



Planetary Health Report Card:

University of Birmingham Medical School



UNIVERSITY OF
BIRMINGHAM

2020-2021 Contributing Team:

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Summary of Findings

Curriculum	D-
<ul style="list-style-type: none"> • The Medical School has many lecturers with a personal interest in planetary health, as shown in the list compilation, however the curriculum is currently lacking in planetary health content. • Further efforts need to be made to include planetary health in both lecture content where applicable and also in learning objectives. One way noted that planetary health could be easily integrated is in the Medicine in Society modules in years one and two. • It has been noted that the curriculum at Birmingham is currently being redesigned so we would like to emphasise the ever growing importance of planetary health education at medical school. 	
Interdisciplinary Research	B
<ul style="list-style-type: none"> • The University of Birmingham along with the Medical School have great ties with the Institute of Applied Health Research and this is reflected in this score for the section. • To further improve students' development, advertisement of research positions, particularly to pre-clinical years would be useful. In addition it would be beneficial if students and the wider community could have more influence in the direction of research projects. 	
Community Outreach and Advocacy	F
<ul style="list-style-type: none"> • There have been many recent improvements in community outreach with the opening of the Green Heart and the associated environmental health events. • The Medical School lacks partnership with organisations promoting planetary health directly. Perhaps if a position was made available on CAWC as student sustainability chair, the Medical School would be able to have a more positive community impact. As shown by the number of planetary health 'MedSoc' societies there is definitely enough student demand. • The low score reflects the need for increased communication from the Medical School to both students and wider communities with the aim of education on such topics. 	
Support for Student-Led Initiatives	C+
<ul style="list-style-type: none"> • Overall, the administration is supportive of student-led initiatives and there are many opportunities to secure funding for these initiatives. The faculty are very willing to donate their time and knowledge in aid of such initiatives. • To further the support given, it would be useful to have a representative on a medical school committee such as CAWC to ensure that could advocate for sustainability best practices. 	
Sustainability	B
<ul style="list-style-type: none"> • The University and the Medical School have made big steps to ensure a more sustainable campus, with notable accomplishments including achieving a 20% reduction in carbon footprint 5 years before the original goal. • The main recommendation from this section is the need for fossil fuel divestment in addition to a set time goal and plan for moving towards carbon neutrality on campus. 	

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance defines planetary health as “a field focused on characterizing the human health impacts of human-caused disruptions of Earth's natural systems.” This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanization, 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 color, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and accountability among medical schools, we have created a Planetary Health Report Card that medical students internationally can use to grade and compare their home institutions on an annual basis. This medical-student-driven initiative aims to compare medical schools 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 centered on environmental health impacts 5) medical school campus sustainability.

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 change. Therefore, it is critical that medical students are trained to understand the health effects of climate change, as well as planetary health more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.

Curriculum: General

1. Did your medical school offer elective courses to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3*	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>The global health intercalation (a year out from the traditional medical curriculum) includes information on planetary health in several lectures but predominantly the “Lancet Count Down to Climate 2019”. There is no intercalation available currently that has planetary health as its primary focus. No other electives were found to fit this brief.</i></p>	

Curriculum: Health Effects of Climate Change

2. Does your medical school curriculum address the relationship between extreme temperature health risks and climate change, as well as the socioeconomic/racial disparities in extreme heat exposure?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. Personal Interest Project (PIP) in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric as there is no formal teaching. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?

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

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

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

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

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

5. Does your medical school curriculum address the cardiorespiratory health effects of climate change, including air pollution?

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

In the MBChB 3rd year curriculum (Clinical Core 2) it states students should have an awareness of the social and environmental factors as determinants of disease, and the importance of the public health roles fulfilled by doctors including major pollutants in the general environment, and an understanding of their effects on patterns of health and disease. Additionally the effects of irritants such as aerosols, ozone and particulate matter on asthma is briefly mentioned in the airway diseases lecture as part of the introduction to respiratory medicine module.

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

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

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

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

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

0	This topic was not covered.
<p><i>This topic is not mentioned in any learning objectives from Years 1-5, however in year 3 in the Professional Development Activities module, there is the option of doing an elective component in 'Refugee and Migrant Health'. The workshops for this elective component address the relationships in this metric.</i></p>	

<p>8. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, and older adults?</p>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.</i></p>	

<p>9. Does your medical school curriculum address the unequal health impacts of climate change globally?</p>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.</i></p>	

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

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

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

Although a learning objective to “Outline environmental factors which can affect foetal development” was included in Year 5 obstetrics and gynaecology module, in the teaching delivered, the only physical agents mentioned affecting development were hyperthermia and x-rays.

11. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university’s surrounding community?

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

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn’t count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

12. Does your medical school curriculum address the unique climate and environmental health challenges that have impacted and are impacting Indigenous communities?

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

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

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

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

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

Curriculum: Sustainability

14. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?

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

This topic was covered in the Year 3 lecture “Preventing and curing Type 2 Diabetes Mellitus” by Dr Ewan Hamnetts.

15. Does your medical school curriculum highlight the waste generated by the healthcare system and identify ways to advocate for and implement sustainable best practices in health care?

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

This learning point has not been addressed in the learning outcomes or as the primary focus of a lecture or tutorial for any modules in year 1-5 and hence has been given a score of 0. There are opportunities in student selected components of the course, e.g. PIP in year 2, to choose to research further into any chosen topic, however due to this being student selected not medical school dictated that it doesn't count towards the metric. Despite the lack of inclusion in the assessed learning outcomes or as a primary focus, some lecturers have included planetary health based information in their lectures, and we have compiled a list of the titles of these lectures at the end of the curriculum section.

Curriculum: Clinical Applications

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

2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	No, there are not strategies introduced for having conversations with patients about climate change

Although difficult situations are often covered in clinical communication sessions, there have been no scenarios involving communication around planetary health.

17. In training for patient encounters, does your medical school's curriculum introduce strategies for taking an environmental history or exposure history?

2	Yes, the core curriculum includes strategies for taking an environmental history.
1	Only elective coursework includes strategies for taking an environmental history.

0	No, the curriculum does not include strategies for taking an environmental history.
<i>Students receive lectures and tutorials on hospital placement on how to take a medical history. An environmental history, including exposure to air pollution or environmental hazards forms part of the social history.</i>	

Curriculum: Administrative Support for Planetary Health

18. Is your medical school currently in the process of improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<i>The University of Birmingham is in the process of designing a new curriculum with the hope of making sustainable healthcare a more prominent part of the curriculum. Rachel Westacott as Senior Curriculum Lead has been particularly involved in this redevelopment of the course and the redesigning of the curriculum is heavily supported by Professor Una Martin as Dean of Birmingham Medical school.</i>	

19. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?	
6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).
0	There is minimal/no education for sustainable healthcare.
<i>In the current curriculum there is minimal planetary health and sustainable healthcare education, however as previously mentioned the curriculum is currently being updated with the hope of including more education on sustainable healthcare.</i>	

20. Bonus: Does your medical school have a program that offers incentives for faculty/departments to develop new planetary health/ESH courses and/or incorporate planetary health/ESH into existing courses?	
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1*	Yes, the medical school has an incentive program.
0	No, the medical school does not have an incentive program.
<i>Currently at the University of Birmingham there is no program that offers incentives for departments to develop planetary health courses</i>	

Section Total (14 out of 58)	14
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Planetary health topics are briefly mentioned in:

- Year 1 lecture 'Airway Diseases' by Dr Dhruv Parekh
- Year 1 lecture 'Crossing Borders: Refugee Health' by Dr June Jones
- Year 1 lecture 'Determinants of Health' by Dr KK Cheng
- Year 2 lecture 'Environmental Factors and Cancer' by Dr Elena Odintsova
- Year 2 lecture 'Cancer: Causes to Cure, Viruses and Human Cancer' by Dr Sally Roberts
- Year 2 SGT 'Viruses and Cancer Tutorial'

Interdisciplinary Research

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

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
4	Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health and healthcare sustainability.
3	Yes, there are faculty members at the School of Medicine who have a primary research focus in a planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the School of Medicine who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>The Institute of Applied Health Research at Birmingham is attached to and closely associated with the Medical School, students have the opportunity to be lectured by and work with these researchers. Hence despite some mentioned not being principally education based, their research has been included in this metric.</i></p> <p><i>Professor Roy Harrison FRS OBE, Queen Elizabeth II Birmingham Centenary Professor of Environmental Health, is running an international, multidisciplinary research team looking into air pollution and its effects internationally with the University of Birmingham campus being one of three 'supersites' from the UK. More locally, Professor William Bloss, Professor Francis Pope and Dr Suzanne Bartington are part of the team working on WM-Air, the West Midlands Air Quality Improvement Programme.</i></p> <p><i>Link: https://www.birmingham.ac.uk/research/heroes/air-pollution.aspx</i></p> <p><i>Another relevant research project currently being run by the Institute of Applied Health Research at Birmingham is: "NIHR Global Health Research Group on Chronic Obstructive Pulmonary Disease (COPD) - Breathe Well" led by Dr Rachel Jordan and Professor Peymané Adab</i></p> <p><i>Link: https://www.birmingham.ac.uk/research/applied-health/research/breathe-well/index.aspx</i></p>	

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

your institution?	
3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years.
1	There is an Occupational and Environmental Health department, but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.
<p><i>The University of Birmingham has the department of environmental health sciences who apply the chemical and physical principles to the study of environmental processes, addressing a range of research issues that are relevant to environmental and human health. The department runs a MSc in environmental health, which provides an in-depth exploration of the impacts that health stressors have on the physical health and social well-being of individuals and communities. The department carries out extensive research in environmental health supported by grants from the environment agency, the health effects institute and UK research councils.</i></p>	

3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your medical school?	
3	Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda.
1	No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.
0	There is no process, and no efforts to create such a process.
<p><i>The University of Birmingham Medical School has an 'internal' committee, which act on their own desire to address sustainability issues within the College.</i></p>	

4. Does your institution have a planetary health website, or a website centralizing various campus resources related to health and the environment?	
3	There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.

2	There is a website that attempts to centralize various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.
<p><i>The University of Birmingham has a section of its website devoted to the Global Health Research Network, which compiles upcoming meetings and events, funding opportunities, current global health research and key contacts for planetary health within the institution. Although extensive it is not easy to navigate to this part of the university website.</i></p>	

5. Has your institution recently hosted a conference or symposium on topics related to planetary health?	
4	Yes, the institution has hosted more than one conference or symposium on topics related to planetary health in the past year, including at least one on climate change.
3	Yes, the institution has hosted one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.
<p><i>In June 2019, the University of Birmingham hosted a conference on Planetary Health. This workshop explored the global planetary health landscape and investigated existing and future research synergies and linkages between these universal themes of health, environmental and sustainable development.</i></p> <p><i>In November 2019, the University of Birmingham hosted a conference on 'Clean Air for All'. This event explored the different types of pollution that we breathe during our daily lives, the health risks and how this puts pressure on our healthcare services.</i></p>	

6. Has your institution or medical school joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education?	
2	Yes, the medical school has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education.
1	Yes, the institution has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education, but the medical school specifically has not.

0	No, the institution has not joined the Planetary Health Alliance or the Global Consortium on Climate and Health Education.
<i>The University of Birmingham is not a member of the Planetary Health Alliance or the Global Consortium on Climate and Health Education.</i>	

Section Total (13 out of 19)	13
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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 color. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.*

1. Does your medical school partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	The institution partners with community organizations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<i>There are many planetary health societies that engage in community outreach promoting planetary and environmental health such as Students for Global Health, Docs not Cops and Model UN; however these societies are part of 'MedSoc' and do not receive support/funding from the Medical School directly so have not been included in this metric. We have found no evidence of the Medical School partnering with community organisations directly. However the University has multiple community links, including with the Canal and River Trust locally, and encourages students volunteering in local communities through the 'DoIt' organisation.</i>	

2. Does your medical school offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The medical school has not offered such community-facing courses or events.
<p><i>In January 2019, Birmingham University opened its new Green Heart space. Green Heart is a 12-acre parkland offering a unique space for performances, socialising, meeting and studying, for students, staff and the local community. Since its opening, the following events relating to planetary health have been scheduled:</i></p> <ul style="list-style-type: none"> • <i>Poetry in an age of environmental crisis - Talk to show how poetry can help us to face up to the impact that human beings are having on the environment and other living things, and to find the imagination and the hope required to get us, individually and collectively, through to a better, more sustainable future.</i> • <i>Everyday activism: harnessing anger for change - Panel talk, Q&A and an informal discussion to explore all things activism (including environmental activism).</i> • <i>Leaving no one behind: Localising Sustainable Development Goals thinking amongst youth - Workshop which aims to strengthen paths in which UN SDGs could be achieved. Hence, supporting Britain to deliver its Agenda 2030 commitments, with 11 years left.</i> • <i>Planetary Health Workshop - This workshop will explore the global planetary health landscape and investigate existing and future research synergies and linkages between these universal themes of health, environmental and sustainable development</i> 	

3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not regularly receive communications about planetary health or sustainable healthcare.
<p><i>Medical students receive weekly bulletins from the medical school. However, in the last 12 months, there were only 2 topics relating to planetary health. One was a link to a report about “Delivering a Net Zero Health Service” and another was an advert about participating in the Institute of Global Health Innovation’s Student Challenges Competition.</i></p>	

4. Do hospitals affiliated with your medical school have accessible educational materials for patients about environmental health exposures?

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated medical centers have accessible educational materials for patients.

The University of Birmingham College of Medical and Dental sciences is affiliated with 11 hospital trusts in the West Midlands. All of these trusts' Patients Advice and Liaison Services (PALS) were contacted. Of the four trusts who replied (Royal Wolverhampton, Dudley Group, Worcester Acute Hospitals, and Birmingham Women and Childrens) none provided educational information for patients about environmental health exposure education.

5. Do hospitals affiliated with your medical school have accessible educational materials for patients about climate change and health impacts?

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	No affiliated hospitals have accessible educational materials for patients.

The University of Birmingham College of Medical and Dental sciences is affiliated with 11 hospital trusts in the West Midlands. All of these trusts' Patients Advice and Liaison Services (PALS) were contacted. Of the four trusts who replied (Royal Wolverhampton, Dudley Group, Worcester Acute Hospitals, and Birmingham Women and Childrens) none provided educational information for patients about climate change and health impacts.

Section Total (2 out of 12)	2
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Support for Student-Led Planetary Health Initiatives

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

1. Does your institution offer support for medical students interested in enacting a sustainability initiative?	
2	Yes, the institution offers grants available to medical students for students to enact sustainability initiatives.
1	The medical school encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available.
0	No, the institution does not offer opportunities or support for sustainability initiatives.

There is funding available for student initiatives through the Alumni Impact fund, linked [here](#). Although this is not a fund specifically set up for sustainability, initiatives with the goal of sustainability will be considered.

2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
3*	The institution offers an explicit paid fellowship for medical students to do research related to planetary health and/or sustainable healthcare.
2*	The institution offers paid research opportunities for students and planetary health/sustainable healthcare projects would be considered eligible.
1	There are unfunded research opportunities for students to perform research related to planetary health/sustainable healthcare.
0	There are no opportunities for students to receive funding for planetary health/sustainable healthcare research.

There is the University of Birmingham Undergraduate [Research Experience scheme](#), which all students can apply for and Planetary Health and Sustainable Healthcare research projects would be considered.

In addition there is the [Global Health Research Network](#) that helps researchers including students to capitalise on funding opportunities both within the college, collaborating with the university and with teams abroad.

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

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

Whilst there is a page by the Institute of Applied Health Research sharing Global Health research projects and supervisors, as well as Global Health Research Network from the medical colleges, there is not a medical-school produced page for students to access planetary health activities or mentors. The medical school website does link to the MedSoc website which contains details of several planetary health societies, however these are student-led and separate to the medical school

4. Does your medical school have funded, registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?

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

There are 'MedSoc' societies but these are student led, rarely sponsored by staff, and not funded by the medical school, MedSoc societies related to planetary health include Students for Global Health, Friends of MSF, DocsNotCops, Global Brigades, AMECA, MedSoc Language Exchange

5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for sustainability best practices?

1	Yes, there is a student representative that serves on a medical school or institutional decision-making council.
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0	No, there is no such student representative.
<p><i>The student representative committee, CAWC (Curriculum and Wellbeing Committee), currently does not have a student specifically focussed on planetary health and due to limits on number of committee members there is no intention to recruit a planetary health ambassador. No current member of CAWC is working on sustainability or planetary health on the curriculum.</i></p>	

6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)

1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students) that follow Leave No Trace principles.

In June and November 2019 there were conferences on campus, the former being on [planetary health](#) and the latter entitled [‘Clean air for All’](#). Students were encouraged to attend.

Since the Green Heart has opened in January 2019, there have been several planetary health focussed events including: Poetry in an age of environmental crisis, Everyday activism: harnessing anger for change - Panel talk, Planetary Health Workshop and Leaving no one behind: Localising Sustainable Development Goals thinking amongst youth.

The Wilderness Medicine Society has organised outdoor programs following Leave No Trace principles however due to this being a completely student organised event without medical school/university funding, the points have not been allocated

Section Total (8 out of 14)	C+
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Campus Sustainability

Section Overview: This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavor, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinizing 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 minimizing environmental impact.

1. Does your medical school and/or institution have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.
1	There are no salaried sustainability staff, but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<i>Christopher McCabe is the MDS sustainability lead, who oversees sustainability developments in the medical and dental schools as well as sitting on the university's sustainability steering group.</i>	

2. Does your medical school and/or institution have a stated goal of carbon neutrality by 2050?	
4*	The medical school is already carbon neutral.
3	Yes, there is a stated carbon neutrality goal and the medical school has a well-defined and adequate plan in place to achieve this goal.
2	Yes, there is a stated carbon neutrality goal, but the medical school has not created a plan to reach that goal or the plan is inadequate.
1	There is a CO2 emission reduction goal, but it is not one of carbon neutrality.
0	There is no stated goal for reduction of CO2 emissions.
<i>The University has not yet stated a time goal for achieving carbon neutrality, there is currently a report being put together - to be released at the next sustainability summary outlining the target and the planned route to achieve this carbon neutrality. The University has reduced their carbon emissions</i>	

with a 20% reduction in carbon footprint from 2005/2006 to 2014/2015 well before the original goal of a 20% reduction by 2020. See link with more information [here](#).

3. Do buildings/infrastructure used by the medical school for teaching (not including the hospital) utilize renewable energy?

3*	Yes medical school buildings are 100% powered by renewable energy
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.

All electricity procured to power the campus is from a renewable source, 0.5% of energy used is from onsite PV (photovoltaics) and there are plans to commission and invest in more onsite PV's.

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

3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the majority of old buildings have been retrofitted to be more sustainable.
2	Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have not been retrofitted.
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.

As detailed in the [Universities Carbon Management Implementation Plan](#), retrofitting of older buildings has been achieved with more environmental alternatives such as: cavity wall insulation, draught proofing, heat zoning.

One of the 4 main principles of the estates team for new developments is being efficient with space, with the university saying 'significant CO2 savings are expected from space utilisation'. There is an [innovation portal](#) available on the University of Birmingham Intranet where people are encouraged to share their ideas to help in the development and retrofitting of buildings.

An example of such retrofitting includes the [RICS SKA Accreditation](#) for the recent lab refurbishments in the IBR building.

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

2	Yes, the medical school has implemented strategies to encourage and provide environmentally-friendly transportation options such as safe active transport, public transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.

The university has a [page](#) dedicated to methods of sustainable travel. When placement details are released to students by the online system, it allows you to sign up as a driver or passenger to encourage carpooling (pre-COVID-19) however this was never advertised as an environmentally friendly method, meaning that the metric has not been awarded full points.

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

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

Recycling schemes have been fully rolled out across campus, other schemes such as the reusable cup scheme (although currently not in action due to COVID-19) have also been successfully rolled out across campus coffee shops. Grounds management compost waste is reused on campus, in addition to this food waste from the large catering units on campus, excluding the medical school canteen, is collected and composted, however as this is not fully available to students, particularly in the medical school it has not met the full points for this metric. We have been advised that the university are in the process of launching a food composting station for students on campus, so hopefully by next year this metric will be fully met.

7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections?

3	Yes, the medical school has adequate sustainability requirements for food and beverages and is engaged in efforts to increase food and beverage sustainability.
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2	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<p><i>Recently the Medical School has switched from plastic utensils in the cafeteria to wooden and metal utensils. In addition across all food sites on campus there are plant-based and organic options available. The University has been a fairtrade university since 2003, there are requirements set in place for all meat, eggs and milk to come from farms of 'Red Tractor Status' indicating good animal welfare. All fish used have to meet the sustainability standards set in the 'Marine Stewardship Council Certification'. More than 50% of the Universities Catering Suppliers are from the West Midlands and local produce where viable is used in preference.</i></p> <p><i>Links: https://www.birmingham.ac.uk/community/university-campus/retail/Foodfacts.aspx https://www.birmingham.ac.uk/Documents/environment/university-of-birmingham-catering-charter.pdf</i></p>	

8. Does the medical school or associated institution apply sustainability criteria when making decisions about supply procurement?	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.
<p><i>Since 2014 the University has been part of the West Midlands Universities Procurement Group (WMUPG), a group set up to collaborate and support ambitions of effective procurement. Through WMUPG regional, national and global sustainability issues are discussed and effective procurement within set sustainability guidelines. The group has over 1220 suppliers who have committed to sustainability action plans as part of their supplier engagement initiative, the action plans are directly linked to the principles set out in the UN sustainability guidelines. 1. No Poverty 2. Zero Hunger 3. Quality Education 4. Decent Work and Economic Growth 5. Industry, Innovation and Infrastructure 6. Sustainable Cities and Communities. In the 'Procurement Strategy' released in 2020, sustainable procurement was said to be central to the universities approach with particular mention to developments in sustainable transport. The University is committed to working with organisations such as 'The Workers' Rights Consortium', 'Electronics Watch' and the Fairtrade foundation to ensure ethical procurements are made, also taking into consideration the following initiatives: The Flexible Framework for Sustainable Procurement (Level 5), The Social Value Act 2013, Innovation Partnership (under the 2015 EU Procurement Directives). Sustainable procurement is one of the 5 key themes mentioned in the strategy.</i></p>	

Links:

<https://intranet.birmingham.ac.uk/finance/documents/public/Supplier-Sustainability-Impact-Report.pdf>
<https://intranet.birmingham.ac.uk/finance/documents/public/Procurement-Strategy.pdf>

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

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

Currently there are no requirements or guidelines at the University or Birmingham Medical School. There is a lot of discussion currently that the Commonwealth Games will be subject to quite strict sustainability requirements, and a lot of participants will be housed at UoB.

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

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

The Medical School has a Green Labs Toolkit introduced in 2018 that was rolled out campus-wide in 2020. The initiative has 3 levels (Bronze, Silver and Gold) that labs around the campus aim to complete all the relevant tasks in the toolkit to achieve. The areas of focus include: chemicals, cold storage, circular economy, sustainable procurement, lighting, plastics, water, spreading the word, lab health and wellbeing, lab waste, lab equipment and single use lab plastics. Evidence must be submitted for each of the parameters above for the labs to be awarded each level. Since 2017 the Sustainable Labs Manager has been working with the Medical School to help make labs more sustainable

11. Does your institution's endowment portfolio investments include fossil-fuel companies?

4	The institution is entirely divested from fossil fuels and has made a commitment to reinvest divested funds into renewable energy companies or renewable energy campus initiatives.
3	No, the institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil-fuel companies.

1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.
<p><i>December 2019 - The university became a signatory to the UNPRI (United nations principles for reasonable investment):</i></p> <ul style="list-style-type: none"> ● <i>Principle 1: We will incorporate Environmental, Social and corporate Governance (ESG) issues into investment analysis and decision making processes.</i> ● <i>Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.</i> ● <i>Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.</i> ● <i>Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.</i> ● <i>Principle 5: We will work together to enhance our effectiveness in implementing the Principles.</i> ● <i>Principle 6: We will each report on our activities and progress towards implementing the Principles.</i> <p><i>The University has transitioned from a 10% investment into fossil fuel organisations to now less than 2% with further plans to reduce this to less than 1%</i></p> <p><i>Student led campaigns by multiple student groups for divestment: 'Fossil free UOB', 'Climate Action society' and 'XR' - Extinction rebellion</i></p>	

Section Total (22 out of 29)	22
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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 an average of the section grades. Letter grades for each section and the institution overall were then assigned according to the table below.

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

Planetary Health Grades for the University of Birmingham Medical School

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

Section	Raw Score	Grade
Planetary Health Curriculum (30%)	14 / 58 = 24.13%	D -
Interdisciplinary Research (17.5%)	13 / 19 = 68.4%	B
Community Outreach and Advocacy (17.5%)	2 / 12 = 16.7%	F +
Support for Student-led Planetary Health Initiatives (17.5%)	8 / 14 = 57.13%	C +
Campus Sustainability (17.5%)	22 / 29 = 75.9%	B +
Institutional Grade	45.41%	C