Planetary Health Report Card (Medicine) 2026:

University of Liverpool

2025-2026 Contributing Team:

- Students: Jaspreet Mander (School Lead), Chinwendu Mere, Nour Al Tarsha, Sarah Duggan, Jessica Korbel, Lottie Gaukroger
- Faculty Mentors: Dr Iain Young, isyoung@liverpool.ac.uk

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*Primary Contact: Jaspreet Mander, Hljmande@liverpool.ac.uk

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Summary of Findings

Overall Grade	B-

Curriculum	B

The University of Liverpool medical curriculum incorporates several elements of planetary health and sustainable healthcare education, both through elective opportunities and core teaching. Students can undertake electives such as “Sustainability in Health and Life Sciences” and the Student Sustainability Hub, which explore sustainable healthcare systems, planetary health frameworks, and opportunities for student involvement in sustainability initiatives. These electives introduce major resources such as the Lancet Countdown, NHS Green Plan, and the EAT–Lancet Commission on sustainable food systems.

Within the core curriculum, climate change and health are primarily delivered through the Public, Preventative and Global Health (PPGH) theme and are revisited across multiple years. Teaching covers topics including extreme heat, extreme weather events, climate-related infectious disease patterns, and food and water insecurity. These issues are usually introduced in workshops or lectures and are then revisited in system-based teaching such as respiratory medicine and infectious diseases.

Several areas of the curriculum emphasise the health impacts of environmental factors, particularly air pollution and respiratory disease. Students learn about the effects of air pollution on asthma, COPD, and lung disease, as well as the environmental impacts of healthcare itself, including inhaler carbon footprints and sustainable prescribing practices. Teaching also highlights how climate change disproportionately affects vulnerable populations, including children, women, and those living in poverty.

However, some areas remain limited or absent within the curriculum. There is minimal teaching on the mental health impacts of climate change, Indigenous knowledge systems, environmental history taking in clinical consultations, and strategies for discussing climate change with patients. While planetary health themes are integrated throughout the early years, teaching becomes less prominent in later clinical years, suggesting opportunities for further longitudinal integration.

Interdisciplinary Research	B-

Overall the University of Liverpool has continued to progress over recent years to increase planetary health research and awareness. The main advancement in planetary health research since the last Planetary Health Report Card (PHRC) is the establishment of the Interdisciplinary Centre for Sustainability Research group (ICSR) in 2024. This provided a central hub for interdisciplinary research and has increased planetary health related research within the university.

Recommendations: The University of Liverpool could arrange or contribute to a conference about planetary health or become involved in a national or international planetary health organisation such as the Planetary Health Alliance (PHA) or the Global Consortium on Climate and Health Education (GCCHE).

Community Outreach and Advocacy	B-

The University of Liverpool demonstrates particular strength in community partnership development and public engagement events, reflecting institutional values of accessibility and community co-creation. Opportunities for

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development center on creating dedicated communications channels for planetary health, expanding professional education offerings, and systematically developing patient-facing educational resources on climate change health impacts.

Recommendations

1. Develop dedicated planetary health communications channels for students.
2. Expand professional education with regularly-offered courses on planetary health for post-graduation healthcare providers.
3. Create patient-facing climate health resources on all hospital websites addressing heat illness, climate anxiety, and air pollution impacts.
4. Develop comprehensive environmental health materials across all LUHFT hospitals on pesticides, chemicals, and toxins.
5. Integrate planetary health into medical school curricula through Student Selected Components and community placements.

Support for Student-Led Initiatives | B-

The University of Liverpool and the School of Medicine show an expanding commitment to planetary health, reflected in a score of 10/15 for Student Support. The institution offers several valuable opportunities for student engagement, including University-level Sustainability Fund awards and School of Medicine sustainability bursaries of up to £1,500, as well as applied project experience through initiatives such as the Living Lab.

Medical students can pursue sustainability-related research within core modules such as Research & Scholarship 3 and SAMP, although access to dedicated, structured research programmes in planetary health is limited and often dependent on student initiative.

Whilst general student engagement is strong through PHRC activities, Students for Global Health, and participation in co-curricular events such as Sustainability Week, Earth Day tours, gardening projects, and sustainability volunteering

Recommendations : creating a centralised planetary health webpage; establishing a structured research studentship; formalising faculty support for sustainability-focused student groups; introducing a designated planetary health liaison; and improving visibility of funding, research, and co-curricular opportunities through coordinated communication channels.

Campus Sustainability | B

The University of Liverpool scored 21/32 for campus sustainability - there are many plans in place for improving sustainability across campus, and designated teams in charge of this. There is an established plan for achieving carbon neutrality, and students and staff are supported to make sustainable choices, like recycling or travel.

Recommendations: While there are plans for new buildings to be built sustainably, old buildings should also be retrofitted to reduce their environmental impact. It could be made mandatory for events to follow sustainability guidelines, and the University could also entirely divest from fossil fuel companies to fully power its buildings by renewable energy.

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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.

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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 Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

    1. Describe how the environment and human health interact at different levels.
    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Medical School/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is

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specifically targeted for medical students, can meet this metric.

- **Environmental history (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 the taught material that is delivered to the entire cohort of students in one year.

- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.

- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).

- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.

- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.

- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.

- **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

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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).

Scoring Matrix

- Elective coursework (1 point): This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.
- Brief coverage in the core curriculum (2 points): This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. At minimum brief inclusion would qualify as inclusion in a single lecture slide in a single year.
- In depth coverage in the core curriculum (3 points): This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats.

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.

Updated in 2025, a complete literature review by metric is available for the 2024/25 Medicine Report Card Template. This largely translates across disciplines although we are hoping to expand this process across all of our covered disciplines. A link to the 2025 literature review by metric is available here.

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Planetary Health Curriculum

Section Overview: ***This section evaluates the integration of relevant planetary health topics into the medical school curriculum.*** *Today's health professional 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 medical school's core curriculum.*

Curriculum: General

1.1. Did your medical school 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 point)	
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)	
Score Assigned:	3

The University of Liverpool offers an elective course to all students called "Sustainability in Health and Life Sciences". This course explores "Sustainability in Healthcare, Sustainability in Laboratory Science and Sustainability in Veterinary Science" as well as a section on "How to Get Involved in Sustainability Projects". Within "Sustainability in Healthcare" there are four modules which include "Sustainable Healthcare, the Lancet Countdown, Sustainable Nursing Practice and Courses about Sustainable Healthcare".

Within Sustainable Health this explores resources such as: The Medical Schools Council Education for Sustainable Healthcare - Curriculum for the UK, Centre for Sustainable Healthcare Priority Learning Outcomes, Planetary Health Alliance education framework, Royal Society of Medicine series of webinars, Greener Practice sustainability in general practice, the NHS Green Plan, Sustainable general practice BMA GPC England Policy Document, From Science to Action: Implementing the Planetary Health Diet in the Health Sector Webinar and the EAT-Lancet Commission on healthy, sustainable, and just food systems Rockström et al (2025) Lancet - EAT-Lancet commission report.pdf.

The Lancet Countdown tracks the connection between public health and climate change - Lancet Countdown. This section also includes a video on the annual report (2022) summary and the full annual report (2022) full 2022 report.

Sustainable Nursing Practice includes guidance for the Royal College of Nursing on sustainable development. This included resources from the RCN such as 2019 Position Statement, Leaving

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no-one behind: the role of the nursing, profession in achieving the United Nations sustainable development and goals in the UK.

The Courses about Sustainable Healthcare included resources from the Royal College of General Practitioners, Royal College of Physicians and Royal Pharmaceutical Society. This included Introduction to sustainable healthcare (rcgp.org.uk), Health Inequalities (rcgp.org.uk), High quality & low carbon respiratory care (rcgp.org.uk) , Medicines re-use (rcgp.org.uk), Understanding non-clinical carbon and general practice, Decarbonising General Practice PowerPoint Presentation (rcgp.org.uk), RCP view on healthcare sustainability and climate change, RCP Green Physician Toolkit.pdf , Green Physician Toolkit - Infographics.pdf, Pharmacy's Role in Climate Action and Sustainable Healthcare | RPS (rpharms.com), Climate Change Charter Actions - A handy list of positive actions to fight climate change and Case Studies, Blogs, & Useful Link.

Within How to Get Involved in Sustainability Projects this included Volunteering, the Hedgehog friendly campus scheme , Development Opportunities and Taking Action.

The University also offers another elective course to all students Called the "Student Sustainability Hub". This includes modules like "Sustainability in Action, Campus Activities, Careers in Sustainability, Sustainable Research and Innovation and Educate Yourself on Climate Change". This Course helps educate students on sustainability as well as informing students on how they can get involved.

Curriculum: Health Effects of Climate Change

1.2. Does your medical school 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
As a part of the "Public, Preventative and Global health" (PPGH) sub-theme there was a workshop in year 1 regarding sustainable healthcare. The effects of rising temperatures were explored including heat/severe weather and how this can affect human health in terms of heat stress, cardiovascular failure, injuries and fatalities. Students were encouraged to discuss these topics further as a part of this workshop. Within the year 2 "Introduction to respiratory system" lecture, extreme heat is mentioned and how it can exacerbate lung disease. It explains that extreme heat can worsen air quality and that wildfires produce smoke that pollutes the air we breathe.	

1.3. Does your medical school curriculum address the impacts of extreme weather events on

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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:	2
As a part of the "Public, Preventative and Global health" (PPGH) sub-theme there was a workshop in year 1 regarding sustainable healthcare. The effects of extreme weather were explored including weather extremities and rising sea levels and how this can affect human health in terms of water/food supply, mental health, environmental refugees, water-borne diseases, vector-borne diseases and allergies. Students were encouraged to discuss these topics further as a part of this workshop. In year 1 the "Introduction to health protection" lecture briefly mentions how factors such as air pollution, contaminated land/water and flooding/heatwaves can have an effect on disease and illness. Within the year 2 "Introduction to respiratory system" lecture, extreme weather is mentioned and how it can exacerbate lung disease. It explores how flooding can lead to damp which can trigger allergies and lung infections. Within the year 3 "Infectious Disease - globalisation, climate change and sustainability" lecture extreme weather events are mentioned within the effect of climate change on infectious disease. It also discusses how climate change can cause displacement and therefore also have an effect on their access to health services. Furthermore, it also discusses how climate change can affect fresh/clean water accessibility and food availability/prices.	

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
In the year 1 "Introduction to Bacteria" lecture, factors influencing transition from carriage to invasive disease are discussed. Environmental factors such as smoking, climate and season are mentioned.	

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Within the year 2 “Introduction to respiratory system” lecture, climate change is mentioned and how it can affect infectious diseases. It explains how climate change can affect how well germs that cause disease spread, reproduce and spread. New viruses can spread and have greater risks of epidemics and pandemics due to climate change.

Within the “Public, Preventative and Global Health” (PPGH) subtheme in year 3, there is a lecture on “Infectious Disease - globalisation, climate change and sustainability”. Specific learning objectives include to understand how globalisation and climate change is causing profound changes to the burden of infectious diseases, and to critically interpret the role of poverty, urbanisation and food insecurity on infectious diseases. Specifically this lecture looks at the effects of climate change including air temperature, air quality/composition, water quality and quantity, food security and extreme weather events.

Also the year 3 “Fever Including Returning Traveller” lecture briefly covers how increasing global travel, especially to the tropics, affects the spread of infectious diseases but does not directly address climate change. It also mentions how certain infections are common during different seasons e.g. meningitis during the end of dry season in central Africa or dengue at the end of rainy season in India however a direct reference to climate change is not made here.

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 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Within the year 2 “Introduction to respiratory system” lecture there is a learning objective for understanding climate change and impacts on health including the impact on current healthcare on the climate. For example, travelling for a consultation vs. remote consultation and choice of inhalers like dry powder vs. MDI.

In the Year 2 lecture on “Paediatric Asthma” there is a specific learning objective on describing the importance of the environment, clear air, pollution and aeroallergens. The lecture discusses how adverse exposures have a synergistic effect on the development of Asthma like particulate air pollution.

The year 2 lecture on “Adult Asthma” has a learning objective on understanding emerging roles of air pollution and impact on Asthma. This lecture discusses how both outdoor and indoor air pollution contribute to the development of Asthma. It explores how the association of poor air quality and incidence of Asthma is higher in children than adults and the effects of second hand smoking.

The Year 2 Public, “Preventative and Global Health” (PPGH) respiratory lecture explores the effects of household air pollution. The effects of respirable particulate matter, carbon dioxide and polyaromatic hydrocarbons are explored in detail.

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Within the Year 3 “COPD” (Chronic Obstructive Pulmonary Disease) lecture, the risk factors of COPD are discussed including environmental factors. It explores how the main environmental exposures leading to COPD are tobacco smoking and inhalation of toxic particles and gases from household and outdoor air pollution. In the Year 3 “Interstitial Lung Disease” (ILD) lecture there is a reference to environmental and occupational exposures. Specific ILDs like asbestosis are explored. Asbestos is a non-biodegradable material that can cause respiratory diseases such as mesothelioma.

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 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
In the year 2 “Atherosclerosis” lecture, pollution is mentioned and its effect on causing damage to the endothelium which allows the endothelium to become more permeable to lipoproteins.	

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 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	0
In the year 4 “Common Mental Health Problems in Primary Care”, there is a reference to greener prescribing and the benefits of greener spaces on mental health however there is not a direct reference to climate change or environmental degradation.	

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)

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

Food and Water Security and Systems are addressed intermittently throughout the curriculum. They are introduced in Year 1 during the "Sustainable Healthcare Workshop" and revisited in Year 3 through the "Responding to Climate Change in Primary Care" lecture, which highlights the health impacts of flooding, water scarcity, desertification, food insecurity, and infectious disease transmission.

Malnutrition and food security are briefly covered in the Gastrointestinal block in Years 2 and 3 but there isn't much reference to climate change.

In Year 3 "Public, Preventative and Global Health" (PPGH), learning outcomes acknowledge the effects of climate change and globalisation on infectious disease burden, as well as the disproportionate health impacts of poverty, urbanisation, and food insecurity.

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 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Climate change and health inequalities are addressed at several points across the curriculum. A Year 1 "Sustainable Healthcare workshop" highlights that the impacts of climate change disproportionately affect children. The paediatric respiratory lecture, "The Impact of Poverty on the Health of Children", explores international climate-related health issues and social inequities, illustrating how lower socioeconomic groups—such as rickshaw drivers in Delhi—are less able to adapt to climate change. The lecture also discusses the heightened vulnerability of women and children, including the effects of limited property and financial rights, with examples from Bangladesh.

In the Year 2 "Adult Asthma" lecture there is reference to higher prevalence of asthma in densely populated areas of lower socioeconomic status. "The Killer in the Kitchen" lecture addresses how women and children are exposed the most to household air pollution and its adverse effects. The "Child Development" lecture explores factors affecting child development such as environmental adversities. This mentions factors such as climate issues, war/displacement, malnutrition, poverty and lack of sanitation.

In Year 3 "Public, Preventative and Global Health" (PPGH), learning outcomes acknowledge the role of globalisation and climate change in driving changes in the burden of infectious diseases.

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Further discussion arises from learning outcomes focused on critically interpreting the roles of poverty, urbanisation, and food insecurity, highlighting the disproportionate health impacts experienced by affected populations; however, other marginalised groups are not explored in depth.

Also in Year 3, the "Global Women's Health" lecture delivered provides an in-depth examination of women's health inequalities, comparing developed and developing settings and addressing disparities in access to basic services and resources.

In Year 4, pre-placement "General Practice" (GP) lectures within the paediatrics block signpost resources on the health impacts of climate change and opportunities for greener prescribing. Community Clinical Teaching (CCT) GP sessions increasingly incorporate planetary health themes, including women's health topics that address unequal access to contraception. Additionally, a 25-minute video by the GP Climate Change Lead introduces climate change impacts as part of the fourth-year core curriculum.

There is a minimal reference to how communities of colour, homeless and older adults are impacted by climate change.

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 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Climate change and its health impacts are addressed across multiple lectures and workshops. A Year 1 "Sustainable Healthcare workshop" introduces the concept of environmental refugees arising from rising sea levels and highlights the disproportionate impact of climate change on children's health if planetary health is not prioritised. "The Biological Threats to the Body: Bacteria" lecture explores how environmental factors such as Saharan and West African sandstorms, air pollution, and diesel exhaust particles influence disease patterns.

The "Responding to Climate Change in Primary Care" lecture, provides an overview of climate change impacts and mitigation strategies using tools addressing local issues such as increased flooding in the Mersey region, national increases in extreme weather, and global challenges including desertification and climate-related migration. Additional system-based teaching, including "Women's Health" lectures, also considers regional variation in health related to climate change.

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

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1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides, microplastics)?	
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
The year 2 lecture, "Science of medicine: introduction to respiratory system" outlined a learning objective for the respiratory system to appreciate the concepts of indoor and outdoor pollution. It discussed the association of low birth weight with exposure to air pollution in pregnancy.	

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Environmental exposures are mentioned throughout the curriculum as Liverpool has areas of low socioeconomic status which have higher rates of exposure to these pollutants, largely air. In a paediatric respiratory lecture the disproportionate effects of air pollution to the deprived areas of Liverpool are highlighted, for example, car exhaust fumes produced by the more affluent areas damage the respiratory systems of the inhabitants in more deprived areas.	

1.13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	0
There is no mention of any indigenous teachings in the curriculum.	

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1.14. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
The Dahlgren and Whitehead rainbow is featured in many lectures throughout the years, including 3rd year "Child health inequalities" and "Introduction to public health values and inequalities" in year 2, among others. This highlights the socioeconomic factors which can put the less affluent population at risk of disease, including environmental toxin exposure. A 4th year small group teaching session titled "Child Health Inequalities", discusses child deaths caused by mould and air pollution. It also mentions studies which highlight social disadvantage as a risk factor for persistent asthma, and discussed air pollution exposure as a contributor to this.	

Curriculum: Sustainability

1.15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 point)	
Score Assigned:	3
In this third-year community clinical teaching session titled "Cardiovascular Risk Management", students explore the intersection between healthy eating, environmental sustainability, and planetary health. The discussion focuses on modifiable dietary risk factors and their impact on both individual health outcomes and the environment. Students are encouraged to reflect on how dietary choices influence planetary health and to apply this understanding when providing evidence-based dietary advice to patients. The session introduces the EAT-Lancet Commission, highlighting its vision for achieving a sustainable global food system by 2050. Structured tables are used to demonstrate sustainable dietary practices across different food groups and to illustrate their associated effects on patient mortality.	

1.16. Does your medical school curriculum address the carbon footprint of healthcare systems?

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This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

The environmental impacts of inhalers is highlighted in lectures from years 2, 3 and 4. Students are educated on the benefits of switching from MDI (Metered dose inhalers) to dry powder inhalers. If MDIs are needed then the brand and regime that minimises carbon footprint are highlighted.
In a 4th year small group teaching, deprescribing is promoted in elderly patients, emphasising the benefits to patients and sustainability. A number of websites discussing greener prescribing are also promoted to students. For example, https://greeninhaler.org/, and deprescribing tools such as STOPP/START.
A year 2 respiratory lectures highlight that the NHS accounts 3% of the total emissions of the UK, showing a pie chart which details the different parts of the NHS which contribute to carbon emissions.
There is also a workshop in year 2 titled "Sustainable Healthcare", which describes different types of environmental impact resulting from healthcare provision, which is followed by identifying ways to improve the sustainability of healthcare systems.

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core curriculum? (points for each)	**Score**
The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	0
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) .	2
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)	1
Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
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)	0
The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	1
Waste production within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0

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1. Not discussed.
2. Deprescribing discussed in a year 4 small group teaching surrounding the elderly patient, emphasising benefits to the patient and the planet. Noting pharmaceuticals and chemicals as one of the largest contributors to greenhouse gas emissions. There is also a year 2 workshop discussing sustainable healthcare.
3. Social prescribing discussed in different lectures throughout years 2-5, largely with regards to the cardiovascular and mental health topics. Time in green spaces is highlighted as a beneficial aid for mental wellbeing. Additionally exercise and movement is promoted as first line advice for a number of cardiovascular conditions.
4. Not discussed.
5. Not discussed.
6. The environmental impact of inhalers was discussed extensively throughout respiratory lectures in years 2, 3 and 4. This includes multiple infographics for example, depicting MDIs vs DPIs and their equivalent car journeys, 175 miles vs 4 miles.
7. Not discussed.

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your medical school's curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 point)	
No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
No strategies available in the curriculum.	

1.19. In training for patient encounters, does your medical school's curriculum introduce strategies for taking an environmental history or exposure history?	
Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)	
Only **elective** coursework includes strategies for taking an environmental history. (1 point)	
No, the curriculum does **not** include strategies for taking an environmental history. (0 points)	
Score Assigned:	2
In the Year 2 history-taking guide, students are advised to explore social and employment history, including potential occupational hazards such as asbestos exposure. Diet and lifestyle factors are also emphasised as key components of social history.	

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This focus is reinforced in a Year 3 small group dermatology teaching session, where the importance of a thorough social history is revisited. Students are taught to enquire about occupation, hobbies, and travel in order to identify relevant risk factors, including ultraviolet exposure associated with skin cancer and exposure to tropical diseases.

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:	4
The medical school has implemented a new sustainability in healthcare module that is available to all students to further their understanding on global health. Furthermore, the university curriculum 2027 mandate includes guidance on more sustainability content to be taught with an emphasis on medicine. There has also been an introduction of sustainability quality improvement workshops for non-clinical years. The medical school is currently working on infusing education for sustainable education principles across the curriculum with an emphasis on the good doctor theme. This includes “Public, Preventative and Global Health (PPGH) and Professionalism, Ethics & Legal Context (PEL)”. Certain topics explored include antimicrobial stewardship, reducing polypharmacy and prescribing dry powder inhalers.	

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)	
There is **minimal/no** education for sustainable healthcare. (0 points)	
Score Assigned:	4
Planetary health and education for sustainable healthcare is taught longitudinally throughout the years into core curriculum - especially within the “Public, Preventative and Global Health” (PPGH)	

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subtheme. There is a main focus within the first and second year of teaching however by fourth and fifth year there is noticeably less content which is why this is scored a 4.

In first year PPGH learning objectives include: Identify core principles of population health protection,including the impact of environmental hazards; define and interpret core principles of population health improvement focussing on wider determinants and reducing inequalities and explore diverse perspectives on health,inequality and outcomes including from individuals,communities,media and organisations.

In second year PPGH learning objectives include: interpret and illustrate core principles of health improvement focussing on population level interventions; explain core principles of population health protection to reducing communicable diseases nationally and internationally,including those seen in common clinical practice; interpret different sources of population health data used to define health inequalities and contrast the organization and resources (and their distribution) for healthcare delivery in the UK and globally.

In third year PPGH learning objectives include: analyse and distinguish core principles of health protection,particularly considering globalisation,sustainability and climate change; identify examples of health outcome inequality in practice; distinguish the advocacy role of different health professionals,including in context of specialist and vulnerable patient groups and critique the use of evidence from large scale public health reviews and other sources of public health data to explain health policy decisions in patient care.

In fourth year there are no learning objectives related to the PPGH subtheme.

In fifth year there is one PPGH learning objective which is to explore health perspectives within routine clinical care,acting as or seeking advocacy for individual patients,patient groups and communities.

1.22. Does your medical school 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
Dr Iain Young is the Sustainability Lead and is an academic employed by the School of Medicine. He is responsible for overlooking curriculum changes.	

1.23. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)

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This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
There is reference to civic engagement to address environmental and structural determinants of health including the year 2 “Killer in the kitchen” lecture which included recommendations to reduce household air pollution by transitioning to cleaner fuels and reducing emission rates. The curriculum does explore environmental and structural determinants of health however there isn’t a depth of teaching on how to advocate for policy or community change.	

Section Total (51 out of 75)	**68.00%**

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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
The University of Liverpool has recently created a centre called the Interdisciplinary Centre for Sustainability Research group (ICSR) which brings together researchers from different backgrounds, aimed at tackling the United Nations Sustainability Development Goals. One of the teams within this centre is a group of 5 researchers called the Energy, Air Pollution and Population Health Research Group, located within the Department of Public Health, Policy and Systems. They conduct leading research in the field of air pollution and population health. The group has helped build an evidence base for household air pollution and health and have trialed appropriate interventions to improve health outcomes. The Liverpool University Climate and Infectious Diseases of Animals group (LUCINDA) is another group of researchers who are part of the ICSR. They are at the forefront of health and climate research, having mapped vector-borne diseases in relation to climate change with the aim to protect society from some of the negative impacts of global warming. There is also a Master's programme called Planetary and One Health in which all students must complete a research project. The research focuses on emerging diseases which originate from human-animal interactions and also relates to environmental and climate change, global travel and trade, food insecurity, deforestation and biodiversity loss, and other human-caused factors.	

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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 point)	
There is **no** dedicated department or institute. (0 points)	
Score Assigned:	3

The Interdisciplinary Centre for Sustainability Research group (ICSR) at the University of Liverpool has a mission to support teams of researchers to tackle the United Nations Sustainable Development Goals, with a specific focus on climate-related Sustainable Development Goals (SDGs) set out by the World Health Organisation (WHO). The centre explores the impacts of climate change and environmental degradation and aims to develop solutions to limit the impacts of climate change. They engage with national and international experts to bring together a variety of skills and knowledge both close to home and abroad.

The centre covers a wide range of sustainability topics, however there are underlying research themes guiding the research and outcomes. One of these themes which is particularly important in regard to Planetary Health is the Climate Futures Research Theme, where although not explicitly stated, plays an important role in advancing Planetary Health Research. The two teams stated in metric 2.1 are both a part of the Climate Research theme within the ICSR.

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 point)	
There is **no** process, and **no** efforts to create such a process. (0 points)	
Score Assigned:	2

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The University of Liverpool has a Sustainability Committee which reports annually to the Research and Impact Committee, made up of a student representative and up to 3 lay members. They provide feedback and recommendations on behalf of all stakeholders regarding research and its impacts on environmental and social sustainability, therefore contributing to setting the direction of the research strategy.

The Heseltine Institute is the University's city-facing public policy institute and conducts community engagement with different stakeholders via forums such as the Liverpool Citizens Assembly, the outputs of which are used to shape research and policy briefings.

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:	3
The University of Liverpool has a dedicated Sustainability Website that is easy to use and comprehensive. It includes a broad range of topics about sustainability including the university's sustainability strategy, how to get involved, and regular updates on recent and upcoming research, projects and events. Although there is not a specific subheading for planetary health, there are many topics that fall into the realm of Planetary Health. Most notably this includes the Climate Futures research theme which includes information and updates on the Energy, Air Pollution and Population Health Research Group and the Liverpool University Climate and Infectious Diseases of Animals group, which both have a focus on planetary health and surrounding topics.	

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)

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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:	0
The University of Liverpool has not hosted or financially contributed to a Planetary Health conference within the past three years. There is an annual sustainability week for all staff and students where planetary health related-topics are discussed however there is no specific conference for planetary health.	

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 point)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	0
There is a Planetary and One Health Master's Programme which contributes to national and international research on planetary health, however the University of Liverpool is not part of a formal national or international planetary health organisation.	

Section Total (11 out of 17)	**64.71%**

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Community Outreach and Advocacy

Section Overview: ***This section evaluates a school's 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 institution 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:	3
The University of Liverpool meaningfully partners with multiple community organisations to promote planetary and environmental health, achieving a score of 3 in this category. Key partnerships include CompostWorksUK, a social enterprise that diverts food waste from incineration through community composting, and the Liverpool Food Growers Network, which the University co-manages to promote sustainable food growing and climate resilience across the Liverpool City Region. Students engage directly with these partners through Guild volunteering programmes, including gardening sessions, composting initiatives, and Guild Schools delivering sustainability workshops to local schools. The University also co-leads major community engagement initiatives such as Clean Air Night 2025 in partnership with Liverpool City Council and Alder Hey Children's Hospital, educating thousands of citizens about air pollution. In addition, the institution plays a strategic leadership role in the Liverpool City Region Climate Partnership, which is working towards net zero by 2040, and hosts over 25 sustainability-related community events annually, reaching more than 500 participants.	

3.2. Does your institution offer community-facing courses or events regarding planetary health?
The **institution** offers community-facing courses or events at least once every year. (3 points)

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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
The University of Liverpool offers multiple community-facing courses and events on planetary health at least once every year. Major initiatives include the annual Sustainability Week (Feb 2025) with over 500 public participants, Clean Air Night 2025 which engaged thousands of citizens about air pollution and health through music, science, and landmark illuminations, and co-hosting the British Science Festival 2025 with over 100 free public events. The university also runs annual Pint of Science festivals reaching 500+ members of the public, public lecture series on Arts, Sustainability and the Climate Crisis, and the annual Liverpool Clean Air Roundtable bringing together community stakeholders. Centre for Health, Arts, Society and Environment (CHASE) regularly hosts public events on environmental humanities and climate-related topics. These events are explicitly designed for community and patient audiences, fulfilling the criterion for full points.	

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)	
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	1
Yes, planetary health and sustainable healthcare topics are regularly included in communications to students, but they are not delivered through dedicated channels. The University of Liverpool provides regular sustainability and health-related communications through multiple channels: the Student Sustainability Hub on Canvas, which all students access automatically; annual Sustainability Week (Sustainability Week 2025) featuring 25+ events with health and environmental topics; monthly Sustainability News updates; Faculty of Health and Life Sciences public engagement communications; and Sustainable Development Goals (SDG) Reports highlighting health and environmental research (10 Years of SDGs). The Centre for Health, Arts, Society and Environment (CHASE) regularly promotes events on Health, climate, and environmental topics. These communications are integrated into broader institutional sustainability messaging rather than delivered as dedicated planetary health updates (Initiatives for Greener Healthcare). To achieve 2 points, the institution would need to establish dedicated communications specifically focused on planetary health and sustainable healthcare, similar to weekly or monthly dedicated updates.	

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3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post-graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)	
Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)	
There are **no** such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	1
Yes, the University of Liverpool and Liverpool University Hospitals NHS Foundation Trust provide at least one course relating to planetary health and sustainable healthcare for post-graduate healthcare providers. The University offers the Planetary and One Health MSc which can be studied as standalone CPD (Continued Professional Development) Modules (School of Allied Health Professions CPD) by practicing professionals, as well as a dedicated Planetary Health module (PUBH002) within the Masters of Public Health MPH programme. An online 12-week Climate Change and Health course is also available to postgraduate practitioners. Liverpool University Hospitals NHS Foundation Trust partners with the University through its Clinical Sustainability Group (established 2021-22) and actively supports CPD opportunities for staff, including access to external courses on sustainable healthcare (RLH Case Study on Climate Change Adaptation). The Trust works collaboratively with the University to develop bespoke CPD opportunities that meet healthcare workforce needs such as LUHFT Continuing Professional Development and LUHFT and University Partnership. However, to achieve 2 points, the institution would need to offer multiple in-person or online courses with primary focus on planetary health and sustainable healthcare, regularly delivered to post-graduation healthcare professionals	

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 medical centres have accessible educational materials for patients. (0 points)	
Score Assigned:	1
For patient-facing educational materials on environmental health exposures, the institution scored 1. Some affiliated hospitals have accessible educational materials for patients about environmental health exposures. Royal Liverpool Hospital maintains an extensive library of patient leaflets, including 'A Guide to Eating Well with Chronic Obstructive Pulmonary Disease' addressing conditions affected by environmental exposures . LUHFT Sustainability Strategy explicitly	

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recognizes 'the intrinsic link between the environment and health' and has developed patient-facing resources on air pollution exposure reduction, particularly for vulnerable populations. The University of Liverpool's Institute of Population Health - Patient Resources VISION group has created free patient resources on air pollution and household fuel combustion effects on health. However, coverage is limited to some affiliated hospitals rather than all, and materials focus primarily on specific conditions (respiratory, infectious disease) exacerbated by environmental exposures rather than comprehensive dedicated resources on pesticides, chemicals, toxins, and pollutants as exemplified in the rubric. To achieve 2 points, the institution would need comprehensive, dedicated patient-facing educational materials on environmental health exposures readily available across all affiliated hospitals.

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

Finally, the University scored 0 for accessible educational materials on the health impacts of climate change. Although institutional strategies recognise the link between environment and health, there is currently no evidence of dedicated patient-facing resources specifically addressing climate change health impacts on affiliated hospital websites. Development of online materials addressing issues such as heat illness prevention, climate anxiety, and seasonal health risks would improve performance in this area.

Section Total (9 out of 14)	**64.29%**

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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
The University of Liverpool actively supports students in developing and implementing sustainability initiatives and quality improvement (QI) projects. The institution offers a Sustainability Fund Link, awarding between £10,000 and £100,000 to projects that align with the University's Sustainability Strategy and the UN Sustainable Development Goals (SDGs). In addition, annual funding is available specifically for student-led sustainability projects, encouraging innovation and engagement across disciplines. Within the School of Medicine, students have access to dedicated sustainability project bursaries, offering up to £1,500 (£250 per week for six weeks) to support student doctors in undertaking sustainability-focused research and practice initiatives (SoM Sustainable Summer). The University also runs a "Living Lab" programme, which provides opportunities for students to lead and participate in applied sustainability projects—such as campus waste audits—integrating real-world problem-solving with academic learning.	

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 them out and carry them out in their spare time. (1 point)

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There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	1

Within the School of Medicine, students in Years 3 and 5 can undertake sustainability-related research or QI projects through the Research and Scholarship 3 and Student Selected Advanced Medical Practice (SAMP) modules., both of which include protected time and clinician mentorship.

Students who wish to pursue additional research in sustainability outside these modules can do so independently and may submit their work for the School of Medicine's Sustainable Health Impact Award. Contact details for clinicians and educators involved in sustainability are available on the School's website, allowing students to reach out for support and collaboration in their own time.

More broadly, the University promotes sustainability research through its Sustainability Strategy, the Global Health Research Institute, and the Planetary and One Health MSc, which integrates environmental change, disease control, and human and veterinary health. The School of Medicine has further encouraged student engagement through Planetary Health Report Card initiatives and sustainability workshops.

Students must take initiative to connect with supervisors or embed sustainability topics within their existing research pathways.

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)	
There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the 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:	0

There is currently no dedicated webpage within the School of Medicine for locating planetary health or sustainable healthcare projects and mentors. Relevant information is dispersed across multiple university webpages, making it difficult for students to find specific opportunities or contacts. While details about school prizes and clinicians involved in sustainability are available, they are not easily accessible through the main medical school site, and students generally need prior knowledge of where to look.

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At the institutional level, the University of Liverpool Sustainability Strategy 2031 webpage outlines the University's broader sustainability commitments, including contributions from the Faculty of Health and Life Sciences and the Interdisciplinary Centre for Sustainability Research (ICSR). These resources provide valuable insight into ongoing sustainability work but do not specifically serve as a central platform for students seeking planetary health or sustainable healthcare mentors and projects.

Therefore, this criterion scores 1 point, as although information exists on various webpages, there are no webpages dedicated to planetary health or sustainable healthcare where this information can be found.

4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
Yes, there is a student organisation **with faculty support** at my 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)	
No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	1

The University of Liverpool has student organisations and initiatives focused on sustainability and planetary health, some of which receive faculty support, though this support is more informal than part of a structured advisory system.

Within the School of Medicine, students are actively engaged in the Planetary Health Report Card (PHRC) initiative, which involves collaboration between students and medical school faculty members to assess and promote sustainability and planetary health education. This initiative demonstrates clear faculty engagement and mentorship. The medical student branch of Students for Global Health Liverpool also organises events and workshops related to planetary health, global health equity, and sustainable healthcare, further fostering a culture of advocacy and awareness among students.

Beyond the medical school, the Liverpool Guild of Students hosts several registered societies dedicated to environmental sustainability and climate action, such as the Environmental Society and Sustainability Network, which frequently collaborate with the University's Sustainability Team and academic staff.

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While these activities demonstrate strong student engagement and faculty interaction, there is no single, formalised student organisation exclusively dedicated to planetary health with a defined faculty advisory structure.

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 who serves on a department or institutional decision-making council/committee. (1 point)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
The University of Liverpool has student representation in sustainability governance through both institutional and faculty-level structures. At the university level, students contribute to decision-making through the Sustainability Board and the Sustainability Advisory Committee, both of which include student representatives who provide input on policy, operations, and education relating to sustainability. The Liverpool Guild of Students also appoints Sustainability Representatives who liaise between the student body and university leadership to advocate for sustainable practices across campus. Within the Faculty of Health and Life Sciences, including the School of Medicine, student voices are represented through Student–Staff Liaison Committees and Education Committees, where issues related to sustainability and curriculum development can be raised and discussed. While the position may not be titled explicitly as a "Planetary Health Liaison," student representation on these boards ensures advocacy for sustainability and curriculum reform is integrated into institutional discussions.	

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

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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)	0

Evidence for Point 1 :
The "Sowing the Seeds of Sustainability" project: Students can join weekly gardening sessions at the campus food-growing space (planting, harvesting, maintenance).
News / Sustainability Advocates

Evidence for point 3:
There are currently no events in which students can 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.

Evidence for Points 2 and 4 :
The University ran its "Sustainability Week 2025" (Feb 24-28 2025) which included workshops, talks and a fair focussed on sustainability topics.
Sustainability Week 2025
An event "Earth Day 2025 Energy Centre Guided Tour" open to students and staff for learning about the campus energy system and sustainability.
Link / Guided Tour

Evidence for Point 5 :
A campus guide to "environmentally-friendly events and activities" for students (including volunteering and participation in sustainability projects) published by the University.
Volunteering Events

Evidence for point 6:
There are currently no wilderness or outdoor programs available on the Liverpool Guild website therefore this point scores a 0.

Section Total (9 out of 15)	**60%**

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Extra Points to Mention :
-Cycle to Placement Scheme
-Promoting Sustainability Competitions on the Student Bulletin
-Ex GMC Medical Student Comp 2025

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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 institutions, 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:	3

Score explanation:

There is a Sustainability Committee that implements sustainability initiatives across the whole University with twelve members, including the Associate Director of Sustainability. They meet 4 times per academic year and coordinate delivery of the Sustainability Strategy. This strategy sets out 6 goals:

1. Maintaining a global top 100 position in the annual QS Sustainability Rankings
2. Six additional interdisciplinary research projects >£1m that are focussed on the UN Sustainable Development Goals (SDGs)
3. Embedding Education for Sustainable Development (ESD) within 100% of Undergraduate and Postgraduate Taught programmes
4. Achieving a transition towards net zero in scope 1 and 2 emissions by 2035, and scope 3 by 2050
5. Gold status on the Laboratory Efficiency Assessment Framework (LEAF) for 100% of eligible labs
6. Biodiversity net gain of at least 10% linked to all estate developments.

The committee monitors performance against these success measures and commissions subject matter experts to achieve these objectives. They report to the University's Senior Leadership Team on a quarterly basis and to the Education Committee and Research and Impact Committee on an annual basis. The committee receives quarterly reports from each of the sustainability strategy

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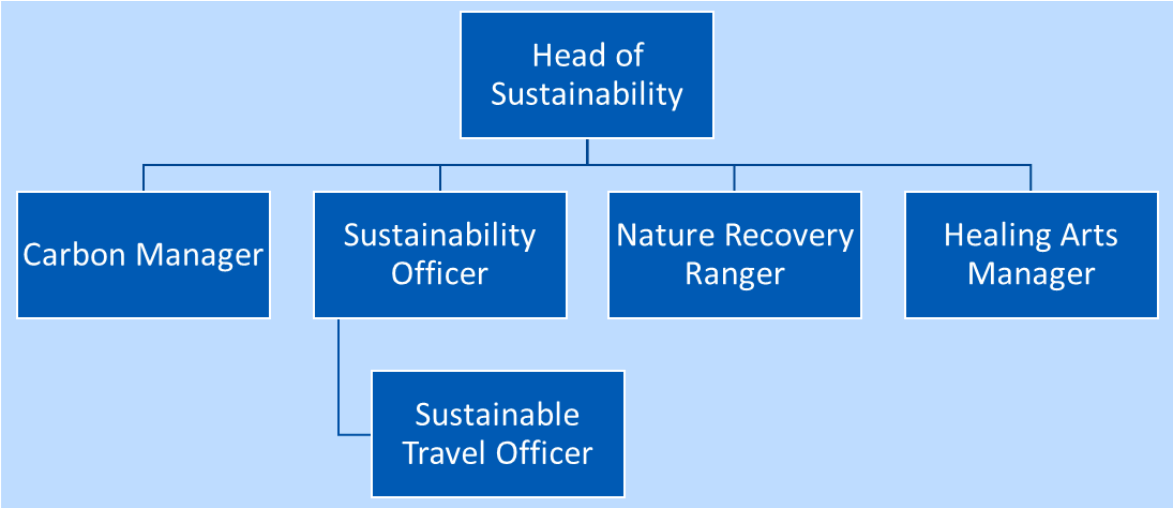
pillars, and annual reports from the Investment Sub-Committee, relevant University subsidiary committees and the Guild of Students.

Liverpool hospitals have their own Sustainability Officer/Sustainability Manager roles responsible for implementing sustainability initiatives and supporting the Trust's Green Plan.



Liverpool University Teaching Hospitals NHS Foundation Trust, source: https://www.england.nhs.uk/long-read/nhs-estates-sustainability-career-pathway

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:	0

Score explanation:

According to the University's Sustainability Strategy, they have a Climate Plan which commits to achieving net zero for scope 1 and 2 emissions by 2035, and net zero for scope 3 emissions by 2050.

Progress is monitored through Annual Sustainability Reports and aligned with the UN Sustainable Development Goals. The reports detail the university's carbon emissions, energy costs and energy consumption, each separated by their sources.

A score of 0 has been chosen as there is a written and approved plan to achieve partial carbon neutrality by 2035, but full carbon neutrality by 2050.

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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: On the main campus, the University has three Combined Heat and Power (CHP) engines plus three large industrial boilers, and two smaller CHPs at their Greenbank accommodation which generate 90% of their heat and power needs, however these use natural gas. According to their 2019/20 Sustainability Annual Report, 72% of energy was generated from renewable or low carbon sources, and 0.035% of renewable energy was generated from onsite or offsite renewables. According to their 2021/22 Sustainability Annual Report, 8.8% of renewable energy was purchased from green tariffs, and the value given for "total renewable energy generated onsite or offsite" was 79.7% of their residential energy consumption, but 11.2% of their total energy consumption. Therefore, a score of 1 has been given as this is <80% but >20% of their energy needs.	

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

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Score explanation:
The University uses BREEAM (Building Research Establishment Environmental Assessment Method) standards for developments, aiming for BREEAM Excellent Ratings. BREEAM is a sustainability assessment measure to evaluate a building's specification, design, construction and use, across categories including energy, pollution and waste. A score of over 70% is required for an Excellent rating. New buildings such as the Management School are BREEAM Excellent. Specific buildings are Very Good or Excellent, but campus-wide scoring could be improved.

The University also applies a Sustainable Built Environment Investment Framework to guide refurbishments and new builds. There is a Retrofit Strategy in place to improve energy efficiency and reduce consumption, and some old buildings have been retrofitted, such as the Sydney Jones Library, but not the **majority**. Retrofitting is improving an existing building to improve its energy efficiency.

BREEAM sustainable practices are used for new builds, and some but not most buildings have been retrofitted. Therefore, a score of 2 has been given.

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:	2

Score explanation:
The University provides guidance and resources with information on walking, cycling, public transport and car sharing options, and advice on reducing the environmental impact of commuting and business travel. It promotes active travel and offers facilities such as bike hire, repair workshops, and secure cycle storage.

Students are encouraged to walk, with restricted vehicle access and a low speed limit on campus. Advice is provided on incorporating walking into students' commutes if they live too far away to walk the whole distance. There is a Campus map app, to help students explore campus on foot.

There is lots of information about cycling. There are Cycle to Work and cycle discount schemes for staff, and several resources are given for bicycle hire, including a cheaper option for students, provided by the Liverpool Guild of Students. The Guild often runs Give it a Go guided bike rides. Information about cycle routes, storage, security, maintenance, training and events are given.

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Public transport is suggested for reducing environmental impact if students cannot walk or cycle, and information is provided on rail, bus, train and ferry options.

Sustainable travel guidance is provided to help staff reduce the impact of travel activities.

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:	2
Score explanation: The University has a Waste and Recycling Officer. There is a Waste Management Plan. The University provides a Recycling Guide. There are recycling bins across campus with separate bins for paper, cardboard, plastics, cans and glass. Food waste from catering outlets and accommodations is collected and sent for anaerobic digestion, producing renewable energy and biofertiliser. All gardeners' waste is composted. Food waste recycling has been expanded to all campus buildings, and there are plans to upgrade external bins for recyclables and food waste to make recycling easier.	

5.7. Does the institution 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 s**ustainability 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:	3

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Score explanation:
The university has a food and drink Sustainability Policy and it has achieved Fairtrade University Status. The Fairtrade University Award celebrates institutions that use ethical and sustainable practices.

The policy applies to catering areas such as bars and cafes in the city centre and other campuses. The University links its ambitions to the United Nations (UN) Sustainable Development Goals:

1. Health and Nutrition - goal 3, Good Health & Wellbeing
   Prepared food uses 100% fresh ingredients. Appropriate seasonal fruits and vegetables are used, and vegetarian options make up 50% of menu items
2. Social Responsibility - goal 12, Responsible Consumption and Produce; goal 14, Life Below Water; goal 15, Life on Land
   Local suppliers within a 50 mile radius are used where possible. Fish species most at risk are excluded and fish is only chosen from sustainable sources. Discounts are provided for customers who use "keep cups".
3. Value for money - goal 2, End hunger, achieve food security and improved nutrition and promote sustainable agriculture
   A range of food options suit a variety of stakeholders, and they are appropriately priced to suit students' budgets
4. Knowledge - goal 4, Quality Education
   Educates staff about relevant environmental issues, and educates customers about the social effects of purchase. Departmental staff are encouraged to use lifecycle costing during procurement decisions

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:	3
Score explanation: The University applies sustainability criteria in its procurement decisions through its Responsible and Sustainable Procurement Policy. Key commitments include considering whole life costs and sustainability performance when evaluating suppliers, and encouraging suppliers to adopt sustainable practices and reduce carbon emissions.	

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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:
The University has a Sustainable Events Guide with suggestions for making events more sustainable when planning, but these are not mandatory. The guide explains how to consider sustainability in the venue, travel, catering, and merchandise. It encourages online and hybrid events to prevent unnecessary travel. There is also a Sustainable Events Checklist for those who do not have time to read the full guide.

Users should consider:
1. the event's goals and objectives
2. impact and risks
3. planning for the solutions that have the least negative environmental impact
4. Put indicators in place to measure the event's success
5. Ask for feedback from attendees and report this to the sustainability team

Resources are provided for calculating event emissions, approved caterers and waste management guidance.

Leave Liverpool Tidy is a city-wide project, promoted by the Liverpool Guild of Students that follows these guidelines. Students can donate items, and there is information on waste management and recycling for unsuitable items. The Swap Shop also promotes sustainable practices, as it encourages students to donate clothing, reducing waste.

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 runs the Laboratory Efficiency Assessment Framework (LEAF) to make lab spaces more environmentally sustainable, providing an approach for labs to reduce water, energy and resources while improving sustainability practices. LEAF is a standard set by University College

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London to improve lab sustainability and efficiency. They can achieve Bronze, Silver or Gold based on their performance. The University has over 150 laboratories signed up for LEAF, and the majority of those in the Faculty of Health and Life Sciences are Silver. This indicates that single-use plastic waste has been decreased, and sustainable water use is communicated to all lab users.

They also have a Sustainable Laboratory Guide, which helps laboratory users to integrate more sustainable practices into their daily work. It covers energy, water, chemical management, consumables, waste and recycling, procurement, resource use, and Sustainable Experimental Design. It provides best practice on fume hood usage, autoclave usage and cold storage, and reminds users to switch off equipment when not in use. It introduces the Green Chemistry framework for maximising efficiency and minimising hazardous effects. There are tips for Sustainable Experimental Design, such as using microscale experiments to reduce waste.

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's Ethical Investment Policy required exclusion from the following: • Companies that derive significant revenues from the extraction and production of **fossil fuels** including thermal coal, oil, gas and tar sands; • Companies that derive significant revenues from the manufacture or sale of armaments; • Companies engaged in testing of cosmetic and non-pharmaceutical products on animals except where it is mandatory or relates to Health, Food Safety or Nutrition; • Companies that derive significant revenues from the sale and manufacture of tobacco products. • Companies in violation of international law with reference to the ten principles of the United Nations Global Compact. The University defines significant as in the region of 5% or more of revenues. Therefore, a score of 2 has been given, as companies that derive <5% of revenues from fossil fuels may still be included.	

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%

**Within each grade bracket, a score in the top 5% (_5 to_9%), receives a "+", and a score in the bottom 5% (_0-_4%) receives a "--". For example, a percentage score of 78% would be a B+.*

Planetary Health Grades for the University of Liverpool School of Medicine.
The following table presents the individual section grades and overall institutional grade for the University of Liverpool School of Medicine on this Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(51/75) x 100 = 68.00%	B
Interdisciplinary Research (17.5%)	(11/17) x 100 = 64.71%	B-
Community Outreach and Advocacy (17.5%)	(9/14) x 100 = 64.29%	B-
Support for Student-led Planetary Health Initiatives (17.5%)	(9/15) x 100= 60%	B-
Campus Sustainability (17.5%)	(21/32) x 100 = 65.63%	B
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 64.96%**	**B-**

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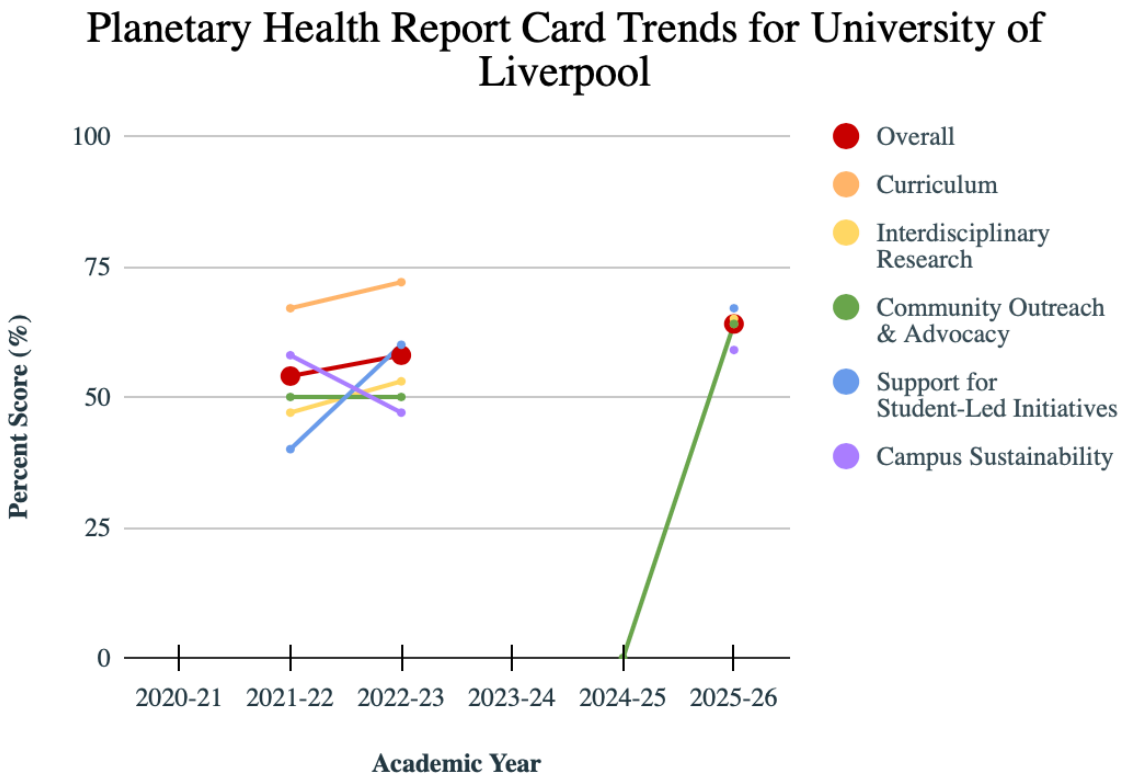
Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which the University of Liverpool has participated in the Planetary Health Report Card initiative.



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