Planetary Health Report Card (Medicine)

Warwick Medical School

2024-2025 Contributing Team:

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Summary of Findings

Overall Grade	B+

Curriculum	A

- Warwick Medical School (WMS) has made large amendments to the core curriculum ensuring planetary topics are present throughout all course phases e.g. via CBL cases, lectures, clinical skills sessions, and clinical placement teaching. In addition, all three student elective opportunities provide specific planetary health options.
- **Recommendations:** We recommend that, as planned, WMS staff map the ESH onto the curriculum using the University' new curriculum mapping software this academic year, ensuring planetary health teaching is permanently integrated into the curriculum. We also suggest indigenous knowledge and perspectives could be further included planetary health teaching sessions.

Interdisciplinary Research	B-

- Despite improvements in more WMS researchers engaging in planetary health projects and the inclusion of WMS in the Medical Schools Council Education for Sustainable Healthcare Group, this score remains the same as 2024, demonstrating a need for further interdisciplinary research. A particular highlight is the centralised University of Warwick sustainability webpage, which is an easily accessible and detailed resource demonsting university-wide events and policy.
- **Recommendations**: This report recommends continued interdisciplinary partnerships across academic faculties. Furthermore the WMS sustainability Network should endeavour to commit to the development of a planetary health conference as suggested in the 2024 and 2025 reports.

Community Outreach and Advocacy	C+

- This represents significant improvement since the 2024 PHRC, which has occurred through implementation of community engagement projects such as pop-up health clinics, in addition to teaching postitals releasing more patient information leaflets on environmental impacts on health. The provision of postgraduate taught modules on healthcare and sustainability directly discusses planetary health.
- **Recommendations**: this report recommends more community partnerships explicitly relating to planetary health, this could be achieved through extra curricular events or more formalised routes such as community facing SSC projects. Better planetary health communication could be executed through regular updates to staff and students via the moodle noticeboard.

Support for Student-Led Initiatives	A+

- There is strong institutional support for student-led planetary health initiatives e.g. numerous educational and cultural planetary health events led by the Sustainability Team, several different student planetary health funding and study opportunities, and strong staff involvement with the WMS Sustainability Network.
- **Recommendations**: We recommend the WMS Sustainability Network website is maintained and expanded where possible e.g. adding more project ideas and mentors.

Campus Sustainability	B

- The University of Warwick remains strongly committed to sustainability e.g. employment of a large in-house sustainability team, commitment to Net Zero for direct emissions by 2030, and numerous sustainability schemes.. However, the University is still indirectly investing in fossil fuels, and a previous

Student Union commitment to a 100% vegan campus has been rolled back.

- **Recommendations**: We suggest employment of mandatory sustainability criteria for student and staff-run events, including greater emphasis on plant-based catering options. At a higher level, the Investment Sub Committee should consider full divestment from fossil fuels. Additionally, steps must be taken to decarbonise the university heating systems and move towards a circular economy campus.

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 medical school's institutional priorities do not reflect the urgency of this danger to human health.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients' health. This preparation is in the hands of the institutions providing our medical training. It is imperative that we hold our institutions accountable for educating medical students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats. Because climate change and environmental threats disproportionately affect vulnerable populations (for example, communities of 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) medical school campus sustainability.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

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

- **Medical School/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to

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

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

- **Core Curriculum:** This refers to taught material that is develiered to the entire cohort of students in one year.

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

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

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

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

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

mitigate the inequitable effects of the climate crisis.

- **Extractivisim:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.

- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.

- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.

- **Anthropogenic:** Created through human activity

- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

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

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

Planetary Health Curriculum

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

Curriculum: General

1.1. Did your 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 points)	
No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	**3**

At WMS, there are several opportunities for student-selected components over the four year course. Students are offered opportunities at all of these stages to pursue opportunities relating to ESH/planetary health.

In Phase II, students complete Student Selected Component 1 (SSC1). One SSC1 block entitled ‘Low-Impact and Sustainable Healthcare’ was introduced in 2024 which primarily focuses on planetary health e.g. the impact of climate change on health, how the health system is contributing to climate change, sustainable health care options, exploring the balance of delivering health care vs maintaining planetary health.

In early Phase III, students complete a research or quality improvement project (SSC2) in which students may elect to undertake a planetary-health related project e.g. in 2024 one student undertook a project entitled: ‘Exploring the environmental impact of prescribed inhalers’.

In mid-Phase III, students also complete the workshop ‘GP electives & Green QIP’. This explores the 4 principles of sustainable health care and goes through an example quality improvement project based around greener inhaler switches. There is an opportunity for Q&A and to introduce interested students to local GPs willing to facilitate such electives.

In late Phase III, students complete a 6-week medical elective which may involve a planetary-health related theme. e.g. in 2024 one student undertook an elective project on healthcare and sustainable development in a South American village.

Curriculum: Health Effects of Climate Change

1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	**3**
During the early Phase III 'Advanced Cases 2' block (core curriculum) students receive a lecture titled 'Planetary Healthcare: Climate to Clinic' that covers increasing temperatures worldwide and the associated medical effects of heatwaves. This includes hyperthermia, heat exhaustion and heat related conditions. There is detail on how commonly prescribed medications have the potential to increase the risk of heat-related illness. There is information related to the opportunities doctors have to identify vulnerable people and what advice can be given to mitigate the effects of extreme heat weather events including encouraging wider societal changes to building and city design. During a Phase III academic day (core curriculum) the lecture entitled 'An Introduction to Sustainable Healthcare' includes and covers the ESH learning objectives: "Heat related illness and death, cardiovascular failure, perinatal vulnerability" and "Effect of global environmental changes on local health and wellbeing, including unequal health impacts of climate change globally such as heat-related mortality and morbidity". Phase II CBL case 1 included in 'Academic Block 1' (AB1) (core curriculum) covers sustainability, climate change and population health in relation to diabetes. Phase II Obstetrics and Gynaecology academic teaching day (core curriculum) also covers the risk of climate change and extreme heat for pregnant women including the risks of premature birth, stillbirth and low birth weight. Note, the SSC1 'Low-Impact and Sustainable Healthcare' (elective option) covers and includes the ESH mental health learning objective: 'Globally, mental health effect of heat waves, cyclones, floods, hurricanes and droughts together with sea-level rise, wildfires, insecure food systems – causing livelihood losses, uncertainty and, in the longer term, forced migration'.	

1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on

individual health and/or on healthcare systems?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	**3**
During the early Phase III 'Advanced Cases 2' block (core curriculum) students receive a lecture titled 'Planetary Healthcare: Climate to Clinic' that covers increasing temperatures worldwide and the associated medical effects of heatwaves. This includes hyperthermia, heat exhaustion and heat related conditions. There is detail on how commonly prescribed medications have the potential to increase the risk of heat-related illness. There is information related to the opportunities doctors have to identify vulnerable people and what advice can be given to mitigate the effects of extreme heat weather events including encouraging wider societal changes to building and city design. The Phase III lecture entitled 'An Introduction to Sustainable Healthcare' (core curriculum) also covers impacts of flooding on health (physical and psychological) and healthcare systems. In the Phase III AC2 lecture 'Planetary Healthcare: Climate to Clinic' extreme weather events such as flooding are also discussed. This includes detail on the impact on mental health, associated infectious diseases (e.g. Weil disease) and risks of all cause mortality. There is an exploration on how healthcare systems should respond to increased healthcare needs as a result of flooding.	

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:	**3**
The Phase III 'An Introduction to Sustainable Healthcare' lecture (core curriculum) includes and covers the ESH learning objectives: 'Increased risk of food and water-borne disease with climate breakdown' and 'Changing distribution and ecology of zoonotic and vector-borne diseases, with disrupted climate (rainfall and temperature) exacerbating malaria, dengue, Lyme disease, chikungunya and various forms of encephalitis.'	

The AC2 ‘Planetary Healthcare: Climate to Clinic’ lecture (core curriculum) also explores the impact of climate change on the transmission of infectious diseases. This includes vector-borne but also changes in human and animal migration and emergence of novel pathogens. There is a case on Lyme disease and the increased risk as a result of climate change. There is exploration of how a ‘one-health’ approach including integrated surveillance would enhance the ability of health care systems to respond to the health consequences of climate change.

The AB1 Phase II lecture ‘Burden Of Infection Diseases’ (core curriculum) also discussed how the epidemiology of infectious diseases is partly determined by environmental factors such as climate change, although this part of the lecture was not explicitly stated in the learning outcomes.

Finally, Phase III CBL case 9 explores the impact of climate change on vector-borne diseases.

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

This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**3**

In Phase I the lecture “Pathophysiology and Clinical Aspects of Asthma” (core curriculum) covers the ESH learning objective regarding air pollution causing “Exacerbations of asthma and other respiratory diseases” under the WMS learning objective "List the main aetiology factors in the development of extrinsic asthma”.

A Phase III CBL case (core curriculum) based on the real story of a child who died from asthma explores the effect of air pollution on asthma and respiratory health. The CBL case also includes information on inhaler emissions and inhaler recycling.

The AC2 ‘Planetary Healthcare: Climate to Clinic’ lecture (core curriculum) also explores the burden of air quality on mortality worldwide, describing the increased impact on deprived communities. There is a slide showing the clear association with risk of emergency asthma admission and air pollutant levels. There is advice for healthcare professionals to identify patients at high-risk and suggestions to mitigate the effects for patients.

During a Phase III academic day (core curriculum) the lecture entitled ‘An Introduction to Sustainable Healthcare’ addresses the impact of air pollution on respiratory health.

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

This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**3**

During Phase II, a CBL case during 'Cardiovascular Health Week' (core curriculum) explores the impact of climate change on global hypertension and cardiac health, including how increased heat might affect these patients. An example prompt from the case reads: 'How might climate change affect CV disease?'

The Phase III 'An Introduction to Sustainable Healthcare' lecture (core curriculum) includes and covers the ESH learning objectives: "Heat related illness and death, cardiovascular failure, perinatal vulnerability" and "Effect of global environmental changes on local health and wellbeing, including unequal health impacts of climate change globally such as heat-related mortality and morbidity". The lecture explicitly references the increasing recognition that environmental pollution and extreme weather events are CVD risk factors.

In Phase III Specialist Clinical Placement (SCP) on General Practice (core curriculum) there is a session on the primary prevention of cardiovascular disease (CVD) that explores the impact of air pollution on developing CVD.

Note, the SSC1 "Low-Impact and Sustainable Healthcare" (elective option) covers and includes the ESH mental health learning objective: "Globally, mental health effect of heat waves, cyclones, floods, hurricanes and droughts together with sea-level rise, wildfires, insecure food systems – causing livelihood losses, uncertainty and, in the longer term, forced migration"

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.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**2**

The AC2 'Planetary Healthcare: Climate to Clinic' lecture (core curriculum) introduces students to the terms 'eco-anxiety', 'ecological grief' and 'solastalgia'. The association of flooding and PTSD is discussed. Furthermore, there is discussion of mercury contamination of water being associated with neural tube defects, cognitive impairment in children and CNS toxicity. As described in 1.3,

the Phase III lecture entitled 'An Introduction to Sustainable Healthcare' (core curriculum) also covers impacts of flooding on psychological health. The SSC1 'Low-Impact and Sustainable Healthcare' (elective option) covers and includes the ESH psychiatry learning objectives: 'Prolonged mental health impacts of flooding (and displacement) in the UK' and 'Globally, mental health effect of heat waves, cyclones, floods, hurricanes and droughts together with sea-level rise, wildfires, insecure food systems – causing livelihood losses, uncertainty and, in the longer term, forced migration' In addition, another SSC1 option entitled 'Lifestyle Medicine' includes and covers the ESH psychiatry learning objectives: ;Mental health benefits of climate solutions (walking and cycling for commuting, green space expansion, reduced air pollution from clean energy)' and 'Social prescribing – opportunities for arts and creativity, befriending, physical activity, accessing green spaces, learning new skill'

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.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**3**
During Phase II, the CBL case during 'Cardiovascular Health Week' (core curriculum) explores the impact of climate change on global food security and how changing temperatures and weather patterns may increase the risk of food-borne pathogen transmission. For example, students are prompted to explore and discuss a study (click here) linking climate change and food-borne pathogens during the session. The AC2 'Planetary Healthcare: Climate to Clinic' lecture (core curriculum) examines the loss of biodiversity due to the increasingly globalised diet of ultraprocessed food (UPF). Associations with mortality, cancer, cardiovascular and metabolic health are explored along with health recommendations on meat consumption and the health and environmental benefits of a vegan diet. During a Phase III academic day (core curriculum) the lecture entitled 'An Introduction to Sustainable Healthcare' explored the links between climate change, food security and the consequent health implications. It also includes the impact of food waste in hospital systems as well as the greenhouse gas effect of modern dietary changes.	

1.9. Does your medical school 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.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**3**
Phase II students receive the lecture "Asylum Seekers Refugees: Migrant Health" which discusses climate-related factors driving movement of populations and their health needs, meeting the learning objective "Understand the burden of disease and its relationship with migration pattern.". Phase II students also receive the lectures "Homelessness" and "Inequalities in health" which address specific needs on local communities including those with low SES, women, communities of colour, homeless populations and older adults. All three lectures are part of the AB1 module (core curriculum). During a Phase III academic day (core curriculum) the lecture entitled 'An Introduction to Sustainable Healthcare' included and covered the ESH learning objective "Greater vulnerability of children to climate and environmental risks due to immaturity, rapid development and dependence"	

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**3**
As described in Section 1.9 core curriculum teaching explores the unequal health impacts of climate change on specific groups e.g. low SES, women, people of colour, homeless populations, children. However, 'regional' health impacts are not yet explored in depth. The AC2 'Planetary Healthcare: Climate to Clinic' lecture (core curriculum) explores a global map of the mortality impact of air pollution and separately the evidence for the mortality of flooding globally, highlighting areas with more deprived communities and a lower human development score being more vulnerable to the health effects of climate change. The Phase II CBL case during 'Cardiovascular Health Week' (core curriculum) also explores the unequal health impacts of cardiovascular disease globally.	

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

1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**3**
The Phase I lecture 'Congenital Abnormalities (Birth Defects) and Teratogens' (core curriculum) discusses the impacts of various environmental exposures (including pesticides, herbicides, and pollutants) on reproductive health and development in utero. The Phase II Obstetrics and Gynaecology academic teaching day (core curriculum) also covers the risk of climate change and extreme heat for pregnant women including the risks of premature birth, stillbirth and low birth weight. The AC2 'Planetary Healthcare: Climate to Clinic' lecture (core curriculum) highlights the impact of industrial activity on infertility/reproductive health (via mercury contamination). This includes dysfunction of spermatozoa, menstrual disorders and spontaneous abortion. There is information on current guidance to limit dietary seafood in pregnancy as a direct consequence of mercury and pollutants in fish.	

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.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**2**
The AC2 'Planetary Healthcare: Climate to Clinic' lecture (core curriculum) includes a case study related to an Indian migrant to the West Midlands (the area in which WMS is based) to work in the automobile trade and later develops Parkinsonian symptoms. This case is based on a real local case and is pertinent to the surrounding community of Coventry with a significant history of automobile production and migration from the Indian subcontinent. It relates to the association of Parkinsons and industrialisation.	

The WMS curriculum also references human-caused environmental threats to human health without specific comment to local communities. One local threat which could be addressed is air pollution e.g. in some areas of Coventry increased levels of NO2 have been detected (see here), and one local study found air pollution in the West Midlands was linked to increased heart failure and morbidity (see here). Other local threats also include food insecurity, which WMS students have begun to address by creating a 'Kindness Pantry' providing free fresh and store cupboard foods for students in need. These local threats could be added to the curriculum alongside the aforementioned care study.

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.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**0**
This topic in relation to planetary health is not yet emphasised in the WMS curriculum. However, themes of indigenous knowledge have begun to be added to the curriculum: the AC2 'Planetary Healthcare: Climate to Clinic' lecture discusses the idea of modern medicine as reductionist, missing the interconnectedness that some traditional indigenous knowledge and value systems highlight as vital to human and planetary health. This is then further explored in Phase III SCP General Practice session (core curriculum) 'Persistent Physical Symptoms' which explores the atomisation approach to medicine prevalent through much of western medicine vs holistic approach taken by some indigenous groups placing the individual in context to the environment (disease vs illness).	

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.
This topic was **briefly** covered in the **core** curriculum.
This topic was covered in **elective** coursework.
This topic was **not** covered.

Score Assigned:	**3**
As described in 1.9, Phase II students receive the lecture ‘Asylum Seekers Refugees: Migrant Health’ which discusses climate-related factors driving movement of populations and their health needs, meeting the learning objective ‘Understand the burden of disease and its relationship with migration pattern’. Phase II students also receive the lectures ‘Homelessness’ and ‘Inequalities in health’ which address specific needs on local communities including those with low SES, women, communities of colour, homeless populations and older adults. All three lectures are part of the AB1 (core curriculum). As described in 1.9, during the Phase III ‘An Introduction to Sustainable Healthcare lecture (core curriculum) included and covered the ESH learning objective “Greater vulnerability of children to climate and environmental risks due to immaturity, rapid development and dependence” As described in 1.12, the impact of anthropogenic toxins on Parkinsonian symptoms, with particular reference to migrant populations, is also explored during the AC2 ‘Planetary Healthcare: Climate to Clinic’ lecture (core curriculum). The Phase II Obstetrics and Gynaecology academic teaching day (core curriculum) also explores the outsized impact of climate change on women with reference to reproductive health.	

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**2**
This topic is discussed in nutrition education within a Phase I lecture and nutrition group work (core curriculum). During Phase III the lecture ‘An Introduction to Sustainable Healthcare’ briefly explores the planetary and health benefits of a plant based/vegan diet. As described in 1.8, the AC2 lecture ‘Planetary Healthcare: Climate to Clinic’ explores the loss of biodiversity due to the increasing globalised diet of UPF. Associations with mortality, cancer, cardiovascular and metabolic health are explored along with health recommendations on meat consumption and the health and environmental benefits of a vegan diet. The topic is also explored in the SSC1 module “Low-Impact and Sustainable Healthcare” (elective) which covers and includes the EHS learning objectives “Impact of food systems on metabolic health” and “Health and environmental benefits of a plant-rich diet, low in processed meat”.	

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
This topic was explored **in depth** by the **core** curriculum.	
This topic was **briefly** covered in the **core** curriculum.	
This topic was covered in **elective** coursework.	
This topic was **not** covered.	
Score Assigned:	**3**

In Phase I the lecture “Pathophysiology and Clinical Aspects of Asthma” (core curriculum) covers the ESH learning objective regarding air pollution causing “Exacerbations of asthma and other respiratory diseases” under the WMS learning objective "List the main aetiology factors in the development of extrinsic asthma”.

A Phase III CBL case (core curriculum) based on the real story of a child who died from asthma explores the effect of air pollution on asthma and respiratory health. The CBL case also includes information on inhaler emissions and inhaler recycling.In the Phase III Child Health SCP (core curriculum) the environmental impacts of various inhalers is again included in respiratory teaching and the balance between meeting patient preferences/needs and planetary health is explored.

Phase II students receive teaching sessions on the relative carbon footprints of different surgical operations as part of their Surgery Core Clinical Education block (core curriculum), including discussion of the environmental impact of anaesthetic gases.

Phase II students also receive teaching as part of the Obstetrics and Gynaecology teaching day (core curriculum) on impact of nitrous oxide in labour and the greater impacts on climate change of births by caesarian section.

The Phase III ‘An Introduction to Sustainable Healthcare’ lecture also covers this topic in depth.

The topic is also deeply explored in the SSC1 module “Low-Impact and Sustainable Healthcare” (elective).

The topic is also covered in the Phase II CBL case within the context of sustainable clinics, students are prompted to discuss how changes to clinic organisation can impact on the environment and how provision of sustainable clinics improve patient care, using resources such as an example of good practice from the RCPsych sustainable psychosis clinics.

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	**Score**

The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	2
The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would 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)	1
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)	1
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)	1

1&2. Phase II Value Law and Ethics Teaching deeply explores the impacts of over-medicalisation, over-investigation and over-treatment on health and resources. The Phase III General Practice SCP explores over-medicalisation and treatment on health and resources, including a specific de-prescribing teaching session involving case studies and group discussion (core curriculum). The AC2 'Planetary Healthcare: Climate to Clinic' lecture (core curriculum) also discusses the carbon footprint of prescribing and polypharmacy, the waste of over-investigation and responsible referrals, and empowering patients to encourage self-management where possible. The environmental impact of inhalers is explored in detail with a case question on the inhaler regimen with the lowest carbon footprint.

3. Social Prescribing is explored in Phase II Core Clinical Education GP blocks and in the Phase III General Practice Specialist Clinical Placement in further depth (both core curriculum). The additional elective SSC1 'Lifestyle Medicine' explores this much more deeply.

4. The environmental impact of surgical healthcare is explored during Phase II Surgical Core Clinical Education teaching (See 1.16) (core curriculum).

5. The environmental impact of anaesthetic gas options is explored during Phase II (See 1.16) and during the Phase III 'An Introduction to Sustainable Healthcare' lecture (core curriculum).

6. The environmental impact of inhalers is explored in both Phases I and III (see 1.16) (core curriculum).

7. Waste production and effective recycling is explored during Phase I Clinical Skills teaching (core curriculum).

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 points)	
No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	**2**
In the Phase III SCP General Practice block (core curriculum), there is a prescribing counselling case that encourages students to explore and develop strategies to have conversations with patients to amend inhaler medications to more environmentally-friendly options.	

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)	
Only **elective** coursework includes strategies for taking an environmental history. (1 point)	
No, the curriculum does **not** include strategies for taking an environmental history. (0 points)	
Score Assigned:	**2**
During Phase I Clinical Skills teaching (core curriculum), environmental/exposure history is included. This is specifically highlighted in the respiratory and obstetrics history teaching sessions. In Phase II Core Clinical Education (core curriculum) there is an occupational health lecture which considers the occupational hazards and risks that individuals can encounter, and the wider effects this has on health. It specifically covers occupational asthma, mesothelioma, and pollutants. The impacts of occupational exposures on lung health is further discussed in the Phase II lecture "Lung Cancer". In Phase III Care of the Medical Patient Specialist Clinical Placement (core curriculum) respiratory history teaching to ask about specific environmental exposures (e.g. air pollution, asbestos) is included.	

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**
WMS staff are currently in the process of majorly improving ESH and planetary health education. In 2024 a student-staff working group was established in collaboration with the Sustainability Network to better integrate ESH into the curriculum. Following group meetings major changes have been implemented into the 2024 WMS curriculum e.g. a two new planetary-health related SSC1 options (See 1.1 and 1.7), addition of planetary health themes into numerous CBL cases, and a specific project integrating all ESH learning objectives into the WMS curriculum involving teaching staff from all phases is underway. The ESH curriculum has been mapped for current content and gaps are currently being addressed. Staff will also be mapping the ESH curriculum onto our new curriculum mapping software this academic year which will ensure we cover all content and ensure that it remains in the curriculum. In our annual course conference for clinical and university-based teachers we are covering sustainability as our major theme this year.	

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:	**6**
As described in 1.1-1.20 ESH/planetary health topics are present in the core curriculum throughout all three phases, and in addition, all three student selected components provide students further opportunity to explore planetary health themes (See examples in 1.1). Planetary health themes are also regularly integrated in CBL cases across all three phases, prompting regular and continuous discussion about planetary health. As described in 1.20, a specific project integrating all ESH learning objectives into the WMS curriculum involving teaching staff from all phases is underway ensuring full, permanent integration.	

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:	**0**
WMS does not employ a specific planetary health staff member, but several members of WMS staffare working to integrate planetary health into the curriculum as described in 1.20 e.g. Dr Kate Owen, Director of Medical Studies.	

Section Total (62 out of 72)	**86%**

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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:	2
Within WMS Dr Ana Raquel Nunes undertakes healthcare sustainability research, focussing on the impacts of extreme temperatures on health. Since September 2023, Raquel is the Principal Investigator on the GPNET-0 Study - Implementation of decarbonisation actions in General Practice to help achieve a net zero NHS: A mixed methods study of institutional, organisational, professional, and patient factors, a 30-month study funded by the National Institute for Health and Care Research (NIHR). Additionally, Josh Gibbs (a final year PhD student) is undertaking research on plant-based diets for human and planetary health. In the wider university, there are a number of researchers who focus on planetary health within the Global Sustainable Development faculty. More information about Warwick sustainability research can be found within its sustainable development report.	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?
There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)

There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)
There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points)
There is **no** dedicated department or institute. (0 points)

Score Assigned:	2

Score explanation: Warwick Institute for Global Sustainable Development (IGSD) is a school for cross-faculty study, whilst it is not solely dedicated to planetary health research such research is within its remit. Its research community includes scholars from across the university who study environmental governance, complex ecosystems and resilience.

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?
Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)
Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)
No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 points)
There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:	1

WMS has a patient and public involvement (PPI) strategy and PPI group who input into the research agenda. However there is not a specific person who represents climate and environmental injustice. However, Warwick University has a Social Mobility Student Research Hub which supports student research projects from under-represented groups.

Additionally, the "Acting on Climate" project collaborates with young people across the UK, employing creative approaches such as performance, film, and visual arts to explore the climate crisis. This project emphasizes working directly with non-academic groups and professional artists to produce participatory artworks addressing the UNESCO Sustainable Development Goals.

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 Warwick Sustainability Team have a dedicated website which includes resources related to health and environment e.g. strategies, case studies, upcoming events etc. This is regularly updated with documented events in January 2025 and future events viewable until the end of July 2025. The website also has links to the 'Way to Sustainable' strategy which identifies ways in which the university strives to improve sustainability.
Within the Warwick University research website, there is a section dedicated to current sustainability and development research at the university. Also within the research website, there is a section dedicated to interdisciplinary research which supports Warwick's Global Research Priorities (GRP) which include but are not limited to; health, food, sustainable cities and habitability.

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?
Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)
Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)
Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)
The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)
No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

Score Assigned:	2

There has not been a sustainable healthcare conference in the past year. Previously (2023) the School for Cross-Faculty Studies and Estates co-hosted a "Way to Sustainable" strategy engagement event. In addition, the Warwick Centre for Teacher Education hosts a yearly 'Green Space' Conference which focuses on climate education and the impact of the climate crisis (the

most recent was April 2023, see here). The WMS Sustainability Network is planning to develop a new conference which will focus specifically on sustainable healthcare and planetary health.

2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation?	
Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	1
WMS is a member of the Medical Schools Council Education for Sustainable Healthcare Group. Which aims to integrate sustainable healthcare principles into UK medical education. This initiative aligns with the General Medical Council's Outcomes for Graduates, ensuring future doctors are equipped to consider environmental impacts in their practice. The ESH group supports a network of educators by facilitating the sharing of adaptable teaching resources tailored to individual medical school contexts. The University is a member of the EAUC.	

Section Total (11 out of 17)	**65%**

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Community Outreach and Advocacy

Section Overview: ***This section evaluates medical school engagement in community outreach and advocacy efforts associated with planetary health.*** *Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of 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 has participating in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	**3**
Score explanation: Warwick Medical School has been involved in several community partnerships and activities to promote planetary and environmental health, including the Pop-Up Health Clinics (2024) which provide outreach to local underserved communities. The University of Warwick has strong university-wide initiatives. These include, but are not limited to: Health Determinants Research Collaboration (2022), Green Microbolities Living Laboratories Projects (Warwickshire Wildlife Trust), Community Fridge Initiative in partnership with the Department of Chemistry. The HDRC is a major NIHR funded cross-school project in association with Coventry University, Coventry City Council, Public Health and multiple Coventry-based 3rd sector organisations. It includes specific initiatives relating to planetary health including "Healthy Homes: exploring barriers to retrofitting and energy efficiency improvements", "Green spaces and community involvement" "Green skills and health inequalities". https://www.coventry.gov.uk/healthdeterminantsresearchcollaboration/research-projects	

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)
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/medical school** have not offered such community-facing courses or events. (0 points)

Score Assigned:	**1**

Score explanation:
Warwick Medical School does not offer community facing courses or events specifically focused on or dedicated to planetary health. The Sustainability Network Events included Winter Ball Outfit Rewear, Plant Sale, Scrubs and Lab Coat Swap; however, these were not open to the community.

The broader University of Warwick has hosted various events related to sustainability and environmental topics, an example would be the Wild Warwick Exhibition.

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:	**0**

Score explanation:
There is currently no regular communications dedicated to planetary health or sustainable healthcare. Even though there are activities centred around sustainability and the student-led WMS Sustainability Network, they do not provide regular nor institution-wide communications to all students. The only recent example available on a related topic was a course-wide email sent to promote the Research For Greener Surgery Conference (11/10/2024).

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 provider. (1 point)
There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:	**2**

Score explanation:
The University of Warwick currently offers postgraduate courses on FutureLearn. These topics include: 'Global Inequalities and the Just Transition', 'Reducing Carbon Footprints: Taking Action for a Sustainable Future' and 'A Beginner's Guide to Corporate Social Responsibility'.

The WMS also offers a module on 'Healthcare and Environmental Sustainability', offering professional training for individuals working in a healthcare setting. However there are no courses available at the main affiliates hospital trust University Hospital Coventry and Warwickshire, or the other teaching hospitals: South Warwickshire University NHS Foundation Trust and George Elliot Hospital.

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?
Yes, the **medical school** 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**

Score explanation:
University Hospital Coventry and Warwickshire offers a Paediatric patient information leaflet on 'Allergy - Moulds and spores avoidance' which mentions moulds and how the spores they release can cause allergic reactions and their related symptoms.

South Warwickshire University NHS Foundation Trust offers a patient leaflet given by the Paediatrics division on 'Air Pollution', which talks about its effect on patients with respiratory conditions. As well as mentioning its links to other conditions such as cancer, cardiovascular disease and obesity.

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 **medical school** 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:	**1**
Score explanation: University Hospital Coventry and Warwickshire has no information or accessible materials for patients regarding the topic of health impacts of climate change. George Elliot Hospital supplies a patient information leaflet given at the Respiratory Early Discharge Service titled 'Information about using your inhalers'. This leaflet contains a section on 'Carbon footprint and your inhaler', which prompts the patients to ask about a greener option for their inhalers. It also talks about the impact of the metered dose inhaler on the environment, giving a lay explanation and comparisons to make it easier to understand.	

Section Total (8 out of 14)	**57%**

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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your 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, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	**2**

The University of Warwick Student Union continues to offer a £5000 grant as part of its 'Environmental Sustainability Fund' for student initiatives that promote sustainability. The Student Union and Warwick Enterprise also offer financial support for student events and business ideas linked to sustainability.

The University also hosts a yearly 'Warwick Sustainability Challenge' in collaboration with local Coventry Council where participants design and propose sustainable solutions to briefs outlined by the local council.

WMS also offers the 'Student Initiated Peer Programme Support Scheme' (SIPPS) fund of up to £250 to fund student support projects. For example,the Sustainability Network successfully received SIPPS funds in Autumn 2023 which were used to purchase cycling safety and repair equipment as part of the 'Active Travel' project including students to travel to campus and placement by bike where possible to reduce carbon emissions

In addition, as described in 1.1 in mid-Phase III, WMS complete the workshop 'GP electives & Green QIP'. This explores the 4 principles of sustainable health care and goes through an example quality improvement project based around greener inhaler switches. There is an opportunity for Q&A and to introduce interested students to local GPs willing to facilitate such electives.

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

The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)
There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time. (1 point)
There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Assigned:	**2**

The University of Warwick provides planetary health related courses under their Global Sustainable Development Department as both single and joint-honors (with Sustainable Development) undergraduate courses, and MSc and PhD postgraduate programs. Within these programs students are able to select planetary health modules e.g. the "Health and Sustainable Development" module and the "Health and Wellbeing Across the Lifespan" module.

In addition, the University of Warwick has a dedicated Doctoral Scholarship Programme that offers up to 18 scholarships for transdisciplinary projects into global sustainability challenges, which includes a themed cluster specifically for sustainable urbanisation, health and wellbeing (see here). One of the current PhD projects underway at Warwick under this programme is "Sustainable diets and child health, incorporating policy and how policy impacts health inequalities"

As described in Section 1.1., at WMS, there are several opportunities for student-selected components over the four year course and students are offered opportunities at all of these stages to pursue opportunities relating to ESH/planetary health.

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 medical school, but it lacks key information. (1 point)
There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:	**2**

The WMS Sustainability Network webpage hosted under the University of Warwick's website provides information about the network and how to access relevant students and staff (e.g. to the shared Teams space, Instagram, email contact). The webpage has specific pages outlining

sustainable curriculum options and research, including links to potential mentors for sustainability-related research projects.

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 medical school dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my medical school 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:	**2**
The WMS Sustainability Network was founded in Autumn 2023 (see website here and social media here). A network rather than a society was established in order to allow for staff involvement and investment. Ongoing projects include investigating and promoting sustainable modes of student transport to university, clothing swaps (e.g. scrubs, ball dresses) ahead of student events, improvement of planetary health themes in the WMS curriculum (See Section 1), and the student allotment (See 4.6). There is significant faculty support and engagement and involvement with the Network and all events are open to both students and staff.	

4.5. Is there a student liaison representing sustainability interests who serves on a department or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	**1**
There is a student representative on the University of Warwick Sustainability Committee and each of its sub-groups. For example, see 'Sasha King-Smith' on the members list for the Sustainability Committee. WIthin WMS there is also a student Sustainability Representative on the Student Staff Liaison Committee (SSLC) which meets quarterly.	

4.6. In the past year, has the institution had one or more co-curricular planetary	**Score**

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

1) WMS has a student-let allotment, herb garden and hydroponics system, which aims to get students and staff more involved with growing their own food. All WMS students are invited to help contribute to allotment planting, maintenance and harvesting. The student-led allotment also has its own compost bin which receives coffee grounds and other food waste from on-campus cafes. Produce from the allotment is also given away to any students in need for free via the WMS 'Kindness Pantry' scheme. See 'Horticulture' Instagram Highlights here for pictures of the allotment.

2 & 3) The University Sustainability Dept holds various events for students where they can learn from members of the local environmental community, most commonly speakers are from local environmental charities. Recent examples include 'The Climate & Ecological crisis - talk by the Warwickshire Wildlife Trust' on 20/01/25, 'Wild Warwick Talks - Birds and the RSPB' on 22/01/25 and 'Wild Warwick Talks - Mammals and the Warwickshire Mammal Group' on 08/01/25.

4) The University Sustainability Dept holds various cultural events related to planetary health. For example, the recent 'Wild Warwick' competition invited students and staff to create pieces of art inspired by the University's wildlife, which culminated in a public month-long exhibition of the highest rated submission (see here). Other examples include 'bug hotel' building craft workshops and garden craft inspired workshops.

5) Numerous local volunteer opportunities related to environmental impact are available through the University of Warwick and through WMS. Examples include: Wednesday Warwick Wombles Litter picking, Sustainability Swap Shops, 'Planting Roots' agriculture program, the "Community and Lived Experience in Education Day", Hedgehog Friendly Campus program, Thrift Thursdays - and more!

6) WMS Wilderness Society specialises in outdoor and adventure activities, and in medical student training. They run yearly free evening "Pre Hospital Medicine" teaching series which include sessions on A-E assessment, medicine at altitude, extrication, and trauma first aid, finishing with a

mass casualty simulation. They also host regular low-cost wilderness/outdoor programs for students. In 2024 events include numerous walks in the local area (e.g. Kenilworth, Draycote Water), a hiking weekend in the Lake District, and an international hiking and outdoor adventure trip to Bulgaria (see here).

Section Total (15 out of 15)	**100%**

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Campus Sustainability

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

5.1. Does your institution have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of hospital sustainability. (2 points)	
There are **no salaried sustainability staff,** but there is a sustainability task force or committee. (1 point)	
There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	**2**
The University of Warwick has a specific Energy and Sustainability Team (see here) with 14 salaried members of staff who oversee themes such as 'Biodiversity and Ecology' and 'Energy and Carbon'. This team oversees environmental sustainability for the entire campus. New for this year, we have an Academic Director for Sustainability, Professor Stéphanie Panichelli-Batalla. Within WMS, there are several members of staff involved with promoting and championing sustainable education and practices as part of their role (e.g. Dr Kate Owen Director of Medical Studies, Dr Sati Heer-Stavert Associate Clinical Professor, Dr Rob Lillywhite Associate Professor of Life Sciences). However, there is not a specific member of staff within the medical school who is entirely responsible for sustainability. At University Hospitals Coventry and Warwickshire NHS Trust (WMS's key NHS trust partner) there are designate staff members who support sustainable education and practice: Tracey Brigstock (Senior Responsible Officer for Net Zero), supported by Dr Helen Wilkins (Emergency Department Consultant and Green Emergency Department Lead) (see here)	

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/medical school does **not** meet any of the requirements listed above (0 points)

Score Assigned:	**5**

The University of Warwick champions the 'Way to Sustainable' Strategy. Within this, it has committed to becoming Net-zero carbon for direct emissions (Scope 1 and 2) by 2030, and Net-zero for direct and indirect emissions by 2050.

Key areas covered in the 'Way to Sustainable' include ecology and biodiversity, transport and mobility, and energy.

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:	**0**

The University of Warwick's Energy Strategy ensures that 100% of purchased electricity comes from reusable sources (see the University's latest Carbon Emission Performance Report Section 4.4), and uses rooftops on campus to generate low cost renewable energy (e.g. 5,500 solar panels already exist on campus).

The use of electric vehicles is prioritised and the University is partnering with Zest, an electric vehicle charging turnkey investor-operator to provide 173 electric car charging spaces which only charge for recharging and do not incur extra parking costs (see here). Furthermore, around 66% of the university's 122 fleet is made up of electrical vehicles (see here 'Case Study 3')

Furthermore, the use of gas-fired combined heat and power (CHP) engines are to be de-prioritised to reduce carbon emissions.

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**

Newever buildings at the University of Warwick are built with a sustainable focus e.g. all new university buildings in the last 7 years have solar panels installed on the roof (see here).

As a specific example, the University's purpose built 'Interdisciplinary Biomedical Research Building' (IBRB) was opened in 2022 with 390 vertical PV solar panels, offsetting ~4,600kg carbon dioxide emissions. It was also awarded the Green Building Project of the Year Award at the BusinessGreen Leaders awards 2022. In addition, both the IBRB and the newly opened Sports Wellness Hub utilise Wilmot Dixon's Energy synergy to help to predict and monitor energy usage and consumption. This has allowed the Sports and Wellness Hub to become the most energy efficient leisure centre in the UK.

There exists a Warwick standard for the development of new buildings and retrofitting of existing buildings (see here). However, the university does not routinely retrofit old buildings. Instead, the University makes effort to *not* to build in green spaces, but instead to replace old buildings with efficient and environmentally friendly buildings when new building are required (e.g. Cryfield Village Residences, IBRB)

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

The University strongly promotes sustainable travel to and around campus via its' 'Modes of Travel' campaign.

For example, the University provides direct links to becoming cycle trained on the road, cycling advice, bike repair and maintenance on campus, encouraging people to cycle to campus (see support page here). West Midlands Cycle Hire also provides over 120 bikes for hire at 18 locations across campus (see here). In addition, the Connect2 Kenilworth scheme helps to link Kenilworth (local town) to campus by a cycle route

There is also a network of cycle routes linking campus to the local area. There are >3,500 bike parking spaces which are made easier to find using an interactive map to show where you can park your bicycle (with colour annotations of the type of parking space) (see here).

The University also promotes travel by bus (see here). For example, the West Midlands on Demand bus, National Express Coventry and Stagecoach Midlands provide local public transport links. The UK National Bus Fare Cap ensures single bus tickets cost a maximum of £3, making bus travel accessible for many students (see here). In addition, the bus providers above offer student discounts and loyalty schemes (e.g. Warwickshire 28 Day Uni Rider).

Warwick Green Rewards, a sustainable app and web platform, includes a section on Travel & Mobility - here students and staff can be rewarded with points for picking sustainable and active travel methods. Each month there is a raffle, where those with over 2,000 points can win prizes. There is also a Journey Sharing feature which allows users to find travel buddies and share their cycle, walking, public transport or car journeys together.

Finally, use of electrical vehicles is prioritised and the University is partnering with Zest, an electric vehicle charging turnkey investor-operator to provide 173 electric car charging spaces which only charge for recharging and do not incur extra parking costs (see here).

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 medical school. (0 points)	
Score Assigned:	**2**

Across the University there are recycling programmes and facilities available for staff and students to enable the disposal of waste in a sustainable manner (see here). There are separate bins throughout campus for dry mixed recycling (plastics, cans, etc.), glass, cardboard, paper recycling, and Waste Electrical and Electronic Equipment ("WEEE"). Some coffee grounds are collected for

composting on campus, food waste is collected separately and sent to Biffa to be processed in their Anaerobic Digester. At WMS, there is also an additional composting set up in the student-led WMS allotment. There are also specific swap and reuse schemes within the University to prevent items having to be recycled at all e.g. WorkWear Wardrobe.

The University also provides a recycling "A-Z guide" to check where specific items can be recycled properly on campus if students or staff are unclear e.g. under "C" there are instructions for how to recycle items such as Cables and Wire, Cardboard, Crockery, Clothes (and more!).

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**

The Student Union's cafe 'The Bread Oven' offers weekly 'Meat Free Mondays' menus. The University's Library Café also serves at least one Vegetarian meal a day (see here, Point 6). The University also encourages use of the free 'Too Good To Go' app which promotes end of day food deals to minimise food waste (see here, Point 7).

Students are also encouraged to bring their own reusable cups to use at University Facilities e.g. the free active 'Moves+' app offers students and staff free hot drinks at campus cafes *if* they bring their own cup (see here). There are also reusable cups available to purchase at food and drink outlets across campus.

The University operated cafes, restaurants and bars are implementing their Responsible Food Purchasing Guidelines (V1 2024) through ongoing contract negotiations which prioritise animal welfare and local suppliers. This has within the 24/25 year brought new suppliers in for the coffee sold at cafes, introducing fairtrade, rainforest alliance, organic coffee (see here), as well as incoming local meat and fresh poultry suppliers. The Warwick food group are prioritising the removal of ultra-modified food from their menus across campus, and are increasing the range of fairtrade and made-on-campus food (see here).

Previously the Students' Union was working towards a commitment to become an 100% vegan campus within the 2027/28 academic year however the staff and student population, and the 'diverse needs of the student community' has led to a reversal of this decision (see here). Menus are shifting towards a higher proportion of meat-free items, including within the on-campus conference centre and the catering options.

5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?	
Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)	
There are **no** sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	**2**
The University is working towards further incorporation of Responsible/Sustainable procurement into its financial procedures, building upon existing obligations under the Modern Slavery Act (2015), and in line with the principles of the Procurement Act (2023). The current requirement is that all approved suppliers register and engage with the NetPositive Futures Supplier Engagement Tool, which ensures businesses are working towards more sustainable practices (see here). The University is also a member of the NetPositive Futures Net Zero Carbon Tool working group and will be engaging further with its supply chain in the coming months. There is a Sustainability Champion for Procurement and Finance (Sam Shaw, see here).	

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**
The University strongly recommends and incentivises sustainable events and to follow sustainable recommendations where possible (see guidelines here). For example, the 'Warwick Conferences' team has been awarded second place at the miaList awards 2024 in recognition of its commitment to sustainability (see here) and has received accreditation such as 'Greengage Eco Smart 2024 Platinum Award' and IACC Green Star Certified'. However, these guidelines are not yet mandatory.	

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**
The University of Warwick, including both WMS and the wider university, participates in the Laboratory Efficient Assessment Framework (LEAF). The University adds additional sustainability recommendations on top of the LEAF criteria (see here). 30 University labs gained LEAF accreditation in the most recent academic year (2023/4), with 11 labs achieving gold status (see here).	

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**
In 2015 the University announced it would divest from fossil fuels following a two-year student-led campaign (see here) and has continued to honour this. The Investment Sub Committee annually reviews the Socially Responsible Investment Policy and the availability of fossil free index-related funds. The Policy states: "Where investments are made by the Investment Managers in pooled funds or similar vehicles, the University's requirement is that wherever practicable, the funds in question should not be directly invested in companies that contravene this policy. The Investment Managers will actively screen collective investments to exclude companies materially involved in: ■ the production, cultivation and manufacture of tobacco, in recognition of the conflict with the University's medical research objectives.	

- fossil fuels and the extraction of thermal coal, the production of oil from tar sands or the extraction of petroleum.
- the production or sale of armaments."

However, recent evidence has suggested that this hasn't been fully successful. Although the University does not directly invest in fossil fuel, they give money to banks who then act as a third party and pass the money on to the fossil fuel industry through investment (here)

Section Total (23 out of 32)	**72%**

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(62/72) x 100 = 86%	A
Interdisciplinary Research (17.5%)	(11/17) x 100 = 65%	B-
Community Outreach and Advocacy (17.5%)	(8/14) x 100 = 57%	C+
Support for Student-led Planetary Health Initiatives (17.5%)	(15/15) x 100= 100%	A+
Campus Sustainability (17.5%)	(23/32) x 100 = 72%	B
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 77%**	**B+**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which Warwick Medical School has participated in the Planetary Health Report Card initiative.