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# Planetary Health Report Card (Medicine) 2026: *School of Medicine at the University of Minho*

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Universidade do Minho  
Escola de Medicina

2025-2026 Contributing Team:

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## Summary of Findings

<b>Overall Grade</b>	<b>C-</b>
<b>Curriculum</b>	<b>C</b>
<ul style="list-style-type: none"> <li>The School of Medicine of the University of Minho incorporates planetary health topics across both core and elective courses, covering climate change, environmental determinants of disease, nutrition, and sustainable healthcare practices. Electives such as <i>Planetary Health - Climate Change and Health</i> and <i>Food and Gastronomy</i>, along with extracurricular initiatives like <i>ECOVIDA</i> and <i>GreenFlow</i>, provide students with practical experiences in sustainability and healthy living. Core courses address responsible resource use, laboratory sustainability, nutrition, and lifestyle interventions, while clinical training includes environmental history-taking and rational prescription practices. However, gaps remain in teaching about environmental toxins, Indigenous knowledge, healthcare system carbon footprint, patient communication on climate risks, and advocacy for environmental health. Topics are not yet fully integrated longitudinally or consistently assessed in clinical skills.</li> <li><b>Recommendations:</b> Introduce dedicated teaching on environmental toxins, healthcare sustainability, and climate justice, while integrating structured clinical scenarios and faculty training to strengthen students' practical application of planetary health concepts.</li> </ul>	
<b>Interdisciplinary Research</b>	<b>D+</b>
<ul style="list-style-type: none"> <li>The University of Minho has limited interdisciplinary planetary health research within the School of Medicine. While no faculty members or dedicated projects focus specifically on planetary health, the university supports broader sustainability research through units like the IB-S and CBMA. In 2024, the first <i>Greenfest</i> brought together schools, companies, local authorities, and the public to raise awareness of sustainability issues. However, there is no community input process, no central website for research, and no membership in international planetary health networks.</li> <li><b>Recommendations:</b> Establish a dedicated interdisciplinary planetary health research centre, create mechanisms for community engagement, develop a central online platform for research, and join international planetary health networks to strengthen collaboration and impact.</li> </ul>	
<b>Community Outreach and Advocacy</b>	<b>D</b>
<ul style="list-style-type: none"> <li>The School of Medicine of the University of Minho engages with sustainability mainly through student-led organisations and external partners, and regularly hosts community-facing events like the <i>ECOVIDA</i> project. However, there is no formal communication to students, no postgraduate training, and no patient-facing educational materials on environmental health or climate change.</li> <li><b>Recommendations:</b> Expand community partnerships, create patient educational resources, and offer postgraduate training on planetary health and sustainability.</li> </ul>	
<b>Support for Student-Led Initiatives</b>	<b>C</b>
<ul style="list-style-type: none"> <li>The School of Medicine of the University of Minho supports student-led planetary health initiatives mainly through NEMUM. Students can pursue independent projects in sustainability under faculty guidance. Notable initiatives include <i>ECOVIDA</i> in 2025 and its continuation as <i>GreenFlow</i> in 2026, featuring workshops, sustainability fairs, and activities promoting healthy lifestyles and circular economy practices. Gaps remain, including the absence of structured sustainability tracks, dedicated funding, a central webpage for projects and mentors, and broader co-curricular opportunities such as volunteering or environmental justice engagement.</li> <li><b>Recommendations:</b> Develop a dedicated platform for student projects and mentorship, and provide</li> </ul>	

targeted funding and expanded co-curricular opportunities in planetary health.

## Campus Sustainability

C-

- The University of Minho has made progress in campus sustainability through initiatives such as fossil fuel divestment, promotion of renewable energy, and sustainable food options. The institution has an Office of Sustainability and a Pro-Rector for Sustainable Development overseeing efforts, as well as infrastructure supporting eco-friendly transportation and recycling programs. Guidelines for sustainable building practices are followed, and the campus promotes vegetarian and plant-based food options. However, gaps remain, including the absence of renewable energy in medical school buildings, sustainability criteria for supply procurement and events, and initiatives to make lab spaces more environmentally sustainable. Carbon neutrality goals exist at the institutional level, but specific internal deadlines are not yet defined.
- **Recommendations:** Focus on increasing sustainability in laboratory spaces, procurement, and event planning, and strengthen implementation of renewable energy across campus buildings.

# Statement of Purpose

*Planetary health is human health.*

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

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

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

# Definitions & Other Considerations

## Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional 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 (Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word "elective" refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to the taught material that is delivered to the entire cohort of students in one year.
- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.
- **Extractivism:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to

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

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

### Scoring Matrix

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

### Other considerations:

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

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

# Planetary Health Curriculum

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

## *Curriculum: General*

<b>1.1. Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?</b>	
Yes, the medical school has offered <b>more than one</b> elective whose primary focus is ESH/planetary health in the past year.	
Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year.	
The medical school does <b>not</b> have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a <b>lecture</b> on planetary health.	
No, the medical school has <b>not</b> offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.	
Score Assigned:	2
<p><i>Score explanation:</i></p> <p>At the School of Medicine of the University of Minho, sustainability and planetary health principles are embedded throughout the medical curriculum. In the second year, within the PCM (Complementary Pathways in Medicine), students may choose the module “Food and Gastronomy”, which addresses topics such as vegetarian and plant-based diets, or the module “Planetary Health – Climate Change and Health”, focused on the relationship between environmental systems and human health. In the first year, the IFM (Introduction to Medical Training) curriculum includes the course “Safety and Laboratory Techniques”, which emphasises sustainable practices in laboratory environments, responsible resource management and appropriate waste segregation. Furthermore, within Academic Profile 1, the course “Healthy Lifestyles and Well-being: Nutrition” highlights the importance of healthy and environmentally sustainable eating habits. At an advanced level, planetary health is further addressed in the PCPA5 (Clinical Practice and Academic Profile 5) curriculum through the “Intensive Course: Preventive Care – Primordial Prevention”, where environmental determinants of health, including pollution, are discussed. Additionally, the course “International Health / Traveler’s Consultation / REVIVE” explores global health challenges within a planetary health framework.</p>	

## *Curriculum: Health Effects of Climate Change*

<b>1.2. Does your <u>medical school</u> curriculum address the relationship between extreme heat,</b>
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<b>health risks, and climate change?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	1
<p><i>Score explanation:</i>            At the School of Medicine of the University of Minho, the PCM (Complementary Pathways in Medicine) curriculum offers second year students the “Planetary Health - Climate Change and Health” module, which explores the links between human health and the integrity of environmental systems, highlighting the health consequences of environmental degradation and unsustainable human activities.</p>	

<b>1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	1
<p><i>Score explanation:</i>            At the School of Medicine of the University of Minho, the PCM (Complementary Pathways in Medicine) curriculum includes a “Planetary Health - Climate Change and Health” module for second year students, where the health consequences of environmental instability are discussed, with particular emphasis on how extreme weather phenomena, such as storms and floods, place pressure on individual health and healthcare systems.</p>	

<b>1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	

This topic was **not** covered.

Score Assigned:

2

*Score explanation:*

At the School of Medicine of the University of Minho, there are no stand-alone courses specifically dedicated to analysing the impact of planetary and environmental changes on the evolving patterns of infectious diseases. However, this theme is addressed indirectly across several components of the core curriculum, allowing students to engage with related concepts from different perspectives. In the 1st year, within the PA1 (Academic Profile 1) curriculum, courses such as “History of Infectious Diseases: Ethical Decisions in Clinical Practice” and “History of Epidemiology” provide a contextual understanding of how infectious diseases have evolved over time in response to environmental and societal factors. The FM2 (Fundamentals of Medicine 2) curriculum includes sessions on multidrug-resistant microorganisms and emerging diseases and zoonoses, highlighting current and future infectious threats within a planetary health framework. Additionally, the IPM (Introduction to Medical Practice) curriculum addresses traveller-related diseases and zoonotic infections, reinforcing the links between human mobility, animal health and environmental conditions. At a more advanced level, the PCPA5 (Clinical Practice and Academic Profile 5) curriculum includes a class on disease outbreaks associated with drinking water and wastewater, drawing attention to environmental determinants of infectious risk. Furthermore, within the PCM (Complementary Pathways in Medicine) curriculum, the elective module “Planetary Health - Climate Change and Health” explores vector-borne diseases, such as dengue and malaria, framing them as health challenges influenced by environmental disruption and ecological imbalance. While the relationship between planetary health and infectious disease dynamics is not addressed as a dedicated topic, it is nonetheless integrated across multiple curricular units.

**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:

2

*Score explanation:*

At the School of Medicine of the University of Minho, environmental determinants of respiratory health are addressed within the medical curriculum. In the IPM (Introduction to Medical Practice) programme, students attend a session on Chronic Obstructive Pulmonary Disease (COPD), where exposure to air pollution is discussed as a relevant risk factor in the development and progression of the disease.

In addition, the PCM (Complementary Pathways in Medicine) curriculum includes the module “Planetary Health - Climate Change and Health”, which provides students with an overview of how environmental degradation, pollution and exposure to toxic substances contribute to the burden of respiratory and other chronic diseases. Together, these curricular components reinforce the role of environmental and planetary health factors in disease prevention and clinical understanding.

**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:

2

*Score explanation:*

At the School of Medicine of the University of Minho, the PACPA1 (Clinical Practice and Academic Profile 1) curriculum includes a session on cardiovascular risk in which air pollution is identified as a relevant risk factor for cardiovascular disease, contributing to approximately 2% of cases in Portugal and 4% in Europe.

**1.7. Does your medical school 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:

1

*Score explanation:*

At the School of Medicine of the University of Minho, second year students, within the PCM (Complementary Pathways in Medicine) curriculum, may choose the module “Planetary Health - Climate Change and Health”, which addresses the psychological and mental health impacts associated with environmental and climate-related changes.

**1.8. Does your medical school 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:

2

*Score explanation:*

At the School of Medicine of the University of Minho, topics related to nutrition and environmental determinants of health are addressed at multiple stages of the medical curriculum. In the first year, within the PA1 (Academic Profile 1) curriculum, students attend the course “Healthy Lifestyles and Well-being: Nutrition”, which introduces core principles of nutrition and health promotion.

During the second year, these themes are further developed through the PCM (Complementary Pathways in Medicine) curriculum, where students may choose modules such as “Food and Gastronomy” and “Planetary Health - Climate Change and Health”, allowing a broader understanding of the links between dietary practices, environmental change and human health.

In the clinical years, the PCPA5 (Clinical Practice and Academic Profile 5) curriculum deepens this approach through classes including “Disease Outbreak - Food Safety” and “Disease Outbreak - Human Consumption Water / Wastewater”, which examine how environmental and food-related factors influence public health risks. Altogether, this longitudinal integration ensures that students acquire a consistent and comprehensive perspective on nutrition, environmental health and their relevance to human wellbeing throughout medical training.

**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:

1

*Score explanation:*

At the School of Medicine of the University of Minho, second year students may enrol in the elective “Humanitarian Medicine” module offered within the PCM (Complementary Pathways in Medicine) curriculum. While the module does not directly address climate change, it encourages students to explore a range of infectious and non-infectious health problems that disproportionately affect socially and economically vulnerable populations, particularly in settings with limited resources, restricted access to healthcare information and social exclusion.

As part of the assessment, students are required to develop and propose a community-based intervention project, allowing them to apply theoretical knowledge to practical, real-life contexts and to reflect on health challenges from a global and socially responsible perspective.

**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:	1
<p><i>Score explanation:</i>  At the School of Medicine of the University of Minho, second year students may choose the elective "Humanitarian Medicine" module within the PCM (Complementary Pathways in Medicine) curriculum. Although the module does not explicitly address climate change, it explores health challenges - both infectious and non-infectious - that are more common in socially and economically vulnerable populations, particularly in contexts with limited resources, restricted access to health information, and social marginalisation.  As part of the assessment, students are invited to design and propose a community-based intervention project, applying their knowledge to practical, real-world health and social scenarios.</p>	

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

<b>1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides, microplastics)?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation:</i>  At the School of Medicine of the University of Minho, the PCPA2 (Clinical Practice and Academic Profile 2) curriculum briefly addresses the reproductive health effects of industry-related environmental toxins within the session on infertility. In this context, students are introduced to the impact of exposure to gonadotoxic agents, including pesticides, and their potential role in impaired fertility.</p>	

<b>1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation:</i>  At the School of Medicine of the University of Minho, the curriculum addresses important human-caused environmental threats relevant to the surrounding community within the course unit Introduction to Medical Practice (IPM), specifically during the lecture on Pneumoconioses. In this</p>	

context, students are taught about occupational and environmentally induced respiratory diseases resulting from industrial and construction-related exposures, including silicosis, asbestosis (particularly relevant in the region due to its association with the construction sector), berylliosis, and coal workers' pneumoconiosis. These conditions are presented as preventable diseases caused by prolonged exposure to airborne industrial pollutants and mineral dust generated by human economic activity. Teaching includes discussion of pathophysiology, clinical presentation, and diagnosis, as well as preventive measures, workplace safety regulations, and the broader public health implications of environmental and occupational exposures. By addressing these locally relevant environmental health threats, the curriculum highlights the intersection between industry, environmental degradation, and community health.

**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

*Score explanation:*

At the School of Medicine of the University of Minho, there are no classes that address this topic.

**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: 1

*Score explanation:*

At the School of Medicine of the University of Minho, second year students can enrol in the elective "Humanitarian Medicine" module within the PCM (Complementary Pathways in Medicine) curriculum. While this module does not directly address climate change, it focuses on both infectious and non-infectious health issues that are more prevalent in under-resourced and socially marginalized regions.

As part of the course assessment, students are tasked with developing a community-based intervention project, allowing them to apply their knowledge to practical, real-world situations.

**Curriculum: Sustainability**

<b>1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	2
<p><i>Score explanation:</i></p> <p>At the School of Medicine of the University of Minho, students are introduced to nutrition and environmental sustainability throughout their training. In the first year, the PA1 (Academic Profile 1) curriculum includes the session "Healthy Lifestyles and Well-being: Nutrition," which covers basic principles of nutrition and its impact on health. During the second year, students can take courses in the PCM (Complementary Pathways in Medicine) curriculum, including "Food and Gastronomy" and "Planetary Health – Climate Change and Health," which explore the links between diet, environmental change, and human wellbeing. In the fifth year, the PCPA5 (Clinical Practice and Academic Profile 5) program offers the "Intensive Course: Preventive Care – Health and Nutrition," focusing on dietary strategies to prevent and manage disease, giving students practical tools to apply nutrition knowledge in clinical settings.</p>	

<b>1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum.	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum.	
This topic was covered in <b>elective</b> coursework.	
This topic was <b>not</b> covered.	
Score Assigned:	0
<p><i>Score explanation:</i></p> <p>At the School of Medicine of the University of Minho, there are no classes that address this topic.</p>	

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

The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> 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 <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of <b>anaesthetic</b> gases on the healthcare carbon footprint and ways to reduce anaesthesia's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0
The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
<b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1

*Score explanation:*

1. At the School of Medicine of the University of Minho, in the **first year**, students in the FM2 (Fundamentals of Medicine 2) curriculum attend a session on "Rational Prescription of Antibiotics in Primary Health Care," which emphasizes the careful and appropriate use of antimicrobial agents. In the **second year**, within the PCM (Complementary Pathways in Medicine) curriculum, students may choose the course "General Principles of Antibiotic Therapy," focusing on the principles of proper therapeutic management. Throughout the preclinical years, Case-Based Learning (CBL) sessions provide clinical scenarios that integrate anatomy, physiology, and therapeutics, encouraging students to explore prevention strategies, lifestyle-based interventions, and targeted pharmacological treatments when necessary. During clinical rotations, hospital tutors reinforce these concepts, highlighting the importance of responsible antibiotic prescription and management in real-world healthcare settings.
2. At the School of Medicine of the University of Minho, antibiotic education is incorporated throughout the curriculum. In the **first year**, students in the FM2 (Fundamentals of Medicine 2) program attend a session on "Rational Prescription of Antibiotics in Primary Health Care," which emphasizes careful and judicious use of antimicrobials. The course highlights the importance of prescribing antibiotics only when clinically necessary. Another class, "Multidrug-Resistant Pathogens," examines how inappropriate antibiotic use contributes to the emergence of resistant microorganisms. Across the curriculum, Case-Based Learning (CBL) sessions and clinical rotations in hospitals allow students to apply this knowledge to practical scenarios, considering both the therapeutic benefits and potential risks of medications. This integrated approach ensures that students develop a thorough understanding of responsible antibiotic use and its broader implications for individual and public health.
3. Throughout Case-Based Learning (CBL) sessions and hospital rotations, students at the School of Medicine of the University of Minho are guided on the role of lifestyle modifications in managing various health conditions. This focus is reinforced in the second year, within the FM3 (Fundamentals of Medicine 3) curriculum. During the "Anti-dyslipidemic" lecture, students explore non-pharmacological strategies for controlling lipid disorders, learning, for example, that regular physical activity is the most effective way to increase HDL cholesterol levels. This curriculum emphasizes the critical role of lifestyle interventions in both the prevention and management of disease.
4. At the School of Medicine of the University of Minho, environmental responsibility is incorporated into the curriculum starting from the first year. In the IFM (Introduction to

Medical Training) program, students attend the "Safety and Laboratory Techniques" course, which introduces sustainable laboratory practices and the efficient use of resources. This class also highlights the importance of correct waste segregation. As students advance to their clinical years, they receive training on hospital waste management procedures, ensuring they understand the importance of proper disposal practices in healthcare settings. This integrated approach aims to foster both professional responsibility and environmental stewardship throughout medical education.

***Curriculum: Clinical Applications***

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

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

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

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

Score Assigned: 0

*Score explanation:*  
At the School of Medicine of the University of Minho, there are no classes that address this topic.

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

Yes, the **core** curriculum includes strategies for taking an environmental history.

Only **elective** coursework includes strategies for taking an environmental history.

No, the curriculum does **not** include strategies for taking an environmental history.

Score Assigned: 2

*Score explanation:*  
At the School of Medicine of the University of Minho, comprehensive training in medical history-taking is embedded within the clinical curriculum. In the later years of study, students learn to collect detailed patient information, including potential exposure to environmental toxins and access to safe drinking water. This training is formally introduced in the IPM (Introduction to Medical Practice) program, through the "The Art of Interview 1" course, where students are taught strategies for conducting thorough patient interviews and emphasising the importance of gathering a complete medical history that considers both individual health factors and environmental influences.

***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?**

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

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

No, there are **no** improvements to planetary health education in progress.

Score Assigned:

2

*Score explanation:*

At the School of Medicine of the University of Minho, measures have been implemented to enhance education on sustainable and global health. This includes the introduction of elective courses within the PCM (Complementary Pathways in Medicine) curriculum, such as "Planetary Health - Climate Change and Health," which provide students with the opportunity to explore the connections between environmental change, human health, and sustainability.

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

Planetary health/ESH topics are **well integrated** into the core medical school curriculum.

**Some** planetary health/ESH topics are appropriately integrated into the core medical student curriculum.

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

There is **minimal/no** education for sustainable healthcare.

Score Assigned:

4

*Score explanation:*

At the School of Medicine of the University of Minho, students can choose an elective focused on planetary health, "Planetary Health - Climate Change and Health," offered within the PCM (Complementary Pathways in Medicine) curriculum. In addition, certain courses in the core curriculum address the health consequences of climate change as risk factors for specific diseases, while also incorporating sustainability practices and proper waste management during laboratory sessions. For example, the first-year IFM (Introduction to Medical Practice) course "Safety and Laboratory Techniques" emphasizes the importance of correct waste segregation and environmentally responsible laboratory practices.

**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.

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

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho, there is no faculty member responsible for addressing planetary health in the curriculum.

**1.23. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?**

This topic was explored **in depth** by the **core** curriculum.

This topic was **briefly** covered in the **core** curriculum.

This topic was covered in **elective** coursework.

This topic was **not** covered.

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho, there is no formal teaching on civic engagement or advocacy to address environmental and structural determinants of health. The PCM module "Planetary Health – Climate Change and Health" raises awareness of environmental and climate-related health issues, but does not train students to act as advocates or engage in policy interventions.

**Section Total (36 out of 75)**

**48%**

# 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.*

<b>2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>?</b>	
Yes, there are faculty members at the <b>institution</b> who have a <b>primary</b> research focus in planetary health <b>or</b> sustainable healthcare/vetcare.	
Yes, there are individual faculty members at the <b>institution</b> who are conducting research <b>related</b> to planetary health or healthcare sustainability, <b>OR</b> are part of a national/international sustainability working group, but it is not their primary research focus.	
There are sustainability researchers at the <b>institution</b> , but not specifically associated with healthcare/vetcare.	
No, there are <b>no</b> planetary health and/or sustainability researchers at the <b>institution</b> at this time.	
Score Assigned:	1
<p><i>Score explanation:</i></p> <p>At the School of Medicine of the University of Minho, there are currently no dedicated research projects or faculty members specifically focused on planetary health and healthcare sustainability. However, the university incorporates sustainability and environmental health topics across several of its research units. For example, the Institute of Science and Innovation for Bio-Sustainability (IB-S) promotes interdisciplinary research initiatives related to environmental sustainability, fostering collaboration across different scientific fields.</p>	

<b>2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?</b>	
There is <b>at least one</b> dedicated department or institute for interdisciplinary planetary health research.	
There is <b>not currently</b> a department or institute for interdisciplinary planetary health research, but there are <b>plans</b> to open one in the next 3 years.	
There is an <b>Occupational and Environmental Health department</b> , but no interdisciplinary department or institute for planetary health research.	

There is <b>no</b> dedicated department or institute.	
Score Assigned:	3
<i>Score explanation:</i> At the School of Sciences of the University of Minho, within the Biology Department, the Center for Molecular and Environmental Biology (CBMA) conducts research on ecosystems and the impacts of climate change. In addition, the Institute of Science and Innovation for Bio-Sustainability (IB-S) serves as an example of a research unit fostering interdisciplinary collaboration on topics related to environmental sustainability.	

<b>2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your <u>institution</u>?</b>	
Yes, there is a process in which community members impacted by climate and environmental injustice have <b>decision-making power</b> in the climate + environmental research agenda.	
Yes, there is a process in which community members impacted by climate and environmental injustice <b>advise</b> the climate + environmental research agenda.	
<b>No</b> , but there are <b>current efforts</b> to establish a process for community members to advise or make decisions on the research agenda.	
There is <b>no</b> process, and <b>no</b> efforts to create such a process.	
Score Assigned:	0
<i>Score explanation:</i> At the School of Medicine of the University of Minho, there is no process.	

<b>2.4. Does your <u>institution</u> have a planetary health website that centralises ongoing and past research related to health and the environment?</b>	
There is an <b>easy-to-use, adequately comprehensive</b> website that <b>centralises</b> 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.	
There is a website that <b>attempts to centralise</b> various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.	
The <b>institution</b> has an <b>Office of Sustainability website</b> that includes <b>some</b> resources related to health and the environment.	
There is <b>no</b> website.	
Score Assigned:	0
<i>Score explanation:</i>	

At the School of Medicine of the University of Minho, there is no website.

**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.

Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year.

Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years.

The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event.

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years.

Score Assigned:

2

*Score explanation:*

In September 2024, the University of Minho hosted its first Greenfest, which brought together university schools, companies, the city council, and members of the public to raise awareness about sustainability issues. Additionally, several faculty members and researchers, particularly from the Schools of Medicine, Sciences, Psychology, Education, and Nursing, have participated in conferences, roundtable discussions, and public sessions, focusing on the connections between health and the environment.

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

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

No, the institution is **not** a member of such an organisation.

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho, there are no members belonging to a planetary health organization.

**Section Total (6 out of 17)**

**35,29%**



## Community Outreach and Advocacy

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

<b>3.1. Does your <u>institution</u> partner with community organisations to promote planetary and health?</b>	
Yes, the <b>institution</b> meaningfully partners with <b>multiple</b> community organisations to promote planetary and environmental health.	
Yes, the <b>institution</b> meaningfully partners with <b>one</b> community organisation to promote planetary and environmental health.	
The <b>institution</b> does not partner with community organisations, but participates in community focused events relating to planetary health.	
No, there is <b>no</b> such meaningful community partnership.	
Score Assigned:	3
<p><i>Score explanation:</i></p> <p>At an institutional level, the University of Minho collaborates with external partners to strengthen its sustainability strategy. These partnerships include the Laboratory of Landscape (Laboratório da Paisagem) and national and international networks such as SDSN Portugal and the Sustainable Campus Network, reinforcing the university's commitment to sustainable development. In 2025, NEMUM developed an initiative named ECOVIDA (Ecolife) focused on the relationship between climate change and health.</p>	

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

Score Assigned:	1
<p><i>Score explanation:</i>  At the School of Medicine of the University of Minho, events open to the wider community are regularly promoted to address relevant issues related to sustainability and environmental health. These initiatives may be organised by different Schools, Institutes, and service units across the University, demonstrating an integrated and collaborative approach. Through these actions, the institution reinforces its commitment to engaging society in discussions and practices that are essential for advancing sustainable development.</p>	

<p><b>3.3. Does your <u>institution</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?</b></p>	
<p>Yes, all students <b>regularly</b> receive communication updates dedicated to planetary health and/or sustainable healthcare.</p>	
<p>Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to <b>some courses</b>.</p>	
<p>Students <b>do not</b> receive communications about planetary health or sustainable healthcare.</p>	
Score Assigned:	0
<p><i>Score explanation:</i>  At the School of Medicine of the University of Minho, students do not receive communications about planetary health or sustainable healthcare.</p>	

<p><b>3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post-graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?</b></p>	
<p>Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> 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.</p>	
<p>Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers.</p>	
<p>There are <b>no</b> such accessible courses for post-graduate providers.</p>	
Score Assigned:	0
<p><i>Score explanation:</i>  At the School of Medicine of the University of Minho and in the affiliated hospitals, there are no courses on planetary health that are known to postgraduate doctors.</p>	

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

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

**Some** affiliated hospitals have accessible educational materials for patients.

**No** affiliated medical centres have accessible educational materials for patients.

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho and in their affiliated hospitals, there are no educational materials on environmental health exposures for patients.

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

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

**Some** affiliated hospitals have accessible educational materials for patients.

**No** affiliated hospitals have accessible educational materials for patients.

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho and in the affiliated hospitals, there are no educational materials about the health impacts of climate change for patients.

**Section Total (4 out of 14)**

**28,57%**

# 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 <b>institution</b> offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the <b>institution</b> <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.	
The <b>institution</b> encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, <b>but</b> there is no student funding available and there is no requirement to participate.	
No, the institution does not offer opportunities or support for sustainability initiatives or QI projects.	
Score Assigned:	1
<p><i>Score explanation:</i></p> <p>At the University of Minho's School of Medicine, students can individualize their academic pathway by choosing a Major, two Minors, or three Projects. With guidance from a faculty tutor, they are able to plan and carry out independent health-related projects, which may include sustainability or quality improvement topics if they wish. However, there is no structured sustainability track, specific funding, or compulsory requirement to engage in these initiatives.</p>	

4.2. Does your <b>institution</b> offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?	
The <b>institution</b> has a <b>specific</b> research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research.	
There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these <b>require student initiative</b> to seek them out and carry them out in their spare time.	
There are <b>no opportunities</b> for students to engage in planetary health/sustainable healthcare research.	
Score Assigned:	1
<p><i>Score explanation:</i></p> <p>At the School of Medicine of the University of Minho, students may structure their academic pathway by choosing a Major, two Minors, or three Projects. With supervision from a faculty tutor,</p>	

they can develop independent health-related projects with considerable academic autonomy. Although there is no formal planetary health pathway, students are able to pursue interests in this area on their own initiative.

**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.

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

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

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho, there is no medical-school specific webpage for planetary health.

**4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?**

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

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

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

Score Assigned:

2

*Score explanation:*

At the School of Medicine of the University of Minho, the Students' Medicine Nucleus of the University of Minho (NEMUM) plays an active role in promoting awareness of ecological issues and environmental health, particularly in the context of contemporary global challenges. Working in partnership with Society Loving The Planet Minho — the Student Association for Sustainability at the University of Minho, NEMUM developed the “ECOVIDA” (ecolife) initiative in the 2025 academic year. This initiative comprised two interactive workshops and a sustainability fair, aiming to encourage healthier lifestyles and environmentally conscious behaviours within the academic

community. In 2026, the project will continue under the name “GreenFlow,” broadening its focus to integrate sustainability with health and well-being. The renewed programme is planned to include three workshops, a sustainable fair showcasing eco-conscious brands and initiatives, and, as an innovative addition, a second-hand market designed to promote circular economy practices among students.

**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 who serves on a department or institutional decision-making council/committee.

No, there is no such student representative.

Score Assigned:

1

*Score explanation:*

At the School of Medicine of the University of Minho, governance is supported by a Collegiate Body (CE) that brings together faculty members, researchers, students, and administrative staff. This representative structure promotes shared institutional oversight and coordinated strategic planning, ensuring that students actively participate as stakeholders in decision-making processes.

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

2. At the School of Medicine of the University of Minho, there is NEMUM (Núcleo de Estudantes de Medicina da Universidade do Minho), whose general objectives include engaging with themes related to ecology and environmental health, particularly in the context of current global crises. During the 2025 academic year, NEMUM, in collaboration with Society Loving The Planet Minho - Student Association for Sustainability of the University of Minho, promoted the ECOVIDA initiative, which included two workshops focused on healthy and sustainable eating and a sustainability fair, as well as awareness-raising activities on the relationship between climate change and health. Looking ahead to 2026, this initiative will continue under the new name Greenflow, broadening its scope to include sustainability, health, and well-being. The planned activities include three workshops, a sustainable fair bringing together environmentally responsible brands and projects, and, as a new component, a second-hand fair aimed at fostering reuse and community engagement among students.

5. In October 2025, within the scope of “ECOVIDA “ (Ecolife), a tree-planting initiative was organised at Monte do Picoto (Braga), in result of a partnership between NEMUM, Porta Nova Association of Volunteering of Medical Students, the Municipality of Braga, and Society Loving The Planet Minho. This activity provided students with a local volunteer opportunity contributing to ecosystem restoration and community resilience to environmental degradation.

6. In September 2025, as part of the Social Programme of the Meeting ME congress organised by NEMUM, a kayaking workshop was held. This outdoor activity encouraged student engagement with natural environments and promoted well-being, environmental awareness, and connection with local ecosystems, aligning with wilderness and outdoor programming related to planetary health.

<b>Section Total (8 out of 15)</b>	<b>53,33%</b>
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# Campus Sustainability

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

5.1. Does your <u>institution</u> have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is <b>at least one designated staff member</b> for sustainability at the hospital.	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but <b>no specific staff member</b> in charge of hospital sustainability.	
There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee.	
There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability.	
Score Assigned:	2
<p><i>Score explanation:</i>            At the School of Medicine of the University of Minho, sustainability is supported at institutional level by a Pro-Rector for Sustainability and Physical Infrastructure, integrated in the Office of Quality, Safety, Health, Environment and Sustainability.</p>	

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>	
The institution has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b>	
The institution does <b>not</b> meet any of the requirements listed above	
Score Assigned:	1
<p><i>Score explanation:</i>            At the University of Minho, institutional sustainability efforts are aligned with Portugal's commitment, made in 2016 at the Conference of the Parties of the United Nations Framework Convention on Climate Change, to achieve carbon neutrality by 2050.</p>	

The University is currently implementing measures such as the installation of photovoltaic panels to expand renewable energy production and the development of electric vehicle charging stations to encourage sustainable mobility. Although a specific internal deadline for carbon neutrality has not yet been defined, the institution acknowledges that reaching this objective will require significant effort, including robust strategies to offset unavoidable emissions. Furthermore, the two cities where the University operates, Braga and Guimarães, have established their own goals to achieve carbon neutrality earlier than the deadlines set by the European Union.

**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.

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

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

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

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho, renewable energy sources are not currently used. However, the University of Minho actively integrates sustainability into its administrative operations, prioritizing the efficient and responsible management of resources. While specific procurement criteria are not publicly detailed, the institution implements practices that promote balanced resource use, contributing to the protection of the natural environment. As a public entity, the University complies with national regulations, including recent guidance such as the Council of Ministers Resolution No. 132/2023, published on 25 October 2023, which establishes key principles for promoting sustainability in the public sector, including a target of at least 25% of electricity from renewable sources. The University is committed to aligning its operations with these principles, strengthening its role as a model institution in the adoption of sustainable policies and environmental responsibility.

**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.

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted**.

Sustainable building practices are **inadequately or incompletely** implemented for new buildings.

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

Score Assigned:	3
<p><i>Score explanation:</i>          At the School of Medicine of the University of Minho, guidelines from the Council of Ministers Resolution No. 132/2023, published on 25 October 2023, are followed, establishing key principles for promoting sustainability across the public sector.</p>	

<p><b>5.5. Has the <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?</b></p>	
<p>Yes, the institution has implemented strategies to encourage and provide <b>environmentally-friendly transportation options</b> 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.</p>	
<p>The institution has implemented <b>some</b> strategies to provide environmentally-friendly transportation options, but the options are <b>unsatisfactorily</b> accessible or advertised.</p>	
<p>The institution has <b>not</b> implemented strategies to encourage and provide environmentally-friendly transportation options.</p>	
Score Assigned:	1
<p><i>Score explanation:</i>          The provision of buses connecting the Braga and Guimarães campuses, developed in partnership with the Students' Association, facilitates the mobility of the academic community while reducing reliance on individual transport, thereby contributing to lower carbon emissions. In addition, UMinho has implemented infrastructure to support the use of bicycles as a sustainable alternative, including secure parking areas on campus to encourage safe and convenient cycling.</p>	

<p><b>5.6. Does your <u>institution</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?</b></p>	
<p>Yes, the institution has <b>both</b> compost <b>and</b> recycling programs accessible to students and faculty.</p>	
<p>The institution has <b>either</b> recycling <b>or</b> compost programs accessible to students and faculty, but not both.</p>	
<p>There is <b>no</b> compost or recycling program at the institution.</p>	
Score Assigned:	1
<p><i>Score explanation:</i>          At the School of Medicine of the University of Minho, recycling points are available, including within the offices of the Students' Medicine Nucleus of the University of Minho (NEMUM).</p>	

**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 **adequate** sustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.

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.

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.

There are **no** sustainability guidelines for food and beverages.

Score Assigned:

3

*Score explanation:*

At the School of Medicine of the University of Minho, students have access to vegetarian options in the canteen and bar, including fresh salads, fruits, and plant-based meals. The campus also promotes sustainability by using only paper cups at coffee machines, helping to reduce plastic waste.

**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.

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

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.

There are **no** sustainability guidelines for supply procurement.

Score Assigned:

0

*Score explanation:*

At the School of Medicine of the University of Minho, there are no sustainability guidelines for supply procurement.

**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.

The institution <b>strongly recommends or incentivizes</b> sustainability measures, but they are <b>not required</b> .	
There are <b>no</b> sustainability guidelines for institution events.	
Score Assigned:	0
<p><i>Score explanation:</i>  The University of Minho integrates sustainability into its activities, including the planning and management of events. Although specific public guidelines for events are not defined, the institution consistently communicates its performance across environmental, social, economic, and cultural dimensions, adhering to internationally recognized best practices.</p>	

<b>5.10. Does your <u>institution</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?</b>	
Yes, the institution has <b>programs</b> and <b>initiatives</b> to assist with making lab spaces more environmentally sustainable.	
There are <b>guidelines</b> on how to make lab spaces more environmentally sustainable, but not programs or initiatives.	
There are <b>no</b> efforts at the institution to make lab spaces more sustainable.	
Score Assigned:	0
<p><i>Score explanation:</i>  At the School of Medicine of the University of Minho, there are no efforts at the medical school to make lab spaces more sustainable.</p>	

<b>5.11. Does your <u>institution's</u> endowment portfolio investments include fossil-fuel companies?</b>	
The institution is <b>entirely divested</b> from fossil fuels <b>and</b> has made a <b>commitment to reinvest divested funds</b> into renewable energy companies or renewable energy campus initiatives.	
The institution is <b>entirely divested</b> from fossil fuels.	
The institution has <b>partially divested</b> from fossil fuel companies <b>or</b> has made a <b>commitment to fully divest</b> , but <b>currently</b> still has fossil fuel investments.	
The institution has <b>not divested</b> from fossil-fuel companies, but faculty and/or students are <b>conducting organised advocacy</b> for divestment.	
Yes, the institution has investments with fossil-fuel companies and there have been <b>no efforts</b> to change that.	
Score Assigned:	3

*Score explanation:*

In Portugal, universities are not financed by fossil fuel companies. Being a public institution, the University of Minho has no private shareholders, relying mainly on public funding, student tuition, and research project grants for its financial support.

**Section Total (14 out of 32)**

**43,75 %**

# 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 School of Medicine at the University of Minho.

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

Section	Raw Score %	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(36/75) \times 100 = 48\%$	C
<b>Interdisciplinary Research (17.5%)</b>	$(6/17) \times 100 = 35,29\%$	D+
<b>Community Outreach and Advocacy (17.5%)</b>	$(4/14) \times 100 = 28,57\%$	D
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(8/15) \times 100 = 53,33\%$	C
<b>Campus Sustainability (17.5%)</b>	$(14/32) \times 100 = 43,75\%$	C-
<b>Institutional Grade</b>	$(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 42,56\%$	C-

# Report Card Trends

## Section Overview

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

## Planetary Health Report Card Trends for School of Medicine at the University of Minho

