

Planetary Health Report Card (Medicine):

Manchester University



The University of Manchester

2024-2025 Contributing Team:

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Summary of Findings

B

A-

Overall Grade

Curriculum	C+
 The University of Manchester's planetary health curriculum remains broadly unchanged from w out in the 2023-24 report. One off mandatory lectures on the topic are held early in student's me education with the majority of planetary health learning coming from student-selected compone impact on the curriculum remains sporadic thereby diminishing the importance of the topic over Recommendations: The medical curriculum is broad and allows plenty of opportunity for the n inclusion of planetary health topics. Planetary Health learning could be included more regularly thoroughly throughout the BSS learning agenda as well as in specific health topics i.e. cardiores diet, etc. 	hat was laid dical nts. The all. nandatory and piratory,
Interdisciplinary Research	Α
 The university has researchers conducting high profile research into health effects on the subject planetary health. However the university has still not made any efforts to engage the community actions. The university has continued to host many events related to planetary health but the medis yet to host any events. Recommendations: The university of Manchester is a large stakeholder in the North West and confidence and community connections to engage the public at large in discussions and decision ractivities as well as supporting education and outreach relevant to planetary health. 	of in any such dical school could use its naking
Community Outreach and Advocacy	B +
 University of Manchester signposts many opportunities for students to engage in planetary healt community outreach, the University, the Medical School, and partner institutions host events that student and community engagement. However the university lacks the resources to allow the concollaborate on decision making, this relative seclusion marks a significant weakness in what is the university's least impressive section. Recommendations: Manchester University and its partner institutions could work to create some facing information to inform and educate the public on the interactions of human and environment. 	h related at encourage mmunity to he ne patient ental health.
Support for Student-Led Initiatives	В

Support for Student-Led Initiatives

- The University of Manchester medical school has slipped in terms of student-led initiatives and has • received a lower grade than the previous year. The limited interaction on the topic in the core curricula is perhaps one of the reasons for this, as well as the lack of advertised opportunities for student engagement.
- **Recommendations**: Support for student-led initiatives mostly comes from the wider University rather than the Medical School. We recommend the medical school offers increased support to students interested in sustainable initiatives for example via creating a website that advertises mentors or opportunities for students relating to PH or ESH and prioritises grants for related research.

Campus Sustainability

University of Manchester continues to make positive changes in this subject, receiving a high mark in most metrics. The university has in the past faced public pressure regarding investments and finances and this has led to the implementation of many ethical procurement and investment policies covering many different

aspects of university activity.

• **Recommendations**: The university runs/hosts a number of coffeeshops, cafes, and restaurants across the main site as well as providing food in residence for many students. The university could take the simple step of signing up to the Sustainable Restaurant Association again and using their support to improve the sustainability of their food provision.

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 schools' 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, 4) community outreach centred on environmental health impacts, and 5) school campus sustainability.

Definitions & Other Considerations

Definitions:

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 - 1. Describe how the environment and human health interact at different levels.
 - 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 - 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Medical School/Department vs. Institution: When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is

specifically targeted for medical students, can meet this metric.

- Environmental history (Metric #19 in Curriculum Section): This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word "elective" refers to an optional course or lecture series that a 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 develoered to the entire cohort of students in one year.
- Clerkship / Outreach: This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- Clinical rotation: This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- Climate justice: The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.
- **Extractivisim:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

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

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.
- Low socioeconomic status (SES): An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.
- Low and Middle-Income Countries (LMIC): Countries that have lower degrees of economic affluence.
- Anthropogenic: Created through human activity
- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

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

Completed in 2022 a <u>Literature Review by Metric</u> 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

<u>Section Overview:</u> 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

1.1. 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?

Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)

Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)

The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health. (1 points)

No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)

3

Score Assigned:

Score explanation:

The medical school does offer one elective through The Centre for Sustainable Healthcare (CSH). This is a full-time elective placement for a period of 4-8 weeks which enables intensive and focused work enhancing the impact of their sustainability programmes or the opportunity to engage on multiple programmes. In addition, students can also choose to intercalate at an external university that offers such a course. There are courses internally such as MPH Public Health that do contain modules around climate change and global health. Intercalation in Global Health BSc(Hons), a lecture-based degree focussing on key global health challenges, global determinants of health and illness, and innovative solutions. As with previous years Personal Excellence Pathway (PEP) projects, a student-selected part of the Manchester MBChB program, are still offered in years 1, 2, 3, and 5. PEP is not lecture-based, but rather emphasises development of skills related to research and quality improvement. Students may either select from a list of projects offered by faculty members or propose their own idea, related to any area of medicine. In recent years, titles offered for these projects have included options related to ESH and planetary health, such as: 'Green prescribing for wellbeing of Medical Students', 'Green prescription for mental health improvement'.

As there are more than one options, we have scored this from 1 in 2024 to 3 this year.

1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?		
This topic was explored in depth by the core curriculum. (3 points)		
This topic was briefly covered in the core curriculum. (2 points)		
This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	2	
Score explanation: The Manchester MBChB curriculum includes a lecture "Introduction to Environmental Sustainability actions at University and in the NHS" by Dr Maggy Fostier mentioning climate change and extreme heat leading to melting permafrost releasing bacteria, as well as spread of mosquitos and increase in other heat-related health risks.		

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

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

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

This topic was covered in elective coursework. (1 point)

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

Score Assigned:

Score explanation:

As above the Manchester MBChB curriculum includes an optional lecture "Introduction to Environmental Sustainability actions at University and in the NHS" by Dr Maggy Fostier and Miss Sarah Hewitt mentioning extreme weather events linked to malnutrition due to decreased water and food security. Also briefly mentioned environmental migration and its impact on the healthcare system, and the general relevance of sustainability on healthcare. Also included in LO "discuss the effects of place on health and health inequalities".

2

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?

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

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

This topic was covered in elective coursework. (1 point)		
This topic was not covered. (0 points)		
Score Assigned:	2	

Score explanation:

The impact of climate change on changing the patterns of infectious diseases is still only covered briefly in year 1 lecture "Introduction to Environmental Sustainability actions at University and in the NHS" by Dr Maggy Fostier, mentioning climate change increasing water-borne diseases and zoonotic diseases. The brief coverage is the same as previous years and therefore the score remains the same. For example, LOs include "Describe the infective agents that may cause chronic diarrhoea in a patient. This discussion should include national and international/global perspectives" (year 3) and "Apply knowledge of the epidemiology, presentation and treatment of parasitic infections and how to investigate these.".

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

Score explanation:

The MBChB curriculum touches on this metric in year 1 through the Intended Learning Objective (ILO) however has changed from last year. For instance, ILO

2

"describe the triggers, aetiology and epidemiology of asthma"

"define interstitial lung disease, state the main risk factors and explain how these contribute to the development of this condition".

"Asthma - where are we now" lecture still in place. Also we discussed link between air pollution and asthma, including the Ella Kissi-Debrah case.

Similar correlation between asthma and climate change is mentioned in "Introduction to Environmental Sustainability actions at University and in the NHS".

In addition, air pollution as cause for COPD and other respiratory health issues briefly mentioned in optional lecture "Chronic Obstructive Pulmonary Disease (COPD)" and mini-learning session "Respiratory Cases Bite-size: Pathology, smoking and lungs". **1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat**

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

Score explanation:

The curriculum includes in Cardiorespiratory Fitness ILO 8 "Identify the environmental, social and psychological factors affecting the development of cardiovascular and respiratory diseases" but no lectures therefore score stays as 2 as it is only briefly covered.

2

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

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

Score explanation:

The Manchester MBChB curriculum briefly covers mental health and neuropsychological effects of environmental degradation and climate change in the lecture "Introduction to Environmental Sustainability actions at University and in the NHS" by Dr. Maggy Fostier, mentioning mental health impacts of climate change.

2

1.8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?

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

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

This topic was covered in **elective** coursework. (1 points)

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

Score Assigned:	2

Score explanation:

This remains the same as last year as the curriculum includes a lecture in year 1 entitled 'Planetary Health and Sustainable Healthcare'. This lecture mentions over the course of 1 slide that climate change impacts water and food supply, causing malnutrition and diarrheal disease. Infographics are used.

1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

Score explanation:

This score and evidence remain the same. The Manchester MBChB year 1 curriculum includes an online module that mentions the disproportionate impact of toxic air on children, women, and older adults, as well as those living with long-term medical conditions. The Manchester MBChB year 5 curriculum includes lectures and several online resources on "Inclusion Health" within the "Population Health" module. Health in several marginalised communities is discussed, including ethnic minorities, homeless populations, and those with low SES. However, the impact of climate change in these populations is not discussed.

2

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?

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

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

This topic was covered in **elective** coursework. (1 points)

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

Score Assigned:

2

Score explanation:

This year the curriculum does explore the unequal regional health impacts of global climate change in more depth. For example it is linked with ILO *"Discuss the effects of place on health and health"*

inequalities". It is also mentioned in an optional lecture "Doctor as Humans: Adverse Childhood Experiences", discussing variations in life expectancies compared within different regions of Manchester, as well as across the UK. In addition, it is mentioned in another lecture "Introduction to Environmental Sustainability actions at University and in the NHS". The concept of postcode lottery was also discussed across different components of year 1 semester 1, although not always directly linked with climate change. Further discussed in the optional lecture "Resource allocation" by Professor Ruth Bromley.

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

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

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

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

This topic was covered in **elective** coursework. (1 points)

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

Score Assigned:

Score explanation:

We have found an elective covered in year 4 during the women's health block. If students wish to explore "environmental" factors further, industry related environmental toxins are a relevant part of the knowledge requirement. The ILO is '*Explain the genetic and environmental factors that influence fetal growth - focusing on potentially preventable/reversible causes of developmental defects*'. Therefore, the score improved from 0 to 1.

1

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

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

3

Score explanation:

The score remains the same with some additional evidence as listed ILO. The Manchester MBChB curriculum covers this frequently throughout years 1-5. For example, emphasis is placed on recognising that many patients, especially older adults, have worked in factories, construction, or in the docks, therefore increasing their risk of exposure to environmental hazards, including asbestos. Human-caused environmental threats and their link with respiratory diseases, including

malignancy, are mentioned in the second case in year 3, entitled "Haemoptysis", supported by the ILO "Identify the environmental, social and psychological factors affecting the development of cardiovascular and respiratory diseases" Also Triadic Consultation d. Obtaining a relevant history for the child or young person including HEADSS (Home and Environment, Education and Employment, Activities, Drugs, Sexuality, Suicide/Depression where indicated).

1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

Score explanation:

No evidence found again for this year.

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

0

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

Score explanation:

This score remains the same as these topics are not all covered. This is a very brief mention in Year 1 Lecture entitled Introduction to Environmental Sustainability Actions at University and in the NHS mentioned Awaab's Law. This law requires timely repairs for damp/mould in social housing, following the death of a child who lived in social housing with fatal levels of black mould.

0

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?

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

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

This topic was covered in elective coursework. (1 points)

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

Score Assigned:

Score explanation:

Although the MBChB curriculum discusses the health benefits of a high fibre plant-based diet throughout years 1-5, it does not explicitly link this to the environmental co-benefits. An example of this is the "Healthy lifestyles" lecture in year 5. In addition, this year we found there is only mention of vegan/plant-based diet in the curriculum was practical information underlining the importance of B12 supplements.

1

1.16. Does your <u>medical 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. (1 points)

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

Score Assigned:

Score explanation:

The score this year dropped from 2 to 1 because the topic of carbon footprint of healthcare systems is only covered in the lecture "Introduction to Environmental Sustainability actions at University and in the NHS" by Dr Maggy Fostier and Miss Sarah Hewitt which discusses the carbon footprint of the healthcare system, placing particular emphasis on GHG emissions from anaesthetics and inhalers. In addition, the carbon footprint of inhalers is mentioned again in the lecture "Chronic Obstructive Pulmonary Disease (COPD)", with further discussion of dry powder as a more eco-friendly alternative to MDIs for treatment of asthma.

2

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)		
The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points)		
The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric. (2 points).		
The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)		
Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)		
The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)		
The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)		
Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1	
Score explanation: We have selected the following topics which were consistent with last year's selection. Briefly discussed during physiology/pharmacology tutorial session around inhalers. Covered in "Introduction to Environmental Sustainability actions at University and in the NHS" by Dr Maggy Fostier and Miss Sarah Hewitt discussing inhalers contributing to GHG emissions. Briefly discussed during physiology/pharmacology tutorial session with some mentions for strategies to decrease waste production. Covered in the lecture "Introduction to Environmental Sustainability actions at University and in the NHS" by Miss Sarah Hewitt discussing the "Wombles project", which was an QI project on better separation of infectious waste with other clinical waste. This was done by a medical student at partner hospital Wythenshawe		
Curriculum: Clinical Applications		

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

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

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

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

Score Assigned:

0

Score explanation:

This score remains the same. There is currently no specific agenda set to include topics related to the health effects of climate change in clinical ILOS. Related and applicable ILOs could be 'Identify the environmental, social and psychological factors affecting the development of cardiovascular and respiratory diseases.'.

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?

Yes, the core curriculum includes strategies for taking an environmental history. (2 points)

Only elective coursework includes strategies for taking an environmental history. (1 point)

No, the curriculum does **not** include strategies for taking an environmental history. (0 points)

2

Score Assigned:

Score explanation:

The score remains the same. Medical students are trained to take a full history, including environmental and occupational exposure. Students are provided with a framework for history taking which includes a social history section, detailing travel, exercise, work, previous occupations, home life, and potential exposures to pollutants/toxins in the home/workplace. A Year 3 ILO supporting this area is "Gather a clinically reasoned history for a patient presenting with [presentations], eliciting key associated symptoms, important risk factors and comorbidities". And Year 4 ILO exploring different environmental histories in different specialties – Triadic Consultation d. Obtaining a relevant history for the child or young person including HEADSS (Home and Environment, Education and Employment, Activities, Drugs, Sexuality, Suicide/Depression where indicated).

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?

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

Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)

No, there are **no** improvements to planetary health education in progress. (0 points)

Score Assigned:

2

Score explanation:

We feel this score needs to drop from 4 to 2 as effort has been made to work with the faculty head of environmental sustainability to increase planetary health in education. There is also a focus on raising awareness and increasing opportunities for students to make a difference through increasing related content on medical faculty website OneMed Buzz. However, there is no evident society or committee that focuses on implementing or improving ESD/ planetary health education. Last year it was mentioned there was The University of Manchester's Climate in the Curriculum committee is a working group that focuses on implementation and improving ESH and planetary health education, however this year we are not certain it is active.

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

Planetary health/ESH topics are well integrated into the core medical school curriculum. (6 points)

Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)

Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s). (2 points)

4

There is **minimal/no** education for sustainable healthcare. (0 points)

Score Assigned:

Score explanation:

Manchester medical school integrates planetary health throughout the programme, in the form of online modules, face-to-face teaching on clinical history-taking, lectures, and project titles within the PEP pathway. However, this integration is very sporadic and does not appear in the same longitudinal nature that topics related to medical conditions do. Education around harmful environmental exposure and associated history-taking skills are well inter-spaced throughout the 5 years, particularly the link with respiratory diseases. Despite this brief integration of Planetary Health/ESH into the curriculum, there is a lack of coordination, and most aspects are either only briefly mentioned in stand-alone lectures or not mentioned at all.

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?

Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)

No, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)

Score Assigned:	1
Score explanation:	

There is a Dean of Environmental Sustainability for the faculty that focuses on incorporating planetary health and sustainable healthcare throughout the course via student outreach and communications with other faculty staff therefore this score remains.

Section Total (40 out of 72)

55.55%

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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 <u>institution</u>?

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)

3

Score Assigned:

Score explanation:

This metric keeps the same score as the previous year.

Researchers from the Division of Immunology, Immunity to Infection and Respiratory Medicine, alongside the Division of Cell Matrix Biology & Regenerative Medicine, and the Division of Cell Matrix Biology & Regenerative Medicine, are currently undertaking research to develop tools to measure the impact of micro and nanoplastics on human health. (PLASTICHEAL)

The University of Manchester has also partnered with BUPA to develop methods to reduce environmental impact of healthcare

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

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

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

There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points)

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

Score Assigned:

3

Score explanation:

We have scored this the same together with the evidence from last year. The Faculty of Science and Engineering includes the <u>Manchester Environmental Research Institute</u>, whose goal is to "deliver the evidence base and solutions to tackle the challenges of global change and its effect on health care, food security, water resources and energy production". In doing so, there are collaborations with researchers throughout the university, including the School of Medical Sciences. However, the Faculty of Biology, Medicine and Health <u>Centre for Occupational and Environmental Health</u> seems dated as the last post was 2022 so may now be defunct, no information could be found, nevertheless the score remains the same. One of the research areas specified on the website is Environmental Epidemiology, which, according to the website, has included research into the effects of environmental exposures (namely, temperature and air pollution) on mortality. <u>Sustainable Futures</u> is an institution-wide scheme aiming to "facilitate[s] interdisciplinary research by supporting the institutes, centres, and external partnerships working together to meet the challenge of delivering a healthy and sustainable future".

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 <u>institution</u>?

Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)

Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)

No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 points)

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

Score Assigned:

2

Score explanation:

The Faculty of Biology, Medicine and Health, which includes the School of Medical Sciences and the MBChB programme, involves members of the public in all aspects of their research, including decision-making processes as part of their <u>Social Responsibility</u> programme. Throughout the institution, while some patient groups were involved in research areas that concerned them (e.g. <u>older people & MIRCA</u>), there was no evidence that people who are disproportionately affected by

climate change and environmental injustice are involved in the decision-making process regarding that research agenda.

Through their social responsibility programme, the university embeds public engagement into all aspects of their work including research – involving the public in their research activity, as outlined by the <u>public engagement framework</u>. Initiatives like the <u>Manchester Festival of Climate</u> <u>Action</u> and <u>Greater Manchester Universities Citizens panel</u> provide opportunities for dialogue and collaborations between researchers and the community.

Also, the Faculty of Biology, Medicine, and Health promotes <u>patient and public involvement</u> (PPIE) in research and teaching. Their initiatives include a PPIE forum, engagement events, and resources for researchers and staff to integrate public perspectives into their work.

2.4. Does your <u>institution</u> 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)

3

There is **no** website. (0 points)

Score Assigned:

Score explanation:

Previous year's evidence and all remains the same. The University of Manchester as an institution has a <u>Sustainable Futures website</u> detailing its goals and activities related to environmental sustainability and developing a sustainable future. The university's sustainability commitments are detailed on a <u>subpage</u>. The Sustainable Futures homepage includes links to each of several "Challenge" areas (e.g. health, resilience, resourcefulness, net zero, inclusivity, and information), and each web page includes a description of the scope of that challenge, a short video recorded by a faculty member introducing that challenge, related case studies, a brief biography of the challenge lead, and any ongoing projects/events to engage with. The website includes a News section that is kept up to date with recent developments and also includes links to funding opportunities. Contact details are hyperlinked for each Challenge Lead and are also available under the "About Us" section. The Manchester Faculty of Biology Medicine and Health has one <u>webpage</u> briefly explaining 4 goals to create a sustainable Faculty (see link below). There is a link to an information booklet 'Easy Everyday Eco Actions for Everyone'. The contact details of the sustainability lead for each School within the Faculty, including that of Medicine, are also included. The information is not orientated towards health but is more focused on environmental sustainability.

2.5. Has your <u>institution</u> 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 / sustianable 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:

Score explanation:

The score remains the same and new evidence to support is as follows:

University of Manchester's Environment and Health Symposium (June 2024)

Manchester Environmental Research Institute and Sustainable Futures for engaging discussions and insightful presentations on work that focuses on the intersection of health and the environment. Sustainable futures annual conference (December 2024) themed was Celebrating Interdisciplinary

4

Sustainability Research.

Monthly 'Sustainable Futures' seminars, topics cycle each month, some seminars have a focus on health e.g. Active Mobility | Climate Action (20.02.25).

Overall largely the same as last year, the institution is taking action in this area, without any action specifically from the medical school.

2.6. Is your <u>institution</u> 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:

Score explanation:

This metric score has increased to 1 as the medical school is now a member of the Planetary Health Alliance.

1

Section Total (16 out of 17)

94%

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Community Outreach and Advocacy

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

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 participates in community focused events relating to planetary health. (1 point)

No, there is no such meaningful community partnership. (0 points)

Score Assigned:

Score explanation:

- <u>Enactus Manchester</u>, a non-profit organisation involving a team of university students who lead a range of local projects which support young people at risk of homelessness, migrant parents, and refugee women. This group develops projects to help the community and the environment.
- <u>Clean Growth Leadership Network</u>, an independent, non-profit organisation which encourages thinking and action to decarbonise the economy

3

- <u>*The Manchester Climate Change Agency</u>*, a community interest company leading climate adaptation work in Manchester</u>
- <u>*City of Trees,*</u> a local NGO supporting climate adaptation through afforestation.
- partnered with 'Friends of Medlock Valley' https://www.socialresponsibility.manchester.ac.uk/all-news/rewilding-our-industrial-p ast-the-lower-medlock-valley/

Students across the university are encouraged to participate in the <u>Stellify Award</u>. As part of this, students undertake "Ethical Grand Challenges", covering sustainability, social justice and workplace ethics. Students are also obliged to undertake a volunteering role in the community, which may include partnering with community organisations in such a way that

promotes planetary and environmental health, however this is dependent on individual students' interests.

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:

Score explanation:

The institution hosts multiple events, however there is limited medical school involvement. The institution provides several opportunities for local communities concerning planetary health:

• <u>The Take a Bite out of Climate Change programme</u>, which engages with the local community to promote awareness of the climate impacts of food

3

- <u>The Bluedot Festival</u>, which encompasses a sustainability and climate theme, provides educational programmes and advice on campaigning around issues of climate change
- <u>Mangoes, meat and motors: confronting the climate on Manchester's Curry Mile</u>, a community-facing event on how to make the Curry Mile a place that serves people and the environment better. The project aims, among other things, to challenge the dominant Western conceptions of sustainability that inform socio-environmental policies and research, and to explore how Global South immigrant knowledge and practices contribute to socially just and sustainable urban environments in the UK
- Green Careers Mission: students unite to tackle sustainability challenges (skills workshop) –
 https://www.socialrocponcibility.manchostor.ac.uk/all.nows/groop.carears.missi

https://www.socialresponsibility.manchester.ac.uk/all-news/green-careers-mission-st udents-unite-to-tackle-sustainability-challenges/

 University of Manchester's Environment and Health Symposium (june 2024)Sustainable futures annual conference (December 2024) themed was Celebrating Interdisciplinary Sustainability Research

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)	

1

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

Score Assigned:

Score explanation:

Score increased to 1. In 2024 on OneMed there were 8 relevant posts: monitoring wildlife on campus, climate cafe x2, SU sustainability survey, GMC sustainability plan, recruitment ad for PHRC, ad for lecture by MMS on environmental and social challenges, opportunity to volunteer in Peak District, summer volunteering op across National Trust.

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 provider. (1 point)

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

Score Assigned:

2

Score explanation:

Lancashire Teaching Hospitals offer an online course through its e-learning site title "For a Greener NHS Delivering Net Zero at LTHT".

University of Manchester Foundation Trust staff can complete *Sustainable Healthcare – Building a Net Zero NHS, Sustainable Healthcare – Dentistry, Environmental Sustainability in Quality Improvement* training on the learning hub. They have e-learning that MFT staff have created with a link to sustainability: *Antimicrobial stewardship and How to assess a patient's inhaler technique and optimise inhaler treatment*. These are all optional modules and not mandatory for staff.

University of Manchester Foundation Trust also run the <u>Carbon Literacy Training for Healthcare</u> [carbonliteracy.com] from the Carbon Literacy Organisation, and offer a number of bespoke training courses but they are specifically for the learning and development of MFT staff, but anyone coming to work at or train at MFT can access this.

3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> 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)

1

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

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

Score Assigned:

Score explanation:

Lancashire Teaching Hospitals has posted information regarding smoke exposure in some paediatric clinics.

Furthermore, University of Manchester Foundation Trust have some campaigns that have sustainability co-benefits, such as literature of inhaler technique, and patients bringing their own drugs from home to reduce waste.

Overall the score remains unchanged.

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

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

1

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

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

Score Assigned:

Score explanation:

Many affiliated hospitals have information available on their websites that patients can access regarding the above, however much of it does not appear to be explicitly targeted at patients.

MFT Green Plan (<u>https://mft.nhs.uk/app/uploads/2022/02/MFT-Green-Plan_V1.0.pdf</u>) acknowledges that the changes it has outlined are needed to improve the health of the surrounding community. They have recommended staff to educate themselves, and patients ask their clinician about sustainable alternatives for their care. They have also mentioned that a well-balanced plate is equivalent to a low-carbon plate. They state that the green spaces they plan to have are important for physical and mental health.

Wythenshawe hospital is planning to become a more sustainable campus and the link also highlights the benefits that this will bring to patients and the local community as a whole <u>https://mft.nhs.uk/future-wythenshawe-hospital/</u>.

North Manchester General Hospital aim to promote sustainable and green transport as well as green spaces however it is not mentioned whether patients will be educated on the health implications of these initiatives https://mft.nhs.uk/transforming-the-future-at-north-manchester-general-hospital/.

Section Total (11 out of 14)

78.57%

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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 <u>institution</u> 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:

Score explanation:

The University of Manchester as an institution encourages all students to participate in the <u>Stellify</u> <u>Award</u>, which includes a sustainability challenge for all first year students (also open to later years). The challenge comprises a 2.5 hour simulation activity in which students collaborate to plan a new university campus, while working around 'game changing interventions' that replicate global responses to climate change.

2

The Environmental Sustainability Department at the university details <u>funding</u> available for staff and students in different faculties to undertake projects in environmental sustainability.

Within the medical school, all second and third year students are required to complete a literature review and research project, respectively, as part of the Personal Excellence Pathway component of the medical programme. Projects based on climate change and planetary health are increasingly featuring among available options for these projects

4.2. Does your <u>institution</u> 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)

2

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

Score Assigned:

Score explanation:

There are multiple opportunities for medical students to become involved in research relating to planetary health. Those within the program include the PEP and APEP.

As was the case last year; the institution has opportunities for students to become involved in research related to planetary health and sustainable healthcare through the <u>UoM Tyndall Centre</u>, while these are not specifically for medical students, nor are they advertised to them, medical students are eligible to apply.

The university also provides opportunities for PhD graduates to undertake a 3-year funded fellowship as part of the <u>Leverhulme Trust Early Career Fellowship</u>. The fellowship is offered within the School of Environment, Education and Development and is open to projects covering architecture, education, geography, global development, and planning and environmental management.

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

The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)

There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)

There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:

2

Score explanation:

Sustainable Futures website by the University of Manchester discusses about research institutes dedicated to tackling environmental and societal challenges; events being undertaken at the university; case studies of the interdisciplinary collaborations and discoveries in which there are contact emails for potential mentors.

The Social Responsibility website also signposts students to volunteering opportunities which can be found at: <u>Volunteering | The University of Manchester</u>

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?

Yes, there is a student organisation with faculty support at my institution dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)

0

No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)

Score Assigned:

Score explanation: No evidence found of an active organisation therefore the score has been reduced to 0 from last year.

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department</u> <u>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:

Score explanation:

The leads for the University of Manchester Planetary Health Report Card team simultaneously serve as student representatives on the Climate in the Curriculum Committee. This Committee aims to incorporate updated, accurate, and relevant climate topics within the medical curriculum and is currently working towards this goal by evaluating the current curriculum and suitable points for supplementation with planetary health education.

1

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)	
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.	0
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.	
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	1
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	
Score explanation: University of Manchester's Environment and Health Symposium. Bringing together academ students to discuss different aspects of environment and health including speakers and immenvironments. Manchester Environmental Research Institute and Sustainable Futures offer engaging discu and insightful presentations on work that focuses on the intersection of health and the environment. Sustainable futures annual conference (December 2024) themed was Celebra Interdisciplinary Sustainability Research. University of Manchester runs the Manchester museum which often holds events and exhibi on the topics of environmental and planetary health that aim to engage with the student popu and the wider public. The university advertises a variety of volunteering opportunities under the umbrella of 'environment' including a <u>community garden</u> , <u>litter picking</u> , and <u>community engagement ac</u>	ics and nersive ssions iting tions ilation <u>tivities</u> .

Section Total (11 out of 15)

73.33%

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Campus Sustainability

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

5.1. Does your institution have an Office of Sustainability?

Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)

There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of hospital sustainability. (2 points)

There are **no salaried sustainability staff**, but there is a sustainability task force or committee. (1 point)

There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)

Score Assigned:

Score explanation:

The University of Manchester's <u>Environmental Sustainability Team</u> remains active but still lacks any members of staff from the medical school or affiliated hospitals.

3

There are no full time members of staff from the medical school dedicated to campus sustainability but there are members from other faculties.

All partnered hospitals have at least one designated member of staff for sustainability, employed by the trust.

5.2. How ambitious is your institution's plan to reduce its own carbon footprint?

The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)

The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)

The institution has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate** (1 point)

The institution does **not** meet any of the requirements listed above (0 points)

Score Assigned:

Score explanation:

The environmental sustainability strategy: Our Sustainable Future, is the university's plan that takes into account three core goals; social responsibility, teaching and learning, and research and discovery, with an addition of a zero carbon goal, where the University as a whole has a target of zero direct carbon emissions by 2038, and net zero by 2050 with indirect emissions. The university also joined the UN race to zero for universities and colleges, and has published its yearly progress up to 2022/23, where there has been an overall decrease in emissions by 36%, however progress has slowed since 2020, with only a difference of 0.1% compared to the year of 2021.

The university of Manchester <u>*Carbon Action plan</u> can be seen on their website which shows its target for carbon neutrality by 2038.*</u>

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:

3

Score explanation:

Although data for individual buildings is not available, the university as a whole <u>committed</u> to using 100% renewable energy with a new energy contract beginning in 2021. As well as this, the university entered into a Renewable Energy Guarantees of Origin (REGO) scheme, where a volume of energy equivalent to the total energy use by the university is generated from renewable resources.

5.4. Are sustainable building practices utilised for new and old buildings on the <u>institution's</u> 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:

3

Score explanation:

There is a plan in place in order to meet specific targets which consists of three phases, phase 1: a number of zero carbon buildings, phase 2; a further 4, with phase 3 buildings yet to be agreed. Works started in 2023, this includes provision of air source heat pumps, new roofing systems, glazing, and internal insulation systems. Audits in 2023, saw a carbon reduction of 40% within the first year of the new builds, and 97% of waste was recycled.

The three phase action plan to retrofit and reduce carbon output of newbuilds can be seen <u>here</u>.

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

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)

2

Score Assigned:

Score explanation:

Most of the University of Manchester campus is based on Oxford Road, a large stretch of which is only authorised for use by buses, bicycles, black cabs, and emergency vehicles between 6am and 9pm. The Environmental Sustainability <u>website</u> details the locally available public transport, with links to associated student bus passes that are available to purchase. There is also a free bus service between the north and south campuses. There are multiple bike shelters that are well-used throughout the campuses. Overall, the university estimates that 52% of all student journeys are made by walking or cycling.

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

Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)

The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)

There is **no** compost or recycling program at the institution. (0 points)

Score Assigned:

2

Score explanation:

The University of Manchester has segregated recycling bins throughout campus, including in the medical school buildings. Recycling, as of this year, we now divert 100% of our campus waste away from landfill and have seen a 90% increase in food waste recycling since 2022/23.

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 a**dequate** 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:

Score explanation:

The university has committed to <u>environmental sustainability in its food services</u>, including on-campus restaurants, residence halls, and events. Specifically, the university has Fairtrade university status, sources free-range eggs (foods in residence) and farm-assured chickens, ensures all fish appears on the Marine Conservation Society approved list, and provides free tap water from all catering outlets and at water fountains across campus. Although an increasing amount of vegetarian and vegan options are available, there is no evidence of campus food services providing meat-free/no red meat days (meat free mondays do take place in catered residences).

2

The University is no longer assessed by the Sustainable Restaurant Association.

5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement?

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

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

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

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

Score Assigned:

3

Score explanation:

The score remains the same as last year.

The university has a Central Procurement Office (CPO) that oversees purchasing throughout the university. The CPO website has a page dedicated to <u>responsible procurement</u>, which considers the social, environmental and economic impacts to support sustainable development.

The CPO also developed a <u>NETpositive supplier engagement tool</u>, helping suppliers develop sustainability action plans for free, which is now being used by over 40 universities and Purchasing Consortia.

The CPO also provides a list of <u>contracted suppliers</u> that have satisfied the university's health and safety regulations, as well as alignment with the university's environmental sustainability and social responsibility goals, which the CPO has pledged to continue to support, including reducing waste and single use plastic.

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:

2

Score explanation:

All events held at the university are required to abide by the <u>Sustainability Policy</u> of the university's Conference and Venue team. The policy itself is a part of the wider Environmental Sustainability plan.

<u>Event sustainability</u> at the university focuses on reducing food miles, increasing food sustainability, and using sustainable audiovisual support.

5.10. Does your <u>institution</u> 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:

Score explanation:

All lab spaces at the university are encouraged to participate in a variety of programs and initiatives to improve environmental sustainability. There is a Sustainable Lab Network specifically for labs in the Faculty of Biology Medicine and Health, which includes the medical school. Labs across the university are also encouraged to join the <u>Laboratory Efficiency Assessment Framework (LEAF)</u>, and to work within the <u>energy</u> and <u>water</u> use guidance provided by the university. There is also a <u>document</u> detailing how to recycle lab-specific products provided by contracted suppliers.

2

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

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

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

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

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

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

Score Assigned:

2

Score explanation:

The University has a strategy to reduce direct investments in fossil fuels by 2038, as per its Policy for Responsible Investment (*https://documents.manchester.ac.uk/display.aspx?DocID=64195*).

Section Total (27 out of 32)

Back to Summary Page <u>here</u>

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	
А	80% - 100%	
В	60% - 79%	
С	40% - 59%	
D	20% - 39%	
F	0% - 19%	

Planetary Health Grades for the University Of Manchester School of Medicine

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(40/72) \ge 100 = 55.55\%$	C+
Interdisciplinary Research (17.5%)	(16/17) x 100 = 94%	А
Community Outreach and Advocacy (17.5%)	(11/14) x 100 = 78.57%	B+
Support for Student-led Planetary Health Initiatives (17.5%)	(11/15) x 100= 73.33%	В
Campus Sustainability (17.5%)	(27/32) x 100 = 84.38%	A-
Institutional Grade	74.49%	В

Report Card Trends

Section Overview

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



Academic Year