

# Planetary Health Report Card (Medicine):

# University of Galway



# OLLSCOIL NA GAILLIMHE UNIVERSITY OF GALWAY

2024-2025 Contributing Team:

- Students: Shane O'Halloran\*, Elyse Guettier\*, Jonathan Etheridge, Caleb Morin, Aoife Owens, Rosemary Gillman, Yamikani Asefa, Aoibhe Darcy, Brian Dixon, Suh Hyun Kim, Dhanvin Raj Puppala, Dylan O'Halloran, Faraz Siddiqui, Maia Blomberg Toliusis, Katie Scrivener, Diarmuid O'Donoghue, Chung Ying Lip, Benedikt Licht, Christian Hecimovic
- Faculty Mentors: Prof. Dearbháile Morris, Dr. Georgios Miliotis

\*Primary Contacts: Shane O'Halloran, <u>s.ohalloran13@universityofgalway.ie</u>, Elyse Guettier, <u>e.guettier1@universityofgalway.ie</u>

### **Summary of Findings**

#### **Overall Grade**

#### Curriculum

•

- The University of Galway School of Medicine core curriculum makes efforts to address some aspects of planetary health. The curriculum clearly emphasises the relationship between climate change and health, especially as it relates to the impact of weather and habitat changes on the spread of vector borne diseases. However, the burden of healthcare systems on the environment is not well demonstrated.
- **Recommendations**: We recommend the School of Medicine integrate the impact of healthcare on the environment as part of its core curriculum. We also recommend dispersing topics relating to planetary health more evenly between the year groups.

#### **Interdisciplinary Research**

- The University of Galway has several interdisciplinary research groups focused on planetary health, particularly within the Centre for One Health (Ryan Institute). Students are encouraged to participate in the undergraduate summer research programme, during which they may choose to undertake certain available research projects. However, most of these projects are not directly related to planetary health.
- Recommendations: We recommend the School of Medicine continue to collaborate with the Centre for One Health to carry out research projects related to planetary health. The School of Medicine should increase student awareness and participation in planetary health related research projects or conferences.

#### **Community Outreach and Advocacy**

- The University of Galway has few community outreach initiatives and events relating to environmental health, climate change, and sustainability. Some efforts are made to collaborate with existing climate-related initiatives in the community, however, none are directly affiliated with the School of Medicine.
- **Recommendations**: We recommend the School of Medicine increase community outreach by partnering with existing planetary/environmental health initiatives within the school and/or community. They may also consider organizing their own community-facing events/resources, including creating accessible educational tools for patients and increasing planetary health-related news communications for staff and students.

#### Support for Student-Led Initiatives

- Progress regarding sustainability within the University has been largely led by students. The Irish Global Health Network Society, who helps coordinate volunteers for the PHRC, organise seminars on topics relating to planetary health and sustainability throughout the year. In addition, the Student Union has a "Climate Crew" and Sustainability Officer. Lastly, supporting the integration of sustainability with teaching and student societies is outlined as part of the University of Galway Sustainability Strategy.
- **Recommendations**: We recommend the School of Medicine continue to engage with the Irish Global Health Network Society and other student-led initiatives to improve sustainability practices.

#### **Campus Sustainability**

- The University of Galway has made progress in terms of their campus sustainability. This year we also reviewed the Medical Academies of the School of Medicine. Overall, we found many of the improvements that are being implemented on the main campus often do not extend to the academies.
- **Recommendations**: We recommend appointing an Officer of Sustainability for the Academies and working with the Deans and Tutors of each Academy to review and implement necessary changes. The School of Medicine should include students/student organisations (i.e. the IGHN Society) in their Academy Reviews.

D-

С

C-

R

B

**C**+

### **Statement of Purpose**

Planetary health is human health.

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

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

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

### **Definitions & Other Considerations**

#### **Definitions:**

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
  - 1. Describe how the environment and human health interact at different levels.
  - 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
  - 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Medical School/Department vs. Institution: When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is

specifically targeted for medical students, can meet this metric.

- Environmental history (Metric #19 in Curriculum Section): This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- Elective: The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to taught material that is 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).

#### **Other considerations:**

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

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

### **Planetary Health Curriculum**

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

#### Curriculum: General

**1.1.** Did your <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?

Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)

Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)

The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health. (1 points)

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

Score Assigned:

0

Score explanation: The University of Galway School of Medicine does not offer non-clinical electives to its students.

#### Curriculum: Health Effects of Climate Change

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

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

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

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

 This topic was not covered. (0 points)

 Score Assigned:
 2

Score explanation: The 3MB module, 'Global Health and Development' includes a lecture titled 'Climate Change and Health', which describes mortality and morbidity associated with extreme heat brought on by climate change.

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

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

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

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

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

Score Assigned:

Score explanation: The relationship between extreme weather events and human health is taught in several parts of the 3MB curriculum. In the 'Global Health and Development' module, the lecture 'Climate Change and Health' explores the health risks of extreme weather events such as heat waves, heavy rainfall, and flooding. The 3MB module 'Health and Disease II' contains a lecture titled 'Environmental Health', which addresses both the indirect and direct impacts of climate change on human health. The relationship between excessive rainfall/flooding and vector borne diseases is also a recurring theme in both 'Global Health and Development' and 'Health and Disease II'.

3

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

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

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

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

This topic was not covered. (0 points)

Score Assigned:

3

Score explanation: In 3MB, the relationship between climate change and vector borne diseases was explored in several lectures between the two modules 'Global Health and Development' and 'Health and Disease II'. This motif served to leave a lasting impression of the consequences of climate change on infectious disease patterns.

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

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

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

This topic was **not** covered.

Score Assigned:

3

Score explanation: In 3MB, the modules 'Global Health and Development' and 'Health and Disease II' both contain lecture content describing negative effects of air pollution. The 'Global Health and Development' lecture titled 'Global Burden of Disease' specifically describes regional and demographic inequalities of air pollution exposure and mortality. The 'Health and Disease II' lecture titled 'Environmental Health' described the respiratory health effects of both outdoor and indoor (i.e. household fuel) air pollution.

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

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: Heat-related cardiac arrests were very briefly mentioned on one slide in the 3MB module 'Global Health and Development' in the lecture titled 'Climate Change and Health'. This topic is not explored in depth in the core curriculum.

2

**1.7.** Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: The 3MB 'Global Health and Disease' lecture 'Climate Change and Health' mentions the mental health and cultural consequences that changing sea and ice formation has on arctic communities.

2

**1.8.** Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

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

This topic was not covered.

Score Assigned:

Score explanation: In 3MB, there was recognition of the relationship between climate change and food and water security in the lecture 'Climate Change and Health' as part of the 'Global Health and Development' module. This lecture describes world-wide malnutrition due to climate change as well as loss of access to traditional sources of foods for indigenous peoples. However, the mechanism of how climate change may alter the environment and food and water supply was not explicitly explained in the core curriculum.

2

1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.

This topic was not covered.

Score Assigned:

Score explanation: The medical school curriculum briefly touches on the impact of climate change on marginalised populations. The 3MB module 'Global Health and Development' lecture 'Climate Change and Health', describes the impact of climate change on the way of life of indigenous communities in the arctic. The lecture 'Global Burdens of Disease' describes the increased health effect of poor air quality on both children under 5 and the elderly.

2

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.		
This topic was <b>not</b> covered.	-	
Score Assigned:	2	
Score explanation: In the 3MB module 'Global Health and Development' the lecture 'Climate Change and Health' underlines the disproportionate impact of climate change on arctic populations. The lecture 'Global Burden of Disease' places emphasis on specific countries having far worse air quality than others. Overall, the concept of climate change having unequal regional consequences is not an explicit theme and is more implied in the core curriculum.		

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

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

This topic was explored in depth by the core curriculum.

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

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

This topic was **not** covered.

Score Assigned:

Score explanation: The current University of Galway medical curriculum does not address the reproductive health effects of industry-related environmental toxins including air pollution, pesticides, etc.

0

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

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: The current University of Galway medical curriculum does not address important human-caused environmental threats that are relevant to the university's surrounding community.

0

**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?

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: The current University of Galway's medical curriculum does not emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions.

0

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

This topic was explored in depth by the core curriculum.

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

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

This topic was **not** covered.

Score Assigned:

0

Score explanation: The current University of Galway's medical curriculum does not address the outsized impact of anthropogenic environmental toxins on marginalised populations.

#### Curriculum: Sustainability

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

Score explanation: The current University of Galway's medical curriculum does not address the environmental and health co-benefits of a plant-based diet.

# **1.16.** Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?

This topic was explored in depth by the core curriculum.

This topic was briefly covered in the core curriculum.

This topic was covered in elective coursework.

This topic was not covered.

Score Assigned:

0

Score explanation: The current University of Galway curriculum does not address the carbon footprint of health care systems.

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
The health <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment (2 points)	0
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)	0
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 anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	
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

*Score explanation:* 

While the negative impact of over medicalisation on patient health and resource limited health care systems is covered, the environmental effects are only briefly covered in the core curriculum.

In the 3MB module 'Health and Disease II' the Bacteriology section repeatedly emphasised the health benefits of antimicrobial stewardship, while the broader environmental impact of overprescribing was mostly implied.

The 2MB 'Health and Disease I' module strongly promotes the environmental and health co-benefits of non-pharmaceutical treatment and social prescribing throughout several lectures including 'Mental Health Promotion', 'Obesity and Public Health', and 'Approaches to Health Promotion'.

#### **Curriculum:** Clinical Applications

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

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

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

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

0

Score Assigned:

Score explanation: The current University of Galway's medical curriculum does not introduce strategies to have conversations with patients about the health effects of climate change.

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

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

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

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

Score Assigned:

Score explanation: The University of Galway's core medical curriculum teaches history taking skills throughout all years. As part of the history, students are taught to take social history, which includes strategies for environmental and exposure history, such as asking about occupation, daily activities, and living situation.

2

Curriculum: Administrative Support for Planetary Health

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

Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)

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

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

Score Assigned:

Score explanation: The University of Galway School of Medicine is currently undergoing a curriculum review and redevelopment process. Planetary health is emphasised within the development of the new core curriculum. However, it is not currently clear exactly how planetary health and ESH will be implemented.

2

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

Planetary health/ESH topics are well integrated into the core medical school curriculum. (6 points)

**Some** planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)

Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s). (2 points)

There is **minimal/no** education for sustainable healthcare. (0 points)

Score Assigned:

Score explanation: The University of Galway School of Medicine core curriculum has planetary health well integrated in the 3MB modules 'Global Health and Development' and 'Health and Disease II'. Education for Sustainable Development is partially covered in the core curriculum, but the effects of healthcare on the environment, for example, are not explicitly covered. These topics are also very concentrated within the 3MB year, and could be more equally dispersed into 1MB, 2MB, 4MB, and 5MB.

4

**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?

**Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)

**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)

Score Assigned: 0

Score explanation: The University of Galway School of Medicine does not 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.

#### Section Total (30 out of 72)

41.67%

#### Back to Summary Page here

Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

### **Interdisciplinary Research**

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>?

Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)

Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)

There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)

No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)

3

Score Assigned:

Score explanation: The <u>Centre for One Health</u> (Ryan Institute, University of Galway) conducts interdisciplinary research to drive meaningful changes in public policy as it relates to the health of humans, animals, and our environment. Their research focuses on four main themes including infectious disease, antimicrobial resistance, emerging pollutants, as well as people, nature, and the environment. In addition, there are multiple researchers either within or involved with the School of Medicine who are engaged in research relating to planetary health or healthcare sustainability, especially on topics such as antimicrobial resistance, sustainable lifestyles, and environmental health.

**2.2.** Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?

There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)

There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)

There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 points)

There is **no** dedicated department or institute. (0 points)

Score Assigned:	3
-----------------	---

Score explanation: The <u>Centre for One Health</u> (Ryan Institute, University of Galway) conducts interdisciplinary research to drive meaningful changes in public policy as it relates to the health of humans, animals, and our environment. Their research focuses on four main themes including infectious disease, antimicrobial resistance, emerging pollutants, as well as people, nature, and the environment.

**2.3.** Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?

Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)

Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)

No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 points)

There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:

Score explanation: Within the University of Galway School of Medicine, there is currently no process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda. In addition, there are no known current efforts to create such a process.

0

2.4. Does your <u>institution</u> have a planetary health website that centralises ongoing and past research related to health and the environment?

There is an **easy-to-use**, **adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)

There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)

The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)

There is **no** website. (0 points)

Score Assigned:

#### Score explanation:

<u>https://www.universityofgalway.ie/sustainability/</u>, is currently the most comprehensive website available, covering various topics in sustainability with numerous resources for both staff and students, including recent projects, annual reports, opportunities for engagement, and much more. However, though efforts are made to highlight the Sustainable Development Goals (including SDG 3: Good Health and Wellbeing), this resource does not directly address the impacts of climate change on human health.

<u>https://www.universityofgalway.ie/ryaninstitute/researchcentresandclusters/coh/</u> more directly addresses the topic of planetary health and the effects of climate change on human health. Students may use this resource to explore research projects conducted by faculty members across various themes. However, this website is in need of key updates and may be difficult to navigate for some users.

The University of Galway, including the School of Medicine, does not currently have an easy-to-use, adequately comprehensive website that centralises various campus resources related to health and the environment.

**2.5.** Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?

Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)

Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)

Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)

The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

Score Assigned:

Score explanation: From August 11-18, 2024, the University of Galway hosted a joint event including the International Symposium on Environment and Health (ISEH), the International Conference on Environmental Pollution and Health (ICEPH), and the International Symposium on Environmental Geochemistry (ISEG). This conference directly addressed topics related to planetary health, while fostering opportunities for experts to advance discussions, research, and policy around sustainable health and environmental practices. https://www.universityofgalway.ie/iseh-iceph/

4

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

Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 points)

No, the institution is **not** a member of such an organisation. (0 points)

Score Assigned:

Score explanation: The University of Galway is not a member of a national or international planetary health or ESH/ESV organisation.

Section Total (12 out of 17)	70.59%
------------------------------	--------

0

Back to Summary Page here

Are there additional research resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

### **Community Outreach and Advocacy**

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

# **3.1.** Does your <u>institution</u> partner with community organisations to promote planetary and environmental health?

Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)

Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)

The **institution** does not partner with community organisations, but has participated in community focused events relating to planetary health. (1 point)

1

No, there is **no** such meaningful community partnership. (0 points)

Score Assigned:

Score explanation:

The University of Galway has several partnerships with community organizations to promote planetary health. These include partnerships with the National Sustainability Office, the Terryland Forest Park Project, and the Student Pantry. Additionally, the University facilitates student-led societies, including the Environmental Society, which partners with community and national organizations. Medical students are free to join the above mentioned initiatives if they choose to. Though these initiatives directly help to raise awareness around environmental health, none are affiliated with the School of Medicine and none directly mention or promote planetary health as an independent concept. To our knowledge, the School of Medicine does not currently have any meaningful long-term partnerships with community organizations promoting planetary health.

**3.2.** Does your <u>institution</u> offer community-facing courses or events regarding planetary health?

The institution offers community-facing courses or events at least once every year. (3 points)

The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)

The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)

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

1

Score Assigned:

Score explanation:

This year, there were several community-facing planetary health events held by the University of Galway, however, none were directly affiliated with the School of Medicine. Notably, the Ryan Institute hosted several community-facing guest lectures and events. For instance, on October 9th, they welcomed Rwandan climate advocate and environmentalist, Ineza Umuhoza Grace. On May 30th, they hosted geographic information scientist Mairéad de Róiste, from the University of Wellington. As in previous years, the university hosted the Galway Science and Technology Festival, with some events loosely related to planetary health.

In addition, Letterkenny University Hospital conducted a tidy-up event at the Little Angels Burial grave to remove old flowers, broken items, and rubbage from this outdoor site. While planetary health was not a focus of this initiative, it represents an example of potential future events that the School of Medicine and its affiliated academies could undertake.

Overall, the School of Medicine itself does not offer community-facing courses or events related to the topic of planetary health.

**3.3.** Does your <u>institution</u> 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:

Score explanation: The Student's Union Newsletter sends university-wide weekly emails, which occasionally have information pertaining to planetary health, though these are not affiliated with the School of Medicine. In May, the School of Medicine's news page highlighted project funding for projects in sustainable wind turbine materials, air pollutants, and methane recovery strategies. In June, the news page highlighted a One Health surveillance project for cross-border pathogens. However, students are not directly notified about these projects/initiatives. While this is a slight improvement from last year, this was not deemed sufficient to receive 1 point.

0

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

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

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

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

Score Assigned:

Score explanation:

The Royal College of Physicians of Ireland offers a 2 credit Continuing Professional Development (CPD) course entitled "Introduction to Global Health". Learning objectives for this course include promoting sustainable healthcare/planetary health and engaging in effective advocacy and partnerships, among other learning objectives.

1

In addition, through the European University alliance "ENLIGHT," the University of Galway School of Medicine offers a virtual course twice a year entitled: "Collaborating in Planetary Health." This course is available for both undergraduate and post-graduate students. It is hosted by several research-oriented European universities with a primary focus on planetary health issues including sustainable healthcare, vector-borne diseases, antimicrobial diseases, and much more.

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

Yes, the **medical school** or <u>all</u> 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

Score explanation:

The HSE has contactable environmental health offices for each University of Galway School of Medicine affiliated teaching hospital. To our knowledge, these do not currently provide accessible educational materials for patients about environmental health exposures.

Sligo University Hospital, an affiliated teaching hospital, offers Health Promotion services which align with the objective of providing accessible educational materials for patients by promoting patient and staff education and overall health promotion. While environmental health is not explicitly addressed, this initiative has the potential to encompass environmental health into its existing programs. This gap could be addressed by integrating environmental health into health promotion materials such as broadening their smoking cessation to highlight the effects it can have on air quality and the risks cigarette butts pose to wildlife and water quality. Additionally, training on environmental health exposures could be incorporated into their existing public seminars to enhance awareness and education on this imperative issue.

<b>3.6.</b> Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?			
Yes, the <b>medical school</b> or <u>all</u> 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		
Score explanation: To our knowledge, the University of Galway and its affiliated teaching hospitals do not have accessible educational materials for patients about the health impacts of climate change.			

Section Total (3 out of 14)

Back to Summary Page here

Are there additional community engagement and advocacy resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

21.43%

### 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 <u>institution</u> offer support for students interested in enacting a sustainability initiative/QI project?

Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects or sustainability QI projects are part of the core curriculum. (2 points)

The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)

No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

Score explanation: The University of Galway Student Sustainability Leadership Award is an annual opportunity for students interested in advancing sustainability on campus. The award supports two students each summer (June–July) with an 8-week scholarship to work with the University of Galway Community and University Sustainability Partnership (CUSP) team. The initiative focuses on promoting campus engagement with the United Nations (UN) Sustainable Development Goals (SDGs) and fostering leadership skills in sustainability. Each recipient receives a  $\notin$ 4,000 prize. In 2024, neither of the selected awardees was studying medicine.

2

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

The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)

There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time. (1 point)

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

Score Assigned:

Score explanation: The University of Galway School of Medicine offers an Undergraduate Summer Research Programme, allowing medical students to undertake funded research in areas of personal

1

interest and present their findings at the Annual Research Day. While no projects have specifically focused on planetary health or the health impacts of climate change to date, the school is willing to support research in these areas if students express interest. Beyond the formal research programmes, faculty members have dedicated time and provided guidance to students, offering insights and connecting them with resources to support initiatives related to these topics.

4.3. Does the <u>institution</u> have a web page 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 web page 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 web page that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information. (1 point)

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

1

Score Assigned:

Score explanation: The University of Galway School of Medicine does not have a specific web page for planetary health activities. However, the School of Medicine's research page lists a few current planetary health related research projects without specific information about them. The School of Medicine's web page also links students to groups such as the Centre for One Health and the Centre for Climate and Air Pollution Studies, which conduct research focused on environmental and planetary health. There is also a section introducing mentors, through which students can easily access their contact information if interested.

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

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

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

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

Score Assigned:

#### Score explanation:

The University of Galway Sustainability Strategy 2021-2025 states: "Engage with, mentor and support sustainability themed student societies. Integrate sustainability into student events to normalise it as a cultural practice". There are currently three societies embodying the above statement including 'The Environmental Society,' 'The Climate Action Society,' and the 'Irish Global Health Network Society'. These societies are primarily student-led, with little to no faculty support.

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department</u> <u>or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?

Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)

No, there is no such student representative. (0 points)

Score Assigned:

1

Score explanation:

The School of Medicine Curriculum Review Steering Group was established in November 2021. A group of students, faculty, and administration representatives is actively reviewing and renewing the medical curricula at the University of Galway. This year there are two medical students serving as student representatives in this group.

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)	
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	1
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1

Score explanation:

1. Frequent food pantries are run by the Student Union where students can leave non-perishable in-date food items. Additionally, beach clean-ups and an organic community garden are organised by the University of Galway Environmental Society.

2. Students were invited to attend the Centre for One Health's annual environmental health conference on October 13, 2023, entitled 'One Health and the SDGs'.

4. The Recycle Runway was organised by the Student Union on March 13, 2024. This event challenged students to create their own outfits using upcycled material. Students' creations were then displayed at a fashion show in the Student Union building.

5. Regular events to promote education and engagement with the local community were held by the Environmental Society and the Student Union Climate Crew. These events were initiated to minimise the impact of climate change. For example, in March 2023, students marched from the University to Eyre Square in a "Fridays for Future Protest."

6. The Mountaineering Club at the University of Galway is affiliated with Mountaineering Ireland, which upholds the Leave-No-Trace principle to prevent littering and environmental pollution. Other clubs, such as Kayaking and Scouts Clubs also adhere to similar environmental values.

Section Total (11 out of 15)

73.33%

Back to Summary Page here

Are there additional student-led initiative resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

### **Campus Sustainability**

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

#### 5.1. Does your institution have an Office of Sustainability?

Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)

There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of hospital sustainability. (2 points)

There are **no salaried sustainability staff**, but there is a sustainability task force or committee. (1 point)

There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)

Score Assigned:

*Score explanation:* 

The University of Galway has a sustainability committee that meets regularly known as The Community and University Sustainability Partnership (CUSP). This is a "multidisciplinary voluntary team of students and staff" with the mission of establishing the university as a leading institutional model of sustainability. A new sustainability office was established on Earth Day 2024, with four employees focused on the promotion of sustainability and delivery of the sustainable development goals. There are multiple full-time staff on the CUSP general board and there is 1 representative for promoting sustainability from the School of Medicine.

3

There are no sustainability officers for the Medical Academies\*, although they fall under the jurisdiction of the CUSP of the University of Galway. However, this does not seem to be a priority for the academies.

5.2. How ambitious is your institution's plan to reduce its own carbon footprint?

The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)

The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)

The institution has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate** (1 point)

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

3

Score Assigned:

Score explanation:

The 'University of Galway Strategic Plan 2020-2025' and the 'University of Galway Sustainability Strategy 2021-2025' commit to developing a roadmap to move ambitiously towards carbon neutrality by 2030. By 2050, the University of Galway commits to becoming a university with net-zero greenhouse gas emissions that is climate resilient, biodiversity-rich, and environmentally sustainable as stated in the 'Climate Action and Low Carbon Development (Amendment) Bill 2021'. As of the latest update published in 2024, the university is making good progress in carbon footprint reduction and is on track to achieve its goals.

The Medical Academies have no specific plan to reduce its own carbon footprint.

# 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)

0

Score Assigned:

*Score explanation:* 

Solar photovoltaic (PV) panels installed on the Human Biology Building (HBB) supply 10% of the building's energy usage. The Sustainability Strategy for 2021-2025 states that by 2025, 20% of electricity will come from renewable sources. The University of Galway has reduced its energy consumption by 50% since 2006, making it a leading institution for energy efficiency in Ireland. The university has also completed a demonstrator geothermal heat pump project to heat the swimming pool in the Sports Centre.

The Medical Academies do not have plans to install renewable energy infrastructure.

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

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)

1

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

Score Assigned:

#### Score explanation:

The Human Biology Building (HBB), built in 2017, is the main teaching building for medical students in preclinical years. The building received a BREEAM excellent rating for its use of solar PV panels to ensure maximum energy efficiency. The Old Anatomy building on the main campus must be further investigated for its overall sustainability.

The Mayo Medical Academy does not have any sustainable building practices in use. The academy is a reconfigured church dating back to 1901. However, the staff report that a lot of heating is required to heat the academy due to the fact that it was not built for the purposes of teaching. This could be improved with sustainable retrofitting.

Information regarding sustainable building practices at Ballinasloe Medical Academy remains limited. The recently expanded Orchard ward has been said to have been built with "modernized standards", which may include certain sustainable practices, however, efforts to verify this information have been unsuccessful.

The Sligo Medical Academy is on the top two floors of Sligo University Hospital. It was built in a sustainable fashion as an extension to the existing structure.

Donegal Medical Academy is a retrofitted part of the hospital that is now exclusively for the students on placement at Letterkenny University Hospital. While there is currently no sustainable building practice, the heating, plumbing, and interior design has been modified to better accommodate students.

#### 5.5. Has the <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

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)

1

Score Assigned:

*Score explanation:* 

The University of Galway provides bike racks and bike paths for students and staff. A shuttle bus system is available for students to travel across campus and between hospitals (i.e. GUH and

Merlin Park). Travel surveys completed in 2015 and 2022 showed that the main mode of travelling to campus by students is walking (42%), while most staff commute by driving (67%). Overall, 74% of students and 31% of staff use sustainable methods of commuting to campus.

With respect to peripheral placements undertaken by students in the School of Medicine outside Galway City, the university provides subsidies for transport costs for both public transport and cars. There is a notable lack of public transportation in the region, reflective of a larger issue of unsustainable government development policies. There have been regional improvements in public transport, but due to the sparse population density in parts of the region, there is still heavy reliance on cars. This issue is even more apparent in the Medical Academies which are located in smaller towns in Northwestern Ireland. Clinical placement often requires driving or car pooling due to poor access to public transport. There is also poor access to bike parking in the Medical Academies.

The Mayo and Donegal Medical Academies do not encourage or provide any environmentally friendly transportation options. This may be due to the lack of accessible public transportation in the region.

Students commuting from Galway City to the Ballinasloe Medical Academy may avail of a train service, complemented by a local shuttle bus that provides transportation to and from the train station. For those residing in the town of Ballinasloe, walking to the academy is encouraged, as the town's compact size makes it convenient to navigate on foot.

Sligo Medical Academy coordinates with students to ensure those who do not have cars can access their placements via public transit or car pooling.

5.6. Does your <u>institution</u> 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)

1

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

Score Assigned:

Score explanation:

Recycling bins for recyclable waste are available throughout the whole campus. In the Human Biology Building (HBB), where pre-clinical year medical students have lectures and labs, bins for hospital waste (i.e. gloves) are provided. The campus canteen has organic/compost bins for food waste. There is also a campus-wide composting programme developed by a masters student whereby organic waste from food sources and gardening refuse are sent to a local waste management plant where it is composted and returned to the university to be used as fertiliser. Unfortunately, this programme is not available to students to use or contribute to independently, relying instead on kitchen waste, etc. Recycling bins for paper and recyclable waste are available throughout the Medical Academies to all students and staff. However, there are no compost bins or recycling stations for glass and aluminium.

# 5.7. Does the <u>institution</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

Yes, the institution has a**dequate** 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 **insufficient or optional**. The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)

There are **no** sustainability guidelines for food and beverages. (0 points)

Score Assigned:

2

Score explanation:

University of Galway campus restaurants have stopped providing single use cups and promote the usage of reusable mugs. Mug washing stations are available in or nearby the campus restaurants. The four catering companies which operate the fifteen campus restaurants are all engaged in providing sustainable, healthy, and affordable food choices. The largest provider of catering services on campus offer vegan based salad bars as well as vegan hot food options. The canteen uses reusable utensils and paper takeaway boxes to reduce plastic packaging.

The Mayo Medical Academy does not provide food. In the academy kitchen, tea and coffee is available. The Mayo Medical Academy has removed single use cups from the kitchen, replaced with reusable mugs and glasses.

The Ballinasloe Medical Academy does not offer food services for students. However, students can enjoy discounted meals at the hospital's staff canteen, where the food is reportedly locally sourced. Users are encouraged to use the on-site dishware for their meals, though compostable takeaway containers are available for those who prefer them.

The Sligo Medical Academy does not offer food to students but in the main canteen, disposable coffee cups have been phased out.

Donegal Medical Academy does not provide food, but a community fridge and pantry are available in the kitchen area. Plastic cups and paper towels are provided for use.

**5.8.** Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement?

Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)

There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:

*Score explanation:* 

The University of Galway takes sustainability into account when making decisions about supply procurement. The University of Galway Procurement & Contracts Office published its Sustainable Procurement Guidelines (SPP) in 2023 with clear recommendations that align with the university's commitments to campus sustainability and climate action.

2

<u>https://www.universityofgalway.ie/media/sustainability/files/Sustainable-Public-Procurement-Hand</u> <u>book-March-2023.pdf</u>

The Medical Academies take sustainability into account with their supply procurement but do not have specific sustainability criteria that they must follow.

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?
Every event hosted at the institution must abide by sustainability criteria. (2 points)
The institution strongly recommends or incentivizes sustainability measures, but they are not required. (1 point)
There are no sustainability guidelines for institution events. (0 points)
Score Assigned:
1
Score explanation:
The University of Galway Sustainable Event Checklist aids event planners in organising sustainable events within the university. The checklist is available but its use is not regulated or made mandatory.
https://www.universityofgalway.ie/sustainability/studentsresources/resources/sustainableeventcheck
List/
The Medical Academies do not have specific sustainability guidelines or requirements.

5.10. Does your <u>institution</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?

Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)

There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)

There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

Score Assigned:

*Score explanation:* 

Greening of laboratories has been a particular focus for the University of Galway. The university aims to have "green" certification of all laboratories on campus by 2025. This is a flagship element of the University of Galway Sustainability Strategy.

2

The Medical Academies do not have equivalent programs.

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

The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)

The institution is entirely divested from fossil fuels. (3 points)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)

Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

4

Score Assigned:

Score explanation:

The University of Galway committed to divest from fossil fuels by the end of 2017 and is now recognised as being fully divested. The Sustainability Strategy 2021-2025 outlines the University of Galway's commitment to investing in renewable energy sources, reinvesting energy cost savings into new sustainability technologies, and engaging with building occupants to help maximise energy efficiency.

The Medical Academies do not make any such investments.

Section Total (18 out of 32)

56.25%

Back to Summary Page here

Are there additional sustainability resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

\*Note: The University of Galway Undergraduate Medicine Programme includes a 2-Semester clinical placement in one of Mayo, Sligo, Donegal or Ballinasloe Medical Academies. They are located in or next to Castlebar University Hospital, Sligo University Hospital, Letterkenny University Hospital, and Portiuncula University Hospital respectively.

### 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		
А	80% - 100%		
В	60% - 79%		
С	40% - 59%		
D	20% - 39%		
F	0% - 19%		

\*Within each grade bracket, a score in the top 5% ( $_5$  to $_9$ %), receives a "+", and a score in the bottom 5% ( $_0$  - 4%) receives a "--". For example, a percentage score of 78% would be a B+.

#### Planetary Health Grades for the University of Galway School of Medicine

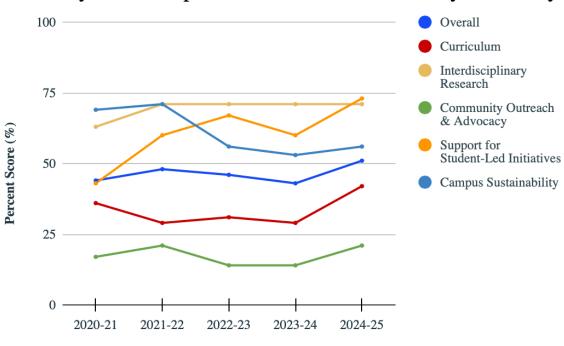
The following table presents the individual section grades and overall institutional grade for the University of Galway School of Medicine on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(30/72) \ge 100 = 41.67\%$	C-
Interdisciplinary Research (17.5%)	(12/17) x 100 = 70.59%	В
Community Outreach and Advocacy (17.5%)	$(3/14) \ge 100 = 21.43\%$	D-
Support for Student-led Planetary Health Initiatives (17.5%)	(11/15) x 100= 73.33%	В
Campus Sustainability (17.5%)	(18/32) x 100 = 56.25%	C+
Institutional Grade	$\begin{array}{l} (41.67x0.3+70.59x0.175+\\ 21.43x0.175+73.33x0.175+\\ 56.25x0.175)={\color{black}{51.281\%}}\end{array}$	С

### **Report Card Trends**

#### **Section Overview**

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



Planetary Health Report Card Trends for University of Galway

**Academic Year**