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# Planetary Health Report Card (Medicine) 2026: *NOVA MEDICAL SCHOOL*

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2025-2026 Contributing Team:

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## Summary of Findings

<b>Overall Grade</b>	<b>C+</b>
<b>Curriculum</b>	<b>C+</b>
<p>What is Taught Well:</p> <ul style="list-style-type: none"> <li>● Foundational Concepts: The core curriculum successfully introduces "One Health" and the "Sustainable Development Goals" (SDGs) in early years, ensuring all students understand the basic links between environment and health even if lightly.</li> <li>● Physiological Mechanisms: Topics like respiratory effects of pollution and heat effects are covered in core Physiology and Pathophysiology modules.</li> <li>● Social Responsibility: There is coverage of advocacy, social justice, and equity within mandatory Public Health and Ethics courses.</li> </ul> <p>Areas Lacking:</p> <ul style="list-style-type: none"> <li>● Sustainable Clinical Practice: There is virtually no explicit teaching on the environmental footprint of healthcare itself, such as the impact of anesthetic gases, surgical waste, or inhalers.</li> <li>● Specific Climate-Health Links: While physiological mechanisms are taught, specific connections to climate change, such as its impact on mental health and cardiovascular disease, are missing.</li> <li>● Indigenous Knowledge: Indigenous value systems and knowledge are not integrated into the curriculum.</li> </ul> <p>● <b>Recommendations:</b></p> <ol style="list-style-type: none"> <li>1. Embed Sustainable Healthcare in Clinical Rotations: Introduce practical "green" medicine topics into core clinical years. For example, include a session on the carbon footprint of inhalers in the Respiratory module and sustainable anesthesia/waste reduction in Surgery;</li> <li>2. Explicitly Link Physiology to Climate Change: Update existing learning objectives in Pathophysiology and Cardiology to explicitly mention "Climate Change." This connects existing content (like heat stress) to broader planetary health themes without requiring new lecture hours.</li> </ol>	
<b>Interdisciplinary Research</b>	<b>B</b>
<p>NOVA Medical School has hosted several lectures on topics related to Sustainability and Planetary Health and has an Academic Council and an Operational Council which promote the integration of sustainability into the university's scientific, academic, and operational practices. Moreover, the university also has a group of researchers who are part of an International group related to Sustainability.</p> <ul style="list-style-type: none"> <li>● <b>Recommendations:</b></li> </ul> <ol style="list-style-type: none"> <li>1. NOVA Medical School could join the Planetary Health Alliance and the Global Consortium on Climate and Health Education;</li> <li>2. Promote investigation on the topic of Sustainability and Planetary Health.</li> </ol>	
<b>Community Outreach and Advocacy</b>	<b>C+</b>
<ul style="list-style-type: none"> <li>● NOVA Medical School has significant community outreach relating to planetary health. Nevertheless, the</li> </ul>	

University essentially lacks on maintaining regular communication with the NOVA community about this topic and providing its affiliated hospitals intellectual material regarding environmental health exposures and health impacts of climate change.

- **Recommendations:**

1. Ensure regular updates to the NOVA community on initiatives related to planetary health and/or sustainable healthcare, as well as practical daily-life actions they can adopt;
2. Provide accessible educational materials for patients at affiliated hospitals about environmental health exposures;
3. Provide accessible educational materials for patients at affiliated hospitals about health impacts of climate change.

### Support for Student-Led Initiatives

**B-**

NOVA Medical School provides some support for student engagement in planetary health and sustainability, although most opportunities are initiative-based and there are no grants for these initiatives. Moreover, the university has a webpage regarding the sustainability initiatives as well as research groups. The institution not only supports student organisations focused on planetary health advocacy, but also hosts several events and initiatives focused on planetary health.

- **Recommendations:**

1. Create a formal planetary health research pathway for students as well as establish grants for sustainability initiatives and research;
2. Appoint a student liaison to participate in institutional decision-making regarding sustainability;
3. Expand curricular initiatives in order to strengthen student engagement and institutional commitment to planetary health.

### Campus Sustainability

**B**

NOVA Medical School has demonstrated a commitment to achieving campus sustainability, shown by its participation in NOVA For the Globe, NOVA Green Labs and Route Zero, which aims to achieve carbon neutrality by 2040. However, there are still some improvements to be made, particularly in the energy used.

- **Recommendations:**

1. Appoint a specific staff member of the Office of Sustainability to be in charge of hospital sustainability;
2. Increase the use of renewable energy and implement composting across campus;
3. Implement mandatory sustainability criteria for food services, supply procurement and events.

# 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. (3 points)	
Yes, the medical school has offered <b>one</b> elective whose primary focus is ESH/planetary health in the past year. (2 points)	
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. (1 point)	
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. (0 points)	
Score Assigned:	1
<p><b>Elective 1: Nutrição, microbiota intestinal e saúde (Nutrition, Intestinal Microbiota and Health)</b></p> <ul style="list-style-type: none"> <li>• This is an <b>optional (elective)</b> course.</li> <li>• One of its specific learning objectives is to understand the "<b>link between diet, human health and sustainability</b>" (OA8).</li> <li>• The syllabus also includes a session on "Microbiota and environmental/food xenobiotics".</li> <li>• However, the primary focus of the course is the metabolic and physiological role of the intestinal microbiota.</li> </ul> <p><b>Elective 2: Global Health</b></p> <ul style="list-style-type: none"> <li>• This is an <b>optional (elective)</b> course.</li> <li>• The curriculum covers the "<b>Sustainable Development Goals</b>" (SDGs) , "determinants of health in a globalized world" , and the link between "health and development".</li> <li>• While these topics are foundational to Planetary Health, the course's primary focus is on global health challenges, institutional actors, and health systems rather than ecological sustainability or climate change specifically.</li> </ul>	

## Curriculum: Health Effects of Climate Change

**1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?**

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

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

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

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

Score Assigned:

1

This topic is covered in **elective coursework**. The curricular unit "**Global Health**" (Optional for Integrated Masters' in Medicine, MIM, students) includes a specific syllabus item and lecture titled "**Alterações climáticas e Saúde Global**" (**Climate Change and Global Health**), which addresses the impact of climate change on population health.

Additionally, the **core** curriculum addresses related components but without the explicit "Climate Change" label in the available syllabus summaries:

- **Physiology I** and **Pathophysiology I** (Core) cover **thermoregulation**, heat mechanisms, and their pathophysiology (e.g., hyperthermia, fever) "in depth" as physiological processes.
- **Public Health and Epidemiology** (Core) covers **Sustainable Development Goals (SDGs)** and **health determinants**, which provide a framework for environmental health, though specific lectures on "extreme heat" are not explicitly detailed in the syllabus snippet.

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

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

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

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

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

Score Assigned:

3

The core (mandatory) curriculum addresses aspects of extreme weather and environmental impacts through the lens of public health and ethics:

- The mandatory curricular unit **Saúde Pública e Epidemiologia (Public Health and Epidemiology)** includes learning outcomes to explain "health determinants" and the

"Sustainable Development Goals (SDGs)", which encompass climate action (SDG 13) and the environmental determinants of health.

- The mandatory curricular unit **Ética, Medicina e Sociedade (Ethics, Medicine and Society)** includes a specific syllabus topic on "Urgência médica; catástrofe" (Medical emergency; catastrophe), which addresses the medical response and responsibility during catastrophic events, often associated with extreme weather.

Additionally, the topic is covered in **elective coursework**:

- The optional curricular unit **Global Health** explicitly includes a session on "Response to humanitarian crises", as well as topics on "Global Health Initiatives" and the "determinants of health in a globalized world", offering a more in-depth exploration of the impacts of such events on healthcare systems and populations.

#### 1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?

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

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

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

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

Score Assigned:

2

The **Global Health** curricular unit, which is **Optional (Elective)** for the Integrated Master in Medicine, explicitly includes syllabus content on the "Distribution and expansion of transmissible diseases in the world and in Europe" and the "determinants of health in a globalized world", which aligns with the changing patterns of disease due to global environmental factors.

Additionally, the **mandatory (Core)** course **Infection: from laboratory diagnosis to clinical practice** (Infeção: do diagnóstico laboratorial à clínica) includes specific sessions on "**Emerging infections**" (**Infeções emergentes**) and "**Zoonoses**". While these topics inherently involve the study of changing disease patterns often driven by climate and environmental changes, the provided syllabus text does not explicitly detail the "impact of climate change" in the description, whereas the Global Health elective more directly addresses the "distribution and expansion" of these diseases. Therefore, a score of 2 is assigned for explicit coverage in elective coursework, with briefly coverage in the core curriculum.

#### 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. (3 points)

This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)	
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	
Score Assigned:	2
<p>This topic is briefly covered in the core curriculum. Specifically, in the <b>Pathophysiology 2 (Fisiopatologia 2)</b> curricular unit, there is a dedicated recorded lecture titled "<b>Tobacco and Pollution</b>" ("Tabaco e Poluição") within the module "Pathophysiology of General Expressions II". This session addresses the mechanisms of disease related to these environmental factors.</p> <p>Additionally, the <b>Global Health</b> curricular unit addresses broader themes such as "Health Determinants in a Globalized World" and "Sustainable Development Goals", which contextualize the impact of environmental factors on population health, although less specifically focused on respiratory pathology than the Pathophysiology session.</p>	

<b>1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)	
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	
Score Assigned:	0
<p>Based on the review of the provided curriculum documents, the specific topic of "cardiovascular health effects of climate change" is not explicitly listed as a covered subject. However, there are core curricular units that cover related components separately:</p> <ul style="list-style-type: none"> <li>● <b>Fisiologia 1 (Core):</b> Covers the "pathophysiology of temperature regulation" ("fisiopatologia da regulação da temperatura") as a transversal area, integrated with the study of the "cardiovascular system". This addresses the physiological mechanisms of heat but does not explicitly frame it within the context of climate change.</li> <li>● <b>Saúde Pública e Epidemiologia (Core):</b> Addresses the "Sustainable Development Goals (SDGs)" and "health determinants", which encompass climate action and environmental determinants, but the specific cardiovascular health impacts are not detailed in the syllabus.</li> <li>● <b>Global Health (Optional):</b> Covers "Global Health Challenges" and "Sustainable Development Goals", exploring links between health, policy, and development, but does not explicitly list cardiovascular effects of climate change in its syllabus.</li> </ul>	

Since the specific intersection of these topics is not explicitly identified in the core curriculum, a score of 0 is assigned.

**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. (3 points)

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

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

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

Score Assigned:

1

The provided curriculum documents indicate that topics related to the mental health and neuropsychological effects of environmental degradation and climate change are addressed within elective coursework.

**Core Courses:**

- **Psiquiatria (Psychiatry) and Saúde Mental (Mental Health Clerkship)** focus on the diagnosis and treatment of psychiatric disorders (e.g., anxiety, affective disorders, psychotic disorders) and biopsychosocial determinants (family, labor). There is no mention of environmental degradation or climate change as specific determinants or topics of study.
- **Saúde Pública e Epidemiologia (Public Health)** addresses "health determinants" and the "Sustainable Development Goals" (SDGs), which inherently include climate change, but the syllabus does not explicitly specify the mental health impacts of these global challenges.
- **Psicologia Médica (Behavioral Medicine)** covers psychosocial determinants and adaptation to disease but does not list environmental factors or climate change in its syllabus.

**Elective Courses:**

- **Global Health** (an elective course) covers "Social Determinants," "Human Rights," "Mobility" (migration), and "Fragile States." Within this framework, the course touches briefly upon the mental health and psychological consequences of global environmental changes (e.g., trauma from displacement, eco-anxiety).
- **Toxicologia Humana e Genética (Human Toxicology)** addresses "environmental justice" and the toxic effects of "environmental contaminants" (xenobiotics).

Because these relevant aspects are explored within the elective offerings rather than the core curriculum, a score of 1 is assigned.

**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. (3 points)

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

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

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

Score Assigned:

2

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

The core (mandatory) curriculum addresses these relationships in at least two separate years:

- In the **Nutritional Biochemistry** (Bioquímica Nutricional) course, one of the specific learning outcomes (OA8) is to understand the "link between diet, human health and sustainability" (relação da dieta, saúde e sustentabilidade).
- In the **Public Health and Epidemiology** (Saúde Pública e Epidemiologia) course, the syllabus explicitly covers "Global health and Sustainable Development Goals (SDGs)" (Saúde global e Objetivos de Desenvolvimento Sustentável) and "Health determinants" (determinantes de saúde). The SDGs (specifically Goals 2, 6, 13, 14, and 15) inherently address the relationships between health, food/water security, and climate change/ecosystem health.

Additionally, the topic is available in **elective coursework**:

- The **Global Health** (Global Health) elective covers "determinants of health in a globalized world", "response to humanitarian crises", and the "link between health and development".

**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. (3 points)

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

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

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

Score Assigned:

2

- **Core Curriculum (Mandatory):**

- In the **Public Health and Epidemiology** course, the curriculum covers the **Sustainable Development Goals (SDGs)** (which include climate action), **health determinants**, and explicitly analyzes **equity, social justice, and migration** in the context of health policies.
- In the **The Elderly Patient** course addresses the vulnerability of older adults to environmental factors, specifically including a topic on "**prevention against extreme heat**", which is a direct health impact of climate change on this marginalized group.
- **Elective Coursework:**
  - The **Human Toxicology and Genetics** (Optional) course explicitly covers "**Environmental Justice**" and emphasizes the **specific susceptibility of vulnerable populations** (including children, the elderly, pregnant women, and individuals with pre-existing conditions) to environmental xenobiotics and pollutants.
  - The **Global Health** (Optional) course explores **health determinants in a globalized world, human rights**, and the link between health and development.

**Score explanation:** This topic was **briefly covered in the core curriculum**. The core mandatory modules (**Public Health** and **The Elderly Patient**) introduce key concepts linking environmental factors (like extreme heat) and broader frameworks (SDGs, equity, migration) to vulnerable populations. However, a more in-depth exploration of "Environmental Justice" and the specific toxicological impacts on diverse marginalized groups is found in the elective/optional coursework (**Human Toxicology and Genetics**). Thus, while present in the core, the depth of the specific intersection between climate change and marginalized populations is more pronounced in the elective offerings.

**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. (3 points)

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

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

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

Score Assigned:

2

This topic is briefly covered in the core curriculum. The **Public Health and Epidemiology** course (Mandatory) includes a module on "Fundamentals of Public Health" which explicitly covers "**Global health and Sustainable Development Goals (SDGs)**" and "**Equity, social justice, and migration in health**". The SDGs (specifically Goal 13: Climate Action and Goal 10: Reduced Inequalities) and the topic of migration and equity address the unequal impacts of global environmental changes on vulnerable populations.

Additionally, the **Introduction to Medicine** course (Mandatory) introduces the concept of "**One Health**" ("Uma Saúde"), which provides the foundational understanding of the interdependence between human health and the environment (climate).

The **Global Health** course, which delves deeper into "Health determinants in a globalized world" and "Response to humanitarian crises" , is offered as an **Optional** (elective) course for medical students.

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

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

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

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

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

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

Score Assigned:

1

This topic is covered in the elective course "**Toxicologia Humana e Genética**" (Human and Genetic Toxicology). The syllabus for this course explicitly includes sessions on "Environmental Toxicology," which cover "Endocrine disruptors," "Persistent Organic Pollutants (POPs)," and "Microplastics".

Additionally, the course addresses "**Genetic Toxicology and Carcinogenesis**," specifically mentioning the "mutagen-carcinogen-teratogen triad" , and the effects of "environmental and industrial xenobiotics," such as "Plant protection products" (pesticides).

While core courses like "**Ginecologia e Obstetrícia**" (Gynecology and Obstetrics) cover general topics like infertility and preconception counseling, the specific curriculum addressing the reproductive health effects of these environmental toxins is found in the elective coursework.

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

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

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

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

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

Score Assigned:	2
<p>The core curriculum at NOVA Medical School addresses human-caused environmental threats and their relevance to the community through specific modules in Public Health and Pathophysiology:</p> <ul style="list-style-type: none"> <li>● <b>Core Curriculum (Mandatory):</b> <ul style="list-style-type: none"> <li>○ <b>Public Health and Epidemiology:</b> The syllabus includes "Community diagnosis and needs assessment" (Diagnóstico comunitário e avaliação de necessidades). This component typically involves students identifying and assessing health determinants, including environmental factors, within a specific local community. Additionally, the course covers "Health determinants" and "Health promotion and disease prevention".</li> <li>○ <b>Pathophysiology 2:</b> The curriculum includes a specific lecture titled "Tobacco and Pollution" (Tabaco e Poluição), which directly addresses pollution as a human-caused environmental threat affecting health.</li> </ul> </li> <li>● <b>Elective Coursework (Optional):</b> <ul style="list-style-type: none"> <li>○ <b>Human and Genetic Toxicology:</b> This course extensively covers environmental threats, including "Environmental pollutants" (poluentes ambientais), "Industrial xenobiotics", "Microplastics", and "Risk Assessment" in occupational and environmental contexts. It specifically aims for students to understand "occupational and environmental exposure" and "toxic effects of environmental and industrial xenobiotics".</li> <li>○ <b>Global Health:</b> Addresses "Determinants of health in a globalized world" and the links between "Global Health, Social Determinants, Human Rights, Mobility and Global Economy", providing a broader context for environmental threats.</li> </ul> </li> </ul>	

<b>1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?</b>	
This topic was explored <b>in depth</b> by the <b>core</b> curriculum. (3 points)	
This topic was <b>briefly</b> covered in the <b>core</b> curriculum. (2 points)	
This topic was covered in <b>elective</b> coursework. (1 point)	
This topic was <b>not</b> covered. (0 points)	
Score Assigned:	0
<p>There is no explicit evidence that Indigenous knowledge and value systems are covered in the core or elective curriculum as essential components of planetary health solutions.</p> <p>The <b>Global Health</b> course (Optional) covers topics such as <b>Social Determinants of Health, Human Rights, Global Health Initiatives</b>, and the <b>Sustainable Development Goals (SDGs)</b>. While the syllabus mentions the need for a "constant dialogue between medical sciences and social sciences, <b>anthropology</b>, health economics and political sciences" to understand global health challenges, it does not explicitly include Indigenous knowledge or value systems as a topic.</p>	

Similarly, the **Public Health and Epidemiology** course (Mandatory) addresses **social justice, equity, migration, and health determinants**, but does not mention Indigenous knowledge.

The **Ethics, Medicine and Society** course (Mandatory) covers bioethics, vulnerable populations, and medical duties but does not reference Indigenous value systems.

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

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

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

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

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

Score Assigned:

1

This topic is specifically addressed in the elective course **Human and Genetic Toxicology** (Toxicologia Humana e Genética). The course's learning outcomes explicitly include "Toxicity in Specific Populations," requiring students to be aware of "differences in susceptibility to toxic substances among different populations, including children, the elderly, pregnant women, and individuals with pre-existing health conditions".

Additionally, the curriculum covers "**Ethical Considerations**," which includes "issues related to... environmental justice".

While the mandatory **Public Health and Epidemiology** (Saúde Pública e Epidemiologia) course covers broader concepts of "health determinants," "equity," and "social justice", the specific intersection of environmental toxins and their outsized impact on marginalized groups is most distinctly detailed in the elective coursework.

***Curriculum: Sustainability***

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

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

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

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

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

Score Assigned:

2

This topic is briefly covered in the core curriculum.

In the **Bioquímica Nutricional (Nutritional Biochemistry)** course (Mandatory), the learning outcomes explicitly include the ability to know the "relationship between diet, health and sustainability" ("relação da dieta, saúde e sustentabilidade"). The syllabus also includes topics such as the "Role of phytochemicals in metabolism" and "Polyphenols and metabolic disease," which address plant-based nutrition components.

Additionally, the **Saúde Pública e Epidemiologia (Public Health and Epidemiology)** course (Mandatory) covers the "Sustainable Development Goals (SDGs)" and the "National Programme for the Promotion of Healthy Eating (PNPAS)", which serves as a framework for promoting diets that are both healthy and sustainable.

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

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

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

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

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

Score Assigned:

3

This topic was briefly covered in the core curriculum.

- **Nutritional Biochemistry (Core):** The curriculum explicitly includes a learning objective to understand the "link between diet, human health and sustainability". This addresses the environmental impact of nutrition, which is a significant component of healthcare-related consumption and emissions.
- **Public Health and Epidemiology (Core):** The syllabus covers the "Sustainable Development Goals (SDGs)" and "health determinants". The SDGs (specifically Goal 12: Responsible Consumption and Production and Goal 13: Climate Action) provide the framework for understanding the environmental impact of systems, including healthcare.
- **Global Health (Elective):** In this optional course, students further explore the "determinants of health in a globalized world" and the "Sustainable Development Goals", deepening the understanding of the link between health, development, and the environment.
- **Ethics, Medicine and Society (Core):** The curriculum includes sensitizing students to the "need for effective management of health resources in an ethical perspective", which relates to the stewardship of resources, a key element of reducing the healthcare footprint.

**1.17. Does your medical school curriculum cover these components of sustainable**

**Score**

clinical practice in the <u>core</u> curriculum? (points for each)	
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) .	1
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)	0
<p><b>1. The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment</b></p> <p>This topic is addressed in multiple core curricular units.</p> <ul style="list-style-type: none"> <li>○ <b>Terapêutica Médica (Rational Prescribing):</b> The syllabus explicitly includes the "Critical use of the Evidence-Based Medicine (EBM) concept" and the "Practical integration of EBM in the therapy of chronic patients and those with multiple pathologies," aiming to train students in "selection and practical use of medicines" considering "pharmacoeconomics" and comparing "pharmacological vs. non-conventional therapy". This directly addresses avoiding inappropriate treatment.</li> <li>○ <b>Ética e Cuidados de Saúde (Ethics and Healthcare - Optional):</b> Addresses "Resource Management in Health," "Costs and Priorities," and "Distributive Justice," sensitizing students to the "need for effective management of health resources from an ethical perspective given their limitations".</li> <li>○ <b>Saúde Pública e Epidemiologia (Public Health):</b> Covers "Evidence-based medicine," "Health determinants," and "Sustainable Development Goals" (SDGs), framing health within broader resource constraints.</li> <li>○ <b>Introduction to Clinical Practice &amp; Family Medicine:</b> While specific "over-medicalisation" phrasing isn't in the snippet, the strong focus on EBM and rational prescribing in core modules supports this.</li> </ul>	

## **2. The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm.**

The curriculum covers the principles of rational prescribing and the impact of drugs, but the explicit link to climate health harm or environmental impact of the pharmaceuticals themselves is less prominent in the core clinical files, though it is present in specific contexts.

- **Toxicologia Humana e Genética (Optional):** Explicitly covers "Environmental Toxicology," "Exposure and toxic effects of environmental and industrial xenobiotics," "Pharmaceuticals in the environment" (implied under xenobiotics/pollutants), and "Risk Assessment".
- **Terapêutica Médica:** Focuses on "Pharmacoeconomics" and "Rational Prescribing". While it covers avoiding over-prescribing (deprescribing logic), the specific environmental angle (e.g., pharmaceuticals in water systems) is most clearly found in the Toxicology elective rather than a core clinical module for all students.
- **Global Health (Optional):** Addresses "Planetary Health" and "Climate Change" generally, but the specific link to pharmaceutical pollution isn't detailed in the syllabus snippets.

## **3. The health and environmental co-benefits of non-pharmaceutical management (Social Prescribing).**

There is strong evidence of teaching non-pharmaceutical management across the curriculum.

- **Medicina Desportiva (Sports Medicine - Optional):** Explicitly teaches "Exercise as medicine," using it as a "non-pharmacologic therapeutic option and as disease prevention".
- **Nutrição, Microbiota Intestinal e Saúde (Nutrition - Optional):** Covers "Nutritional/dietary therapy in the treatment and/or prevention of disease" and "lifestyle modulation".
- **Saúde Pública:** Covers "Health Promotion," "Disease Prevention," and "Healthy Eating (PNPAS)".
- **Cardiologia Pediátrica:** Mentions "non-pharmacological methods" for treating arrhythmias.

## **4. Environmental impact of surgical healthcare on planetary health and the climate crisis.**

The surgical curriculum focuses heavily on clinical competence, technique, and safety, but there is no explicit mention of "sustainability," "carbon footprint," or "green surgery" in the syllabus of the relevant units.

- **Cirurgia Geral (General Surgery):** Focuses on "Principles of contemporary surgery," "History," and clinical syndromes.
- **Especialidades Cirúrgicas:** Covers "Asepsis," "Infection Control," and "Operating Room Behavior". While infection control reduces waste/complications (indirect benefit), the environmental impact of surgery itself is not listed as a learning objective.
- **Estágio Profissionalizante (Surgery Rotation):** Focuses on clinical practice and reports.

## **5. The impact of anaesthetic gases on the healthcare carbon footprint.**

The Anesthesiology component is present but focuses on clinical safety and pharmacology.

- **Especialidades Cirúrgicas:** Includes an "Anesthesiology" module (9 questions in the exam). The recommended bibliography is "Essential anesthesia. From science to practice".
- **Content:** There is no explicit mention in the syllabus of "inhalational gases' carbon footprint," "Desflurane vs. Sevoflurane," or "TIVA (Total Intravenous Anesthesia)" in the context of sustainability.

**6. The impact of inhalers on the healthcare carbon footprint (Dry Powder vs. Metered Dose).**

While respiratory diseases are covered extensively, the environmental aspect of inhaler choice is not explicitly detailed in the available FUCs.

- **Coração e Pulmão (Heart & Lung):** Covers "Asthma," "COPD," and "Respiratory Functional Evaluation".
- **Fisiopatologia 1:** Covers respiratory pathophysiology.
- **Terapêutica Médica:** Covers "Respiratory system medication".
- **Missing Evidence:** None of these syllabi explicitly list the "environmental impact of inhalers" or "propellant gases" as a learning topic.

**7. Waste production within healthcare clinics and strategies for reducing waste.**

Waste is mentioned in the context of safety (asepsis) rather than sustainability.

- **Especialidades Cirúrgicas / Cirurgia:** Teaches "Asepsis" and "Infection Control," which involves single-use items, but the focus is on sterility and safety, not on waste reduction or circular economy.
- **Toxicologia (Optional):** Touches on "Risk assessment" and "disposal of toxic substances", but this is a specific elective context, not a general strategy for reducing clinical waste in core training.

*Curriculum: Clinical Applications*

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

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

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

No, there are **no** strategies introduced for having conversations with patients about climate change. (0 points)

Score Assigned:

0

While the curriculum covers related broader topics, specific training on communicating climate change health effects to patients is not found in the course descriptions:

- **Public Health and Epidemiology (Core):** The syllabus includes the "Sustainable Development Goals (SDGs)" and "health determinants", which encompass environmental factors, but there is no specific mention of patient communication strategies regarding climate change.
- **Global Health (Elective):** This course covers "determinants of health in a globalized world" and "main challenges of Global Health", but the syllabus focuses on understanding these concepts rather than clinical communication strategies with patients.
- **Introduction to Clinical Practice (Core):** This course extensively covers "Clinical Communication Skills," "Clinical Interview," and "Patient Approach" in various contexts (Emergency, Elderly, etc.), but does not list climate change as a specific topic for communication training.
- **Medical Psychology (Core):** Focuses on the "psychosocial determinants of health" and the "doctor-patient relationship", but does not explicitly include climate change communication.
- **Optional Toxicology (Elective):** Mentions "strategies for managing these risks in various settings, including occupational, environmental" and "communicate effectively on toxicological concepts", which is relevant to environmental health but does not specifically address the broad health effects of climate change in patient conversations.

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

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

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

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

Score Assigned:

2

Strategies for evaluating exposure and environmental risks are explicitly introduced in the **elective** coursework.

The Optional Curricular Unit "**Toxicologia Humana e Genética**" (Human and Genetic Toxicology) includes learning outcomes specifically aimed at enabling students to "evaluate risks associated with exposure to toxic substances" and "think about strategies to manage these risks in various contexts, including **occupational, environmental, and clinical** environments". It addresses exposure to "xenobiotics... including drugs, pesticides, environmental pollutants, chemical industrial products".

While the **core (mandatory)** curriculum includes the "**Introdução à Prática Clínica**" (Introduction to Clinical Practice) course, which teaches the general "**Entrevista Clínica**" (Clinical Interview) and "**Atividade da Vida Diária na História Clínica**" (Activities of Daily Living in Clinical History), and the "**Saúde Pública e Epidemiologia**" (Public Health and Epidemiology) course covers "**determinantes de saúde**" (determinants of health), the specific

strategies for taking an environmental or exposure history (e.g., assessing specific toxic risks in occupational/environmental settings) are most explicitly detailed in the optional Toxicology course description. Additionally, the mandatory "**Coração e Pulmão**" (Heart & Lung) unit covers "**Doenças do interstício pulmonar**" (Interstitial Lung Diseases), which inherently requires exposure history for diagnosis, but the explicit instruction on the strategy of exposure risk evaluation is found in the elective syllabus.

*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. (4 points)

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

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

Score Assigned:

2

The medical school has integrated topics related to sustainability, the Sustainable Development Goals (SDGs), and global health determinants into both mandatory and optional curricular units for the 2025/2026 academic year. Specifically:

- **Mandatory Curriculum:** The "**Saúde Pública e Epidemiologia**" (**Public Health and Epidemiology**) course explicitly includes "**Global health and Sustainable Development Goals (SDGs)**" as a core syllabus topic and learning objective. This ensures all students are exposed to the framework of sustainable development in a public health context. Additionally, the course covers "Equity, social justice, and migration in health".
- **Optional Curriculum:**
  - The "**Nutrição, microbiota intestinal e saúde**" (**Nutrition, intestinal microbiota and health**) course includes a specific learning objective to understand the "**relation of diet, health and sustainability**" (OA8). It also aims to empower students to suggest strategies in a multidisciplinary team regarding these topics.
  - The "**Bioquímica Nutricional**" (**Nutritional Biochemistry**) course also lists the "**link between diet, human health and sustainability**" as a learning outcome (OA8).
  - The "**Global Health**" course (Optional) addresses the "**determinants of health in a globalized world**" and the relationship between human rights and global health.

**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. (6 points)

Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)	
Planetary health/ESH is not integrated and is primarily addressed in <b>(a) standalone lecture(s)</b> . (2 points)	
There is <b>minimal/no</b> education for sustainable healthcare. (0 points)	
Score Assigned:	6
<p>Some Planetary Health and Education for Sustainable Healthcare (ESH) topics are appropriately integrated into the core medical student curriculum, appearing in mandatory courses across different years, though the most dedicated content remains in optional units.</p> <ul style="list-style-type: none"> <li>• <b>Year 1 (Core):</b> The mandatory course <b>Introduction to Medicine</b> (Introdução à Medicina) explicitly incorporates the concept of <b>"One Health"</b> and <b>"Health Determinants"</b> into its syllabus. This foundational integration ensures all students are introduced to the interconnectedness of human, animal, and environmental health early in their training.</li> <li>• <b>Year 2 (Core):</b> The <b>Physiopathology 1</b> (Fisiopatologia 1) course integrates transversal areas relevant to environmental adaptation, specifically teaching <b>"thermoregulation"</b> and <b>"adaptations to life in tropical regions"</b>.</li> <li>• <b>Year 3 (Core):</b> The <b>Public Health and Epidemiology</b> (Saúde Pública e Epidemiologia) course covers <b>"health determinants"</b>, <b>"equity, social justice, and migration"</b> (key components of planetary health impacts), and <b>"principles of health promotion"</b>.</li> <li>• <b>Optional Content:</b> Deeper exploration of these topics is available in optional courses. For example, the <b>Global Health</b> unit addresses health determinants in a globalized world and the link between health and development. Additionally, the <b>Nutrition, Intestinal Microbiota and Health</b> (Nutrição, microbiota intestinal e saúde) course explicitly covers the <b>"link between diet, human health and sustainability"</b>.</li> </ul>	

<b>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?</b>	
Yes, the <b>medical school</b> has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No, the <b>medical school</b> does <b>not</b> have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	0
<p>The provided documentation includes syllabi for various courses where sustainability-related topics are taught, but does not identify a single faculty member responsible for overseeing the theme throughout the entire curriculum.</p> <ul style="list-style-type: none"> <li>• <b>Global Health:</b> The "Global Health" curricular unit covers "Sustainable Development Goals (SDGs)" and "Environmental Health" (as a determinant of health).</li> </ul>	

- **Nutritional Biochemistry:** This course includes a specific learning objective to understand the "link between diet, human health and sustainability".
- **Public Health and Epidemiology:** This unit addresses health determinants and public health challenges but does not explicitly name a planetary health lead.

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

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

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

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

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

Score Assigned:

3

-

The curriculum addresses this topic significantly through mandatory (core) courses in the 3rd year, supported by specific learning outcomes and modules focused on the social role of the doctor, health policy, and social justice.

- **Public Health and Epidemiology (Core):** The syllabus explicitly includes learning outcomes to "Analyze equity, **social justice**, and migration in the context of **health policies**". It also covers the "Sustainable Development Goals (SDGs)", which encompass environmental determinants of health, and teaches students to "Explain the principles of public health, health determinants". Additionally, it includes competencies in communicating public health data to different audiences, a key skill for advocacy.
- **Ethics, Medicine and Society (Core):** This course features a dedicated module titled "**The Doctor, The Patient and The Society**", which consists of 10 lectures. This module covers the "Doctor Social Role", "Health policies and programmes implementation", and the "political and economic implications of health care provision systems". The course aims to develop skills that contribute to "bioethical acting" ("agir bioético") rather than just thinking, framing the physician's responsibility within broader societal and resource management contexts.
- **Elective Reinforcement:**
  - **Human Toxicology and Genetics (Optional):** Explicitly addresses "**environmental justice**" and "Regulatory and Legal Frameworks" as part of its ethical considerations.
  - **Global Health (Optional):** Covers "Human rights", "Global Health Initiatives", and the relationship between health, development, and political environments.

Section Total (42 out of 75)

56,00%

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## Interdisciplinary Research

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

<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. (3 points)	
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. (2 points)	
There are sustainability researchers at the <b>institution</b> , but not specifically associated with healthcare/vetcare. (1 point)	
No, there are <b>no</b> planetary health and/or sustainability researchers at the <b>institution</b> at this time. (0 points)	
Score Assigned:	2
NOVA Medical School has a group of researchers whose primary is not «Planetary Health». However, they are part of «My Green Lab», a program conducted in Portugal by «Zero Waste Lab» ( <a href="#">NOVA Medical School obtém a sua primeira certificação do programa internacional My Green Lab - NMS &gt; Faculdade &gt; Notícias e Eventos &gt; Prémios e Distinções &gt; Detalhe</a> ).	

<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. (3 points)	
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. (2 points)	
There is an <b>Occupational and Environmental Health department</b> , but no interdisciplinary department or institute for planetary health research. (1 point)	
There is <b>no</b> dedicated department or institute. (0 points)	

Score Assigned:	3
<p>Nova Medical School is part of «NOVA for The Globe» and has an Academic Council and an Operational Council. They promote the integration of sustainability into the university’s scientific, academic, and operational practices. These groups essentially work on reducing environmental impact by implementing sustainable practices across the NOVA community, while supporting data collection for sustainability reports and international rankings.</p>	

<p><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 institution?</b></p>	
<p>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. (3 points)</p>	
<p>Yes, there is a process in which community members impacted by climate and environmental injustice <b>advise</b> the climate + environmental research agenda. (2 points)</p>	
<p><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. (1 point)</p>	
<p>There is <b>no</b> process, and <b>no</b> efforts to create such a process. (0 points)</p>	
Score Assigned:	0
<p>NOVA Medical School still doesn't have a process regarding the community decision process of the environmental agenda.</p>	

<p><b>2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?</b></p>	
<p>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. (3 points)</p>	
<p>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. (2 points)</p>	
<p>The <b>institution</b> has an <b>Office of Sustainability website</b> that includes <b>some</b> resources related to health and the environment. (1 point)</p>	
<p>There is <b>no</b> website. (0 points)</p>	
Score Assigned:	3
<p>NOVA Medical School has a website, which compiles initiatives, education, and event opportunities at the institution (<a href="#">Sustentabilidade</a>).</p>	

<b>2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?</b>	
Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)	
Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)	
Yes, the <b>institution</b> has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)	
The <b>institution</b> has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)	
No, the <b>institution</b> has not hosted a conference on topics related to planetary health in the past three years. (0 points)	
Score Assigned:	4
NOVA Medical School has hosted «Conferência One Health, One Soil: Alimentação Segura num Planeta Saudável» integrated in a cycle of three conferences promoted by «FoodLink – Rede para a Transição Alimentar na Área Metropolitana de Lisboa». It was held in September 2025 ( <a href="#">1.º Ciclo de Conferências FOODLINK: 'One Health, One Soil: Alimentação Segura Num Planeta Saudável' - Detalhe</a> ).	

<b>2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation?</b>	
Yes, the institution is a member of a national or international planetary health <b>or</b> ESH/ESV organisation. (1 point)	
No, the institution is <b>not</b> a member of such an organisation. (0 points)	
Score Assigned:	0
NOVA Medical School is not part of any national or international planetary health organisation. Nevertheless, the institution demonstrates a clear commitment to planetary sustainability.	

<b>Section Total (12 out of 17)</b>	<b>70,59%</b>
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*Additionally, NOVA Medical School has three centers of investigation regarding impacts on sustainability (Comprehensive Health Research Centre – CHRC, Center for Health Technology and*

*Services Research – CINTESIS, iNOVA4Health – Advancing Precision Medicine and Centre For Toxicogenomics And Human Health – ToxOmics).*

## 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. (3 points)	
Yes, the <b>institution</b> meaningfully partners with <b>one</b> community organisation to promote planetary and environmental health. (2 points)	
The <b>institution</b> does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)	
No, there is <b>no</b> such meaningful community partnership. (0 points)	
Score Assigned:	3
NOVA Medical School partners with some community organisations whose mission is to promote sustainability, for example the formal partnership with EPAL and ECO-Escolas (ABAE). The university also promotes some initiatives in partnerships with some organisations, for example Banco Alimentar and Junta de Freguesia de Arroios ( <a href="#">Marcos e Iniciativas</a> ).	

<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. (3 points)	
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. (2 points)	
The <b>institution</b> has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)	
The <b>institution</b> has not offered such community-facing courses or events. (0 points)	
Score Assigned:	3

NOVA Medical School has participated in NOVA Sustainability Days ([NOVA Sustainability Days 2024 are back! – UNL](#) and [NOVA Medical School marca presença na 3ª Edição do NOVA Sustainability Days 2024 - Detalhe](#)), an event for the NOVA community (professors, students and staff). Even though the last edition was on 2024 and the audience is only for the NOVA community, the faculty has held other events related to the topic open to a broader public, such as a Webinar on «The importance of food sovereignty for sustainable development.» ([Webinar: “A importância da soberania alimentar para um desenvolvimento sustentável” - Detalhe](#)), «FOODLINK Conference Cycle: ‘One Health, One Soil: Safe Food on a Healthy Planet» ([1.º Ciclo de Conferências FOODLINK: 'One Health, One Soil: Alimentação Segura Num Planeta Saudável' - Detalhe](#)) and many others that can be found on the school’s website.

**3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?**

Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)

Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)

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

Score Assigned:

0

*NOVA Medical School does not provide regular or structured communication updates to students specifically addressing planetary health or sustainable healthcare. While there may be isolated initiatives related to sustainability these are not consistently communicated to students.*

**3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post-graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?**

Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)

Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)

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

Score Assigned:

2

*NOVA Medical School offers an Advanced Training Course in Sustainability in Healthcare, designed to give healthcare professionals the knowledge and skills needed to understand and address sustainability challenges within healthcare systems. The programme covers environmental,*

*social and governance aspects, promoting sustainable leadership, responsible resource management and strategic decision-making in healthcare organisations.*

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

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

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

**No** affiliated medical centres have accessible educational materials for patients. (0 points)

Score Assigned:

0

At present, there is no publicly accessible evidence that NOVA Medical School or its affiliated teaching hospitals provide patient-facing educational materials specifically addressing environmental health exposures, such as pesticides, chemical pollutants, toxins, or other environmental determinants of health.

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

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

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

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

Score Assigned:

0

At present, there is no publicly accessible evidence that NOVA Medical School or its affiliated teaching hospitals provide patient-facing educational materials specifically addressing health impacts of climate change.

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

**57,14%**

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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 <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. (2 points)	
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. (1 point)	
No, the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	1
NOVA University does not offer grants for students related to sustainability activity. However, it does offer various resources for students to succeed in projects related to this topic, such as «SUSTAINABILITY for ALL» ( <a href="#">Sustainability for All – UNL</a> ) a course for students with 12 missions related to sustainability and how to act.	

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. (2 points)	
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. (1 point)	
There are <b>no opportunities</b> for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	1
While NOVA Medical School has multiple research programs, there are none focused on planetary health in which students can take part in. However, if students are interested, they can carry out such research programs in their spare time.	

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

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

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

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

Score Assigned:

2

NOVA Medical School has both a website focused on Sustainability (<https://www.nms.unl.pt/en-us/faculty/sustainability>) as well as one focused on research projects (<https://www.nms.unl.pt/en-us/research/our-work/research-groups>). NOVA University has a website where students can access information about research groups that focus on planetary health research ([Impact – UNL](#)).

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

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

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

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

Score Assigned:

2

NOVA Medical School supports student organisations dedicated to advocacy on planetary health, such as Education Against Tobacco, Green NOVA and Marca Mundos (<https://www.nms.unl.pt/en-us/faculty/sustainability/milestones-and-initiatives>).

**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. (1 point)	
No, there is no such student representative. (0 points)	
Score Assigned:	1
There is a student liaison representing sustainability interests who serves on the Council for Sustainability, who is part of the Students' Association.	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	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.	1
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.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1
<p>“One Health, One Soil: Safe Food on a Healthy Planet” Conference took place in NOVA Medical School in September, 2025 (<a href="https://www.nms.unl.pt/en-us/faculty/news-and-events/events/detalhe/eventid/17896">https://www.nms.unl.pt/en-us/faculty/news-and-events/events/detalhe/eventid/17896</a>). This conference focused primarily on Planetary Health and had students as an intended audience. Moreover, SAS NOVA organises various wilderness programs for students (<a href="#">Caminhadas - SASNOVA</a>).</p>	

<b>Section Total (10 out of 15)</b>	<b>66,67%</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. (3 points)	
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. (2 points)	
There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee. (1 point)	
There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	2
NOVA Medical School has two members on NOVA For the Globe - one on the Academic Council and another on the Operational Council. NOVA For the Globe is equivalent to an Office of Sustainability. However, there is no specific staff member in charge of hospital sustainability.	

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> (5 points)	
The institution has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b> (3 points)	
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> (1 point)	
The institution does <b>not</b> meet any of the requirements listed above (0 points)	
Score Assigned:	3
NOVA Medical School takes part in a program called Route Zero ( <a href="#">Route Zero – UNL</a> ), that aims to achieve carbon neutrality by 2040.	

**5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?**

Yes, institution buildings are **100%** powered by renewable energy. (3 points)

Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)

Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)

Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)

Score Assigned:

1

As stated in the Annual Sustainability Report, NOVA Medical School had an increased gas usage, due to the use of gas heaters. Therefore, although electricity was the primary source of energy, it did not account for more than 80% of the energy used in the institutional buildings. ([UNL Relatorio-Impacto 2024.pdf](#)).

**5.4. Are sustainable building practices utilised for new and old buildings on the institution's campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?**

Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted**. (2 points)

Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)

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

Score Assigned:

3

NOVA Medical School underwent renewals in the main building in order to be more sustainable. Furthermore, NOVA Medical School was awarded the status of EcoCampus ([Eco-Campus](#)). Furthermore, at the institutional level, NOVA University of Lisbon has renovated multiple buildings and is developing new infrastructure in accordance with energy-efficient and sustainable construction standards. ([NOVA's sustainable buildings – UNL](#)).

**5.5. Has the institution implemented strategies to encourage and provide**

**environmentally-friendly transportation options for students and reduce the environmental impact of commuting?**

Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)

The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)

The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)

Score Assigned:

2

NOVA Medical School has implemented strategies to encourage environmentally-friendly transportation - it has a website page that states which public transportation students and staff can use to commute to the University ([Life at NMS](#)).

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

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

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

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

Score Assigned:

1

NOVA Medical School has recycling bins located around campus for trash and recycling, placed in hallways and near the main entrance of the building. However, there are no composting bins available.

**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. (3 points)

There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)

There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> . The institution is <b>not</b> engaged in efforts to increase food and beverage sustainability. (1 point)	
There are <b>no</b> sustainability guidelines for food and beverages. (0 points)	
Score Assigned:	2
NOVA Medical School has sustainability guidelines for food, however they are optional. Nevertheless, the institution is making efforts to increase sustainability regarding this area, such as stated Commitment Of Nova's Development In Alignment With The Goal Of Carbon Neutrality By 2040 ( <a href="#">Compromisso-NOVA-net-zero_26Junho2025_EN.pdf - Google Drive</a> ).	

<b>5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement?</b>	
Yes, the institution has <b>adequate</b> sustainability requirements for supply procurement <b>and is engaged</b> in efforts to increase sustainability of procurement. (3 points)	
There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The institution is <b>engaged</b> in efforts to increase sustainability of procurement. (2 points)	
There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> . The institution is <b>not engaged</b> in efforts to increase sustainability of procurement. (1 point)	
There are <b>no</b> sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	2
NOVA University is exploring the adoption of ecological criteria in procurement, in line with the national strategy approved by the Resolution of the Council of Ministers ( <a href="#">RCM_13.2023_ECO360.pdf</a> , <a href="#">Green public procurement at NOVA – UNL</a> ).	

<b>5.9. Are there sustainability requirements or guidelines for events hosted at the institution?</b>	
Every event hosted at the institution <b>must</b> abide by sustainability criteria. (2 points)	
The institution <b>strongly recommends or incentivizes</b> sustainability measures, but they are <b>not required</b> . (1 point)	
There are <b>no</b> sustainability guidelines for institution events. (0 points)	
Score Assigned:	1
NOVA Medical School recommends sustainability measures, however, they are not mandatory ( <a href="#">unl politica de sustentabilidade.pdf</a> ).	

<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. (2 points)	
There are <b>guidelines</b> on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)	
There are <b>no</b> efforts at the institution to make lab spaces more sustainable. (0 points)	
Score Assigned:	2
NOVA Medical School takes part in NOVA Green Labs - a working group that aims to implement good practice regarding environmentally-friendly practices ( <a href="#">NOVA Green Labs</a> ).	

<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. (4 points)	
The institution is <b>entirely divested</b> from fossil fuels. (3 points)	
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. (2 points)	
The institution has <b>not divested</b> from fossil-fuel companies, but faculty and/or students are <b>conducting organised advocacy</b> for divestment. (1 point)	
Yes, the institution has investments with fossil-fuel companies and there have been <b>no efforts</b> to change that. (0 points)	
Score Assigned:	4
NOVA Medical School is part of a public university with foundational status. The institution does not publicly disclose an endowment investment portfolio, and no information is available regarding investments in fossil fuel companies.	

<b>Section Total (23 out of 32)</b>	<b>71,88%</b>
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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 NOVA School of Medicine.

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

Section	Raw Score %	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(42/75) \times 100 = 56,00\%$	C <sup>+</sup>
<b>Interdisciplinary Research (17.5%)</b>	$(12/17) \times 100 = 70,59\%$	B
<b>Community Outreach and Advocacy (17.5%)</b>	$(8/14) \times 100 = 57,14\%$	C <sup>+</sup>
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(10/15) \times 100 = 66,67\%$	B
<b>Campus Sustainability (17.5%)</b>	$(23/32) \times 100 = 71,88\%$	B
<b>Institutional Grade</b>	$(56,00 \times 0.3 + 70,59 \times 0.175 + 57,14 \times 0.175 + 66,67 \times 0.175 + 71,88 \times 0.175) = 63,40\%$	B <sup>-</sup>