sustainability | University of Bristol*	

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?	
Every event hosted at the institution **must** abide by sustainability criteria. (2 points)	
The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required.** (1 point)	
There are **no** sustainability guidelines for institution events. (0 points)	
Score Assigned:	1
Score explanation: Bristol Medical School has a sustainability strategy that was last updated in 2024. Vegetarian or vegan food is provided as the default at all events, conferences and meetings. There is reimbursement available for travel via public transport, such as for first class rail journeys that are longer than 3 hours. *The University of Bristol has a Sustainable Events Guide, giving guidance on venues and travel, food and drink, waste reduction, promotional materials, energy efficiency and communicating sustainable practices.* *Sustainable Events Guide | Sustainability | University of Bristol*	

There are also several University of Bristol sustainability policies and strategies, some of which are relevant to hosted events *University of Bristol | Sustainability | Policy - Compliance*

5.10. Does your institution have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)	
There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)	
There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)	
Score Assigned:	2
Score explanation: There are multiple cross-disciplinary initiatives being run by sustainability technicians within the University to make lab spaces more environmentally sustainable. They are focused on building greener labs from inception to completion, retrofitting and altering lab infrastructure, encouraging users to switch off equipment or lower fume hoods when not in use and ensuring that inductions for new members include sustainability principles alongside existing health and safety training. *Sustainable Science and Green Labs | Sustainability | University of Bristol* *Bristol Medical School has achieved Gold Certification with LEAF in 100% of our labs. This is a tool designed by University College London that drives improvements in lab efficiency and sustainability. We have also taken part in the Freezer Challenge which teaches users how to be more energy efficient with their lab cold storage. Additionally, one of Bristol Medical School's CEAG sub-committees focuses on green labs.*	

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?
The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)
The institution is **entirely divested** from fossil fuels. (3 points)
The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)
The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)
Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

Score Assigned:	4
Score explanation: In 2019, the University of Bristol became the first university in the UK to declare a climate emergency. Following this, the institution completely divested from all investments in fossil fuel companies. *The University of Bristol invests in renewable energy companies, with 32.7% of the portfolio being invested in companies that support a low carbon transition e.g. those that are reducing their own GHG emissions year-on-year, those which have committed to sourcing increasing amounts of renewable energy, or those which provide technology, infrastructure, products or services that facilitate the transition.* *University of Bristol ─ portfolio climate metrics*	

Section Total (28 out of 32)	**87.5%**

Back to Summary Page here

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(73/75) x 100 = 97.3%	A+
Interdisciplinary Research (17.5%)	(17/17) x 100 = 100%	A+
Community Outreach and Advocacy (17.5%)	(14/14) x 100 = 100%	A+
Support for Student-led Planetary Health Initiatives (17.5%)	(15/15) x 100= 100%	A+
Campus Sustainability (17.5%)	(28/32) x 100 = 87.5%	A
Institutional Grade	**97.01%**	**A+**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which Bristol Medical School has participated in the Planetary Health Report Card initiative.