



Planetary Health Report Card (Dentistry): *University of Sheffield*



University of Sheffield

2024-2025 Contributing Team:

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Summary of Findings

Overall Grade	C+
Curriculum	D+
<ul style="list-style-type: none"> The University of Sheffield Dental School does include planetary health within its teaching, however this is not always integrated into the core curriculum and is usually taught due to a member of staff's own volition and interest in the subject. The Dental School has begun to identify ways planetary health content can be integrated into the course more longitudinally through the process of hosting focus groups, and therefore when this information is put into place this will lead to a more well rounded teaching approach on the effects of dentistry on the planet. Recommendations: The Dental School should continue their efforts in implementing planetary health within the core curriculum, and ensuring that learning on the subject of sustainability should be compulsory to all students. In teaching related to the planning of patient appointments, there could be more content on how preventative dentistry is also beneficial for the environment. 	
Interdisciplinary Research	B
<ul style="list-style-type: none"> The University of Sheffield has numerous faculty members who have a primary focus in planetary health. As well as this there is an easy to use website run by the University that centralises all information in relation sustainability, this includes upcoming events such as the annual Sustainability Symposium that is hosted by the University of Sheffield. Recommendations: The University of Sheffield could strive to include a process by which members of all communities could input to the research agenda of planetary health, this would allow members of the public to account the effects of climate change on their lives. Furthermore, the Dental School could provide more opportunities for students to do research or attend talks in relation to Planetary Health in the field of dentistry. As well as this it would be beneficial if the Dental School could become a member of a national or international planetary health organisation, like other schools in the University of Sheffield. 	
Community Outreach and Advocacy	C+
<ul style="list-style-type: none"> The University of Sheffield partners with community organisations to promote planetary health, but this is mainly in regards to the medical school, and not other health related courses. Information is provided to students in regards to issues in planetary health through online newsletters and university wide emails. Recommendations: The Sheffield Teaching Hospitals could provide more patient friendly documents on the relationship between health and climate change. Furthermore, the University itself could provide a more active role in teaching community facing courses or events related to planetary health. 	
Support for Student-Led Initiatives	B-
<ul style="list-style-type: none"> The University of Sheffield supports PhD students in research related to sustainability, and there's support in enacting a sustainability initiative or QI project for students, in particular medical students. Recommendations: The Dental School could provide more information on the topic of sustainability, which could lead to greater interest in student-led initiatives related to planetary health in dentistry. The University of Sheffield could also work to reinstate a student organisation dedicated to planetary health. 	
Campus Sustainability	B
<ul style="list-style-type: none"> The University of Sheffield has an outlined set of sustainability targets that aims to make the University a 	

highly sustainable research intensive institute. The University strives towards these goals by following a regularly updated Sustainability Action Plan.

- **Recommendations:** The Dental School and the wider University could provide guidelines in relation to sustainably hosting events and guidelines in relation to creating more sustainable lab spaces. With set guidelines, this would hopefully lead to greater consideration for the effects certain decisions can have on the environment.

Statement of Purpose

Planetary health is human health.

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

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

With the purpose of increasing planetary health awareness and accountability among health professional schools, we have created a Planetary Health Report Card that students internationally can use to grade and compare their institutions on an annual basis. This student-driven initiative aims to compare health professional schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts 5) school campus sustainability.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional 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.
- **Sustainable Oral Healthcare:** As adopted at the FDI World Dental Federation, in its Sustainability in Dentistry Statement (2017), sustainable oral healthcare is the provision of equitable, ethical, high-quality, inclusive and safe care with appropriate, effective and efficient use of resources. Through this, the healthcare opportunities of current and future generations are respected and protected by actively minimising negative environmental impacts. (*Martin, N., Mulligan, S., Shellard, I.J. and Hatton, P.V., 2022. Consensus on Environmentally Sustainable Oral Healthcare: A Joint Stakeholder Statement. Pp. 7–10. York: White Rose University Press. DOI: <https://doi.org/10.22599/OralHealth.c>. CC BY 4.0*)
- **Environmental Sustainability in Dentistry (ESD).** Learning outcomes for Environmental Sustainability in Dentistry (ESD) have been proposed by Joury et al. (2021) based on a review of the literature and adaptation of current learning outcomes in medical education:
 1. Describe concepts and definitions of climate change, carbon footprint and sustainability
 2. Discuss the importance of environmental sustainability for the health of patients
 3. Discuss the carbon hotspots of dentistry and how these can be modified
 4. Evaluate the overall environmental impact of clinical dentistry and how this can be improved through innovation.
 5. Appraise how future healthcare professionals can help shape a sustainable healthcare system, and the knowledge and skills (such as leadership), change management and co-production that they will require.
 6. Evaluate current literature and participate in research on sustainability in dentistry.
- **Dentistry School/Department vs. Institution:** When “dentistry school” is specified in the

report card, this only refers to curriculum and resources offered by the School/department of dental medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by dental students, no matter where in the institution the resource comes from or if it is specifically targeted for dental students, can meet this metric.

- **Environmental history:** This is a series of questions students are taught to ask during medical encounters that elicits patients’ exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word “elective” refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to taught material that is delivered to the entire cohort of students in one year.
- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.

- **Extractivism:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.
- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.
- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.
- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.
- **Anthropogenic:** Created through human activity
- **Marginalised communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

- If there are more than one “tracks” at your institution with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples). Where possible please indicate the proportion of students that are on each track.

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

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your <u>dental school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare (ESH) / Environmental Sustainability in Dentistry (ESD) or Planetary Health in the last year?	
Yes, the dental school has offered more than one elective whose primary focus is ESH/ESD/planetary health in the past year. (3 points)	
Yes, the dental school has offered one elective whose primary focus is ESH/ESD/planetary health in the past year. (2 points)	
The dental school does not have any electives whose primary focus is ESH/ESD/planetary health, but there are one or more electives that include a lecture on planetary health. (1 points)	
No, the dental school has not offered any electives on planetary health or electives that include ESH/ESD/planetary health topics in the past year. (0 points)	
Score Assigned:	2
<p><i>Score explanation:</i></p> <p>The dental school does not offer selective modules for students to choose from, as all students study the same themes of information, however sustainability is included within the material that is pre-outlined that students will learn. Students are also informed that when deciding on what to do in their elective, they should consider the effects of travel on their carbon footprint. Furthermore, students are advised that their elective proposal can be relatively broad, and therefore a topic such as sustainability could be chosen however this is not explicitly said. This is carried out in semester 2 and 3 of 4th BDS and is briefly discussed within semester 1 elective preparation lectures of 4th BDS. It can also be found in the pre-elective guide provided to 4th BDS in the elective theme. There is also the option to complete the FDI World Dental Federation 'Sustainability in Dentistry' MOOC. This three hour course enables students to have a better understanding of the effects clinical practice can have on the environment and so students can better “understand the importance of sustainable practices and their own role in championing environmental responsibility within dentistry.” Although not created directly by the University of Sheffield, many of Sheffield’s Dental School clinical staff were involved in the creation of the MOOC, and this was then shared with all students studying at the dental school in any capacity.</p>	

Curriculum: Environmental Threats to the Planet

1.2. Does your dental school address the concept of climate change, its causes and its impacts on humankind and biodiversity?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: The topic of climate change is very briefly mentioned in lectures in regard to how humans impact the environment through overuse of resources. Examples of lectures containing some information regarding climate change are the materials lectures in the 2nd BDS theme of BODC (basic oral and dental care). It is then again mentioned across the materials lectures in the 4th BDS theme of ICP (integrated clinical practice). As previously mentioned, the optional [FDI World Dental Federation 'Sustainability in Dentistry' MOOC](#) (created with the help of teaching staff at Sheffield Dental School) addresses the topic of climate change in depth, covering topics such as: greenhouse gases, the impact of dental practices on the environment (including waste management) and the effects of travel for treatment on the planet. There was not necessarily a focus on the effects on populations but rather a focus on the environment as a whole.

1.3. Does your dental school address the concept of pollution, its causes and its impacts on humankind and biodiversity?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: There is some mention in 2nd BDS materials lectures of mercury vapour/amalgam products present during the placement/removal of amalgam restorations, and their effect on the environment and how to dispose of it correctly is also briefly covered in 1st BDS. However, this is only very superficial knowledge, it is more discussed in relation to effect on humans rather than on the environment. We have had focus groups which have the aim of highlighting deficiencies in knowledge regarding sustainability and pollution with the aim of modifying the course curriculum.

1.4. Does your dental school curriculum address environmental citizenship, the impact of human choices and current and emerging environmental actions?

This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework or other learning experiences (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	1
<p><i>Score explanation:</i> This teaching is still not integrated into the core curriculum however, it does often get taught by some members of staff in lectures and flipped learning sessions before clinics, this is not formal teaching and therefore not every student receives this information. More sustainability related content is becoming available, however this is not integrated into the course and is studied due to a students own volition. Teaching staff have also hosted focus groups with the aim of highlighting deficiencies in knowledge regarding sustainability and pollution with the aim of modifying the course curriculum.</p>	

Curriculum: Health Effects of Climate Change

1.5. Does your <u>dental school</u> curriculum address the impacts of climate change, air pollution and extreme weather events (extreme heat) on <u>individuals' general health</u>?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework or other learning experiences (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	0
<p><i>Score explanation:</i> This is not currently covered in the course curriculum or in extra learning resources.</p>	

1.6. Does your <u>dental school</u> curriculum explore potential links or associations between <u>oral health</u> outcomes and climate change?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework or other learning experiences (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	1

Score explanation: The effects of climate change on oral health isn't covered in the core curriculum, however this is included in other promoted learning experiences through the optional FDI Sustainability in Dentistry Course.

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

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

1

Score explanation: The impact of climate change on the changing patterns of infectious disease is not included in the core curriculum, however the optionally undertaken FDI Sustainability in Dentistry Course does cover this topic briefly.

1.8. Does your dental school curriculum address the impact of anthropogenic and/or industry-related environmental toxins on human health?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: There continues to be a significant amount of teaching on evidence based best practice in terms of use and impact of fluoride on children, we also are taught about the potential negative effects of using mercury in pregnant and young patients. The environmental effects of conscious sedation (Nitrous Oxide) are also discussed in detail and are examined in the curriculum; however, disproportionate impact is not necessarily addressed in these lessons as the focus is more on overall impact. As previously mentioned, the impact of several appointments and patients travelling is also discussed throughout the course and on clinics as being a major contributor to climate change and that reducing the number of appointments needed / being more efficient with appointments can lead to a reduced environmental impact.

1.9. Does your dental school curriculum address the outsized impact of climate change, pollution & anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

0

Score explanation: Teaching currently focuses on general impacts rather than population specific marginalised populations.

Curriculum: Sustainability

1.10. Does your dental school curriculum address the concept of environmental sustainability?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

1

Score explanation:

Teaching of sustainability continues to focus on being cost effective in the use of dental materials rather than environmental in most cases. It is also highlighted in the elective (year 4 semester 2) handbook that our projects should aim to be sustainable, and encourages undertaking sustainability as a topic for our final elective project. Furthermore, with many members of Sheffield teaching staff contributing significantly to the development of the FDI World Dental Federation 'Sustainability in Dentistry' MOOC, students were advised to take this opportunity for extra learning. This teaching includes topics such as circular economy and the importance of environmental sustainability in oral healthcare.

1.11. Does your dental school curriculum address the concept & importance of sustainable healthcare?

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

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

This topic was covered in elective coursework or other learning experiences (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	1
<i>Score explanation:</i> There is no mention of any concepts of sustainable healthcare within the core curriculum. However, focus groups were undertaken in order to attain from students how best we felt that sustainability could be integrated into our course and examined in formal assessments. Furthermore, addressing the importance of sustainability in healthcare is the core message in the optional FDI Sustainability in Dentistry course that students can decide to take part in.	

1.12. Does your <u>dental school</u> curriculum address the carbon footprint of healthcare systems?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework or other learning experiences (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	1
<i>Score explanation:</i> This is not something that is currently addressed in the dental school curriculum, however this is covered in detail in the FDI Sustainability in Dentistry optional course. This teaching explores the concept of a carbon footprint, the impact of the dental healthcare system on it, and strategies to reduce its environmental footprint.	

1.13. Does your <u>dental school</u> curriculum address the concept & importance of <u>sustainable oral healthcare</u>?	
This topic was explored in depth by the core curriculum. (3 points)	
This topic was briefly covered in the core curriculum. (2 points)	
This topic was covered in elective coursework or other learning experiences (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> Throughout the course, mentions of sustainable healthcare are mentioned and highlighted mostly with regards to sustainable packaging and disposal. In terms of major impacts to the environment, there isn't necessarily a large amount of teaching on this subject.	

1.14. Does your dental school curriculum address the environmental impact of oral healthcare systems and interventions?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

1

Score explanation: Some lecturers discuss reducing patient travel by creating efficient treatment plans that require patients to come in less, by grouping clinical work that can be undertaken in one session. Furthermore, the importance of prevention is continually taught throughout the course, with some tutors linking the effect this can have on the environment due to reduced need for patients to visit the dentist.

1.15. Does your dental school curriculum address the importance of measuring the environmental impact of oral healthcare to identify & reduce contributing factors?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

1

Score explanation: The dental school does not currently give teaching on measuring the impact of oral healthcare on the environment, however this is mentioned in the FDI Sustainability in Dentistry optional course.

Curriculum: Sustainability through Good Oral Healthcare

1.16. Does your dental school curriculum address the importance of promotion of good oral health and preventive care in the delivery of sustainable oral healthcare?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

1

Score explanation: At Sheffield, prevention is seen as one of the factors in providing efficient and ethical healthcare for the patients. The course delivers content throughout the entirety of the degree which in the core curriculum always builds on health promotion and prevention but not in the context of sustainable oral healthcare. However, in the optional FDI Sustainability in Dentistry course good oral hygiene and preventive care are mentioned as cornerstones in delivering sustainable oral healthcare.

1.17. Does your dental school curriculum address the environmental significance of delivery of high-quality (operative care) oral healthcare?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

1

Score explanation:

Clinical teachers at the University of Sheffield have led research on the effects of sustainable oral healthcare. (Reference: Martin N, England R, Mulligan S. Sustainable Oral Healthcare: A Joint Stakeholder Approach. Int Dent J. 2022 Jun;72(3):261-265. doi: 10.1016/j.identj.2022.02.008. Epub 2022 Mar 29. PMID: 35365320; PMCID: PMC9275086.) This research highlights the importance of delivering high-quality care to reduce the need for recurrent visits due to failed treatment, therefore reducing the environmental burden of dentistry on the planet; however, this isn't necessarily directly taught in the content we receive but rather discussed in clinics we have.

1.18. Does your dental school curriculum address the environmental significance of 'integrated oral care'?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: Throughout the 5 year course, teaching continues to establish the importance of efficient use of patient appointments, this includes teaching the correct way to structure a treatment plan to avoid waste. In this teaching it is outlined that there is great importance to stabilising someone's gingival health before providing permanent restorations in most cases.

1.19. Does your dental school curriculum address the importance, environmental & oral health outcomes of individual & dental team's ownership of care?

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

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

This topic was covered in **elective coursework** or **other learning experiences** (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

Score explanation: The Dental School continues to teach about the importance of continual professional development in terms of delivering good outcomes for patients rather than taking environmental benefits into account. However, in Clinical Governance lectures found in 4th and 5th year of the BDS course it is outlined the importance of critical reflection on outcomes of an appointment, which with better outcomes means less clinical time and resources down the line for patients and therefore fewer wasted materials. The Dental School usually provides at least 1 CPD lecture on environmental sustainability each year.

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

Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)

Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points)

No, there are **no** strategies introduced for having conversations with patients about climate change. (0 points)

Score Assigned:

0

Score explanation:

This is not covered in the core curriculum.

Curriculum: Administrative Support for Planetary Health

1.21. Is your dental school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/Environmental Sustainability in Dentistry (ESD)/Planetary Health education?

Yes, the dental school is currently in the process of making **major** improvements to ESH/ESD/planetary health education. (4 points)

Yes, the dental school is currently in the process of making minor improvements to ESH/ESD/planetary health education. (2 points)	
No, there are no improvements to Planetary Health education in progress. (0 points)	
Score Assigned:	2
<i>Score explanation:</i> There continue to be plans to assess sustainability of each clinical session we have through a scoring system designed by the university however, this is still yet to be implemented. Focus groups on how to integrate environmental sustainability in dentistry have taken place with student engagement. From these sessions proposed changes to teaching and examinations were made with hopes to be implemented in future years.	

1.22. How well are the aforementioned planetary health/Education for Sustainable Healthcare/Environmental Sustainability in Dentistry (ESD) topics integrated longitudinally into the <u>core</u> curriculum?	
Planetary health/ESH/ESD topics are well integrated into the core dental school curriculum. (6 points)	
Some planetary health/ESH/ESD topics are appropriately integrated into the core dental student curriculum. (4 points)	
Planetary health/ESH/ESD is not integrated and is primarily addressed in (a) standalone lecture(s) . (2 points)	
There is minimal/no education for sustainable healthcare. (0 points)	
Score Assigned:	2
<i>Score explanation:</i> Currently, this is an area the dental school is looking into improving with discussions with students and also through the use of this PHRC to aid in directing what is to be included into the content within the course.	

1.23. Does your <u>dental school</u> appoint a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
Yes , the dental school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No , the dental school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> There are currently no appointed members of staff that specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme	

throughout the course, however there are several members of staff that have an interest in the subject and are actively trying to incorporate the importance of sustainable healthcare in dentistry into the course.

Section Total (26 out of 70)

37.14%

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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your institution?

Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)

Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)

There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)

No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)

Score Assigned:

3

Score explanation: [Dr John G. Richmond](#) is a lecturer within the School of Medicine and Population Health whose area of research focuses on exploring “the resilience of healthcare organizations in response to extreme events. This includes... extreme weather caused by climate change”. He also founded an international network of researchers to explore Health System Resilience for Extreme Weather Emergencies. Furthermore, [Professor Nicolas Martin](#) includes sustainability in dentistry as one of the three key domains of his research, specifically focusing on the environmental impact of materials used in dentistry, remote clinical consultations, and embedding sustainability into undergraduate curricula.

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?

There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)

There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)

There is an Occupational and Environmental Health department , but no interdisciplinary department or institute for planetary health research. (1 points)	
There is no dedicated department or institute. (0 points)	
Score Assigned:	3
<i>Score explanation:</i> The Sheffield Centre for Health and Related Research is an interdisciplinary research centre. One of their research themes is ' Global Health and Environment ,' which explores "health system resilience for extreme weather emergencies, the effects of climate change on physical and mental health, health system sustainability initiatives, and the inequalities and marginalisation of communities adversely affected by extreme weather".	

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?	
Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda. (3 points)	
Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda. (2 points)	
No , but there are current efforts to establish a process for community members to advise or make decisions on the research agenda. (1 points)	
There is no process, and no efforts to create such a process. (0 points)	
Score Assigned:	0
<i>Score explanation:</i> During Sheffield's Urbanism's Winter Programme, the subject of urbanisation exacerbating rising temperatures and its disproportionate effect on certain communities was mentioned. As part of this, it was acknowledged that climate governance platforms must ensure that "solutions meet the needs of the most vulnerable". However, there are currently no efforts to establish a process for community members to advise or make decisions on the research agenda.	

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?	
There is an easy-to-use, adequately comprehensive website that centralises various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)	
There is a website that attempts to centralise various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)	
The institution has an Office of Sustainability website that includes some resources related to health and the environment. (1 point)	

There is no website. (0 points)	
Score Assigned:	2
<p><i>Score explanation:</i> The University of Sheffield has multiple websites. The Sustainability at Sheffield website includes information on the environmental impact of the university, its sustainability strategy, recent progress the university has made with regards to sustainability, current research into sustainability, and opportunities for students to study courses in which this is a focus. The section on research into sustainability includes some researchers studying subjects relating to health and the environment, but there is no section on the website that is specifically dedicated to this subject. Another website is the Centre for Energy, Environment and Sustainability (CEES), which focuses on centralising ongoing and past research related to the environment. The information included on CEES demonstrates the wide range of research related to this topic, one example being the the ‘Promoting Environmental Sustainable SMEs (PrESS) Project’ which focuses on educating businesses on the environmental impact of their supply chain, and another being ‘The Big Energy Upgrade’ which focuses on understanding how houses can be made more energy efficient. A hub of information on what the University is doing in terms of planetary health can also be found online, this page provides information on how the Faculty of Health is including planetary health in its teaching.</p>	

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?	
Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)	
Yes, the institution has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)	
Yes, the institution has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)	
The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)	
No, the institution has not hosted a conference on topics related to planetary health in the past three years. (0 points)	
Score Assigned:	3
<p><i>Score explanation:</i> The University of Sheffield hosts an annual Sustainability Symposium, which includes topics related to sustainability and health. For example, in 2024 the symposium included the talk “Air Pollution - In Conversation”, in which Rosamund Adoo-Kissi-Debrah told the story of how her daughter became the first person in the world to have air pollution listed as a cause on her death certificate, followed by a discussion on the impact of air pollution within Sheffield and how this contributes towards health inequalities.</p> <p>Furthermore, in September 2024, the University of Sheffield hosted a Sustainability Away Day, which gathered academics and university staff members to discuss sustainability issues, including improving sustainable practices within laboratories and education for sustainable healthcare (ESH). This included a talk from Professor Nicolas Martin, on sustainability in dentistry.</p>	

2.6. Is your institution a member of a national or international planetary health or ESH/ESV organisation?

Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)

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

Score Assigned:

1

Score explanation: Sheffield School of Medicine and Population Health is a member of the [Planetary Health Alliance](#), and the [Global Consortium on Climate Change](#). However, Sheffield School of Dentistry isn't a member of these organisations.

Section Total (12 out of 17)

70.59%

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Community Outreach and Advocacy

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

3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?	
Yes, the institution meaningfully partners with multiple community organisations to promote planetary and environmental health. (3 points)	
Yes, the institution meaningfully partners with one community organisation to promote planetary and environmental health. (2 points)	
The institution does not partner with community organisations, but has participated in community focused events relating to planetary health. (1 point)	
No, there is no such meaningful community partnership. (0 points)	
Score Assigned:	3
<p><i>Score explanation:</i> Both the medical school and the wider university partner with multiple organisations that promote sustainability and planetary and environmental health. The medical school works closely with the primary care sustainability group ‘Greener Practice.’ Third year medical students can choose to take part in the Greener Practice SSC, in which they use the Green Impact for Health Toolkit to promote sustainability within general practices and encourage participation from an increasing number of practices each year. Phase 2b medical students also have opportunities to work with community organisations promoting planetary and environmental health during their 4 week Social Accountability SSC.</p>	

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

Score Assigned:	3
<p><i>Score explanation:</i> Each year, the medical school partners with Schools Climate Education South Yorkshire to deliver teaching sessions to local school children about the health impacts of climate change. The University of Sheffield also hosts internal events aimed at students and staff relating to sustainability, such as an event focusing on sustainability within the arts and humanities, or a talk about sustainability by the students Amnesty Society.</p>	

3.3. Does your <u>institution</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to some courses . (1 point)	
Students do not receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	1
<p><i>Score explanation:</i> The University of Sheffield has an online sustainability newsletter, which sometimes includes planetary health topics, such as information on recent publications from academics at the university relating to planetary health. However, this is not routinely sent to all students across the institution, so would require them to seek out this information. Infrequently university wide emails will also include information on planetary health.</p>	

3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
Yes, the institution or main affiliated hospital trust offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)	
Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)	
There are no such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	1
<p><i>Score explanation:</i> The University of Sheffield offers a number of CPD courses for postgraduates. One of these, ‘Human Nutrition in the Global South’ studies “the broad range of factors that influence food intake and nutritional status, e.g.... climate change and global food systems”. As well as this, the Sheffield Health and Social Care NHS Foundation Trust has identified that</p>	

provision of CPD training on sustainability is a priority, but as yet no further CPD courses relating to sustainability have been created.

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

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

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:

0

Score explanation: The Sheffield Health and Social Care NHS Foundation Trust have produced a document on their [Green Plan and Sustainability Strategy](#), however this document is more of a sustainability mission statement rather than a form of health education. This document outlines that climate change and pollution ‘will exacerbate existing health inequalities’, with the effects of air pollution being ‘linked to 500 deaths a year in Sheffield’. This document is easily accessed online, however isn’t tailored for the ease of reading for a patient. It would be useful to have a shortened document for patients, with information summarised about environmental health exposures.

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

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

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:

0

Score explanation: As with metric 3.5, The Sheffield Health and Social Care NHS Foundation Trust have produced a document on their [Green Plan and Sustainability Strategy](#), however this document is more tailored as a mission statement rather than a piece of patient education material. Therefore, it would be useful if this information could be summarised for the ease of patients reading and gaining the relevant information about the health impacts of climate change. The document does outline that some health impacts may be due to ‘heatwaves, worsened cold weather, storms and floods’.

Section Total (8 out of 14)

57.14%

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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your **institution** offer support for students interested in enacting a sustainability initiative/QI project?

Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)

The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)

No, the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

2

Score explanation: Sustainable QI is a part of the core curriculum of Sheffield Medical School. During the Phase 3b Community and Palliative Care rotation, all students must perform a QI audit project within a GP practice. As part of this, students are required to consider the sustainability impacts of their recommendations, and this forms part of the marking criteria for this project. Additionally, in Phase 4, the lecture ‘SusQI’ explains in great depth the rationale and methods involved in sustainable QI, and students are given the opportunity within the lecture to practise considering sustainability issues that they can incorporate into future QI projects. There are also opportunities to take part in sustainable QI during SSCs, such as the Phase 3a Greener Practice SSC, in which students use the Green Impact for Health Toolkit to enact sustainable QI within general practices. Furthermore, 2023/2024 marked the 15th year of the [Green Impact](#) programme at Sheffield. This programme aims to support the implementation of sustainable practices by both staff and students.

4.2. Does your **institution** offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?

The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)

There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time. (1 point)

There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Assigned:	1
<p><i>Score explanation:</i> Fourth year medical students can choose to undertake an intercalation year where students are given the opportunity to do research. This can include planetary health topics, such as climate change as a public health issue, the link between climate change and human nutrition, and climate change in the context of international development. However, these are unfunded and not necessarily the primary focus of the research. As well as this, as part of the Grantham Centre for Sustainable Futures Scholars Programme at the University of Sheffield, PhD students are supported in research related to sustainability.</p>	

<p>4.3. Does the <u>institution</u> have a web page where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the institution and/or contact of information of potential mentors.</p>	
<p>The institution has a web page with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)</p>	
<p>There is an institution web page that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)</p>	
<p>There is no institution specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)</p>	
Score Assigned:	1
<p><i>Score explanation:</i> There is a page on the University of Sheffield School of Clinical Dentistry website dedicated to Sustainable Dentistry and lists the relevant researchers within the department with their contact details. However, there is not much extra information on here except for the staff contacts. The University itself has a page on 'Sustainability at Sheffield' which has a section on the UN Sustainable Development Goal of 'good health and wellbeing' that has some mention of activities that relate to planetary health/sustainable healthcare such as a social accountability project for medical students at Heeley City Farm.</p>	

<p>4.4. Does your <u>institution</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?</p>	
<p>Yes, there is a student organisation with faculty support at my institution dedicated to planetary health or sustainability in healthcare. (2 points)</p>	
<p>Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it lacks faculty support. (1 point)</p>	

No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	0
<p><i>Score explanation:</i></p> <p>As of this year, there is no longer a student society specifically dedicated to planetary health or sustainability in healthcare. There was previously a student society with this focus - Healthy Planet Society - but due to lack of student engagement in recent years, it has ceased its activities. Other student groups, such as Students for Global Health, have hosted events linked to Planetary Health but sustainability is not the main focus of this society.</p>	

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
<p><i>Score explanation:</i> The University of Sheffield has a Welfare and Sustainability Officer, whose role includes advocating for sustainability best practices within the university.</p>	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1

Score explanation: The University of Sheffield's Students Union continues to provide a plethora of societies with some targeting skills in organic agriculture and sustainable food systems. The [Beekeeping Society](#) continues to play a vital role in teaching students and local residents about the importance of wildlife and the importance of bees in pollination, whilst 'also campaigning for their conservation'. As of 2024, the society now owns three bee hives. Furthermore, the [Allotment Society](#) continues to teach students the skills of 'grow[ing] food, herbs and flowers'. Both societies are welcoming to people of all levels of experience in the field of organic agriculture and sustainable food systems, and are either free or of very low entrance costs making them more accessible for all.

In 2024 the University of Sheffield hosted a sustainability symposium, where a range of speakers covered topics such as air pollution and the impact of a low carbon footprint. A recording of the whole event can be found on the [Grantham Centre for Sustainable Futures](#) webpage that gives a summary of topics covered.

The Sheffield University Conservation Society offers regular volunteering opportunities such as litter picking along rivers and tree planting. As a group they are continually open to new suggestions from members on what else they can do to reduce the impacts of anthropogenic actions on the environment. More information on the society can be found on the Student's Union [website](#). Furthermore, there are numerous societies whose main activities include outdoor pursuits. Some examples include the [Sheffield University Walking Club](#) and the [University of Sheffield Canoe Club](#). Within the medical school specifically, [Wilderness Medicine Society](#) conducts multiple weekends away hiking and teaching students about provision of healthcare in remote settings.

Section Total (9 out of 15)	60%
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Campus Sustainability

Section Overview: This section evaluates the support and engagement in sustainability initiatives by the institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our dental schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.

5.1. Does your <u>institution</u> have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of hospital sustainability. (2 points)	
There are no salaried sustainability staff , but there is a sustainability task force or committee. (1 point)	
There are no staff members or task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	3
<p><i>Score explanation:</i> The University has a large team of sustainability personnel whose work is embedded across the university. Roles cover a range of different areas, such as communications and projects, energy, waste and transport. Each sub group within the sustainability team has at least one lead manager, for example there is a Sustainable Labs Manager and a Car Parking and Sustainable Travel Manager. All roles and contact details of the staff involved can be found on the Sustainability at Sheffield website. Furthermore, Rachel Morris is the Head of Sustainability for the Sheffield Teaching Hospitals NHS Foundation Trust.</p>	

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?	
The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)	
The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)	
The institution has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate (1 point)	
The institution does not meet any of the requirements listed above (0 points)	
Score Assigned:	3

Score explanation: The University of Sheffield continues to work towards their targets of being a carbon neutral campus by 2030 and to be completely net zero in all affiliated activities by 2038. The University outlines that “[they] aim to become one of the most sustainable research-intensive universities in the country and reach net-zero carbon emissions as quickly as possible.” This is all outlined on the Sustainability at Sheffield [Targets](#) website and progress on specific actions is marked on the [Sustainability Action Plan](#).

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?

Yes, institution buildings are **100%** powered by renewable energy. (3 points)

Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)

Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)

Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)

Score Assigned:

1

Score explanation: The University of Sheffield purchases its electricity from Bryt Energy, a 100% renewable energy supplier. Furthermore, there are also a number of on-site renewable energy sources, including solar panels and a wind turbine. The medical school building itself is attached to the Royal Hallamshire Hospital, which is run by the Sheffield Teaching Hospitals Trust. As a result of this, the medical school facilities - including energy - are all rented from the hospital. The electricity used by the hospital is also from a [zero-carbon electricity tariff](#), but the hospital has not yet switched to non-fossil fuel heating. Based on figures from 2021, heating accounted for roughly half of the medical school’s energy use.

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

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

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

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

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

Score Assigned:

2

Score explanation: The University of Sheffield's new building called the [Wave](#) was recently awarded an Outstanding BREEAM accreditation, which is the highest sustainability accreditation awarded. This is due to several factors including the use of sustainable materials, and all operations relating to the building being designed to be net-zero. As from previous years, the University's [Sustainability Action Plan](#) continues to include metrics related to the construction and retrofitting of buildings, including embedding sustainability criteria into the decision making for new buildings and major refurbishments. Currently, only some of the University's older buildings have been retrofitted, with "some existing buildings with suitable structures have been retrofitted with [green roofs](#)." More information on the topic of sustainable building practices can be found on the [Sustainability at Sheffield - Buildings and Infrastructure website](#).

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

Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)

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

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

Score Assigned:

1

Score explanation: The University of Sheffield incentivises staff and students to engage in active travel through the use of the app '[Better Points](#)', which gives students who engage in active travel a digital currency that can be spent at University of Sheffield catering outlets, redeemed for high street vouchers, or donated to charity.

The medical school also supports sustainable travel with the H1 bus, which runs between the two major hospitals within Sheffield, the Royal Hallamshire Hospital (within short walking distance of the dental school) and the Northern General Hospital. This bus is free for NHS staff and University of Sheffield students, so it is frequently used by students who have teaching - especially during the third year integrated human disease course - at the Northern General Hospital. There were also plans to implement similar shuttle bus schemes to the other major placement sites (in Rotherham, Barnsley, Chesterfield, and Doncaster), but these plans were put on hold due to the COVID-19 pandemic. The Doncaster and Bassetlaw Teaching Hospitals Trust has been actively considering implementing a shuttle bus between Sheffield and Doncaster, with a consultation sent out to students in 2024 to determine how well used it will be. It is hoped that this shuttle bus will be introduced for students from autumn 2025. However, until that happens, the vast majority of students on clinical placements continue to rely on private cars to reach placement sites.

5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?

Yes, the institution has both compost and recycling programs accessible to students and faculty. (2 points)	
The institution has either recycling or compost programs accessible to students and faculty, but not both. (1 point)	
There is no compost or recycling program at the institution. (0 points)	
Score Assigned:	1
<p><i>Score explanation:</i> The Medical School's waste continues to be handled by the Sheffield Teaching Hospitals, aside from more specialist waste such as chemicals and computers. The trust does have a conventional recycling programme in place. The Sheffield Teaching Hospitals Waste Management Policy (EST 002 V7 August 2024) details how food waste recycling has been trialled in 3 sites (as of 2023/24) where food waste is segregated and collected weekly and is intending to extend this scheme to other patient sites. Therefore, currently some food waste recycling is happening, but is not widespread within the teaching hospitals and so is not necessarily accessible to students and faculty everywhere.</p> <p>The University has a statement on how they manage waste each year, which can be found on their Estates and Facilities Management website. It details the tonnes of waste recycled and composted, however it appears to have last been updated for the year 2021/22. It also details how different types of waste are separated out on campus and contracted out for recycling by specialists. This includes food waste and conventional mixed recycling. There is planned work to introduce infrastructure to ensure outlets direct food waste to the most sustainable disposal method.</p>	

5.7. Does the <u>institution</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
Yes, the institution 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. (3 points)	
There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is engaged in efforts to increase food and beverage sustainability. (2 points)	
There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is not engaged in efforts to increase food and beverage sustainability. (1 point)	
There are no sustainability guidelines for food and beverages. (0 points)	
Score Assigned:	2
<p><i>Score explanation:</i></p> <p>The Sustainability Action Plan, outlined by the University of Sheffield, states how unused food is directed to community fridges for students and community food charities in order to reduce food waste. (2021). Measures have been put in place as of 2023 to discourage the use of packaging and cutlery from catering outlets and introduced incentives for this. However, there are currently no mandatory rules for this. The campus also has a zero-waste shop in the Students' Union. However, there is still much progress to be made, as many of the metrics relating to food and within the University's Sustainability Action Plan have yet to be completed.</p>	

Sheffield Teaching Hospitals has an [NHS Sustainability Plan](#) for 2022-2025 with a section on 'Food and Nutrition'. This details short and longer term goals towards sustainable food within the hospitals and sustainable options to eliminate single use plastics associated with this. It shows commitment to applying sustainability criteria to food, but is at the stage of encouraging this as opposed to mandatory rules. The Medical School continues to use the University's sustainability criteria to direct what food and beverages to source, this includes continuing to promote sales of sustainable foods through nudge mechanisms.

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

Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)

There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:

2

Score explanation: The University of Sheffield has all suppliers follow a code of conduct to ensure that procurement is an 'environmentally, socially, ethically and economically responsible' practice. The standards set out by the University follow guidelines advised at global conventions, an example of a rule that must be followed by procurers is that they must 'take active steps towards the elimination of excessive packaging and single use plastics'. The [code of conduct](#) outlined by the University was due for an update in early 2024, however this couldn't be found on the institute's website page. Using the University's [Sustainability Action Plan](#), it seems many goals still remain incomplete. Over half of the sustainability metrics relating to procurement remain to be incomplete, a statistic similar to the previous year.

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?

Every event hosted at the institution **must** abide by sustainability criteria. (2 points)

The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required**. (1 point)

There are **no** sustainability guidelines for institution events. (0 points)

Score Assigned:

1

Score explanation: When selecting a venue for an event hosted at the University of Sheffield, there are a set of [guidelines](#) available for what should be considered. However, none of the outlined

guidelines were linked to possible effects on the environment from hosting an event at a certain location.

5.10. Does your institution have programs and initiatives to assist with making lab spaces more environmentally sustainable?

Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)

There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)

There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

Score Assigned:

2

Score explanation: The University of Sheffield has piloted the [Laboratory Efficiency Assessment Framework \(LEAF\)](#) across various faculties and has now begun to implement it more broadly across the University. This framework provides practical actions to labs to increase the efficiency of their resource use, resulting in lower use of lab consumables, electricity, and water, as well as safer lab practices. Furthermore, the Green Impact scheme includes a lab-specific section. As a result, some departments include their own Green Impact Teams, which provide regular updates with practical information to enable staff and students to reduce their lab's impact.

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

The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)

The institution is **entirely divested** from fossil fuels. (3 points)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)

Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

Score Assigned:

3

Score explanation: The University [invests](#) no funds into any companies ‘involved in the extraction of fossil fuels’. This has been a policy that the University has had in place since 2015. The University instead aims to invest ‘its funds on a socially responsible bias’. More information on this matter can be found on the [University’s Freedom of Information - Annual publication of Endowment Investment Funds](#) webpage in regards to the relevant year. Furthermore, the University ensures that all investment managers must consider whether investments made are sustainable or for the greater good of the communities affected by these decisions. For example, the University’s funds should aim to promote sustainable and ethical business practices. More information can be found on the [Sustainability at Sheffield - Divestment](#) webpage.

Section Total (21 out of 32)

65.63%

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Grading

Section Overview

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

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

Planetary Health Grades for the University of Sheffield School of Dentistry

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(26/70) \times 100 = 37.14\%$	D+
Interdisciplinary Research (17.5%)	$(12/17) \times 100 = 70.59\%$	B
Community Outreach and Advocacy (17.5%)	$(8/14) \times 100 = 57.14\%$	C+
Support for Student-led Planetary Health Initiatives (17.5%)	$(9/15) \times 100 = 60\%$	B-
Campus Sustainability (17.5%)	$(21/32) \times 100 = 65.63\%$	B
Institutional Grade	$(37.14 \times 0.3 + 70.59 \times 0.175 + 57.14 \times 0.175 + 60 \times 0.175 + 65.63 \times 0.175) = 55.48\%$	C+

Report Card Trends

Section Overview

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

