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# Planetary Health Report Card (Medicine):

*Barts and the London School of  
Medicine and Dentistry*

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2024-2025 Contributing Team:

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## Summary of Findings

Overall Grade	A-
Curriculum	A
<ul style="list-style-type: none"> <li>Barts integrates planetary health and climate change into its curriculum through both core and optional modules. Students are introduced to these topics through global health lectures and problem-based learning (PBL) sessions.</li> <li><b>Recommendations:</b> The institution should ensure the curriculum addresses the mental health impacts of climate change, as well as the effects on physical health, and that this occurs longitudinally.</li> </ul>	
Interdisciplinary Research	B+
<ul style="list-style-type: none"> <li>QMUL has academics and clinicians partaking in research aligned with planetary health, with significant output from the Wolfson Institute, and have hosted lectures regarding planetary health for students.</li> <li><b>Recommendations:</b> The medical school should work towards joining an organisation such as the Planetary Health Alliance or the Global Consortium on Climate and Health Education. Additionally, they could organise a conference directly related to planetary health.</li> </ul>	
Community Outreach and Advocacy	A
<ul style="list-style-type: none"> <li>QMUL has been involved in research which helps to encourage collaboration within the community, and has hosted events open to the public to promote planetary health. The Barts Health Trust has various accredited courses, available to all staff members, to promote understanding of sustainability within healthcare and planetary health.</li> <li><b>Recommendations:</b> There needs to be a greater effort to promote planetary health awareness among patients by having a wider range of accessible educational materials available from all hospitals.</li> </ul>	
Support for Student-Led Initiatives	A
<ul style="list-style-type: none"> <li>QMUL is involved with research initiatives centring on planetary health and sustainability; if students are interested in participating, they would need to seek these opportunities themselves. The university website also features planetary health and sustainability initiatives, names of researchers involved, and a way for students to contact the team.</li> <li><b>Recommendations:</b> Funding should be made available for students to undertake their own research projects relating to planetary health and sustainability. This should be advertised clearly to increase uptake.</li> </ul>	
Campus Sustainability	B
<ul style="list-style-type: none"> <li>QMUL has a sustainability team, a decarbonisation plan, and a short-term sustainability action plan (2023/24) focused on energy reduction and resource management. The university has funding for energy efficiency projects, uses renewable energy sources, and is exploring green electricity tariffs.</li> <li>QMUL promotes sustainable commuting and food initiatives, a mixed recycling program and sustainable procurement policy. There are aims to minimise investments in fossil fuels, and ongoing discussions continue regarding divestment and procurement policies.</li> <li><b>Recommendations:</b> Expand on-site renewable energy generation, such as increasing photovoltaic (PV) panel installations and reinstating a green electricity tariff. Improve food waste disposal facilities for students, expand reusable packaging initiatives across all food outlets, and enhance mixed recycling programs. Further action to achieve complete fossil fuel divestment is also warranted.</li> </ul>	

# Statement of Purpose

*Planetary health is human health.*

The Planetary Health Alliance describes planetary health as “a solutions-oriented, transdisciplinary field and social movement focused on analysing and addressing the impacts of human disruptions to Earth’s natural systems on human health and all life on Earth.” This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanisation, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment, and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change “the greatest threat to global health in the 21st century,” many medical school’s institutional priorities do not reflect the urgency of this danger to human health.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients’ health. This preparation is in the hands of the institutions providing our medical training. It is imperative that we hold our institutions accountable for educating medical students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats. Because climate change and environmental threats disproportionately affect vulnerable populations (for example, communities of colour, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and accountability among 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) medical school campus sustainability.

# Definitions & Other Considerations

## Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
  1. Describe how the environment and human health interact at different levels.
  2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
  3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Medical School/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 (Metric #19 in 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 medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to 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).

**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.

Completed in 2022 a [Literature Review by Metric](#) is available for the 2022 medicine report card metrics. We are in the process of updating this review and making it more applicable to all the disciplines. However the review serves as a rough collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

# Planetary Health Curriculum

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

## Curriculum: General

<b>1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?</b>	
Yes, the medical school has offered <b>more than one</b> elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year. (2 points)	
The medical school does <b>not</b> have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a <b>lecture</b> on planetary health. (1 points)	
No, the medical school has <b>not</b> offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	3
<p><i>Score explanation: In year 2 there is a student selected component (SSC) titled "Housing and Health" which focuses on health activism, sustainability and climate action through the impacts of the London housing crisis. Another SSC in year 2 is "Medical education for sustainable development," which aims to introduce medical students to the basis of Education for Sustainable Development through examining the Sustainable Development Goals and how these relate to medicine and healthcare.</i></p> <p><i>In year 4 there is an SSC option of an audit focusing on food sustainability on campus and examining availability and affordability of healthy and sustainable options. Also in year 4 are SSC dissertations focussing on 1. Air pollution and children's asthma and 2. The impact of housing on children's health 3. Noise pollution in Health 4. How the early life environment alters epigenetic gene regulation. In the last year there was also a year 4 SSC on climate change and cardiovascular disease.</i></p>	

## Curriculum: Health Effects of Climate Change

<b>1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?</b>
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)

This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)	
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation:</i>  This is covered in depth in lectures throughout the MBBS curriculum, including in the following:  Year 1: Health impacts of climate change (extreme heat, air pollution, infectious diseases)  Year 3: Climate change &amp; health, Climate change &amp; heat waves  Year 4: covered extensively throughout the global health module</p>	

<b>1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)	
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: This is explored in depth in the lecture “climate change and health” during the year 3 public health module.</i></p>	

<b>1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)	
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	
Score Assigned:	3
<p><i>Score explanation: Year 3 Public Health lecture titled “Health system adaptation to climate change: Peruvian case study” outlines how changing weather patterns lead to increased prevalence of both chronic and infectious diseases, especially in more marginalised and indigenous communities. This lecture also includes reading material that describes how extreme weather events like heat waves and flooding can lead to loss of biodiversity, which has indirect impacts on mental health, but also how these weather events lead to increased spread of water and</i></p>	



vector-borne diseases. Core lectures in third year covering malaria transmission also discuss how alterations to climate are impacting on incidence and transmission.

**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: Year 1: Asthma problem based learning (PBL).  
Year 2: Lecture on the impact of air pollution of respiratory health especially of children and young people (Human Development module). Lecture titled "Why children wheeze" Also discussed as a risk factor for asthma in year 2 lecture "obstructive lung diseases."  
Year 3: Climate change and health lecture  
Year 4: Paediatrics lecture "noisy breathing"*

**1.6. Does your medical school 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:

1

*Score explanation: Whilst there are multiple lectures in the core curriculum that describe a range of adverse health effects resulting from climate change-associated extreme weather events, any exploration of cardiovascular effects is covered only briefly in elective coursework, and no evidence of these effects in the core curriculum.*

**1.7. Does your medical school 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 <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<i>Score explanation: Lectures in third year cover the topic of climate dread and anxiety, and also link climate change outcomes such as migration to increased incidence of mental illness. In Year 4, it is addressed in the “Global Health and Ethics” module. Similar to previous questions with the same score, only a few slides throughout the module address this particular relationship.</i>	

<b>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?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	3
<i>Score explanation: In year 1 there is a PBL scenario titled “Eating to Save the World,” based on the planetary health diet. It explores food security and sustainability, impact of food deserts and effect of food production on the environment. In year 3, there is a lecture on food security and health, which explores the ways in which climate change influences food supplies and security, and uses case studies to illustrate this. A lecture in third year also explores issues such as drought, and the impacts of flooding in driving infectious diseases.</i>	

<b>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?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	3

*Score explanation: In Year 1, there is a lecture titled “Health Inequalities” and a poster project in the “Fundamentals of Medicine” module on public health, including marginalised populations health inequalities. In Year 2, there is a lecture titled “Environmental health inequalities affecting marginalised populations.” In year 4 this is explored through the lecture: “A Crisis of bodily autonomy: Sexual and reproductive health, rights, and climate justice”*

**1.10. Does your medical school 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.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

*Score explanation: This is covered in depth in years 3 and 4; in year 3 a lecture called ‘social determination and planetary health’ explores the balance of biological, socioeconomic and ecological determinants of human health and the impact of humanity on planetary boundaries. It explains the different aspects of environmental and climate injustice and how some people and populations are at a higher risk of ill health and suffering. In year 4 it is covered in both the public health module and in the global and planetary health week. The impacts of climate change adversely affecting already disadvantaged populations and their health is highlighted. There are slides on the impact of extreme weather events such as drought causing forced migration which has direct impacts on the health of both the immigrants and the region of their relocation. Lectures also cover the impacts of climate change on women's health and gender based violence, and practical examples of steps health professionals can take to take action.*

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

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

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

*Score explanation: In Year 2, there is a lecture on the environmental aspects of healthcare (pharmaceuticals, anaesthetic gases, inhalers). In Year 4, the lecture titled “Sustainability, political economy and planetary health” talks about textile and garment production, fossil fuel industry - plastic production, and health care plastic use and clinical waste management.*

**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.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

*Score explanation: This is mentioned in a lecture on air pollution and respiratory issues called "Why do infants wheeze?" that is given in the "Human Development" module of Year 2, which addresses the human-caused risk factors that predispose infants to certain respiratory conditions. There are also lectures on the local environment and the specific health issues that result given in Year 1. In the "Human Sciences and Public Health" module of Year 2, there is a lecture on the "Life Course Perspective on Public Health" which describes the role of interaction between environment and genes. However this is less focused on the environment in terms of planetary health, and does not focus on the university's surrounding area. The module also includes a lecture on "The Epidemiological Approach" in which the first learning objective is to understand how epidemiology and clinical medicine are related. However there is again no specific link to human-caused environmental threats. There is a SSC available for students to undertake in Years 1 and 2, which focuses on the lack of green and blue spaces in the local area (Tower Hamlets) as well as the high air pollution levels in London.*

**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.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

*Score explanation: In the "Global Health and Ethics" module, the "Social Policy" section and throughout the cardiorespiratory modules in Year 1, 2, and 3, the impact of how the socio-economic levels of certain populations are usually at higher risk for diseases and conditions that are caused or exacerbated by higher levels of pollutants and toxic waste are covered. For example, people who come from lower socio-economic backgrounds tend to have higher rates of respiratory conditions because of poorer living conditions, pollutant exposures, and toxic exposures.*

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

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

*Score explanation: Lectures and seminars cover this aspect. A notable example is in the metabolism modules in Year 1 and 2, where the processes of different diets influence the progression of diseases. Another example is a lecture in fourth year, "History taking in obstetrics and gynaecology" occupational and environmental toxin exposures are linked to adverse outcomes in pregnancy and to teratogenicity.*

### ***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.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

3

*Score explanation: In the "Fundamentals of Medicine" module in first year, there is a Problem Based Learning case on the Planetary health diet, including its feasibility, benefits and impact on people, industry and the environment. They explore food security and sustainability. Nutrition is covered in the Metabolism module of year 1 and 2, however there is no focus on the link to the planet. For example, in the "Diet and Cardiovascular Disease" lecture (Metabolism - Year 2) the co-health benefits of certain plant-based foods are mentioned briefly - e.g. that flavonoids are beneficial in preventing myocardial infarction and stroke side effects, and that these are commonly found in fruit and vegetables such as apples, onions, and citrus fruit. It also references a DASH (Dietary Approaches to Stop Hypertension) trial which shows that a high fruit/vegetable diet (together with low cholesterol and fat) lowers blood pressure. However neither of these were limited to a completely plant-based diet and did not address the environmental health benefits of such a diet. In Year 4, there is an SSC on the role of diet on mental health, but with no specific focus on the co-benefits of plant-based diet.*

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<i>Score explanation: Lectures in year 3 discuss the carbon footprint of metered dose inhalers and how greener prescribing initiatives are now being implemented to counteract the effects of metered dose inhalers (MDIs). In Year 4, there is a lecture on sustainability, political economy, and planetary health which touches upon carbon footprint. It quantifies the different sources of hazardous waste production and explores how waste disposal strategies also impact upon carbon footprint and the emission of further harmful pollutants</i>	

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 <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment (2 points)	1
The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	2
The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> 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 <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	1
The impact of <b>anaesthetic</b> 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 <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	1
<b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1
<i>Score explanation: At Barts and The London, the environmental impact of inhalers on healthcare footprint are covered in the cardiorespiratory module in Year 2 and also in Year 3 as to what are on</i>	

offer as alternatives. At Barts and The London, this is extensively covered in the “Fundamentals of Medicine” module and throughout year 1 and 2. Using a PBL format in “Fundamentals of Medicine” module, over-prescribing of antibiotics and also the differences (or not) of generic and branded drugs are explored. In addition, alternative treatment for depression and other mild to moderate mental health conditions are covered in the “Brain and Behaviour” module. Theme of over-diagnosis is delved into in GP placements students take part in from year 1, where social/non-pharmacological prescribing are also explored. This is covered in year 2 “Brain and Behaviour” module as part of management of mental health disorders. Also touched on in year 2 “Metabolism” module in various management of Type 2 diabetes. Also taking a PBL format, in the “Human development” module in Year 2, the treatment for Type 2 diabetes and PCOS to be weight loss and exercise are all explored. There is also a lecture on the environmental impacts of healthcare, including pharmaceuticals, anaesthetic gases, and inhalers. The “Human science & Public Health” module in Year 2 also covers various types of social and psychological healthcare issues and management plans associated. Finally, in Year 4, there is a tutorial during the geriatrics placement emphasising the importance of avoiding over-medicalisation. There is also a year 4 lecture which discusses plastic use in healthcare, including in surgery, anaesthetics and general care.

### Curriculum: Clinical Applications

**1.18. In training for patient encounters, does your medical school's curriculum introduce strategies to have conversations with patients about the health effects of climate change?**

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 points)

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

Score Assigned:

2

*Score explanation: At Barts and the London, in training for patient encounters, there are numerous strategies implemented. In particular motivational interviewing as a way to support patients in changing health behaviours; students learn about this in Year 3 role play sessions. In Year 2, there is a lecture on training for patient encounters on environmental health issues.*

**1.19. In training for patient encounters, does your medical school's 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: At Barts and The London, especially through the “Medicine in society (Medsoc)” component which is part of the curriculum in the pre-clinical years (Year 1 and 2) provides the opportunity implicitly, to be curious about and trying to understand the patient within their context as a whole. Whilst planetary health may be implicit rather than explicit within this, the importance of embedding patient’s context and local environment so early in the curriculum is evident through Medsoc and the extensive training in “Clinical communications skills” module in Year 3 where there are intense History taking sessions where students explore not only the presenting complaint but the patient’s life-style as a whole including social history (smoking, occupation, diet, etc.). At Barts the curriculum is indulged in PBL and CBL (case based learning) style learning, in order to develop problem solving skills based on realistic scenario allowing students to think of the patient as a whole rather than just clinical findings. Again, developing skills to think of the patient as a whole, rather than just ‘signs and symptoms’. From previous years, the University has improved on the importance of residence and occupational history coverage in the clinical skills curriculum. Additionally, in Year 4, there are multiple workshops on history taking, including sexual health, psychiatric, and gynaecological history, which highlight the importance of a thorough exposure history to risk factors. However, food and water sources are still not highlighted at Barts and may only be covered in very limited situations.*

### **Curriculum: Administrative Support for Planetary Health**

#### **1.20. Is your medical school 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:

2

*Score explanation: There are very few areas in the medical school where incentivisation is given to incorporate ESH and planetary health into the curriculum. There have been new additions for SSC options in year 4 (dissertation) on topics which encompass planetary health. Some new lectures have been added in second year which encompass ESH.*

#### **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 <b>minimal/no</b> education for sustainable healthcare. (0 points)	
Score Assigned:	4
<i>Score explanation: Sustainable healthcare topics are covered briefly in standalone lectures in the Year 4 “Global Health and Ethics” module. In years 1-3 sustainable healthcare is more integrated into the curriculum and core lectures/teaching. For example, in first year, planetary health is covered through examining social determinants of health. There is still a need for it to be discussed in seminars, workshops, and beyond, especially in specialty teaching such as cardiology, neurology and psychiatry.</i>	

<b>1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?</b>	
<b>Yes, the <u>medical school</u> has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)</b>	
<b>No, the <u>medical school</u> does <b>not</b> have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)</b>	
Score Assigned:	1
<i>Score explanation: many faculty members are working to incorporate planetary health and sustainable healthcare into the curriculum. There is currently a specific lead for Population Health and a lead for Global Health and Planetary Health in the Barts curriculum who are involved in this. Our PHRC faculty mentor is heavily active in shaping the ESH and planetary health curriculum, running multiple SSCs across the year groups.</i>	

<b>Section Total (63 out of 72)</b>	<b>88%</b>
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# 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.*

<b>2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>?</b>	
Yes, there are faculty members at the <b>institution</b> who have a <b>primary</b> research focus in planetary health <b>or</b> sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the <b>institution</b> who are conducting research <b>related</b> 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 <b>institution</b> , but not specifically associated with healthcare/vetcare. (1 point)	
No, there are <b>no</b> planetary health and/or sustainability researchers at the <b>institution</b> at this time. (0 points)	
Score Assigned:	3
<p><i>Score explanation:</i> Barts offers several initiatives related to planetary health and healthcare sustainability research:</p> <p>Planetary Health Research:</p> <ul style="list-style-type: none"> <li>• The <a href="#">Wolfson Institute</a> conducts significant research in planetary health, and many faculty members at the institution have a primary research focus in planetary health</li> <li>• QMUL offers a module titled "<a href="#">Planetary Health</a>," providing a scientific overview of global warming, climate change, and planetary boundaries</li> <li>• The Global Health Unit at QMUL focuses on understanding the social determinants of health in a global context, adopting an interdisciplinary approach.</li> </ul> <p>Healthcare Sustainability Research:</p> <ul style="list-style-type: none"> <li>• <a href="#">Barts Health NHS Trust</a> aims to be the most sustainable NHS trust, striving to make lasting and measurable changes in East London and beyond.</li> <li>• <a href="#">Barts Charity</a> supports environmental sustainability by encouraging grantholders to align with Barts Health's sustainability strategy and adhere to guidelines for reducing carbon emissions in healthcare research.</li> </ul>	

**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 points)

There is **no** dedicated department or institute. (0 points)

Score Assigned:

3

*Score explanation: The Wolfson Institute conducts extensive planetary health research. Their Global Public Health unit division includes the key theme "[Planet and Place](#)." This has the primary aim to "engage in research and teaching activities that seek to understand and improve planetary and population health."*

**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 points)

There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:

2

*Score explanation: The institution is leading the [Children's Health in London and Luton \(CHILL\) Study](#), which aims to find out whether reducing air pollution from traffic is good for children's health, and whether interventions to reduce air pollution can improve children's lung growth and respiratory symptoms, activity levels and brain function. The team has recently launched a [Young Person's Advisory Group](#), inviting children to have a voice in helping to shape their research. They are asking for "children and young people to get involved in our research by joining our scientists as partners in designing our research and engagement activities."*

**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:

2

*Score explanation:*

There is currently no single website that is designated for planetary health at Barts and the London medical school, however there is a [Sustainability page on Queen Mary's website](#). This website highlights the upcoming events, and the goals the university is working towards regarding sustainability.

Additionally, the [Wolfson Institute](#) is highlighted on the Queen Mary's website, which is an institute that conducts research involving planetary health themes.

**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:

3

*Score explanation:*

Our institute has hosted several conferences/symposiums on topics related to planetary health.

- Queen Mary organised a 'Climate Action Week' from 19-23rd of February 2024, which included a workshop regarding sustainability in academic research. For this year's Action Week, there is a talk called: Beyond COP29: Turning Talk into Action?

- Additionally they were a part of London Student Sustainability Conference 2024, alongside 9 other London universities, climate and sustainability issues were discussed

**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 points)

No, the institution is **not** a member of such an organisation. (0 points)

Score Assigned:

0

*Score explanation: No, Barts is not associated with the PHA (Planetary Health Alliance).*

**Section Total (13 out of 17)**

**76%**

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# Community Outreach and Advocacy

***Section Overview:*** This section evaluates medical school engagement in community outreach and advocacy efforts associated with planetary health. Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.

<b>3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?</b>	
Yes, the <b>institution</b> meaningfully partners with <b>multiple</b> community organisations to promote planetary and environmental health. (3 points)	
Yes, the <b>institution</b> meaningfully partners with <b>one</b> community organisation to promote planetary and environmental health. (2 points)	
The <b>institution</b> does not partner with community organisations, but has participating in community focused events relating to planetary health. (1 point)	
No, there is <b>no</b> such meaningful community partnership. (0 points)	
Score Assigned:	3
<p>Score explanation:</p> <ul style="list-style-type: none"> <li>• QMUL researchers conducted the <a href="#">CHILL study</a>, where they partnered with local communities and primary schools to evaluate whether a reduction in air pollution has an impact on children's health. They also provided workshops in schools to educate children about the effects of air pollution on health. In addition, online activities were created to engage children in further learning about air pollution on health at home. The children were followed-up once a year for up to four years. The study has been extended to 2025, where the original cohort of children will have their lung growth and brain health assessed.</li> <li>• QMUL have been involved in a study that looked at the impact of London's Ultra-Low Emission Zone (ULEZ) on the method of travel used by children to get to school. They collected data from children aged between 6 and 9 in London and Luton. Data collection was halted by COVID-19, however it has restarted to evaluate the longer-term impacts of the ULEZ.</li> <li>• In light of the CHILL study, the team has formed a Young Person's Advisory Group (YPAG) to encourage children and young people to get involved in research.</li> <li>• The institution has joined Tower Hamlets Council in their <a href="#">Climate Partnership</a>, establishing an alliance with many local community groups to achieve the borough's goal of becoming net zero by 2045.</li> </ul>	

**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/medical school** have not offered such community-facing courses or events. (0 points)

Score Assigned:

3

*Score explanation:*

- QMUL Sustainability Society hosts a climate action week annually, as well as community canal clean ups, talks and workshops for the public to attend.
- QMUL's People's Palace Projects collaborated with a number of artists to hold the exhibition 'From the Ashes'. This aimed at raising awareness and funds for indigenous peoples in the Brazilian Amazon whose land had been destroyed by wildfires after illegal deforestation.

**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 university regularly updates students about news and research regarding planetary health and/or sustainable healthcare on their media pages, including [main website](#) and [sustainability page](#).
- Both the Barts and the London Student association and the QM Student Union have a regular email newsletter which provides updates on these issues
- QMUL Sustainability, the university sustainability society, provides regular updates on their instagram page. They host a climate action week every year which encourages students to engage in activities and talks promoting planetary health.

**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 provider. (1 point)

There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:

2

*Score explanation:* NHS staff working within the Barts Health trust are offered various Continuing Professional Development (CPD) courses for free to support the Trust's Green Plan. These courses have been accredited by the Institute of Environmental Management and Assessment and include the following courses: Introduction to Net Zero, Pathways to Net Zero and Environmental Sustainability Skills for the Workforce. As part of planetary health promoting initiatives, St. Barts Hospital has piloted rollout training to help clinical staff build confidence talking to patients about air pollution, its effects on health and what they can do. Additionally, their asthma specialist team is in the final stages of developing training to help patients optimise inhaler usage to support the Trust's Green Plan target.

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

Yes, the **medical school** 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:

1

*Score explanation:* Although there is increasing effort by Barts Health Trust to support clinicians educate patients about the effects of climate change (e.g. air pollution) on their health, there is currently limited educational materials available to patients. The Barts Health Trust website has publicly accessible pages on sustainability topics including articles on the links of air pollution with negative health outcomes ("New research links low levels of air pollution with serious changes in the heart"). They also have patient information leaflets explaining the role of air pollution as an asthma trigger and how this may be mitigated ("Asthma & Wheeze - how to keep your child well").

**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 <b>medical school</b> or <b>all affiliated hospitals</b> have accessible educational materials for patients. (2 points)	
<b>Some</b> affiliated hospitals have accessible educational materials for patients. (1 point)	
<b>No</b> affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	1
<p><i>Score explanation: Patient accessible educational materials remain limited. Both the Barts Health Trust and Greener NHS websites have publicly accessible pages explaining topics of sustainability and climate change and health. Barts Health also has a podcast titled 'Treating You', with episodes featuring guest staff speakers explaining the links of climate change and health such as 'Clean Air Day' which features a conversation with a respiratory specialist, a local councillor and a patient to discuss how climate change, air pollution and asthma are linked. Additionally, Green at Barts Health is a staff network set up to support Barts Health reach its sustainability goals. They have publicly accessible social media accounts, such as their Twitter account 'Green at Barts Health' where they repost media highlighting the association between climate and health. They share easily understandable information, such as WHO infographics demonstrating how climate change affects health in various ways including heatwaves, respiratory diseases and heat stroke.</i></p>	
Section Total (12 out of 14)	
86%	

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# Support for Student-Led Planetary Health Initiatives

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

## 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, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

1

*Score explanation:* The medical institution enables students to organise their own electives at certain years of their study. These can potentially include sustainability initiatives or quality improvement projects however the university does not push for such or provide funding if the student decides to self-organise an elective involving sustainability topics. Some grants are available, such as the Green Mary fund, or through funding awarded through the Sustainability Society, which may be used for such projects, though these would have to be approved and usually small scale due to resources.

## 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 these 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:

1

*Score explanation:* The Wolfson Institution of Public Health has an initiative named “Planet and Place” which aims to improve planetary and population health. As part of the university, students

can reach out and query whether they can participate and contribute to these efforts. Furthermore, the “Environment and Health” website provides the names of individuals involved in planetary health and sustainability research which could be used to contact said individuals. However, there are no indications that both avenues accept student help via the medical school’s mediation.

**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 medical school, 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:* The Barts and the London “[Environment and Health](#)” website provides a hub where students can access information on planetary health and sustainable healthcare research and mentors. It includes publications that the institution has made over the past few years and the impact these research projects have made. A multidisciplinary approach to sustainability is adopted, with three key research streams being highlighted: breathed environment, microbiome, and impact of climate change on health. Another website the institution has is the Sustainable Development Goals which showcases the efforts and research the members of the institutions have made towards the United Nations Sustainable Development Goals. The [Wolfson Institute](#) webpage also allows students to access this information, and includes the research theme “[Planet and Place](#),” which has a strong focus on planetary health and provides contact information of relevant members.

**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 medical school dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organisation at my medical school 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
<p><i>Score explanation:</i> There are several student societies highlighting planetary healthcare including Environmental Society, and Biological Sciences Society, who hold volunteering events and improve awareness of environmental issues. The societies are highlighted as a part of the annual Climate Action Week, and receive support from faculty members. Sustain@BL is currently inactive, meaning that there is less focus on sustainability in healthcare; however, the other societies provide an approach to improving planetary health, and the medical school is currently running its events with QM Sustainability Society/.</p>	

<p><b>4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?</b></p>	
<p>Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)</p>	
<p>No, there is no such student representative. (0 points)</p>	
Score Assigned:	1
<p><i>Score explanation:</i> Barts and the London has a dedicated Sustainability Officer who represents students in relevant meetings within the Student Union on matters regarding sustainability, meeting regularly with the university's <a href="#">Sustainability Team</a>. They are responsible for engaging with the institution and ensuring that it fulfills its environmental issues and global climate emergency obligations. Furthermore, they are responsible for educating the student population and raising awareness of planetary health and sustainability issues. Alongside the Mile End Sustainability Officer, the Barts and the London Sustainability Officer co-chairs the Sustainability Board.</p>	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	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
<p><i>Score explanation:</i>  <i>Barts has done well in the past year to hold many co-curricular planetary health related initiatives through a diverse range of events, including the following:</i></p> <ul style="list-style-type: none"> <li>• Various volunteering opportunities are available for students to get involved in allotment projects, including an allotment site on the Mile End campus. Furthermore, student societies have been given opportunities to voice their thoughts to the student union on sustainable food systems and improve availability of plant-based food, with the agreement that 60% will be plant-based by the end of the academic year.</li> <li>• QM Environmental society held several panel discussions and debates regarding topics such as plant-based diets in student union food outlets. Furthermore, as part of Climate Action Week, the university has organised talks such as discussion of the outcomes of the COP29 summit and the impacts of construction on the local environment.</li> <li>• The university's Centre for Public Engagement has created a toolkit to highlight the importance of collaboration between local communities and health professionals to tackle health inequalities, taking into context sustainability when discussing food inequalities. Furthermore, the university has links to groups such as Tower Hamlets Borough's Green Spaces Program, which provides opportunities for students to engage directly with local communities, and learn from members of the local community.</li> <li>• A society collaboration event has been organised between QM ISOC and Sustainably Muslim to provide an opportunity to be reflective via creating an art project to visualise prayers, intentions and goals in regards to topics such as personal growth and improving sustainability-conscious habits.</li> <li>• As a part of the Climate Action Week, students are encouraged to engage in volunteering opportunities such as canal clean-ups, Biodiversity Sessions in the Mile End allotments and tree planting. QM Environmental society has also organised a street clean up volunteering activity as part of the annual society volunteering week.</li> <li>• BL Alpine Society organises weekend hikes, alongside longer trips to national parks both in the UK and abroad. This includes a week-long trip to the Isle of Skye, and a summer expedition to Bulgaria, where students can get involved in hiking, rock climbing, kayaking and rafting. Students with all levels of experience are encouraged to attend.</li> </ul>	
<b>Section Total (13 out of 15)</b>	<b>87%</b>

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# 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 medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.

5.1. Does your <u>institution</u> 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 <b>at least one designated staff member</b> 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 <b>no specific staff member</b> in charge of hospital sustainability. (2 points)	
There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee. (1 point)	
There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	3
Score explanation: Queen Mary University of London has a dedicated campus sustainability team, in addition to links with sustainability sponsors. Each of the hospitals in the Barts Health Trust has a sustainability officer as a staff member, including the Royal London Hospital, the university's main hospital.	

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b> (5 points)	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b> (3 points)	
The institution has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b> (1 point)	
The institution/medical school does <b>not</b> meet any of the requirements listed above (0 points)	
Score Assigned:	0
Score explanation: Queen Mary University of London drafted a decarbonisation plan in March 2022, and stated online that they are currently developing a new sustainability action plan. The	

institution does not pledge to meet the 2040 deadline, however: "Queen Mary is committed to supporting the Government's ambition of reaching net zero by 2050" - [Carbon Management Webpage](#)

Initially, they established baseline carbon reduction targets to be met by 2018/19 and have since committed to increasing these by 30% above the 2018/19 baseline over the next six years.

Their strategy is structured into three key scopes:

- Directly controlled emissions
- Emissions from grid electricity
- Indirect emissions

For the 2022/23 period, they successfully met all targets for scopes 1 and 2, while scope 3 was achieved for business travel.

In 2022, the institution introduced a Heat Decarbonisation Plan to support its net-zero objectives, securing funding from the Low Carbon Skills Fund to implement the initiative

Currently, the university is working on a short-term [sustainability action plan](#) for 2023/24. This plan focuses on energy reduction and waste and resource management while also considering water consumption, food, travel and transport, construction and refurbishment, community and sustainable procurement.

### 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:

0

Score explanation: A £2.46 million Saliz energy efficiency loan has been secured to reduce energy consumption across both the Whitechapel and Mile End campuses. At least 3 buildings owned by the university, including the library, are using photovoltaic (PV) cells as a source of renewable energy. These are currently producing 45000kwh of renewable energy. Green electricity tariffs used to be used by the university; however, this has since stopped due to controversy around their practices and alternatives are now being considered.

[Waste heat](#) from the campus' data centre is now being used to provide hot water and heating for buildings on campus

### 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 <b>majority</b> of old buildings <b>have been retrofitted</b> to be more sustainable. (3 points)	
Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have <b>not been retrofitted</b> . (2 points)	
Sustainable building practices are <b>inadequately or incompletely</b> implemented for new buildings. (1 point)	
Sustainability is <b>not considered</b> in the construction of new buildings. (0 points)	
Score Assigned:	2
<i>Score explanation: All new buildings and refurbishments follow London planning requirements and use sustainability rating systems, for example, the SKA rating or BREEAM. QMUL has an ISO 14001:2015 certified environmental management system in place. The university has been engaged in a number of energy reduction projects, especially focusing on their top 10 energy-consuming buildings as well as decarbonisation of the grid. Another building on the main campus has been given an 'SKA silver' rating. Work to improve the sustainability of existing buildings is both ongoing and has been completed across all campus sites. This includes office areas, teaching spaces and laboratories.</i>	

<b>5.5. Has the <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?</b>	
Yes, the institution has implemented strategies to encourage and provide <b>environmentally-friendly transportation options</b> 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 <b>some</b> strategies to provide environmentally-friendly transportation options, but the options are <b>unsatisfactorily</b> accessible or advertised. (1 point)	
The institution has <b>not</b> implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)	
Score Assigned:	2
<i>Score explanation: Queen Mary has promoted cycling initiatives, including bike storage, cycle safety and training, and a cycle to work scheme. Bike storage facilities are available across all campuses, and at affiliated hospital sites. The university has also produced a <a href="#">student cycle guide</a>. Bicycles for hire are also found near the campus. Multiple tube stations and bus stops situated around the campus also enable promotion of public transport. The university's sustainability page has a section on <a href="#">sustainable travel</a></i>	

<b>5.6. Does your <u>institution</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?</b>
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Yes, the institution has <b>both</b> compost <b>and</b> recycling programs accessible to students and faculty. (2 points)	
The institution has <b>either</b> recycling <b>or</b> compost programs accessible to students and faculty, but not both. (1 point)	
There is <b>no</b> compost or recycling program at the medical school. (0 points)	
Score Assigned:	2
<i>Score explanation: Queen Mary University of London runs a mixed recycling programme, where bins are available to staff and students. Office kitchen spaces have facilities for food waste disposal, however it is unclear if these are available to students. Clearly labelled bins for food waste for composting, and dry mixed recycling are available to students around campus.</i>	

<b>5.7. Does the <u>institution</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?</b>	
Yes, the institution has <b>adequate</b> sustainability requirements for food and beverages, including meat-free days or no red-meat, and <b>is engaged</b> in efforts to increase food and beverage sustainability. (3 points)	
There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> . The institution <b>is engaged</b> in efforts to increase food and beverage sustainability. (2 points)	
There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> . The institution is <b>not</b> engaged in efforts to increase food and beverage sustainability. (1 point)	
There are <b>no</b> sustainability guidelines for food and beverages. (0 points)	
Score Assigned:	3
<i>Score explanation: All campus cafés offer a wide range of meat-free options and participate in the “Meat-Free Mondays” initiative, providing a 20% discount on meat-free meals. Water fountains are available across all sites for refilling bottles, and cafés offer a 20% discount on hot beverages when reusable cups are used. To promote a more sustainable lifestyle, a Zero Waste Shop encourages students to bring their own containers to fill with selected ingredients, reducing single-use plastics and packaging while helping to minimise food waste. Reusable packaging is also being trialed at campus food outlets to replace disposable alternatives. For example, the café adjacent to the Perrin Lecture Theatre at the Whitechapel Campus exclusively sells water in reusable bottles. Additionally, The Griff Inn, located in the Garrod Building on the Whitechapel Campus, prioritises sustainable and ethical procurement of supplies, including sourcing foods from local businesses e.g. bakery items. More information on sustainable food practices can be found on the university website’s <a href="#">sustainability page</a>.</i>	

<b>5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement?</b>
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Yes, the institution has <b>adequate</b> sustainability requirements for supply procurement <b>and</b> is <b>engaged</b> in efforts to increase sustainability of procurement. (3 points)	
There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The institution is <b>engaged</b> in efforts to increase sustainability of procurement. (2 points)	
There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The institution is <b>not engaged</b> in efforts to increase sustainability of procurement. (1 point)	
There are <b>no</b> sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	3
<i>Score explanation: The university has sustainable procurement policy statement found <a href="#">here</a> It emphasises the need to consider the value of goods from an environmental, economic and social perspective, It encourages using suitable local suppliers where possible, minimising the waste generated from purchases and also encourages supplier selection that adheres to sustainable policies and practices. Also, the sustainable procurement group acts as the primary governance body and the director of procurement and head of environmental sustainability have collaborative responsibility for the development and implementation of this policy.</i>	

<b>5.9. Are there sustainability requirements or guidelines for events hosted at the institution?</b>	
Every event hosted at the institution <b>must</b> abide by sustainability criteria. (2 points)	
The institution <b>strongly recommends or incentivizes</b> sustainability measures, but they are <b>not required</b> . (1 point)	
There are <b>no</b> sustainability guidelines for institution events. (0 points)	
Score Assigned:	2
<i>Score explanation: Any catering for events at this institution must align with sustainability policies found <a href="#">here</a> These include undertaking a thorough risk assessment and ensuring facilities and resources are used efficiently.</i>	

<b>5.10. Does your <u>institution</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?</b>	
Yes, the institution has <b>programs</b> and <b>initiatives</b> to assist with making lab spaces more environmentally sustainable. (2 points)	
There are <b>guidelines</b> on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)	
There are <b>no</b> efforts at the institution to make lab spaces more sustainable. (0 points)	
Score Assigned:	2

*Score explanation: The medical school implements the [Laboratory Efficiency Assessment Framework \(LEAF\)](#) to enhance the sustainability and efficiency of its laboratory spaces. This program utilises an online toolkit that outlines practical environmental actions for labs to adopt throughout the year. As a result, the institution's laboratories have improved waste disposal practices and become more mindful of the environmental impact of waste products.*

**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:

2

*Score explanation: Queen Mary University of London (QMUL) follows an [investment policy](#) that aims to minimize investments in fossil fuels, using the MSCI definition of a 'fossil fuel company.'*

*In May 2016, QMUL [committed to fully divesting its endowment](#). Discussions on divestment continue between the university, the Sustainability Office, and student sustainability groups.*

**Section Total (21 out of 32)**

**66%**

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# Grading

## Section Overview

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

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

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

## Planetary Health Grades for the Barts and the London (QMUL) School of Medicine

The following table presents the individual section grades and overall institutional grade for the **Barts and the London (QMUL) School of Medicine** on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(63/72) \times 100 = 88\%$	A
<b>Interdisciplinary Research (17.5%)</b>	$(13/17) \times 100 = 76\%$	B+
<b>Community Outreach and Advocacy (17.5%)</b>	$(12/14) \times 100 = 86\%$	A
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(13/15) \times 100 = 87\%$	A
<b>Campus Sustainability (17.5%)</b>	$(21/32) \times 100 = 66\%$	B
<b>Institutional Grade</b>	$(88 \times 0.3 + 76 \times 0.175 + 86 \times 0.175 + 87 \times 0.175 + 66 \times 0.175) = 81.3\%$	A-

# Report Card Trends

## Section Overview

This graph demonstrates trends in overall and section grades for the years in which Barts and the London (QMUL) has participated in the Planetary Health Report Card initiative.

## Planetary Health Report Card Trends for Barts and the London (QMUL)

