

Planetary Health Report Card (Medicine): University of Global Health Equity (UGHE)



2024-2025 Contributing Team:

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Summary of Findings

Overall Grade	Α
Curriculum	Α

- The curriculum at the University of Global Health Equity(UGHE) effectively integrates planetary health through the One Health approach, which is introduced early in the preparatory phase and Basic Medical Sciences and reinforced during clinical rotations. This ensures students develop an understanding of the interconnectedness of human, animal and environmental health. Key strengths include training in One Health history-taking and addressing environmental exposures. However areas like the carbon footprint of healthcare, sustainable practices in surgery, anaesthetics, and the environmental impacts of prescribing practices are underrepresented.
- **Recommendations**: UGHE should consider offering electives focused on sustainable healthcare practices, covering topics like reducing the carbon footprint of medical interventions, waste management, and environmentally conscious prescribing. This would ensure students are better equipped to implement sustainable healthcare practices in their future careers, addressing both health and environmental concerns.

Α

A

Interdisciplinary Research

UGHE has made strong strides in establishing planetary health research particularly through interdisciplinary research, which is primarily reinforced by collaboration with UGHE Center for One Health. This is testified by a multiple of factors.

- The faculty members and staff contribute to sustainability and healthcare research by actively engaging with students, especially those taking One Health track in Masters program at UGHE in different studies covering a variety of topics like podoconiosis, snakebite envenomation, and climate-related disease outbreaks, which are all understood by connecting human and animal health to different environmental changes.
- With the Department of Community Health and Social Medicine, UGHE ensures that local communities are involved in different research projects, by giving people a room for voicing ideas, decisions and sharing experiences and knowledge. This is vital in making community-centered projects that address the needs of local priorities.
- UGHE has hosted different conferences and symposiums such as annual Global Health Research Day. Additionally, UGHE has pushed efforts in planetary health by reinforcing a variety of partnerships and collaborations with organizations like Planetary Health Alliance (PHA), the former Africa One Health University Network (AFROHUN) and Global 1 Health Network (G1HN).
- **Recommendations:** UGHE has taken an approach by integrating planetary health in different research projects. However, lack of enough climate change or planetary health experts limits research outputs on this topic area. To tackle this, UGHE still have to expand collaborations with both national and international climate change/planetary health and health experts.

Community Outreach and Advocacy

• The University of Global Health Equity (UGHE) is committed to community outreach and education on planetary health through its Center for One Health. One key initiative involves distributing comic books to patients at affiliated hospitals, making One Health principles and the connection between human, animal, and environmental health more accessible and engaging. Additionally, UGHE's Department of Community Health and Social Medicine, leads quality

improvement projects, community development programs, and knowledge-sharing activities. These initiatives are implemented in a culturally respectful, equitable, and inclusive manner, ensuring that planetary health education and interventions are impactful and sustainable.

• **Recommendations**: Increasing consistent funding for planetary health initiatives will enhance the scope, reach, and impact of UGHE's efforts. More financial support will allow for scaling up community engagement, research, and advocacy programs, ensuring that planetary health remains a core pillar of medical education and healthcare delivery.

Support for Student-Led Initiatives

- University of Global Health Equity has a club, Student One Health Innovations Club (SOHIC) that performs a good job in supporting students with interest to explore more about planetary health and its approaches enabling them to partake in QI and Innovation.
- **Recommendation:** Improving on the protocols of how support of students in planetary health and sustainability is done. There can be a student representative in the board to represent the students' interest in planetary health and also help in decision making.

Campus Sustainability

- University of Global Health Equity (UGHE)'s commitment to planetary health and sustainability is reflected in its comprehensive eco-friendly campus operations manuals, waste management programs, and sustainability policies in respective campus departments. These efforts reflect best practices in preventive treatment in medical education.
- **Recommendation**: Developing an action plan statement for new and ongoing sustainability initiatives to track down their effectiveness on campus and setting clear carbon footprint goals would help UGHE move closer to its sustainability.

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

A

B+

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.

Instructions for Completing the PHRC

Thank you! We are really pleased to have you and your team on board to complete the PHRC at your institution. Many of you will have already been part of a completed report card or even lead the team at your school but please take a moment to read the instructions below.

For a full comprehensive step-by-step guide to completing your report card please refer to the PHRC User Guide. This page serves as a brief overview of the important methodology.

Completing the report card:

The Planetary Health Report Card is a self assessment tool designed to identify an institution's strengths and areas in need of improvement in regards to its planetary health education. The metric-based report card consists of five sections; 1. Curriculum, 2. Interdisciplinary Research, 3. Community Outreach, 4. Support for Student-Led Initiatives and 5. Campus Sustainability.

• Metrics. There are roughly 55 metrics (depending on your discipline). Sections 2-5 are the same across all disciplines. Each metric has different criteria for either scoring 1, 2 or 3 points. Participants should read each metric carefully and answer the question with as much accuracy as possible, drawing upon multiple sources where possible. It is vital sufficient investigation is completed for each metric to give a fair and accurate representation of your institution.

Most of the Curriculum metrics are graded by inclusion in **elective** coursework, **brief** coverage in the **core curriculum** or **in depth** coverage in the **core curriculum**.

Elective coursework: 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**: 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. Brief inclusion would qualify as inclusion in a single lecture slide in a single year.

In depth coverage in the **core curriculum:** 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. Please consider amongst your team that this is the highest score awarded and a subjective decision must be made as to whether the topic should be awarded this score.

(A full list of definitions is provided on the below pages)

• Types of evidence. Acceptable forms of evidence include: lecture titles, learning

objectives, module descriptions, descriptions of the intended learning, case titles, seminar titles, project titles, webpages, researcher profiles / biographies, news articles, publications, social media output, institutional policy documents. Please be as specific as possible.

It is essential that you have clearly justified the score for each metric, outlining in the box provided the specific content delivered in your curriculum and why you have assigned the score. Each report card is reviewed by a member of the leadership team for accuracy and consistency across report cards. An example of the sufficient level of evidence is provided below each metric.

Please do not include **lecturers' names** without permission. The title of the lecture or module with a brief description of the material will suffice.

Where material is publicly available via an institution's website, please include hyperlinks to the webpages.

• Evidence deadline. Any material from the previous academic year and the current academic year up to the draft deadline of the 17th February 2025 may be included in this report card. Any teaching planned after this date should not be scored in this report card but can be included in the 2025/26 report. You may wish to make a note of any such teaching for your colleagues producing next year's report card.

Definitions & Other Considerations

Definitions:

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 - 1. Describe how the environment and human health interact at different levels.
 - 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 - 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- Medical School/Department vs. Institution: When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.
- Environmental history (Metric #19 in Curriculum Section): This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- Elective: The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

- **Core Curriculum:** This refers to taught material that is develoered to the entire cohort of students in one year.
- **Clerkship** / **Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.
- Extractivisim: The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to the historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.
- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.
- Low socioeconomic status (SES): An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been

correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.

- Low and Middle-Income Countries (LMIC): Countries that have lower degrees of economic affluence.
- Anthropogenic: Created through human activity
- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Other considerations:

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

Completed in 2022 a <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: In the medical curriculum, there are no planetary health electives that students can take as part of their medical education. However, in the clinical division, there plans to integrate electives, but no student has taken them yet. There is also a Pandemic Preparedness and Response course that tackles the One Health aspect in pandemic preparedness and response, and students, faculty and staff can access it anytime. This is neither an elective nor part of an elective course in the curriculum.

An area for improvement can be introducing electives that specifically delve into planetary health or education for sustainable health care and making them accessible to medical students.

Curriculum: Health Effects of Climate Change

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

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

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

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

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

Score Assigned:

Score explanation: As part of the Renal and Urinary Systems module (MED 205) at the University of Global Health Equity (UGHE) in basic medical sciences, a four-hour session is dedicated to exploring the impact of extreme heat and climate change on chronic kidney disease (CKD) through a seminar titled "Climate Change and Chronic Kidney Disease". This session covers the intricate relationships between heat waves, climate change, and health risks, emphasizing heat-related illnesses, mortality, and the exacerbation of CKD. It delves into the pathophysiological effects of chronic heat exposure on renal function, particularly in vulnerable populations such as outdoor laborers, the elderly, and patients with kidney disease. Additionally, it highlights the broader environmental and public health consequences, including harm to both human and wildlife populations. While this topic is primarily taught in the pre-clinical years, students also engage with a clinical One Health guide in Case Based Collaborative Learning(CBCL) sessions, which introduces case-based learning on heat-related diseases and encourages them to assess risks and resource availability in clinical practice. These concepts are assessed in final examinations, ensuring students develop a preventive medicine mindset while gaining a comprehensive understanding of renal physiology and environmental health challenges.

3

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

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

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

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

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

Score Assigned:

3

Score explanation: The University of Global Health Equity (UGHE) integrates the study of extreme weather events and their health impacts across its curriculum, ensuring future medical professionals are equipped to address the growing challenges posed by climate change. In the Principles of Global Health Equity (PGHE) course, taught during the

preparatory phase, students engage in an in-depth session on Climate Change and Health, where they examine the profound effects of extreme weather events such as floods, droughts, and heat waves on both individual health and healthcare systems. This session explores a range of climate-related consequences, including food security disruptions, shifts in vector patterns, and the increased incidence of injuries and diseases. Further along in the curriculum, the Renal and Urinary Systems module (MED 205) delves deeper into the health implications of extreme heat, heat stress, and heat strokes, with a particular focus on their role in acute kidney failure. This session highlights the growing burden of heat-related illnesses and the ways in which climate change exacerbates renal conditions. Additionally, the PGHE module on One Health reinforces the interconnectedness of climate, human health, and ecological systems, examining how extreme weather impacts both individuals and broader healthcare structures. Through these courses, UGHE ensures that medical students develop a comprehensive understanding of climate-driven health risks, fostering a multidisciplinary approach to tackling the complex intersection of climate change, health, and equity.

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:

Score explanation: In the basic sciences division at the University of Global Health Equity (UGHE), the One Health approach is deeply integrated into the study of infectious diseases, particularly zoonotic and vector-borne diseases, through the Infectious Diseases module (MED 105). This module explores the profound impact of climate change on the epidemiology of infectious diseases, highlighting how shifting climate patterns are altering disease dynamics. For instance, students examine the emergence of malaria cases in regions previously considered unsuitable for its transmission, emphasizing how rising temperatures, changing precipitation levels, and environmental disruptions expand the geographic range of disease vectors and pathogens.

3

Additionally, the Principles of Global Health Equity (PGHE) course includes a dedicated session on infectious diseases and their relationship with climate change, reinforcing the interconnectedness of environmental factors, human health, and disease burden. Expanding on this foundation, PGHE 301 serves as an introduction to One Health, providing a comprehensive understanding of infectious diseases through a multidisciplinary lens. This course delves into zoonotic and vector-borne diseases, their epidemiology, and the practical applications of One Health in disease prevention and control.

By embedding the One Health perspective across these courses, UGHE ensures that students develop a holistic understanding of infectious disease control, bridging human, animal, and environmental health to combat the challenges posed by climate change, emerging pathogens, and evolving epidemiological landscapes.

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:

Score explanation: As part of the Respiratory Diseases (MED 202) module, students engage in an in-depth session titled "One Health and Respiratory Disease," a comprehensive four-hour lecture that bridges clinical medicine with environmental, occupational, zoonotic, and planetary health perspectives. This session immerses students in real-world scenarios, emphasizing the relationship between air pollution and respiratory diseases.

3

The lecture provides a multidisciplinary exploration of how air pollution—originating from industrial emissions, vehicular exhaust, biomass burning, and climate change—contributes to a spectrum of lung and airway diseases, including chronic obstructive pulmonary disease (COPD), asthma, lung cancer, and respiratory infections. Students analyze the environmental determinants of health, examining the role of occupational hazards (such as inhalation of toxic fumes and dust in workplace settings), zoonotic transmissions from animals, and broader planetary health challenges, including deforestation and extreme weather events that exacerbate respiratory illnesses.

Moreover, the session delves into clinical implications, equipping students with the knowledge to recognize, diagnose, and manage respiratory conditions linked to air quality and pollution. It underscores the urgent need for interdisciplinary collaboration in mitigating the burden of respiratory diseases—integrating medical, public health, and environmental strategies to develop sustainable solutions.

By integrating climate change, air quality, and One Health perspectives, this session ensures that medical students recognize the broader determinants of respiratory health, preparing them to address emerging public health threats and advocate for sustainable, evidence-based interventions in clinical and policy settings.

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: As part of the Cardiovascular System (MED 201) module, students engage in a comprehensive four-hour lecture titled "One Health and Cardiovascular Disease," which examines the connections between environmental determinants and cardiovascular health. This session provides a multidisciplinary exploration of how air pollution, particulate matter, and other environmental hazards contribute to the growing global burden of cardiovascular diseases (CVDs).

3

The lecture delves into the pathophysiological mechanisms linking exposure to indoor and outdoor pollutants—such as fine particulate matter (PM2.5), carbon monoxide, heavy metals, and volatile organic compounds—to the development and progression of cardiovascular conditions, including hypertension, atherosclerosis, myocardial infarction, and stroke. Students explore how these pollutants trigger systemic inflammation, oxidative stress, and endothelial dysfunction, accelerating cardiovascular disease onset and worsening patient outcomes.

Beyond pollution, the session highlights broader planetary and occupational health factors influencing cardiovascular health, such as climate change, extreme heat, socioeconomic disparities, and workplace exposures to toxic substances. Discussions extend to global health policies, urban planning, and sustainable interventions that can mitigate environmental risks and reduce the burden of cardiovascular diseases at both individual and population levels.

This engaging session not only enhances students' understanding of cardiovascular pathology but also fosters a One Health approach, emphasizing the need for collaborative solutions across medicine, public health, environmental science, and policy. Through this lecture, future healthcare professionals develop a holistic and preventive mindset, preparing them to tackle cardiovascular disease within the broader framework of planetary and public health challenges.

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: As part of MED 207: Neuroscience and Behavior, a preclinical course exploring the complexities of the nervous system and human behavior, students are introduced to the critical intersection between climate change and mental health. Although briefly covered within the psychology lecture series, this topic highlights the profound ways in which environmental changes influence psychological well-being and neurological disorders.

3

One key condition examined is Seasonal Affective Disorder (SAD), a form of depression linked to seasonal changes, particularly reduced sunlight exposure during colder months. Discussions extend beyond SAD to explore how climate-induced stressors, such as extreme weather events, rising temperatures, and environmental displacement, contribute to heightened anxiety, depression, post-traumatic stress disorder (PTSD), and cognitive impairments.

While the introduction to this subject in MED 207 provides a foundational understanding, the conversation deepens during Year 4 Psychiatry rotations, where students revisit the connection between climate change and mental health through a clinical lens. These sessions focus on the practical aspects of mental health assessment, emphasizing the importance of history-taking, clinical correlations, and diagnostic approaches for patients experiencing climate-related psychological distress.

By integrating environmental factors into the study of neuroscience, psychology, and psychiatry, this curriculum fosters a One Health perspective, equipping future healthcare professionals with the awareness and skills necessary to address the growing mental health challenges linked to our changing planet.

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

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.			
This topic was not covered.			
Score Assigned:	3		

Score explanation: The Introduction to One Health course provides students with a foundational understanding of the interconnections between human, animal, and environmental health. The course explores how food and water security, ecosystem health, and climate change are interlinked within the One Health framework. A key component of the course involves field visits to pig and cow farms, where students witness firsthand how livestock contributes to household food security and the challenges associated with raising food animals. The visits also emphasize the role of animal health practitioners in disease prevention and control, as well as the benefits of indoor animal farming. This approach not only enhances food security but also reduces climate impacts by minimizing deforestation for grazing land and controlling disease transmission through regulated animal husbandry practices.

In addition to this introduction, One Health principles are further reinforced in MED 106: Gastrointestinal System (GIT). This course examines food security from a medical and public health perspective, covering the four pillars of food security (availability, access, utilization, and stability) and the challenges of feeding a growing global population. It highlights the role of food safety in preventing gastrointestinal infections and explores how a One Health approach can be applied to managing foodborne pathogens, malnutrition, and stunting. By integrating clinical knowledge with global health concerns, MED 106 equips students with a broader understanding of nutrition, infectious disease control, and sustainable food systems.

The Introduction to One Health, a one-week intensive course on One Health as part of the Principles of Global Health Equity (PGHE), expands upon these discussions by incorporating case studies on climate change and health, analyzing how environmental changes impact disease patterns, food systems, and community health. Students also engage in cross-cultural and interdisciplinary communication, learning how to collaborate across disciplines to design and implement effective health interventions.

Together, these courses provide a comprehensive, real-world perspective on how climate change, food security, and ecosystem health impact human well-being. By combining theoretical knowledge with practical field experiences, students develop the skills necessary to address emerging health challenges through a sustainable and integrated One Health approach.

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 Introduction to One Health course explores the intersection between climate change and social determinants of health, highlighting how environmental shifts disproportionately impact marginalized and indigenous communities. A compelling case study focuses on Lake Turkana, Kenya, where indigenous pastoralist communities face severe health and environmental challenges due to recurrent droughts. These climate-induced changes contribute to food insecurity, the spread of zoonotic diseases, and ecosystem degradation, exacerbating public health vulnerabilities. Furthermore, the limited access to healthcare in these regions heightens their risk of climate-related diseases, underscoring the urgent need for integrated health and environmental policies.

3

Another critical example examined is the impact of rising sea levels and saltwater intrusion into coastal aquifers in Bangladesh, which has been linked to an increased risk of gestational hypertension among pregnant women. This case study illuminates the gendered dimensions of climate change, demonstrating how women in vulnerable regions disproportionately experience adverse health outcomes due to environmental disruptions. The course further expands on how climate-related health disparities are deeply intertwined with social structures, economic inequalities, and access to essential services.

The discussion on climate change and human health continues in MED 205: Renal Physiology, where students explore the rising incidence of Chronic Kidney Disease of Unknown Etiology (CKDu)—a condition primarily affecting marginalized populations in rural South Asia and indigenous communities in Canada. CKDu has been linked to occupational and environmental exposures, including chronic dehydration, exposure to agricultural chemicals, and rising global temperatures. This case highlights the devastating impact of human activity on environmental and renal health, emphasizing the importance of early detection, preventive measures, and policy-driven interventions.

Through these interdisciplinary discussions, the Introduction to One Health and MED 205 modules equip students with a holistic understanding of how climate change, social determinants, and public health intersect. By incorporating real-world case studies, students develop a critical perspective on the global health disparities driven by environmental change, reinforcing the need for collaborative, equity-focused solutions in both clinical and public health practice.

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 not covered.		
Score Assigned:	3	

Score explanation: The Introduction to One Health, PGHE 301, and MED 201 (Cardiovascular System) modules provide a comprehensive analysis of climate change-driven health disparities, with a particular focus on Sub-Saharan Africa, Rwanda, and East Africa. These discussions emphasize the regional inequities in climate change impacts, highlighting that the populations most vulnerable to climate-related health risks are often those who have contributed the least to global emissions.

One critical aspect explored is the burden of air pollution-related diseases in low- and middle-income countries (LMICs). These nations face disproportionately high mortality rates from air pollution due to a combination of poor air quality standards, limited healthcare access, and reliance on polluting fuels such as charcoal and firewood for cooking, as well as high-emission fuels used in vehicles. The cumulative impact of these factors contributes to an increased prevalence of cardiovascular diseases, asthma, and other respiratory illnesses, which are exacerbated by the lack of preventive healthcare infrastructure.

A specific regional focus on Rwanda and East Africa extends the discussion by highlighting that air pollution is not confined to industrialized areas but also significantly affects non-industrialized rural regions due to the unrestricted travel of air currents. This phenomenon disproportionately impacts rural communities, which contribute the least to pollution yet suffer the most severe health consequences. The limited access to specialized healthcare services in these areas further amplifies health inequities, leaving vulnerable populations at a higher risk of undiagnosed and untreated air pollution-related diseases.

These modules reinforce the One Health perspective, illustrating the urgent need for policy-driven solutions to address air quality management, healthcare accessibility, and environmental justice. By integrating scientific evidence, public health strategies, and environmental policy discussions, students gain a holistic understanding of the intersection between climate change, air pollution, and health inequities, preparing them to advocate for sustainable and equitable health interventions in vulnerable communities.

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:	3	

Score explanation: The MED 206: Endocrinology and Reproduction module introduces students to the critical role of endocrine disruptors in reproductive health, highlighting how industrial and environmental toxins contribute to hormonal imbalances, congenital abnormalities, and reproductive diseases. This pre-clinical course provides a foundational understanding of how exposure to synthetic chemicals, heavy metals, and pollutants can interfere with endocrine function, leading to infertility, developmental disorders, and long-term health consequences.

As students progress into clinical years, the real-world implications of environmental toxins on reproductive health are further examined through case-based learning and clinical discussions. Cases involving occupational exposure to hazardous chemicals, congenital abnormalities, and industry-related reproductive disorders are frequently reviewed, reinforcing the connection between workplace environments and health outcomes. These discussions equip students with the ability to identify, assess, and address environmental risk factors in patient care.

A crucial component of this training is the Introduction to Practical Medicine course, which includes sessions on history-taking one of which is on One Health History taking. This session trains students to incorporate occupational and environmental exposure assessments into routine medical histories, ensuring that clinicians systematically evaluate potential health risks linked to a patient's living and working conditions. Additionally, throughout the clinical years, comprehensive history taking is trained and encouraged to tackle the reproductive health effects of industry-related toxins, reinforcing the importance of comprehensive patient histories and environmental health considerations in clinical decision-making.

By integrating pre-clinical learning, clinical case discussions, and practical history-taking skills, these courses ensure that future healthcare providers are well-equipped to recognize and address the health consequences of environmental and occupational exposures. This One Health approach fosters a broader perspective on disease prevention and public health, ultimately contributing to more effective patient care and policy advocacy.

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:

 3

Score explanation: At the University of Global Health Equity, the medical curriculum integrates environmental health, occupational risks, and the principles of One Health to prepare students for real-world health challenges. Through community-based education, students participate in field visits to mining sites and agricultural communities, assessing health risks such as respiratory diseases, heavy metal poisoning, and zoonotic infections. Courses such as the Principles of Global Health Equity (PGHE) explore the impact of farming practices on public health, while clinical years emphasize occupational health and comprehensive history-taking that considers environmental determinants of disease. By embedding these principles throughout their training, the university equips future healthcare professionals with the skills to address the root causes of illness, advocate for sustainable health policies, and lead community-based interventions in both rural and global settings.

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 Medical Anthropology and Sociology course in the preparatory phase at the University of Global Health Equity introduces students to the profound role of indigenous populations in shaping their societies, preserving cultural heritage, and adapting to external influences. One of the key case studies explored was that of the people of Madagascar, focusing on how they contributed to community development, preserved knowledge across generations, and adapted to technological advancements and modern healthcare. This exploration provided valuable insight into how indigenous groups develop attitudes toward foreign visitors and interact with neighboring communities, highlighting the social dynamics that influence public health and community resilience.

3

Further reinforcing these themes, in the Introduction to One Health course, students examined the Turkana tribe in Kenya, a marginalized pastoralist community living in the Turkana region. The case study emphasized the health and social challenges the Turkana people face, particularly their high exposure to zoonotic diseases due to their dependence on livestock. Limited access to basic healthcare, clean water, and social services exacerbates their vulnerability. Additionally, students explored environmental and economic injustices, such as the Kenyan government's use of Turkana land to build the Turkana Wind Farm without compensating the local people. Ironically, despite hosting a major renewable energy project, the Turkana community was not provided with electricity, leaving them underdeveloped, unable to adapt to climate change, and continuously facing droughts and food insecurity. This case study served as a powerful example of systemic marginalization and its direct impact on health and planetary well-being.

Expanding on these discussions, students also studied other indigenous groups, such as Canadian communities affected by mercury poisoning, particularly during the Renal Module. These cases further illustrated the disproportionate burden of environmental hazards, economic exclusion, and inadequate healthcare faced by indigenous populations worldwide.

By integrating case studies on indigenous communities, environmental health, and social injustices, these courses equip students with a deep understanding of how culture, marginalization, and health intersect. Through this approach, students gain the necessary skills to advocate for health equity, address environmental injustices, and develop inclusive, community-centered solutions that empower indigenous populations globally.

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:

Score explanation: The Introductory One Health course at the University of Global Health Equity provides students with a critical understanding of how marginalized communities disproportionately suffer from environmental injustices and exposure to toxic pollutants. Through a series of case studies, students analyze the extent to which various populations are affected based on geographical location, economic status, and social vulnerability. This exploration highlights the systemic inequalities that place already disadvantaged groups at greater risk of environmental hazards, further exacerbating health disparities.

3

These discussions continue into the second year, where the impact of environmental toxins on cardiovascular and respiratory health is explored in depth within the Cardiovascular and Respiratory Modules. Students examine how air pollution, industrial waste, and chemical exposure contribute to diseases such as hypertension, chronic obstructive pulmonary disease, and lung cancer. Special attention is given to the social groups most affected, particularly those living near industrial zones, waste sites, or regions with high air pollution levels.

In the Introduction to One Health course (the Principles of Global Health Equity (PGHE 301) during the first year, students engage in case studies that underscore the direct correlation between environmental hazards and marginalized populations. Many of these communities reside in proximity to factories, landfills, and hazardous waste sites, which significantly increases their exposure to airborne toxins and contaminated water sources. Additionally, seafood-dependent populations, often from economically disadvantaged regions, face heightened risks of mercury poisoning due to industrial pollution in marine ecosystems.

By integrating these themes across multiple courses, UGHE ensures that students develop a comprehensive and intersectional perspective on environmental health and social justice.

Curriculum: Sustainability

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

This topic was explored in depth by the core curriculum.

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

This topic was covered in elective coursework.

This topic was **not** covered.

Score Assigned:

Score explanation: While the University of Global Health Equity's curriculum does not explicitly address the environmental and health co-benefits of a plant-based diet, it integrates discussions on food security and sustainable nutrition through key courses. In the Gastrointestinal Module during the first year, students explore food security, malnutrition, and the systemic factors affecting food access and diet-related diseases. Additionally, in the Introduction to One Health course (MED 101), students analyze food security within local communities, examining the benefits of plant-based diets in relation to ecosystem balance, biodiversity preservation, and sustainable food systems. While the curriculum does not focus solely on plant-based nutrition, these discussions provide students with a foundational understanding of how dietary choices influence public health and environmental sustainability, equipping them to advocate for food policies that promote health, equity, and ecological balance.

2

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:

Score explanation: The University of Global Health Equity's curriculum does not yet comprehensively address the carbon footprint of healthcare systems, though this is an increasingly critical issue in the intersection of healthcare and environmental sustainability. While this topic would be particularly relevant during clerkship years, where students engage directly with hospital operations and resource utilization, its presence in the current curriculum is minimal. However, during MED 205, a pre-clinical module focused on the renal system, a session briefly touched on this issue through a slide titled "Climate Change and Kidney Health." This session highlighted how various healthcare activities—including ambulance transportation, the delivery of medical supplies, and the significant energy demands of heating, cooling, and powering medical equipment—contribute to greenhouse gas emissions.

2

Given the increasing impact of climate change on global health, integrating a structured discussion on healthcare sustainability into the curriculum would equip future healthcare professionals with the knowledge and skills to advocate for environmentally responsible medical practices. Addressing hospital energy consumption, waste management, and sustainable procurement could provide a more holistic approach to reducing the environmental burden of healthcare while maintaining high-quality patient care.

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	Score
The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment (2 points)	2
The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively teaching on deprescribing where possible and its environmental and health co-benefits would fulfil this metric. (2 points).	2
The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions;	1

active transport such as bicycle schemes. This is commonly known as social prescribing in the UK. (1 point)	
Environmental impact of surgical healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0
The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	0
Waste production within healthcare clinics and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	1
Score ann langtion: The University of Clobal Health Equity's curriculum integrates	

Score explanation: The University of Global Health Equity's curriculum integrates environmental and health benefits of minimizing over-prescription and promotes sustainable healthcare practices throughout various modules. In the Gastrointestinal Module, students explore the significance of antimicrobial resistance (AMR) and its effects on both human and animal health, emphasizing the importance of avoiding over-prescriptions to combat the growing issue of resistance and environmental contamination. The curriculum highlights non-pharmaceutical management strategies for diseases like hypertension, encouraging students to advise lifestyle adjustments as the first line of treatment before resorting to medication. In addition, waste production and management are examined in detail as part of the discussion on healthcare's environmental impact, particularly medical waste as a contributor to environmental pollution. These topics are discussed in terms of their health benefits, with less emphasis on the broader environmental advantages of reducing over-medicalization.

Further, in courses like Infectious Diseases (MED 105) and Introduction to One Health (the Principles of Global Health Equity 301), students are introduced to concepts like AMR, bioavailability, and biomagnification, which explore the effects of medical and chemical contaminants on both the environment and human health. These courses stress the importance of avoiding unnecessary treatments, over-investigation, and over-medicalization to mitigate the environmental and health risks posed by excessive use of chemicals and pharmaceuticals. In every pharmacology section, non-pharmacological interventions are emphasized before introducing drugs for disease management, reinforcing the value of minimizing pharmaceutical dependency. In the clinical years, students are taught to rationalize medical supplies and minimize waste during ward rounds and in-hospital training, focusing on the practical application of resource conservation. The Introduction to Practical Medicine Module at the start of clinical rotations further reinforces these principles, urging students to consider the responsible use of resources and practice waste minimization within healthcare settings. This comprehensive approach ensures that future healthcare professionals are well-equipped to promote sustainable, responsible practices that benefit both public health and the environment.

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

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

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

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

Score Assigned:

2

Score explanation: In the third year of the program, the Introduction to Practical Medicine courses emphasize integrating One Health concepts into patient care, particularly through history taking. While students are taught to consider the broader connections between human health, animal health, and the environment, there is currently a gap in addressing the social history aspect of patient evaluations. Specifically, students are not routinely instructed to explore how climate factors, including seasonal changes or environmental shifts, influence their patients' health and daily lives. However, in the Introduction to Practical Medicine courses, strategies are being incorporated to address this gap by encouraging students to inquire about these environmental influences during history taking. As students advance into their clinical years, this approach is reinforced and expanded, with a growing emphasis on understanding how climate change and local environmental factors impact health outcomes. This shift ensures that healthcare professionals are not only trained to treat patients but also to recognize and address the social and environmental determinants of health, fostering a more holistic approach to medical practice.

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: As students transition into clinical practice within the University of Global Health Equity's curriculum, they are introduced to history taking, with a strong focus on incorporating One Health principles. A key component of this training is learning to gather One Health history, which involves systematically exploring environmental factors and exposures that could influence a patient's health. This approach emphasizes the importance of asking targeted, relevant questions about a patient's environmental surroundings, potential toxins, and lifestyle factors, which are crucial for narrowing down differential diagnoses. By incorporating One Health history into clinical practice, students are taught not only to assess the biomedical aspects of a patient's condition but also to consider the broader environmental context, which enhances the accuracy of diagnosis and improves patient care. This comprehensive approach ensures that future health care professionals are well-equipped to recognize the interconnectedness of human health and environmental influences, fostering a more holistic and effective approach to medical practice.

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)

4

Score Assigned:

Score explanation: The University of Global Health Equity has made significant strides in evaluating its curriculum, with a particular focus on integrating planetary health. As part of this effort, the Center for One Health is playing an important role in advancing planetary health education, with a strong emphasis on merging social medicine-specifically Community-Based Education (CBE)-with One Health principles. This integration extends beyond simple community visits, aiming to foster ongoing learning and practical application of One Health concepts within the community, addressing diseases like podoconiosis and other health challenges linked to environmental factors. Additionally, the Center for One Health has received funding to assess its curriculum, ensuring that planetary health and its key components are effectively incorporated into medical education. In pursuit of a more holistic understanding of planetary health, there are plans for collaborative case discussions and cross-disciplinary learning with veterinary students from the University of Rwanda, providing a broader perspective on the intersections of human, animal, and environmental health. These efforts reflect the University's commitment to creating a robust, interdisciplinary approach to planetary health, ensuring that students are well-prepared to tackle complex health challenges in an interconnected world.

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: At the University of Global Health Equity, One Health education is a central component of the curriculum, beginning with a stand-alone One Health course required for all pre-medical students. This course is seamlessly integrated across Basic Medical Sciences (BMS) modules, ensuring that students develop a foundational understanding of the interconnectedness between human health, animal health, and environmental health. In addition to the stand-alone course, One Health concepts are interwoven throughout the BMS curriculum, with graded and testable assessments that reinforce the importance of these principles.

4

As students progress into the clinical years, the emphasis on One Health deepens, particularly in the area of history taking. During clinical rotations, students are trained extensively in gathering One Health histories, where they learn to inquire about environmental exposures, lifestyle factors, and other elements that impact both individual health and the broader ecological context. This comprehensive training ensures that by the end of their clinical education, students are well-equipped to consider the environmental and social determinants of health, enabling them to provide more holistic and accurate diagnoses and care for their patients. Through this structured approach, the University ensures that One Health principles are not only taught but are also consistently emphasized throughout the entire medical education journey, preparing students to address complex health challenges in an interconnected world.

1.22. Does your medical school employ a member of faculty to specifically oversee and

take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?

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

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

1

Score Assigned:

Score explanation: The University of Global Health Equity houses a dedicated Center for One Health, which is a key department aimed at fostering an integrated approach to health that spans human, animal, and environmental well-being. While the Center is supported by a broad team of experts, two faculty members play a pivotal role in supervising and explicitly integrating planetary health into both the Basic Medical Sciences (BMS) and Clinical Classes. These faculty members ensure that planetary health principles are seamlessly woven into the curriculum, enriching students' understanding of how environmental factors and sustainability intersect with healthcare. Their work enhances the broader educational mission, helping students recognize the interconnectedness of global health challenges and the critical need to incorporate planetary health into medical practice. Through this structured integration, students are equipped to tackle complex health issues with a comprehensive, multi-disciplinary approach that emphasizes the urgent need for sustainable healthcare practices.

Section Total (62 out of 72)

86.11%

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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 medical school has involvement in planetary health research through the Center for One Health. The Center has 5 full-time and 3 part-time Faculty with a primary focus on One Health Research (under which planetary health is part). Here are some examples of research projects that have been carried out:

1. Podoconiosis in Rwanda; Knowledge, attitudes and practices among health professionals and environmental officers.

2. Snake bite envenomation in Rwanda: risk factors, patient care and anti-venom availability in the formal healthcare sector.

3. An outbreak of rift valley fever among peri-urban dairy cattle in northern Tanzania.

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:

Score explanation: Yes, there is Center for One Health at UGHE which oversees all activities related to planetary health including research projects about planetary health and many more activities that include planetary health.

3

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

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:

3

Score explanation: UGHE integrates community participation into its research and educational activities through the Department of Community Health and Social Medicine and the Center for One Health. This collaborative approach ensures that local communities are involved in shaping research projects, contributing their knowledge, experiences, and perspectives to address local priorities. Community members and local leaders actively participate in decision-making processes, empowering them to co-create solutions that benefit their communities tangibly.

Research findings are communicated back to communities in culturally sensitive and accessible formats, such as comic books and posters, ensuring transparency and real-world application. UGHE prioritizes long-term, reciprocal partnerships with communities, emphasizing trust, respect, and equity to promote environmental and social justice. These efforts aim to solve local challenges, build capacity, and design sustainable, impactful projects.

Additionally, UGHE students take an active role in addressing planetary health issues through the Walk the Talk Program. This student-led initiative involves direct engagement with community members to observe and identify challenges firsthand. Students then collaborate with local stakeholders to propose projects addressing these challenges. The Center for One Health supports these initiatives by providing funding on a selective basis and connecting students to additional grants.

Furthermore, there is an ongoing project led by an expert from UGHE in partnership with the National Council for Science and Technology (NCST) named Design of community and health worker's centered data collection systems for the health national adaptation. The main goal of the project is to foster well-being of the population by engaging local health professionals and the community in data collection and real-time assessment of impacts of climate change on health to better understand the link between climate change and public health .

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:

2

Score explanation: The University of Global Health Equity (UGHE) provides valuable insights into the activities, research projects, and conferences hosted by the Center for One

Health, including those related to planetary health, through its Website's Latest News Section. However, while the website offers a central hub for these updates, individual departments currently lack dedicated webpages, which means users must rely on the search box tool to find relevant information. An example of such content is an article that highlights how UGHE One Health students are advocating for collaborative efforts to address global health challenges, which you can read here: <u>UGHE One Health Students</u> <u>Recommend Collaboration to Solve Global Health Challenges</u>.

Additionally, UGHE is in the process of developing a research database that will compile a range of research materials across various topics, including climate change and planetary health. While the database is still under development, it promises to serve as an essential resource for exploring the intersection of health and environmental sustainability. This ongoing effort reflects UGHE's commitment to advancing knowledge on planetary health and fostering interdisciplinary research to tackle pressing global health issues.

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 / sustianable 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:

4

Score explanation: The University of Global Health Equity (UGHE) has actively hosted multiple conferences and symposiums addressing planetary health, reinforcing its commitment to integrating One Health, environmental sustainability, and global health challenges into education and research.

A key annual event is the Global Health Research Day, a conference that provides students, faculty, and researchers with a platform to present their work. Climate change, Planetary

Health and One Health are prominent themes, emphasizing the critical intersection of environmental sustainability and health equity.

Additionally, UGHE's Student One Health Innovation Club (SOHIC) has spearheaded Cascading Debate Sessions, Panel Discussions, and Seminars focused on pressing environmental health issues, such as climate change, plastic use, green building, and the impact of environmental changes on disease patterns. These discussions, held in March and April 2023, alongside a recent panel discussion in 2024, have brought together experts, students, and community members to engage in solution-driven conversations.

Further advancing planetary health discourse, UGHE is set to host the 1st Edition of the Collaborative Leadership Conference: Advancing Medical Education in Africa, early March 2025. One of the key highlights of this conference is "Integrating Modern Global Health Challenges in Medical Curricula," where institutions will showcase how topics such as One Health, climate change, and pandemics are being incorporated into medical training. Through expert-led workshops, this initiative aims to equip future healthcare leaders with the tools and knowledge to address emerging global health threats.

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)

1

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

Score Assigned:

Score explanation: UGHE recognizes One Health and Planetary Health as important frameworks for addressing global health challenges. Committed to integrating these concepts into its curriculum and research, UGHE actively engages with leading networks, including the Planetary Health Alliance (PHA), Global 1 Health Network (G1HN), the former Africa One Health University Network (AFROHUN), and COHESA consortium. As a member of the CUGH working group on One Health and Planetary Health, UGHE continues to gain insights, foster collaborations, and equip future leaders with the tools to drive sustainable health solutions. Duke-East African Institutions collaboration that focuses on different research areas including Global health and climate change.

Section Total (16 out of 17) 9	94.12%
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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 health?

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

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

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

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

Score Assigned:

Score explanation: The University of Global Health Equity (UGHE) Medical School fosters planetary and environmental health through dynamic collaborations with community organizations, local leadership, and student-led initiatives. One of its key partnerships is with the Burera Youth Community (BYC), through which it actively engages in conservation efforts, particularly focusing on the protection of vital ecosystems such as the Rugezi Swamp in Burera District. This commitment is exemplified through the Rugezi Marshland Conservation Project, which aims to safeguard this critical wetland from environmental degradation.

3

A flagship awareness initiative within this project is the BYC-Conservation Cup, an innovative campaign that harnesses the power of sports to unite the community around conservation efforts. By organizing football matches, UGHE through Student One Health Innovation Club (SOHIC) under Center for One Health and BYC create an engaging platform to educate local populations on the importance of environmental stewardship. This initiative is further strengthened by the active participation of the Student One Health Innovation Club (SOHIC), a student-led organization dedicated to advancing One Health and planetary health initiatives.

Beyond conservation, UGHE Medical School also works closely with local authorities to integrate planetary health principles into Rwanda's monthly Umuganda—a nationwide community service program. Through this initiative, students and faculty join community members in hands-on projects such as constructing trenches to prevent soil erosion and landslides. These gatherings serve as educational platforms where participants receive training on crucial environmental health topics, including terrace construction for landslide prevention and sustainable land management.

UGHE's commitment to planetary health extends to tackling pressing environmental challenges, such as improper plastic waste disposal. In collaboration with SOHIC and local leadership, the university is implementing projects designed to mitigate the negative impact of plastic pollution on human and ecological health. One such effort involves outreach initiatives to neighboring primary and secondary schools, where students assess opportunities for advancing environmental sustainability. A particularly impactful component of this work is SOHIC's engagement in training young learners on One Health and planetary health, equipping the next generation with the knowledge and skills to become environmental stewards.

Among the notable outreach projects, UGHE students conducted a Climate Change Awareness Campaign at Groupe Scolaire Runaba High School, fostering discussions on climate action and sustainability. Additionally, SOHIC has launched an ongoing initiative at the same school, focusing on the procurement and installation of water filtration tanks to improve access to clean water—an essential component of environmental and public 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)

Score Assigned:

3

Score explanation: Each year, students from UGHE's <u>One Health track</u> participate in a field school focused on One Health. During these field outreaches, they go beyond the classroom to various communities across the country to observe and gain firsthand knowledge of planetary health issues and the principles of One Health. Additionally, the

Student One Health Initiative Club organizes annual trips to explore planetary health, such as their recent visit to a primate conservation campus. Moreover, a course on pandemic preparedness and response is offered annually, open to all individuals interested, including UGHE staff, faculty, and students.

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)

2

Score Assigned:

Score explanation: UGHE's Center for One Health publishes an annual newsletter through the student-led Student One Health Innovation Club. This yearly publication focuses on various topics related to planetary health. The newsletter features different initiatives undertaken by SOHIC and the Center for One Health. The Center for One Health and the Student One Health Innovation Club have active social media platforms which provide updates about planetary health initiatives organized by these bodies.

The <u>UGHE website</u> also shares a range of stories concerning personal health and general aspects of planetary health. By making this newsletter available to the public, it effectively addresses topics related to planetary health and sustainable healthcare.

Moreover, the student-led AEQUITAS Newsletter particularly covers student-led planetary health initiatives quarterly. Coverage includes field trips, community outreaches, planetary health competitions, debates and other events held on campus or outside the campus.

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)

		3	-	• • •	
There are no	such accessible	courses for nos	t_oraduate nr	oviders (0	noints)
		courses for pos	n graduate pr		points

Score Assigned:

2

Score explanation: The Center for One Health at UGHE provides a course on Pandemic Preparedness and Response along with Dynamic Health Systems Resilience annually, offering a certificate to those who successfully complete it. The alumni are also eligible to take this course.

Additionally, the center provides an online One Health Certificate course entitled "One Health: An Innovative Approach to Equitably Address Complex Health Problems," which is available to staff, students, and alumni. Both courses include elements related to Planetary Health.

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)

2

Score Assigned:

Score explanation: UGHE, via its Center for One Health, often shares educational materials that address environmental health hazards for patients. For instance, it has provided comic books regarding podoconiosis and snake bites to residents of Butaro and to patients at Butaro Level II Teaching Hospital, the university's associated teaching hospital specifically they were distributed in the pediatric ward. These resources educate patients on the dangers of podoconiosis and snake bites linked to the geography of Burera, suggest ways to minimize these risks, and describe the proper steps to take if they are impacted.

3.6. 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 **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 hospitals have *accessible* educational materials for patients. (0 points)

Score Assigned:	1
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Score explanation: UGHE's Center for One Health regularly provides educational resources about environmental health risks to patients. For instance, it has shared comic books on podoconiosis and snake bites with individuals in Butaro and those at Butaro Level II Teaching Hospital. These comic books educate patients on the dangers of podoconiosis and snake bites linked to the geographical conditions of Burera, as well as how to prevent these risks and what steps to take if they occur. Although not explicitly connected to climate change, this effort is related, as these health risks are affected by changes in climate.

Section Total (13 out of 14)

92.86%

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Support for Student-Led Planetary Health Initiatives

<u>Section Overview:</u> 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: UGHE annual budget includes funding allocated for research projects that are specific for sustainability initiatives and QI projects. There is a Student One Innovation Club whose leadership and membership are primarily students in the medical school. Each year, the institution through the Center for One Health offers a certain budget for various projects. This year, various sustainability projects have been selected for funding support including WASH projects-sustainable latrines, proper animal husbandry, and water treatment.

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:	2

Score explanation: UGHE Centre for One Health gives room for planetary health enthusiasts to explore more about planetary health with the help of UGHE Research Society that aims at supporting students' research. Furthermore, there is a <u>One Health</u> option in the MGHD program at UGHE. Through this program, students are able to do research in different aspects of one health that include planetary health.

4.3. Does the <u>institution</u> 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 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)

Score Assigned:

Score explanation: There is no webpage specifically designed for planetary health projects. However the school has a webpage where the news about the school's achievements is published. Unfortunately, there has never been any information related to planetary health/sustainable health published on that website.

1

The webpage: <u>https://ughe.org/news</u>

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:

2

Score explanation: There is a student-led club, Student One Health Innovation Club (SOHIC) which primarily comprises students and is supported by the Centre of One Health. The Center of One Health dedicates an annual budget for SOHIC to support One Health initiatives which usually focus on planetary health. The activities carried out by SOHIC include NTDs awareness campaigns, project competitions, field trips, educational campaigns in Groupe Scolaire Runaba, a high school that neighbours UGHE. In November 2024, SOHIC hosted a debate over a theme of food security and human health.

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

0

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:

Score explanation: Only a faculty liaison is on board currently.

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.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	1

Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	1
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1

Score explanation:

1. Visit to Pig Farm:

Medical students in class of 2030 had a visit to a pig farm in their final week of the Principles of Global Health Equity in a course called **Introduction to One Health**. They learnt more about pig farming and how to build resilient food systems while conserving the environment.

2. Umuganda

Umuganda is a community work activity held on the last Saturday of each month in Rwanda. People come together to complete projects and solve local problems. Sometimes, the Students One Health Innovation Club joins them in these activities. After Umuganda, the club members teach the community about zoonotic diseases, neglected tropical diseases (NTDs), climate change, or any other important issue.

3. Debate on Food Securtiy

The Student One Health and Innovation Club organized a debate about food security, sustainable agriculture and planetary health during the One Health Month where students exchanged various ideas in the area.

4. One Health Art Competitions at Runaba High School

During the One Health month in November 2024, the Student One Health Innovation Club organized a One Health Arts Competition at Runaba High School where high school students in the Students Club for Future Nature showcased various compositions and art performances. The competition welcomed compositions and art performances that described students' knowledge in One Health and planetary health.

5. Trip to Ellen Degeneres Campus of Dian Fossey Fund

Medical students in the Student One Health Innovation Club had an educational trip to the Ellen Degeneres Campus of Dian Fossey Fund in Kinigi. This trip gave an opportunity to medical students to learn about conservation and protection of mountain gorillas as one of the most endangered species. The students learnt about the behaviour of human gorillas, how they live in families and their relation to humans. This visit also gave the students a

perspective of how human activities that harm the wilderness negatively affect the natural ecosystem, and hence affecting the human population at large.

Section Total (13 out of 15)

86.67%

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Campus Sustainability

<u>Section Overview:</u> 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 <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 **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)

1

Score Assigned:

Score explanation: Considering its small size, UGHE right now does not have a dedicated office or salaried staff specifically for campus sustainability. Instead, sustainability is managed within the broader framework of campus operations. Each department is responsible for incorporating sustainable practices into its functions, ensuring that sustainability is addressed as part of routine operations rather than as a separate initiative.

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

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

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

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

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

Score Assigned:

0

Score explanation: The University of Global Health Equity (UGHE) does not have a standalone, written plan specifically for reducing its carbon footprint. Instead, carbon footprint reduction is integrated into the operations of individual departments. Each department incorporates sustainable practices relevant to its functions, such as optimizing energy consumption and promoting responsible resource management. For instance, heating, ventilation, and air conditioning (HVAC) systems are managed to minimize energy use, and the institution encourages efficient use of air conditioners and heaters through its Sustainability Initiative Guide. Waste reduction efforts are also embedded within campus operations, emphasizing proper waste disposal and recycling practices to reduce environmental impact.

Transportation management is another key area where sustainability is embedded within department operations. Instead of allowing unrestricted vehicle use on campus, UGHE reduces unnecessary car traffic by prioritizing service vehicles and encouraging public transportation for staff and students. This approach limits emissions while maintaining efficient mobility on campus. Through these department-led initiatives, UGHE incorporates environmental responsibility into its daily operations without a centralized sustainability office or formalized carbon footprint plan.

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)

3

Score Assigned:

Score explanation: UGHE relies primarily on renewable energy, with hydroelectricity serving as the main power source for all academic and administrative buildings, including classrooms, laboratories, the library, and offices. In addition to hydroelectric power, the campus also utilizes solar energy, which is specifically used for street lighting and partially for heating water. The remaining portion of the water heating system is also powered by

hydroelectricity, ensuring a consistent and sustainable energy supply. Diesel generators are available as a backup but are only used in the event of power outages, minimizing reliance on fossil fuels.

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)

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

Score Assigned:

3

Score explanation: UGHE integrates sustainable building practices into both new construction and the retrofitting of existing structures on its medical school campus. The institution follows Leadership in Energy and Environmental Design (LEED) standards, ensuring that sustainability is prioritized throughout the design and construction process. This includes using energy-efficient technologies, incorporating environmentally friendly materials, and implementing water and energy conservation measures, such as sensor-activated systems and solar power in new buildings. These efforts help reduce the environmental impact of campus infrastructure while promoting long-term sustainability.

Beyond new construction, UGHE is also committed to enhancing the sustainability of its older buildings through retrofitting initiatives. Many existing structures have been upgraded to improve energy efficiency, including modernizing heating, ventilation, and lighting systems. For example, all lighting has been replaced with LED fixtures to reduce energy consumption. By continuously improving its built environment, UGHE ensures that both new and existing campus facilities align with modern sustainability standards.

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)

Score Assigned:

Score explanation: The University of Global Health Equity (UGHE) has implemented strategies to promote sustainable transportation and reduce the environmental impact of commuting. Vehicle movement on campus is limited to reduce carbon emissions, and there are accessible bicycles and friendly-pedestrian pathways to encourage cycling and walking respectively. Private car transportation is not used for movements within the campus. Furthermore, UGHE offers shuttle services (public transport) for students and staff traveling between campus and major cities, discouraging reliance on personal vehicles and lowering carbon emissions.

2

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)

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

Score Assigned:

Score explanation: The University of Global Health Equity (UGHE) demonstrates a strong commitment to environmental sustainability by implementing comprehensive recycling programs. To responsibly manage waste, the institution has established organic and conventional recycling programs.

2

With three sewage treatment plants, the organics recycling program focuses on composting biodegradable waste to create fertilizer for the campus garden. UGHE cooperates with the local community to assemble biodegradable waste from the cafeteria to use in their daily farming activities. This practice adheres to circular economy principles by reducing waste and enriching the garden's soil, ultimately improving overall sustainability.

UGHE collaborates with a recycling company to collect non-compostable materials such as aluminum, paper, plastic, and glass for processing in Kigali. This effort diverts waste from landfills, incorporating it into recycling streams while reducing environmental impact.

Furthermore, UGHE promotes the handling of laboratory waste, such as glassware and plastic containers used in research by handing them over to Butaro Level Two Teaching Hospital to be handled properly to ensure reduction of the environmental impact of its scientific activities.

Through these initiatives, UGHE demonstrates responsible waste management and helps to create a more sustainable campus environment.

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 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 **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:

Score explanation: The University of Global Health Equity (UGHE) shows a strong commitment to sustainability in its campus food and beverage operations through a number of initiatives. By closely monitoring the campus population, UGHE optimizes food production to minimize excess and reduce food waste, helping to achieve sustainability goals by preventing unnecessary resource consumption and waste generation.

3

Furthermore, UGHE's café contract requires plastic-free packaged goods and local food sourcing, which benefits regional economies and reduces transportation's carbon footprint. This approach encourages community engagement and ensures provision of fresh food and beverages of good quality, while reducing the environmental impact of the institution's food supply chain.

In addition, food waste is disposed of in 2-in-1 dustbins (compost and non-compost) to be handled properly separately. Furthermore, implementing a self-service model in campus eating facilities eliminates wasteful packaging and total waste output, this initiative promotes responsible portioning and empowers consumers to make informed decisions, confirming UGHE's commitment to sustainable practices.

Collectively, these initiatives demonstrate UGHE's proactive approach to incorporating sustainability into its food and beverage offerings, which reflects the institution's broader commitment to environmental responsibility.

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:

3

Score explanation: The University of Global Health Equity (UGHE) has developed comprehensive sustainability guidelines that require all supply and procurement processes to align with the institution's environmental goals. These guidelines cover a wide range of campus operations, from event planning to equipment and facility management, ensuring that all activities follow sustainable practices. For example, when designing one of the main university's electricity sources, the infrastructure team chose eco-friendly solar power to reduce environmental impact. Similarly, the hospitality team avoids environmentally harmful practices when hosting events.

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:	2			
<i>Score explanation:</i> The University of Global Health Equity (UGHE) has established sustainability requirements for events hosted on its campus. For instance, when events are held in campus gardens, protocols are in place to ensure the integrity of the green vegetation is maintained. Additionally, vehicle entry is minimized, and all energy systems used during events are required to be renewable.				

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 explination: UGHE has a dedicated sewage treatment plant for lab spaces, which is different from the other sewage plant for other campus buildings. The waste collected from the labs is corrected and taken to a contractor in Kigali to be recycled hence mitigation of environmental harm that may arise from laboratory chemical waste.

2

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

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

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

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

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

Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that. (0 points)				
Score Assigned:	3			
<i>Score explanation:</i> As of now, the University of Global Health Equity (UGHE) has not received any endowments. However, the institution upholds a strong commitment to sustainability and ethical investment practices, ensuring that no funds are allocated from fossil fuel companies. This reflects UGHE's dedication to environmental responsibility and its alignment with planetary health principles, reinforcing its role as a leader in sustainable global health education				

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(62/72) x 100 = 86.11%	А
Interdisciplinary Research (17.5%)	(16/17) x 100 = 94.12%	А
Community Outreach and Advocacy (17.5%)	$(13/14) \ge 100 = 92.86\%$	А
Support for Student-led Planetary Health Initiatives (17.5%)	$(13/15) \ge 100 = 86.67\%$	А
Campus Sustainability (17.5%)	(24/32) x 100 = 78.12%	B+

Institutional Grade	(86.11x0.3 + 94.12x0.175	Α
	+ 92.86x0.175 +	
	86.67x0.175 +	
	78.12x0.175) = 87.39%	

Report Card Trends

Section Overview

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

Planetary Health Report Card Trends for University of Global Health Equity (UGHE) School of Medicine



Academic Year