Planetary Health Report Card (Medicine):

Warwick Medical School

2023-2024 Contributing Team:
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Summary of Findings

Overall	B

Curriculum	B

- **Summary:** We are continuing to work towards aligning our MBChB curriculum with the Education for Sustainable Healthcare framework, with collaborative work between students and staff leading to the creation of a working group for planetary health education.
- **Recommendations**: We recommend WMS commit to becoming an Education for Sustainable Healthcare organisation member. We recommend that planetary health teaching is integrated throughout the WMS curriculum, and includes teaching from researchers across the university and partner hospitals.

Interdisciplinary Research	B-

- **Summary:** There is one researcher within WMS closely focused on healthcare sustainability, and many sustainability researchers within the wider university, some of whom hold regular sustainability conferences and events.
- **Recommendations**: We recommend a university-wide online platform is established to collate all sustainability research within the institution. We also recommend WMS Sustainability Network continues plans to develop a Planetary Health conference. We recommend that more work is done by the faculty to encourage WMS students to engage in planetary health research during elective components.

Community Outreach and Advocacy	D+

- **Summary:** Warwick University conducts significant community outreach work however, this has not yet been mirrored by WMS. It is encouraging to see sustainability being integrated into the annual WMS health and wellness community event.
- **Recommendations**: We recommend that WMS work to create their own community outreach links with local sustainability groups to support local planetary health concerns such as food insecurity. We recommend that partner hospitals improve their patient education on environmental and climate change hazards to health.

Support for Student-Led Initiatives	A

- **Summary:** There has been a rapid expansion of planetary health student-led initiatives in the last year spearheaded by the WMS Sustainability Network including a student sustainability representative sitting on the WMS Student Staff Liaison Committee, the creation of WMS Sustainability website, and securing funding for student-led sustainability projects.
  Recommendations: We recommend the WMS Sustainability website be updated and expanded to include potential mentor information, planetary health news and opportunities for student engagement.

Campus Sustainability	B

- **Summary:** The University of Warwick is actively engaged in sustainability goals e.g. (partial) divestment from fossil fuels, retrofitting buildings, working towards campus-wide plant based menus by 2027. Recycling and composting facilities are available throughout campus. However, guidelines and incentives for sustainable practice are not yet in place within WMS or at university-wide level.
- **Recommendations**: We recommend WMS develops school-specific sustainability guidelines and requirements for student and staff led events e.g catering and recycling requirements. We also recommend continued promotion and work towards more safe, active travel for WMS students and staff.

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 medical schools, we have created a Planetary Health Report Card that medical students internationally can use to grade and compare their home institutions on an annual basis. This medical-student-driven initiative aims to compare medical schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach 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 vs. Institution:** When "medical school" is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more

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

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions providers are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and 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.

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

- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

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

Added to our resources in 2022, the Planetary Health Report Card Literature Review by Metric collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

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

Curriculum: General

1.1. 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?	
3	Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health.
0	No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.

Score explanation:

At WMS, there are three opportunities for student-selected components over the four year course.

In Phase 2, the elective module ‘Infectious diseases and tropical medicine” incorporates planetary health issues. An additional Phase 2 elective module on planetary health/sustainable healthcare is planned for 2024/2025.

In early Phase 3, students complete a research or quality improvement project. Several students in 2023/2024 have chosen topics on sustainability. For example, one student completed a quality improvement project implementing recycling and QR code use in the Endoscopy department at the local hospital. Links have been made with the sustainability team within the local hospital to increase projects like this for the following year. It is thus hoped that there will be an expansion of similar projects of this kind in 2024/2025.

Later in Phase 3, after finals, students also complete a medical elective. One student undertook an elective at the Centre of Sustainable Healthcare in March/April 2023. This option was also advertised on the Elective Opportunities Noticeboard for students undertaking the Elective in March/April 2024. One student has planned to undertake an elective project on healthcare and sustainable development in a South American village.

Curriculum: Health Effects of Climate Change

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

Score explanation:

The Phase 3 (4th year students) academic day on 29/09/2023 included the 1-hour lecture 'An Introduction to Sustainable Healthcare'. Learning outcomes were: 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; and 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. This session has now been moved to an earlier part of Phase 3 (3rd year students) and took place on 09/02/2024. The slot was extended to 1 ½ hours to include interactive activities.

The Phase 2 lecture 'Burden Of Infection Diseases' (part of Advanced Cases 1 module) 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.

1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation:

The Phase 3 academic day on 29/09/2023 included the 1-hour lecture 'An Introduction to Sustainable Healthcare' (see 1.2), which covered this topic briefly.

The Phase 2 lecture 'Burden Of Infection Diseases' also discussed how the epidemiology of infectious diseases is influenced by climate change (see 1.2).

1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?	
3	This topic was explored **in depth** by the **core** curriculum.

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

Score explanation:

The Phase 3 academic day on 29/09/2023 included the 1-hour lecture ‘An Introduction to Sustainable Healthcare’ (see 1.2), which covered this topic briefly.

The Phase 2 lecture ‘Burden Of Infection Diseases’ also discussed how the epidemiology of infectious diseases is influenced by climate change (see 1.2).

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

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

A Phase I Case Based Learning (CBL) case based on the real story of a child who died from asthma includes the effect of pollution where the coroner highlights the contributory factor of air pollution. The CBL case also includes information on inhaler emissions and inhaler recycling.

The Phase 1 lecture ‘Pathophysiology and Clinical Aspects of Asthma’ discusses the role of increasing air pollution in the development of extrinsic asthma. This was presented in relation to the learning objective ‘List the main aetiology factors in the development of extrinsic asthma.’

The Phase 3 academic day on 29/09/2023 included the 1-hour lecture ‘An Introduction to Sustainable Healthcare’ (see 1.2), which covered this topic briefly.

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?

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

Score explanation:

The Phase 3 academic day on 29/09/2023 included the 1-hour lecture ‘An Introduction to Sustainable Healthcare’ (see 1.2), which covered this topic briefly. The lecture explicitly references the increasing recognition that environmental pollution and extreme weather events are CVD risk factors.

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation:

The impact of environmental degradation on mental and neuropsychological health is not yet included in the medical school curriculum. However, WMS staff are collaborating with students to create a new CBL case which occurs in the context of a natural disaster e.g. a person experiencing a stroke during a heat wave. This case is also likely to include discussion of anxiety and mental health in relation to climate change.

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

Score explanation: The Phase 3 academic day on 29/09/2023 included the 1-hour lecture ‘An Introduction to Sustainable Healthcare’ (see 1.2), which covered the link of 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 <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.

0	This topic was **not** covered.

Score explanation:

Phase 2 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 2 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 Advanced Cases 1 (AC1) Module.

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation:

The Phase 3 academic day on 29/09/2023 included the 1-hour lecture ‘An Introduction to Sustainable Healthcare’ (see 1.2), which covered this topic briefly.

Phase 2 students receive the lecture “Asylum Seekers Refugees: Migrant Health” which discusses climate-related factors driving movement of populations and their health needs (see 1.9).

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

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation:

The Phase I lecture ‘Congenital Abnormalities (Birth Defects) and Teratogens’ discusses the impacts of various environmental exposures (including pesticides, herbicides, and pollutants) on reproductive health and development in utero.

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation:

The WMS curriculum references human-caused environmental threats to human health without specific comment to local communities. One local threat which could be addressed is air pollution in e.g. in some areas of Coventry increased levels of NO2 have been detected (https://www.coventry.gov.uk/pollution-1/air-quality/3), and one local study found air pollution in the West Midlands was linked to increased heart failure and morbidity (https://bmjopen.bmj.com/content/4/12/e006028). Students will recommend that information on local air pollution could be linked into the previously mentioned Phase I asthma CBL case addressing air pollution (see 1.5). Air pollution is discussed during GP teaching as a significant risk factor for cardiovascular disease, and includes the biomedical process behind this risk however comment is not made to it's implication in local population health. .
Local threats also include food insecurity. There is currently a joint project being set up with the local council and WMS to address food insecurity in Coventry.

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?	
3	Indigenous knowledge and value systems are **integrated throughout** the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included **briefly** in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in **elective** coursework.
0	This topic was **not** covered.

Score explanation:

This topic is not yet covered in the WMS curriculum. We will continue to look at how we can do this, but indigenous knowledge and values are less apparent in the UK.

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?

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

Score explanation:

Phase II students receive lectures “Asylum Seekers Refugees: Migrant Health”, “Homelessness” and “Inequalities in health” (see 1.9) which briefly assess the impact on anthropogenic environmental factors on vulnerable communities. In addition, the Phase I asthma CBL case (see 1.5) includes a video highlighting the disproportionate impact of air pollution exposure to children of low SES.

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

Score explanation:
This topic is briefly discussed in nutrition education within a Phase 1 lecture and nutrition group work, and reinforced again in Phase III planetary health lecture. It is also included in non-curricular university initiatives (see section 3).

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

Score explanation:

Phase 2 students receive teaching sessions on the relative carbon footprints of different surgical operations as part of their Surgery Core Clinical Education (CCE) block. Teaching discusses the environmental impact of anaesthetic gases.

The Phase I asthma CBL case (see 1.5) also discusses the environmental impact of inhalers..

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)	
2	The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfil this metric.
1	The health **and** environmental **co-benefits** of **non-pharmaceutical management** of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	**Waste production** within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	1: Throughout specialist clinical placements in Phase III and IV, de-prescribing, the avoidance of over-investigation and over-treatment are key themes across the speciality teachings. 2, 3 & 6: There is a specific teaching session on de-prescribing within the GP teaching block, alongside teaching on social prescribing and the environmental considerations of inhaler prescribing. 5: There is teaching on the environmental impacts of anaesthetic gases within speciality teaching and also in the planetary health lecture delivered in Phase III. 4 & 7: Waste within healthcare and surgery are taught as themes throughout the surgical teaching blocks. Planetary health teaching in Phase III emphases the environmental impact of healthcare waste and single use items. This year, student research has also specially looked at targeted ways to reduce surgical waste in colonoscopy.

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?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework.

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

Score explanation:

Explicit strategies for such conversations are not yet included in the curriculum, but may form part of a new CBL case (see 1.7)

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

2	Yes, the **core** curriculum includes strategies for taking an environmental history.
1	Only **elective** coursework includes strategies for taking an environmental history.
0	No, the curriculum does **not** include strategies for taking an environmental history.

Score explanation:

During Phase I Clinical Skills, environmental/exposure history is included. This is specifically pertinent to the respiratory and obstetrics history teaching sessions.

In Phase II, there is an occupational health lecture, that 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. This impacts of occupational exposures on lung health is further discussed in the Phase II lecture "Lung Cancer".

Curriculum: Administrative Support for Planetary Health

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

4	Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education.
0	No, there are **no** improvements to planetary health education in progress.

Score explanation:

WMS is working in collaboration with students to align with the ESH curriculum in the next 12 months under monitoring by the Learning, Teaching & Quality committee

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

6	Planetary health/ESH topics are **well integrated** into the core medical school curriculum.
4	**Some** planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).**
0	There is **minimal/no** education for sustainable healthcare.

Score explanation:

As mentioned in previous sections, there is core teaching in all three Phases of the WMS course which relate to planetary and sustainable health (see sections 1.5, 1.9, 1.11).

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	**Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Score explanation:

WMS does not have a specific member of staff responsible for overseeing planetary health integration, but several members of staff (including the Director of Medical Studies) are part of the WMS Sustainability Network which is working towards better incorporating planetary health throughout the course.

Section Total (47 out of 72)	**65%**

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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
3	Yes, there are faculty members at the **medical school** who have a **primary r**esearch focus in planetary health **or** healthcare sustainability.
2	Yes, there are individual faculty members at the **medical school** who are conducting research **related** to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the **institution**, but none associated with the medical school.
0	No, there are **no** planetary health and/or healthcare sustainability researchers at the **institution** or **medical school** at this time.
Score explanation: 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). 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?	
3	There is **at least one** dedicated department or institute for interdisciplinary planetary health research.
2	There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years.
1	There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research.

0	There is **no** dedicated department or institute.

Score explanation:

Warwick Institute for Global Sustainable Development (IGSD) is a school for cross-faculty study. It's research community includes scholars from across the university who study environmental governance, complex ecosystems and resilience. Find their homepage here.

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 medical school?	
3	Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda.
1	**No**, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda.
0	There is **no** process, and **no** efforts to create such a process.

WMS has a 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 have a Social Mobility Student Research Hub (webpage) which supports student research projects from under-represented groups.

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?	
3	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.
2	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.
1	The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment.
0	There is **no** website.

Score explanation:
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. It also includes the university's Sustainable Development Goals Report which includes information about university-wide research, initiatives and events over the past year.
Within the Warwick University research website, there is a section dedicated to current sustainability and development research at the university (here). 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. The GRP page can be found here.

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

Score explanation:

The School for Cross-Faculty Studies and Estates hosted a "Ways to Sustainability" conference in November 2023 (see here). 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). In addition, 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 medical school a member of a national or international planetary health or ESH organisation?	
1	Yes, the medical school is a member of a national or international planetary health **or** ESH organisation
0	No, the medical school is **not** a member of such an organisation

Score explanation:

The medical school is working towards aligning the curriculum with the ESH framework but is not a member at the moment.

Section Total (11 out of 17)	**64.7%**

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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 medical school partner with community organisations to promote planetary and environmental health?	
3	Yes, the **medical school** meaningfully partners with **multiple** community organisations to promote planetary and environmental health.
2	Yes, the **medical school** meaningfully partners with **one** community organisation to promote planetary and environmental health.
1	The **institution** partners with community organisations, but the medical school is not part of that partnership.
0	No, there is **no** such meaningful community partnership.

Score explanation:

The University of Warwick has strong links with community wildlife, conservation and volunteering groups, including but not limited to: Warwick Wildlife Trust, plastic free communities, Surfers Against Sewage, Warwick Volunteers, Tossil Wood Project, Hedgehog Friendly Campus and Canley Community Centre. The university is also working towards a Plastic Free Community Status on campus. In addition, the university works with wildlife groups on campus projects, creating green throughways for wildlife and upkeep the Tossil Woods conservation which is sandwiched between the medical school and main campus. However, WMS is not directly involved with these projects or relationships. WMS are currently developing community outreach projects.

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

Score explanation:

WMS hosts an annual "Health and Wellbeing Day", the most recent being 27/05/23. The event hosts stalls and interactive activities, some of which have sustainable themes e.g., newspaper seed pot making. This day is open to students and the public. However, whilst being open to the public there is limited public advertising and data identifying the number of public attendees cannot be seen, thus highlighting an area for future improvement

3.3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
2	Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are **sometimes** included in communication updates.
0	Students **do not** receive communications about planetary health or sustainable healthcare.

Score explanation:

Whilst the Green Team do provide regular email updates, students must sign-up to receive this communication. The Warwick Students Union Newsletter often contains other sustainability related information. The WMS weekly MBChB newsletter also occasionally contains relevant information about the WMS sustainability network e.g. upcoming events.

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

The University of Warwick hosts postgraduate courses on FutureLearn. Courses include a 'Reducing Carbon Footprints: Taking Action for a Sustainable Future' module. The sustainability group are currently working on adding more courses to this.

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

2	Yes, the **medical school** or **<u>all</u> affiliated hospitals** have accessible educational materials for patients.
1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated medical centres have accessible educational materials for patients.
There is currently no patient information leaflets about environmental health exposures, however mould and spores are mentioned within paediatric allergy clinic leaflets.	

3.6. Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?	
2	Yes, the **medical school** or **<u>all</u> affiliated hospitals** have accessible educational materials for patients.
1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated hospitals have accessible educational materials for patients.
There are currently no patient information articles or leaflets about the health impacts of climate change from the medical school or hospitals.	

Section Total (5 out of 14)	**36%**

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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 medical school or your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the **medical school** or **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum.
1	The **medical school** or **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.
0	No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.
Score explanation: The University of Warwick has an Environmental Sustainability Fund which provides financial support up to £5000 to student initiatives that promote sustainability. The Student Union and Warwick Enterprise also offer financial support for student events and business ideas linked to sustainability. Warwick Medical School also offers the 'Student Initiated Peer Programme Support Scheme' (SIPPSS) fund of up to £250 to fund student support projects. The WMS 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.	

4.2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time.
0	There are **no opportunities** for students to engage in planetary health/sustainable healthcare research.
Within the medical school, there are three opportunities for student-selected research components over the four year course (see 1.1), although these are optional and require student initiative. For example the most uptodate (2023/4) list of academic supervisor for Phase 3 SSC2 projects does not include any projects relating to planetary health - therefore students would have to contact individual researchers in	

the field.

The University of Warwick has a dedicated Doctoral Scholarship Programme that offers 18 scholarships for transdisciplinary projects into global sustainability challenges, which includes a themed cluster specifically for sustainable urbanisation, health and wellbeing.

4.3. Does the medical school have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
2	The **medical school** has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	There is a **medical school** webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
0	There is **no medical-school** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.

Score explanation:

WMS Sustainability Network has a webpage including specific information related to planetary health and sustainable healthcare including up to date information on projects. However, it does not yet include any identified potential mentors although work is currently underway to develop this.

4.4. Does your medical school have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
2	Yes, there is a student organisation **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.**
0	No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare.

Score explanation:

The WMS Sustainability Network was founded in Autumn 2023. This is a student-led network which aims to implement sustainability related change within the medical school. Ongoing projects include establishing hydroponic plant growth within WMS, investigating and promoting sustainable modes of student transport to university, and clothing swaps e.g. scrubs, ball dresses ahead of student events. There is significant faculty support and engagement with such projects.

4.5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.

Score explanation:

A student representative has recently been appointed to the WMS Student Staff Liaison Committee (SSLC) to represent sustainability interests and best practices. In addition, there are 2 elected student members on the University Estate and Environment Committee. There are also 2 student union representatives who sit on the Environment and Social Sustainability Action Group (ESSAG) for Warwick University.

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

Score explanation:

a) 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. Students are encouraged to get involved with the allotment scheme and are invited to share produce.

b) Various departments and groups with the University host panels, series and educational events relevant to planetary health e.g. the School for Cross-Faculty Studies and Estates hosted a "Ways to Sustainability" conference in November 2023.

c) The University has hosted various community groups allowing students to learn more directly about local environmental challenges e.g. in November 2023 the Sustainability Team hosted Warwickshire Wildlife Trust for an educational event on sustainable diets.

d) Warwick Arts Centre hosts regular art installations and workshops for students with a section of workshops dedicated to sustainability. This has included working with local community groups to start the 'Planting Roots' agriculture program, hosting the 'Change Festival' which discusses how we can tackle the climate crisis, and hosting sustainability-themed makers markets.

e) The University of Warwick hosts and promotes various volunteer opportunities and events related to community resilience to climate change e.g. Wednesday Warwick Wombles Litter picking, regular Sustainability Swap Shops, 'Planting Roots' agriculture program,

f) WMS Wilderness Society specialises in outdoor and adventure activities and training for medical students. They are very active in teaching wilderness medicine and participate in the national 'Wild Trials' alongside hosting hiking weekend trips, weekly climbing sessions, day hikes and trail runs.

Section Total (14 out of 15)	**93%**

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Campus Sustainability

Section Overview: ***This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution.*** *The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive 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 medical school and/or institution have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of medical school and/or hospital sustainability.
1	There are **no salaried sustainability staff,** but there is a sustainability task force or committee
0	There are **no** staff members **or** task force responsible for overseeing campus sustainability

Score explanation:

The WMS Sustainability Network was founded in Autumn 2023 (see 4.4). In addition, the University of Warwick has an Energy and Sustainability Team made up of the Director of Environmental Sustainability, Head of Sustainable Campus Operations, Senior Energy and Carbon Manager, Sustainability Engineer, Sustainability Technician, three Sustainability Champions across Waste & Recycling, Ecology & Biodiversity, and Procurement & Finance, two Sustainability Coordinators, and two Sustainability Assistants. There are currently eight WMS staff members who are voluntary members of the Green Champions Network and communicate with this team. WMS also has a Green Action Team of staff volunteers, supported by the central Energy & Sustainability team.

Click here to access WMS Sustainability Network website
Click here to access WMS Sustainability Network events specific page

5.2. How ambitious is your institution/medical school plan to reduce its own carbon footprint?	
5	The institution/medical school has a **written and approved plan** to achieve carbon neutrality by **2030**
3	The institution/medical school has a **written and approved plan** to achieve carbon neutrality by **2040**

1	The institution/medical school has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate**
0	The institution/medical school does **not** meet any of the requirements listed above
	Score explanation: The University of Warwick has issued a Sustainability Strategy 'Way to Sustainable' which includes explicit commitments, including to implement sustainable energy and transport, cultivate a nature friendly campus, and embed sustainable development principles across Education, Research, Operations, and Engagement. One explicit goal is to "get to net zero carbon emissions from direct emissions and the energy we buy by 2030 (Scope 1 & 2)". The full 'Way to Sustainable' Strategy can be viewed here.

5.3. Do buildings/infrastructure used by the <u>medical school</u> for teaching (not including the hospital) utilise renewable energy?	
3	Yes medical school buildings are **100%** powered by renewable energy
2	Medical school buildings source **>80%** of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source **>20%** of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source **<20%** of energy needs from off-site and/or on-site renewable energy.
Score explanation: The below is considering the following buildings: Bio-Medical Research Building, Clinical Trials Unit, Mechanochemical Cell Biology, and Medical Teaching Centre. In total, energy use for these buildings was **24% renewable**. The renewable portion of the energy consists of 60% Gas fired CHP, 1% Solar PV, and 39% purchased Renewable Electricity. Gas district heat or direct gas made up 47% of total energy supply. You can find the full Warwick University Sustainability Plan here. You can read more about the Cryfield Energy Centre here You can read more about the campus solar panels system here.	

5.4. Are sustainable building practices utilised for new and old buildings on the <u>medical school</u> campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?	
3	Yes, sustainable building practices are utilised for new buildings on the medical school campus and the **majority** of old buildings **have been retrofitted** to be more sustainable.
2	Sustainable building practices are utilised for new buildings on the medical school campus, but most old buildings have **not been retrofitted.**
1	Sustainable building practices are **inadequately or incompletely** implemented for new buildings.

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

Score explanation:

The University of Warwick actively retrofits new buildings, but does not routinely retrofit old buildings. The University's design standards exceed the building regulations: "through the 'Warwick Standard', we are striving to be more efficient about our campus' buildings, and even how we build them. Since 2017, the University has developed all capital projects to comply with an energy-low carbon strategy, achieving a minimum 30 per cent improvement on building regulations, and 10 of our 17 buildings in Academic Square place in the top quartile of energy use nationally."

The newest building on the WMS is the "most environmentally sustainable space on campus so far". Find the press release for it here.

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

2	Yes, the medical school or 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.
1	The medical school or institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised.
0	The medical school or institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options.

Score explanation:

There are regular bus links to Gibbet Hill Campus from Coventry and Leamington Spa, as well as the West Midlands Bus On Demand to get to campus from any of the surrounding areas. A cycleway from Leamington Spa towards the University campus is also currently under construction. There are cycle paths across the University campus and from Coventry city centre to Gibbet Hill campus.

The main university regularly hosts or promotes cycle assist, cycle training and cycle repair shop days which are available to all students and are either free or cheap to access. Students also have access to West Midlands Cycle Hire with stations around both the main and medical school campus, and the surrounding areas, which include pedal bikes and e-bikes. There is a new mobility hub at the Gibbet Hill campus which allows the safe and simple storage of bikes and has bike maintenance facilities. .

The WMS Sustainability Network is also actively working on an 'Active Travel' project which is investigating and promoting sustainable student travel (see 4.1 and here)

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

2	Yes, the medical school has **both** compost **and** recycling programs accessible to students and faculty.
1	The medical school has **either** recycling **or** compost programs accessible to students and faculty, but not both.
0	There is **no** compost or recycling program at the medical school.

Score explanation:

At Gibbet Hill campus and WMS there are recycling programmes and facilities available for staff and students to enable the disposal of waste in a sustainable manner. Currently, coffee grounds and food waste are composted at Gibbet Hill for retail only. The aim is to expand this to general kitchen. There is also a compost bin in the student-led WMS allotment (see 4.6).

5.7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
3	Yes, the medical school has 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.
2	There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The medical school **is engaged** in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The medical school is **not** engaged in efforts to increase food and beverage sustainability.
0	There are **no** sustainability guidelines for food and beverages.

Score explanation:

The WMS campus cafe encourages the use of reusable cups with financial incentives, has vegan & vegetarian options, and provides only compostable takeaway containers for those who aren't eating in. On the main campus reusable cups are also encouraged and have a wide variety of plant-based options. In addition, food waste apps Olio and Too Good to Go are promoted to reduce food waste on campus. A current redesign of Food and Beverage strategy is underway at the University of Warwick, which has a strong focus on sustainability. The Student Union has also elected for the University to adopt fully plant based menus by 2027.

5.8. Does the <u>medical school</u> or <u>institution</u> apply sustainability criteria when making decisions about supply procurement?	
3	Yes, the medical school has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The medical school is **engaged** in efforts to increase sustainability of procurement.

1	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The medical school is **not engaged** in efforts to increase sustainability of procurement.
0	There are **no** sustainability guidelines for supply procurement.

Score explanation:

Procedures for procurement and tenure are employed. Currently, there are no formal university-wide guidelines for sustainable procurement. However, the energy and sustainability team have had the addition of a Sustainability Champion for Procurement and Finance and are working on creating formal sustainability guidance. The Student Union has also elected for the University to adopt fully plant based menus by 2027.

5.9. Are there sustainability requirements or guidelines for events hosted at the <u>medical school</u>?	
2	Every event hosted at the medical school **must** abide by sustainability criteria.
1	The medical school **strongly recommends or incentivizes** sustainability measures, but they are **not required.**
0	There are **no** sustainability guidelines for medical school events.

Score explanation:

The University and WMS strongly recommend and incentivise sustainable events and follow these recommendations wherever possible. However, they are not mandatory. A Sustainable Events Guide is currently in development by the Energy & Sustainability team, and is being trialled with groups across campus. The Student Union has also elected for the University to adopt fully plant based menus by 2027, and this will include plant based dietary requirements for events hosted within WMS.

5.10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	Yes, the medical school has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable.
1	There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are **no** efforts at the medical school to make lab spaces more sustainable.

Score explanation:

The University participates in the Laboratory Efficiency Assessment Framework, and a certain number of labs on Gibbet Hill Campus (including WMS) are currently involved.

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

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

Score explanation:
Our Socially Responsible Investment Policy states:

The University will not knowingly invest in companies involved in fossil fuel extraction or production.

Where investments are made by third party fund managers in pooled funds or similar vehicles, the University's requirement is that wherever practicable, the funds in question should seek to avoid direct investment in companies that fall within the exclusions in its SRI policy. The University's investment managers will actively screen collective investments to ensure the funds meet with this SRI Policy, in particular excluding: companies involved in the production, cultivation and manufacture of tobacco, in recognition of the conflict with the University's medical research objectives companies involved in the extraction of thermal coal, the production of oil from tar sands or the extraction of petroleum.
The University does, however, recognise that where investments are made in index-related securities, it is not practicable at present (to a degree that is consistent with the trustees' duty to maximise returns) to pursue an investment strategy where no indirect investment in such companies arises. The Investment Sub-Committee will at least once a year review the University's investment in index-related securities to see if alternative index-related securities that exclude companies that fall within the University's SRI policy can be used without being materially to the detriment of expected investment returns.

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(47/72) x 100 = 65.3%	B
Interdisciplinary Research (17.5%)	(11/17) x 100 = 64.7%	B-
Community Outreach and Advocacy (17.5%)	(5/14) x 100 = 35.7%	D+
Support for Student-led Planetary Health Initiatives (17.5%)	(14/15) x 100= 93%	A
Campus Sustainability (17.5%)	(23/32) x 100 = 72%	B
Institutional Grade	**66 %**	**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.