



Planetary Health Report Card (Medicine): *St George's, University of London*



2022-2023 Contributing Team:

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Summary of Findings

Overall	C-
<u>Curriculum</u>	C+
<ul style="list-style-type: none"> St George's, University of London (SGUL) has good coverage of planetary health topics in the curriculum, but these are specific sessions with titles referencing climate change which may deter students from attending if they feel it is not relevant to their learning. The University is making institutional changes with student partnerships and actively hiring roles to tackle the climate crisis. Recommendations: Integrate planetary health themes longitudinally using the spiral curriculum and scope of PPS (Patients, Populations and Society) by creating learning objectives and encouraging lecturers to briefly comment on the climate crisis in the context of their taught material. It would be wonderful to see earlier years' students timetabled sessions to work with Environmental Health MOOCs delivered by experts in the field. However, the intersection of marginalized groups and their disproportionate harm due to the climate crisis must specifically be covered, to score higher in future assessments. 	
<u>Interdisciplinary Research</u>	D-
<ul style="list-style-type: none"> There are faculty members at St George's with a primary or secondary focus on planetary health. Research focused primarily on outdoor air and noise pollution in London, Europe and Sub-Saharan Africa Recommendations: Join an international planetary health organisation such as the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education. Turn the 'Environment and Sustainability' webpage into a central hub for highlighting planetary health research at SGUL. 	
<u>Community Outreach and Advocacy</u>	D -
<ul style="list-style-type: none"> St George's University of London is trying to reduce their own impact on the environment as an institution and focusing on in-curriculum before expanding their efforts out into the community. Recommendations: Introduce a dedicated section of the student/staff newsletter to planetary health issues. 	
<u>Support for Student-Led Initiatives</u>	C -
<ul style="list-style-type: none"> SGUL has many active student groups; Ethical & Environmental Union Officers and societies such as EcoSoc, Vegan Society and Students for Global Health who are dedicated to various aspects of planetary health. There is a staff/student environmental working group who meet every month. There are few student-led sustainability initiatives offered to students directly by SGUL, and they are not funded. Recommendations: SGUL could introduce the option of carrying out a sustainability QI project as part of the curriculum, or offer funding for extracurricular student-led planetary health projects. 	
<u>Campus Sustainability</u>	C+
<ul style="list-style-type: none"> St George's Medical School has maintained an admirable effort towards campus sustainability, especially in the provision of sustainable options for students with regards to waste disposal and transport. Commitments released committing to further campus sustainability and carbon neutrality are an encouraging indication to future developments. Recommendations: The provision of guidelines for medical school events and food and beverages is a key milestone for future improvement. Furthermore, introduction of compost bins would be a welcome development of the current waste disposal system. Continuing forward with the recruitment for an associate dean for sustainability and the aims of its 'Strategic Vision for 2030' will also see St George's improve. 	

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 analyzing 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, 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 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 centered on environmental health impacts 5) medical school campus sustainability.

Definitions & Other Considerations

Definitions:

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

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

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions providers are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mold after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

- If there are more than one "tracks" at your medical school with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples).

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

Planetary Health Curriculum

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

Curriculum: General

1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>There are multiple opportunities to build projects which connect with sustainable health, and there are multiple supervisors who available to support with SSCs in this area and are known to students. This exists as the SSCT, and SSCF in 3rd and final year in addition to the final year electives. Currently, there are SSC projects occurring within this area, with one student specifically researching local air pollution. SDL resources and additional learning overlaps with Sustainable healthcare and planetary health are available for students via online learning.</i></p>	

Curriculum: Health Effects of Climate Change

2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

There is an extended taught session on Environmental Health and Climate Change during the final year attachment in public health which specifically addresses the health hazards associated with climate change and extreme temperatures. It also addresses the unequal distribution of climate-associated risks in relation to deprived population groups. Additional learning opportunities through links to the Lancet Commission on Climate Change are provided.

In addition, UK Heatwave planning is mentioned in the Introduction to Health Protection session in the public health attachment, noting that the temperature at which excess deaths start to occur is modest in the UK.

Taught sessions on health inequalities in Year 1 and Year 3 are currently being adjusted to address the unequal distribution of heat exposure and climate risk, noting the increased impact on deprived population groups as defined in the PHRC.

Note: This is now covered in more areas throughout the curriculum, with an increased focus in already existing lectures, and the inclusion of a Health inequalities sessions in P Year, address the unequal distribution of heat exposure and climate risk.

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 topic is briefly addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health which covers the health impacts of floods, heatwaves, drought, and fires.

The final year public health module also includes lectures called 'Introduction to Health Protection' and 'Public Health on the Front Line' (a global health session) which refer to the impact of flooding on health

Note: To the best of our knowledge, no change has occurred since last year

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 topic is briefly addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health which explicitly refers to the impact of changing climate on changes in the geographic distribution of specific infections. There is reference to vector-pathogen illnesses, how changes to the landscape (e.g., deforestation, urbanization, or migration) affect infectious diseases, and interventions that could mitigate these changes. Additional learning opportunities through links to the Lancet Commission on Climate Change are provided.

Moreover, a teaching session on Pandemics during the final year attachment in public health covers factors such as climate change, environmental degradation, and their contribution to emerging infectious diseases with pandemic potential

Note: To the best of our knowledge, not much change in the area. However, there is a current [student-staff partnership](#) working on strengthening this element of teaching. We were also not able to reach out to some staff in time, who might have more information

5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?

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

This topic is addressed over the course of several slides during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health which specifically refers to the impact of a changing climate and air pollution on respiratory health. Teaching within this session highlights the effects of exposure to air pollution across the life course, especially with regards to respiratory health. Interventions to mitigate such effects are also explored during the session.

There is also a first-year session called the 'Tooting Trail', designed to introduce students to the local area, in which the negative health effects of elevated levels of air pollution from traffic on the communities living around the University are briefly discussed.

Note: The session Environmental Health and Climate Change in final year has been updated in 2022, this now includes the dangers of aerosol generating products. Both interventions and the lifelong impact of continuous exposure are addressed.

One of the CBL case studies in MBBS5Yr1, encourages students to question the patient's potential occupation, and exposure to chemical agents, whilst theorising differential diagnoses early in the session.

The Tooting trail session is also reinforced in the learning objective for early years GP Visits to investigate local determinates of poor health, of which air pollution is indicated.

6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat?

3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>This topic is briefly addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health which explicitly refers to the impact of a changing climate and air pollution on cardiovascular health.</i></p> <p><i>Note: Updated in 2022, to include more sides and specifically covers the axis between air pollution and cardiovascular disease, with comment on susceptible and vulnerable risks for groups</i></p>	

7. Does your <u>medical school</u> 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.
<p><i>This topic is briefly addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health which specifically addresses the mental health hazards associated with climate change, and the range of direct and ecosystem mediated pathways through which these adverse health effects can develop. The effects of extreme events leading to loss of livelihoods and psychiatric trauma, as well as the most vulnerable people affected, are highlighted. The key issue of climate anxiety is also mentioned.</i></p> <p><i>Note: Updated in 2022, more details, timing about the relationship between chemical/hazardous exposure with deaths from self-harm is covered.</i></p> <p><i>Early lectures considering the social determinates of health also briefly mention vulnerable groups effected by environment and exposure; and the benefits of a positive, safe environment on improved health outcomes.</i></p>	

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

This topic is briefly addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health, which specifically refers to the issues of food and water security as key factors in the climate crisis and the associated health consequences. Additional learning opportunities through links to the Lancet Commission on Climate Change are provided.

The links between ecosystem health, climate change and emerging infectious diseases are covered in a lecture on pandemics in the final year public health attachment, and students are invited to consider their own actions, for example in relation to consumption of non-sustainably produced palm oil.

The University is currently piloting opportunities for medical students to attend a BSc module on environmental health to gain additional knowledge of this subject

Note: No changes reported from last year

9. 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, Indigenous communities, children, homeless populations, and older adults?

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

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

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

0 This topic was **not** covered.

This topic is briefly addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health, which explicitly refers to the fact that the impacts of climate change are not experienced equally. All the groups mentioned in this above question are specifically referred to as experiencing greater climate risk and widening social disparities.

Taught sessions on health inequalities in the first year of the graduate MBBS4 course, and the third year of all MBBS courses, are currently being adjusted to emphasize the greater impact of climate change on disadvantaged population groups.

Note: Updated in 2022, with additional session on health inequalities with specific case studies on the impact of climate change on marginalized groups.

10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?

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

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

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

0 This topic was **not** covered.

This issue is briefly addressed in a first-year teaching session on global health, which points out the widely different regional health impacts of the climate crisis

This topic is also touched upon during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health, which specifically refers to the fact that the impacts of climate change are not experienced equally by different regions. Published material from a Lancet report on climate change is used to illustrate the regional differences in climate impact

Note: No changes from last year

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

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

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

The health effects (including reproductive health effects) of industry-related environmental toxins are covered in the first part of an extended taught session on Environmental Health and Climate Change during the final year attachment in public health. Reference is made to chemical safety and its effects on neurodevelopment. The lecture also refers explicitly to the health hazards associated with air pollution over the lifetime.

In the first year of the MBBS4 graduate course, and the second year of the MBBS5 course, there are lectures which very briefly mention the actions of steroids and potential endocrine disruptors in the environment, and how they relate to sexual differentiation and spermatogenesis.

In addition, intercalating students, and students with a special interest in reproductive medicine are offered the opportunity for further study of the roles of environmental toxins (for example BPA and DES) on reproductive health.

There is a dedicated group of students within the [Student Staff Partnership Grant project](#) who have been allocated to specifically explore methods of including environmental curriculum to become taught in depth in the core curriculum. Ideas have included included a case based learning/problem based learning scenario on air pollution, given the extent of air pollution in London.

Note: No changes reported

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

3	This topic was explored in depth by the core curriculum.
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2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>This topic is addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health, which specifically refers to the impact of climate change on the UK population and to factors influencing climate impacts on different population groups. Reference is made to air pollution, water pollution, food control and housing standards in the context of the university's surrounding community. Students are tasked several times within this session with considering interventions that could alleviate some of the causes of these issues in the university's surrounding population. It therefore provides information directly relevant to local populations around the university.</i></p> <p><i>There is also a first-year session called the 'Tooting Trail,' designed to introduce students to the local area, in which the negative health effects of high levels of air pollution from traffic on the communities living around the University are briefly discussed.</i></p> <p><i>Note: This topic is also covered in the learning objectives of the PPS and GP Placement modules, as well as an Early PPS sessions discusses the risk of heart disease and the Obesity Systems Map. Highlighting the detrimental effect of convenience and human factors on the community such as car use, increased need to work due to loss of industries, the relationship between how these are further impacted by the climate crisis and loss of healthy environments is briefly covered.</i></p> <p><i>In addition to the tooting trail, St Georges University also has a large archive of materials available since its formation in 1733 where students can access materials to see how health of the local area has changed in the last 300 years, including post-mortem accounts showing the changes in nutrition (Rickets cases) and <u>environment (Tuberculosis Cases).</u></i></p>	

13. To what extent does your <u>medical school</u> emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
0	This topic was not covered.
<p><i>This topic is addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health, which specifically references Mother Earth and the learnings that can be gained from indigenous communities in reducing social disparities in the climate crisis.</i></p>	

14. 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, Indigenous populations, and older adults?	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>This topic is not covered in the MBBS course.</i>	

Curriculum: Sustainability

15. Does your <u>medical school</u> 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.
<p><i>Score explanation: In the final year public health attachment, the carbon footprint and environmental impacts of meat are mentioned in an environmental health lecture and a lecture on pandemics. However, these lectures do not go on to explicitly cover the benefits of a plant-based diet.</i></p> <p><i>Outside of the core curriculum there have been efforts by VegSoc, EcoSoc and Lifestyle Medicine Society to invite speakers - qualified clinicians to speak about the benefits of a plant-based diet on diabetes and cardiovascular health. However this is currently not a part of the core curriculum.</i></p> <p><i>Note: No significant changes reported</i></p>	

16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored in depth by the core curriculum
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: In the final year public health attachment, there is a lecture on 'NHS landscapes,' which mentions recent changes that have been made that have reduced the carbon footprint of the NHS. It mentions virtual wards, the trend towards more remote monitoring, and the shift of care that has been occurring out of hospitals and into communities. The lecture also mentions the NHS Long Term Plan and how it stresses the importance of improving sustainability in the system. It includes a link to the Green Hub for Allied Health Professionals, where students can find out more.</i></p>	

This topic is also addressed during an extended taught session on Environmental Health and Climate Change during the final year attachment in public health, which mentions the carbon footprint of the NHS and the fact that the NHS is trying to reach net zero by 2040.

Note: Updated in 2022, new session The Sustainability of Clinical Practice given to both MBBS4 and MBBS 5 year one directly addresses the carbon footprint of healthcare systems with specific reference to waste, and the challenges to be more environmentally conscious in anaesthetics.

17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfill this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	<p><i>Score explanation: There are CBLs in early years that make references to non-pharmaceutical interventions to health, with one case choosing lifestyle intervention over medication and there is session on Obesity in which mentions the benefits of physical activity, and its effects being comparable to that of a pharmaceutical pill, which is beneficial in reducing cardiovascular disease and managing mental health problems. The lecture includes discussions around how to improve physical activity that include social group activities like Parkrun - something commonly used as part of social prescribing. However these currently solely discuss the health benefits of lifestyle medicine and have not incorporated the health AND environmental benefits yet.</i></p> <p><i>The new Sustainability healthcare lecture also covers the topics of waste production within healthcare, the impact of inhalers and anaesthetic gases on the carbon footprint on the environment and how this can be mitigated by changing to dry inhalers or less harmful gases</i></p>

Curriculum: Clinical Applications

18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
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
<i>Score explanation: The Clinical communication curriculum does not contain any specific content which focuses on how to have conversations about climate change and its health effects. Note: No changes reported.</i>	

19. In training for patient encounters, does your <u>medical school's</u> 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>Score explanation: The St George's Clinical Communication curriculum is skills-based rather than about teaching content, however it does highlight to students that a personal and social history includes factors in a patient's lifestyle and environment which can put them at risk of illness or have a bearing on an established disease. It teaches that the social history should include exploring occupation (exposure to chemicals, hazardous materials, allergens, etc.), living situation (damp, mould, temperature, etc.), previous travel or having lived in other countries/cultures, and how all these factors relating to their environment could influence their health. Students are taught to think about these factors in a structured way, exploring how they might act as predisposing, precipitating, or perpetuating factors in someone's ill health. So, while there is no specific session centred solely around taking an environmental or exposure history, these topics are covered within wider sessions on taking a social history.</i>	

Curriculum: Administrative Support for Planetary Health

20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.

0	No, there are no improvements to planetary health education in progress.
<p><i>Score explanation: Yes, the medical school is making improvements including several new lectures and several lectures having been updated to reflect environmental and sustainable health education changes.</i></p> <p><i>There is an active Student-Staff Student partnership delving into the curriculum further to analyse areas of improvement and suggesting changes and improvement to the curriculum. However, this has not yet completed a formal review.</i></p> <p><i>The Student-Staff Partnership project consists of a team of 12 students working alongside university staff members to incorporate more environmental health and planetary health topics into every stage of the curriculum. This group was created in response to previous PHRC report findings regarding curriculum at St George's. The group is focusing on 5 key areas: Planetary Health, Behavioural Medicine, Environmental Pollutants/toxins, Principles of Sustainable Healthcare and Effects of changing climate on Human Health. We hope that the impact of this ongoing project will be able to be reflected in future PHRC reports.</i></p>	

21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
6	Planetary health/ESH topics are well integrated into the core medical school curriculum.
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s) .
0	There is minimal/no education for sustainable healthcare.
<p><i>Score explanation: In previous years, planetary health has only been covered in one lecture/session. For 2022, there is evidence of specifically introduced sessions and multiple lectures in MBBS4 and MBBS 5 Year 1 and T year, with increased brief references to planetary and sustainable health scattered across in other lectures and years. This now allows more consistent teaching from first year until the final year public health attachment. to the basics of planetary health- namely pollution. In 2022, there is now also a Student Staff partnership group which is steadily working to integrate even more planetary health earlier in the curriculum.</i></p>	

22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
<p><i>Score explanation: There already exists a member of staff, Professor Whincup, who has taken on the additional role of incorporating planetary health and sustainable healthcare as a theme throughout both curriculum and other areas. St George's University has also invested in an 'Associate Dean for</i></p>	

Sustainability' whose role will overlap with sustainable healthcare in the curriculum. This role has been budgeted and advertised and is in the hiring process.

Section Total (42 out of 72)

42

Back to Summary Page [here](#)

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

Interdisciplinary Research

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

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

There are many researchers involved in planetary health and healthcare sustainability at SGUL. These include members from three of the four SGUL Institutes.

Within the [Institute of Infection and Immunity](#) there is a [Centre for Global Health Research](#), working on strategies for infection management and control in low-income countries; a second [Centre for Diagnostics and Antimicrobial Resistance](#) is investigating antimicrobial resistance, a major global health challenge, partly caused by agricultural use of antimicrobials and their subsequent contamination of waterways and soil.

There is also a major research initiative on migration and health. Researchers in the [Population Health Research Institute](#) cover the research theme [Healthy Lifestyles and Environments](#), studying the effects of diet, physical activity and air pollution on health (three health determinants with major global importance) and the effectiveness of different approaches to reducing exposure.

Members of the [Institute of Biomedical Education](#), have research interests in the prevention and control of environmental hazards affecting health such as rising global temperatures and air pollution as an effect of climate change, the impact of these on people's health and the migration of people to escape environmental hazards. Environmental water pollution with the contamination of water supplies with arsenic is also explored as well as ethical aspects of global health challenges including the health impacts of war and conflict and violence against women which may be exacerbated by climate change associated migration.

There is a student-supervisor partnership grant (SSPG) on improving sustainable healthcare themes in the curriculum at SGUL.

Note: To the best of our knowledge no change since last year.

2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u> ?	
3	There is at least one dedicated department or institute for interdisciplinary planetary health research.
2	There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years.
1	There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.
<p><i>Though there is no dedicated department or institute for interdisciplinary planetary health, interdisciplinary research on planetary health is carried out in almost all major SGUL Departments, including the Institute for Infection and Immunity (particularly the Centres for Global Health and the Centre for Global Health Research), the Population Health Research Institute and the Institute for Biomedical Education.</i></p> <p><i>Where appropriate, the research involves collaboration between departments – for example, studies of the impact of social and environmental conditions on asthma incidence in South America involve collaborations between the Institute of Infection and Immunity and the Population Health Research Institute.</i></p> <p><i>Note: To the best of our knowledge no change since last year.</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 <u>medical school</u> ?	
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>There is no direct process by which communities disproportionately impacted by climate change and environmental justice can give their input as the university is prioritising implementing changes it can do within itself in order to help have the capacity to help the community as much as possible. However, the university's Eco Society did partner up with The Field Initiative to deliver a session in gardening to address how current methods of industrial food production are leading to soil degradation and an increasingly vulnerable global food system. This encouraged the student community to learn how to grow their own food and promote gardening to combat changes due to this problem.</i></p>	

There are also many researchers in both the Institute of Infection and Immunity and the Population Health Research Institute who consult local communities (in the former case, mostly in countries in Sub-Saharan Africa, a region with severe climate impacts) in their research prioritisation and decision-making. The results of this consultation process are fed into research funding agencies (which influence the research actually funded) by researchers representing St George's, University of London on funding agency committees. There is a section on [Public Engagement within the Institute of Infection and Immunity](#), this could be further expanded to increase efforts to involve those who are disproportionately impacted by climate change and environmental injustice.

We recommend continuing efforts to establish a process for community members to advise or make decisions on the research agenda.

Note: Not much change has happened since last year to the best of our knowledge.

4. Does your institution have a planetary health website that centralizes ongoing and past research 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.

There are several web pages containing information relating to health and the environment. This has not yet been centralised.

The SGUL Departments which carry out research on global health issues, including the [Institute for Infection and Immunity](#) (within this, particularly the [Centre for Global Health and the Centre for Global Health Research](#)), the [Population Health Research Institute](#) and the [Institute for Medical and Biomedical Education](#) all have sections on the SGUL website describing their research activities.

In addition, a page on the SGUL main website on '[Environment and Sustainability](#)' provides a brief overview of the relevant policies, procedures, guidance and forms in relation to environment and sustainability at St George's. This will be updated to take account of new developments in sustainability at SGUL. The current page contains some outdated information with statistics from over 10 years ago. This page could be improved further not only by updating the key statistics, but also become a centralized hub for new developments and highlight recent research undertaken within the various research institutes at SGUL. It may even be possible to link information regarding the University's EcoSociety, the Student Union Environment and Ethics Representatives and links to the university joining 'Health Declares' Climate Emergency Declaration.

More up to date information may be found within the news and press releases such as the affiliated St George's Hospital Trust website such as an article on [Delivering Care with Net Zero Emissions through a new system for Cancer Patients](#) and also on [Taking carbon out of the Hospital Menu](#).

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

4	Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

St George's, University of London (SGUL) has not hosted conferences directly on topics related to planetary health in the past three years.

SGUL hosts other meetings on global infectious disease control, including the International Consortium for Trials of Chemotherapeutic Agents in Tuberculosis (INTERTB); an annual symposium on tuberculosis in global health with researchers from all over the world. Organised by Dr Amani Jindani. INTERTB aims to help design and conduct randomised controlled clinical trials to shorten and simplify treatment of tuberculosis (TB) as well as developing a network of clinical trial centres across the world. Results of this research focus include the recent efforts from Dr Ken Laing and Dr Adam Witney of the Infection and Immunity Institute's Pathogen 15 Genomics and Bioinformatics Group, addressing the World Health Organisations (WHO) call to develop a novel diagnostic test for TB, which poses a momentous threat to global health in its controlled transmission and spread.

SGUL in conjunction with the St George's University Hospital Trust has hosted a series of Grand Round lecture/symposium meetings this last year on the topic of sustainability in healthcare and planetary health, the most recent of which was held on 16th February 2023. Although not directly a conference, this series is set to continue and has so far allowed opportunities to showcase research and action taken within the institution and affiliated hospital trust to tackle the important issues surrounding sustainable healthcare - from students' curriculum to waste management on a day-to-day basis on site.

Note: to the best of our knowledge not changed since last year

6. Is your medical school a member of a national or international planetary health or ESH organization?

1	Yes, the medical school is a member of a national or international planetary health or ESH organization
0	No, the medical school is not a member of such an organization

In November 2021, St George's, University of London or St George's Hospital Medical School announced that it has joined with other UK Medical Schools in the ['Health Declares' Climate Emergency Declaration](#) and as a member of [Universities UK](#) will seek to meet the [Universities UK](#)

climate goals. St George's NHS Hospital Trust is only [the second NHS Hospital Trust to achieve the Planet Mark sustainability accreditation](#), achieving at least 2.5% reduction in carbon emissions in one year.

To further improve, St George's could look to join an international planetary health organisation such as the Planetary Health Alliance, UK Health Alliance on Climate Change or the Global Consortium on Climate Change and Health Education

Note: to the best of our knowledge not changed since last year

Section Total (4 out of 17)

4

Back to summary page [here](#)

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

Community Outreach and Advocacy

Section Overview: *This section evaluates medical school engagement in community outreach and advocacy efforts associated with planetary health. Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of 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 <u>medical school</u> partner with community organizations to promote planetary and environmental health?	
3	Yes, the medical school meaningfully partners with multiple community organisations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organisation to promote planetary and environmental health.
1	The institution partners with community organisations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Currently the university is looking at improving in-house curriculum and sustainability within the institution and medical school before extending this to our local community. It is part of the Vision and Strategy 2030 plan. As part of St George's 2030 plan there is a section on our wider commitments as a university institution which states the importance of how the 'climate crisis we are facing has wide-reaching implications for health for everyone'. St George's aims to 'be known for the impact of our research and the difference our community make to the lives of others' and 'be visible and accessible to people living and working across London, working together to drive societal change'.</i></p>	

2. Does your <u>medical school</u> offer community-facing courses or events regarding planetary health?	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.
0	The institution/medical school have not offered such community-facing courses or events.
<p><i>As stated above, the university is looking at improving in-house curriculum and sustainability before extending this out into the local community so as of this time, no community-facing courses or events have been offered. St George's EcoSoc are put on an event called GreenerPractice about embedding</i></p>	

sustainability in primary care which was open to the community due to nature of advertising however it was attended by mainly St George's students.

3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not receive communications about planetary health or sustainable healthcare.

The medical school does not have regular coverage of planetary health care topics however, it is sometimes included in communication updates such as the sustainability pledge (see above Q1).

4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?

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

Within the Global Health BSc and MSc run by St George's, (of which the MSc is targeted specifically to post graduates) there is a session on environmental health within the Global Health Diseases Module. Whilst plans are currently undergoing for future activities for postgraduate students related to planetary health, education has been done about nitrous oxide wastage within obstetrics. The affiliated hospital trust, St George's University Hospitals NHS Foundation Trust also has recently held a series of Grand Round Meetings on Sustainable Healthcare aimed at medical professionals post graduation. This Sustainable Healthcare Grand Round series has included speakers from within the Trust, our institution faculty members at St George's University of London and also healthcare professionals from other local London NHS trusts too.

5. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?

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

During the August 2022 where temperatures surged above 35 degrees, the affiliate hospital, St George's University Hospitals Trust published a press release '[Second summer scorcher set for south London](#)' which contained information on the effects of heat as an environmental health exposure. Additional information on '[Staying safe in the sun](#)' was also published in July 2022. Both of these contain information targeted towards patients and the general public.

Generally however, public health information about climate change and extreme weather falls under the responsibility of the local council; information is provided on the [Wandsworth Borough website \(local borough\) webpage on Climate Change and Extreme Weather](#). This information on public health covers air quality and health, built environment and health, severe weather advice and heatwave advice. However, this information isn't coming from the hospital but rather instead coming from the council which we fall under.

This is the case for most UK based medical schools and their affiliated hospitals as the structure of responsibility from the government is that this information regarding public health falls under the local council, rather than the hospitals and medical institutions themselves.

Despite this, there is interest from students to help produce information for patients about environmental health exposures. This could form a project for students themselves or the Eco Society.

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

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

There is a reason for a lack of this, the responsibility regarding the lack of accessible materials related to global health and environmental health currently comes under the responsibility of the councils and they provide the information there so the hospital does not get any guidance to producing the material. See metric above Q5 for further information relating to this.

Section Total (3 out of 14)	3
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Back to summary page [here](#)

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

Support for Student-Led Planetary Health Initiatives

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

1. Does your medical school or your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the medical school or institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	The medical school or institution encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available and there is no requirement to participate.
0	No, neither the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.
<p><i>There are opportunities for students to apply for a staff-student partnership grant, which is assessed by a panel of staff members who vote to give money to X number of projects a year. The grant has provided a platform for students interested in sustainability / planetary health to run their own project. It has been an effective way of bringing people together with different perspectives and experience together to try and implement changes at the university.</i></p> <p><i>In the past two years there have been two staff-student partnership projects with a sustainability / planetary health focus. The first of these done last year was a project aimed at replacing plastic straws at the student's union bar with paper alternatives. The project being conducted this year is aiming to integrate 5 key sustainable healthcare / planetary health themes into our medical school curriculum. This is turning out to be a huge project involving 12 students and as many staff. There have been some promising results already, with lots of educators engaged in changing the content of their lectures / seminars / exams.</i></p> <p><i>Set up last year, St George's EcoSociety is a student-led society with 80 members this year. Throughout the year it has hosted talks and seminars from academics / clinicians in the aim of trying to raise awareness of many planetary health issues, and to encourage students to get involved in projects and share a variety of resources in these areas.</i></p>	

2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek these out and carry them out in their spare time.

0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.
<p><i>In years 2, 3 and 5 of the MBBS course, students must complete a Student Selected Component as part of their degree. Students are given a wide range of topics to choose from, including sustainability in healthcare and planetary health. This provides students with an opportunity to research into these areas, however they are limited to healthcare related sustainability topics.</i></p>	

<p>3. Does the <u>medical school</u> 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.</p>	
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.
<p><i>There are various other university platforms with sustainability information. Firstly, the student led EcoSociety has a student run Instagram page which acts as a space for advertising talks/seminars/projects related to sustainability and planetary health. This Instagram page also regularly puts out informative posts about small changes that students can make in their everyday lives to live more sustainably e.g. sustainable Christmas decorations, Black Friday, Veganuary.</i></p> <p><i>The university sends out information regarding student-staff partnership grant projects. As mentioned previously, these projects are not limited to sustainability, however, can be utilised in this way. The university sends out emails and has a web page with information about previous projects, and the recent sustainability projects features on this.</i></p>	

<p>4. Does your <u>medical school</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?</p>	
2	Yes, there is a 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 .
0	No, there is not a student organization at my institution dedicated to planetary health or sustainability in healthcare.
<p><i>There is the student led EcoSociety who's aim is to raise awareness about planetary health and sustainable healthcare, and it does by regularly updating students with the latest information and</i></p>	

research on these issues and by organising talks/seminars/events on many topics such as: *The Health impacts of the Climate Crisis, Sustainability in Primary Care, SusQI*. There is also the student led [VegSoc](#) which aims to engage students on the health and environmental benefits of a plant-based diet.

This year, there is a group of 12 students working as part of a [staff-student partnership project](#) to increase the amount of planetary health / sustainability teaching on the medical school curriculum. This project is sparking conversations with educators across all areas of the university to try and increase the teaching they give to students on the climate crisis. This project has several key academic staff who are offering support and guidance. This has received explicit backing from senior executive staff at the university.

The university has an environmental working group that meets every month with many staff across academic, administration, research, managerial sectors. As part of that they have student representatives from the student [EcoSociety](#) present, as they are keen to hear our perspectives. Many staff have expressed their support for the student work, particularly for the climate / planetary health education project. The student's union also has two elected [Environment & Ethics Officers](#) who can offer a student voice at this meeting.

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

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

The university has an environmental working group that meets every month with many staff across academic, administration, research, managerial sectors. As part of that they have student representatives from the student [EcoSociety](#) present, as they are keen to hear our perspectives. Many staff have expressed their support for the student work, particularly for the climate / planetary health education project.

The student's union also has two elected [Environment & Ethics \(E&E\) Officers](#) who can offer a student voice at the environmental working group meeting. The E&E officers ensure that the student union is considering the environmental impact of its work, and they work actively to try and improve the sustainability and ecological profile of all student societies. They are also responsible for promoting sustainable living to students via their social media accounts, making people aware of their impact on the planet.

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)
<i>The Eco society at our university has been able to get involved with seminars this past year.</i>	

Section Total (6 out of 15)	6
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Back to summary page [here](#)

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

Campus Sustainability

Section Overview: *This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive 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
<p><i>The University is looking to create an associate dean role for sustainability and is planning for this post to be advertised later in 2023. The Student Union does have environment and ethics officers. Finally, there is the St. George's Environmental Working Group at the University that has been meeting for the last two years and has lobbied for the University to adopt more sustainable practices in various fields (facilities to finances). It is a 20-member group of students and staff with a designated academic lead and an Estates representative. However, the members of this working group are all volunteers.</i></p>	

2. How ambitious is your institution/medical school plan to reduce its own carbon footprint?	
5	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/medical school has a written and approved plan to achieve carbon neutrality by 2040
1	The institution/medical school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate
0	The institution/medical school does not meet any of the requirements listed above
<p><i>The University has released a 'Strategic Vision for 2030', (full PDF) in which they have recognised the need to work with the St George's University Hospitals NHS Foundation Trust to achieve significant sustainable aims. These include the decarbonisation of the estate and the reduction of type 1 and type 2</i></p>	

emissions. St George's Student Union has also released an Environmental policy that details their intentions and actions towards sustainability, including a plan on responsible use of lighting and equipment.

St George's has signed the [London Higher Sustainability Pledge](#) along with many other London higher education institutes. The pledge details the sharing of impact data, participation in initiatives for collective change and committing to pan-London initiatives for climate change.

The university still works in line with the 'University UK' targets of reducing carbon emissions by 78% by 2035 and achieving net zero by 2050.

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.

St George's, University of London main buildings receive energy through its associated Hospital Trust. Two-thirds of electricity is generated through a gas-fueled combined heat and power system and one-third is provided through the electricity grid. The electricity grid supply is now 97% renewable, and the Halls of Residence (on a separate site) receive 100% renewable electricity. To the best of our knowledge, no developments have been made since last year.

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 sustainability rating system or 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.

St George's University of London shares its campus and site with St George's University Hospital Trust. New buildings within St George's Hospital must be Building Research Establishment Environmental Assessment Method (BREEAM) compliant, listed here in '[The Green Plan](#)' from 2021. [BREEAM is a sustainable procurement plan](#) with guidance on responsible sourcing of building materials and construction products. Existing buildings have not been retrofitted. However, all 33 existing buildings lighting fixtures are being replaced with low energy use bulbs which will reduce energy usage by 80%. To the best of our knowledge, this has not changed since last year.

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 does not currently employ the services of an Environmental Manager and have not got a formal plan for providing environmentally-friendly transportation options for students. However, St George's has invested in an 'Associate Dean for Sustainability' whose role will overlap with sustainable healthcare in the curriculum. This role has been budgeted and advertised and is in the hiring process. St George's has utilised secure [bicycle storage](#) for use by students, thereby promoting bicycle use. There is further information on cycling within the university's [Environment and Sustainability](#) page, with links to further resources - the [Transport for London's guide to cycling](#).

As noted last year, Halls of Residence are within a 15 minute walk from the University, with a shuttle bus available for students as well. There has been no development with regards to the [St George's Hospital Bicycle User Group \(BUG\)](#) as this was a part of the Hospital and not the medical school itself. The Hospital has a [cycle scheme](#) available to staff members.

The location of the campus is shared with and integrated into the hospital site, with the default and easiest method of commuting being public transport for students and staff. There is currently no parking available onsite for students available, except for those with disability needs, making it even more amenable to sustainable forms of transport (walking, cycling and public transport).

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.

On the SGUL [Waste Management webpage](#), there is a summary of the mechanisms of safe disposal of hazardous waste, as well as the provision of recycling bins. In the medical school, the 3-in-1 waste bins are still in place, with the Student Union Bar having special bins for the disposal of liquids. Other containers that can be recycled include yoghurt pots, water bottles and aluminium cans. All general waste goes to a waste to energy site, with nothing going to landfill. There are currently no compost bins that are accessible to students. Hence the score has not changed since last year's metric.

7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
3	Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional . The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<p><i>The University currently lacks any sustainability criteria about the campus food and beverage selection. Currently it just rents spaces to catering companies such as Pret a Manger, companies which then follow self determined sustainability practices. However, it is only fair to mention that the two main caterers within the medical school (Pret a Manger and Peabody's) have their own sustainability guidelines that are quite comprehensive. Both companies run initiatives within the communities they source their food from, within their customers and within their in house practices to increase the sustainability of their business. These practices can be found on their websites.</i></p> <p><i>Within the Student Union bar area, there have been initiatives to switch from plastic straws to paper straws, however we are unaware of further initiatives regarding cups. The Student Union shop is bound by the suppliers chosen by the National Union of Students. I have tried contacting them, but got no response. The staff within the SU shop have adopted small sustainable practices, such as only supplying bamboo cutlery, recycled napkins, and writing staff schedules on reusable materials rather than printing new schedules each week. SGUL has a website dedicated to environment and sustainability where they encourage visitors and students/staff to make sustainable choices, like using reusable cups.</i></p> <p><i>Within St George's Hospital, SGUL's affiliated hospital trust, there have been efforts to take carbon out of hospital menus in line with the NHS pledge to achieve Net Zero by 2040.</i></p>	

8. Does the medical school or institution apply sustainability criteria when making decisions about supply procurement?	
3	Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional . The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.
<p><i>There is no change from 2021-2022, but St George's has a joint procurement strategy with Kingston university. There is a sustainable procurement policy statement included within the strategy that looks</i></p>	

to commit to long term ethical, environmental, social and economic sustainability. There are a checklist of actions detailing how the Universities are committed to sustainable procurement.

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.

To the best of our knowledge, there are no explicit guidelines or requirements for events hosted on St. George's campus. The [St. George's Environment and Sustainability website](#) gives tips on how to act more sustainability on campus.

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.

Yes, the medical school currently takes part in the [Laboratory Efficiency Assessment Framework \(LEAF\)](#) which is a standard set by UCL to improve the sustainability and efficiency of laboratories. LEAF recognises that laboratories are extremely energy and resource intensive. Moreover, they use software which allows University staff to access equipment which can be shared rather than being bought individually. This reduces both cost and waste, making it a sustainable initiative.

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

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

St. George's currently has its funds in the [Cazenove Charity responsible multi-asset fund](#). This fund claims to have a responsible investment policy which integrates environmental, social and governance factors in their selection process. It says it influences companies through engagement and voting to encourage businesses to make more sustainable choices. It supports the Paris agreement, and contributes to solutions to environmental and social needs. The Investment Fund claims to exclude coal and tar sand investments, and investments in other non-sustainable industries such as tobacco and armaments. However, there is no mention that it purposefully does not invest into crude oil. The University has yet to update its new investment policy on its website.

Section Total (18 out of 32)

18

Back to summary page [here](#)

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

Grading

Section Overview

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

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

**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 St George’s, University of London

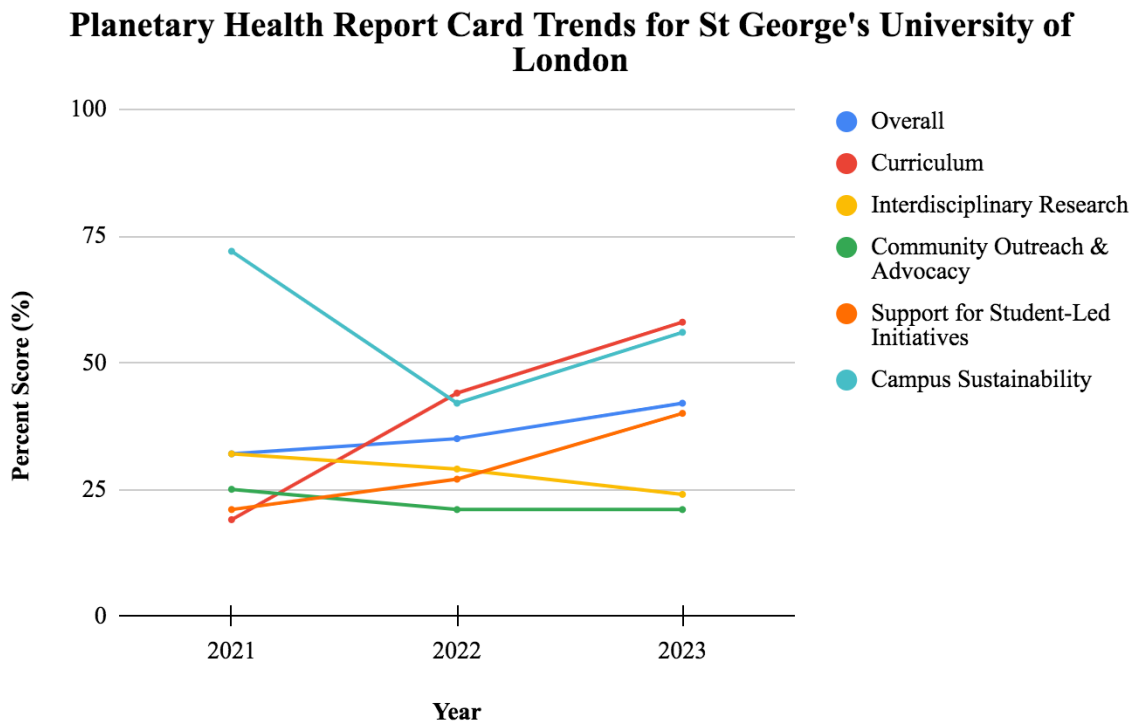
The following table presents the individual section grades and overall institutional grade for the St George’s, University of London on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(42/72) \times 100 = 58.3\%$	C+
Interdisciplinary Research (17.5%)	$(4/17) \times 100 = 23.5\%$	D-
Community Outreach and Advocacy (17.5%)	$(3/14) \times 100 = 21.4\%$	D-
Support for Student-led Planetary Health Initiatives (17.5%)	$(6/15) \times 100 = 40.0\%$	C-
Campus Sustainability (17.5%)	$(18/32) \times 100 = 56.3\%$	C+
Institutional Grade	$(58.3 \times 0.3 + 23.5 \times 0.175 + 21.4 \times 0.175 + 40.0 \times 0.175 + 56.3 \times 0.175) = 42.2\%$	C-

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which St George's, University of London has participated in the Planetary Health Report Card initiative.



Please note the metrics change slightly year on year, impacting what may be perceived as a decrease (or increase), may also be due to more or less criteria to fulfil.