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# Planetary Health Report Card:

## *Trinity College Dublin, Ireland*

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**Trinity College Dublin**  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin

**2020-2021 Contributing Team:**

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## Summary of Findings

*Note: Include strengths, weaknesses, and recommendations. Try to limit to 1 page.*

<b>Curriculum</b>	<b>D</b>
<ul style="list-style-type: none"> <li>The medical curriculum at TCD includes a module called ‘Global Health’ which covers aspects of sustainable development. However, it does not fully cover the concepts of Planetary Health or Climate Change. Similarly, the core curriculum does not fully cover the aforementioned topics but does cover it in some relevant modules such as Parasitology.</li> <li>The use of online modules such as the ‘global health’ module is an interesting approach, allowing for quick implementation, taking advantage of existing learning materials. We believe this approach should be developed further.</li> </ul>	
<b>Interdisciplinary Research</b>	<b>D</b>
<ul style="list-style-type: none"> <li>TCD as institution has research opportunities and investment in planetary health and advocacy but most of it remains outside the domain of school of medicine.</li> </ul>	
<b>Community Outreach and Advocacy</b>	<b>F+</b>
<ul style="list-style-type: none"> <li>Neither the medical school or its affiliated hospitals have any significant involvement with any community outreach or advocacy programmes. However, the institution overall does run a number of events in association with organisations focused on planetary health and the environment. There are plenty of opportunities for students to get involved in such organisations.</li> </ul>	
<b>Support for Student-Led Initiatives</b>	<b>D</b>
<ul style="list-style-type: none"> <li>There are few funded opportunities for student-led initiatives within the medical school. There are some prizes for environment-related art exhibitions etc., run by the university, but no direct funding for student research. In terms of the School of Medicine’s curriculum, there may be some essay or project choices that relate to planetary health.</li> </ul>	
<b>Sustainability</b>	<b>A-</b>
<ul style="list-style-type: none"> <li>TCD regularly publishes sustainability reports, the latest being in 2018 where it targets, reflects and sets new goals for sustainability in the coming years. Overall, has TCD made impressive efforts to become more sustainable.</li> <li>The school of medicine could benefit from taking a more active role in the work being made by the institution, especially in relation to potentially influencing affiliated hospitals and other healthcare settings affiliated with the school.</li> </ul>	

# Statement of Purpose

*Planetary health is human health.*

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

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

With the purpose of increasing planetary health awareness and accountability among medical schools, we have created a Planetary Health Report Card that medical students internationally can use to grade and compare their home institutions on an annual basis. This medical-student-driven initiative aims to compare medical schools 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 centered on environmental health impacts 5) medical school campus sustainability.

# Planetary Health Curriculum

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

## Curriculum: General

<b>1. Did your medical school offer elective courses to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?</b>	
3*	Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.
2	<b>Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.</b>
1	The medical school does not have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a lecture on planetary health.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation:</i> An online elective called 'Global Health MOOC - <a href="https://www.futurelearn.com/">Achieving Sustainable Development</a>' from 'Future Learn' was offered to 4th-year medical students in the summer 2020. The module included learning outcomes such as 'critically explore the UN SDGs framework' and 'understand how the impact of sustainable development can be measured' <a href="https://www.futurelearn.com/">https://www.futurelearn.com/</a></p>	

## Curriculum: Health Effects of Climate Change

<b>2. Does your medical school curriculum address the relationship between extreme temperature health risks and climate change, as well as the socioeconomic/racial disparities in extreme heat exposure?</b>	
3	This topic was explored in depth by the core curriculum.
2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*Score explanation: This year, all 3rd-year medical students must complete the 'Global Health-Achieving Sustainable Development' course in 2nd semester as part of the 3rd-year curriculum over a 4-week period.*

*It has become part of the following module **ADVANCED CLINICAL AND PROFESSIONAL PRACTICE** and is worth 20% of the module's grade. At the end of the 4-week period, all students must answer a set of 5 MCQs to ensure their knowledge is satisfactory on the course.*

*The module is designed in partnership between the School of Medicine at Trinity College Dublin and FutureLearn; it is interdisciplinary, with contributions from the Schools of Medicine, Psychology, Microbiology, Environmental Engineering and The Centre for Global Health, and is an opportunity for undergraduate medical students at TCD to develop their understanding of emerging health issues in Ireland and their relationship to global health and international development.*

*The module briefly covers several topics in relation to planetary health and sustainable development.*

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

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

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

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

*Score explanation: In the 'Infection and Immunity' module in the 2nd year 1st semester, the relationship between climate change and parasitic diseases is outlined as part of the Parasitology part of the module. In addition, is neglected tropical diseases (NTDs) and the 10 failings in global NTDs outlined. Of note, one of the failings is climate change.*

**5. Does your medical school curriculum address the cardiorespiratory health effects of climate change, including air pollution?**

3	This topic was explored in depth by the core curriculum.
2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: In the Laboratory and Investigative Medicine module (MDU33002) in 3rd-year, we have briefly discussed air pollution as a risk factor for respiratory pathologies, such as chronic bronchitis and lung cancers.</i>	

<b>6. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	<b>This topic was not covered.</b>

<b>7. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?</b>	
3	This topic was explored in depth by the core curriculum.
2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: While food and water security and ecosystem health are covered in the aforementioned 'Global Health' module, these topics are not explored explicitly in relation to climate change.</i>	

<b>8. Does your medical school curriculum address the outsized impact of climate change on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, and older adults?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.

1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

<b>9. Does your medical school curriculum address the unequal health impacts of climate change globally?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

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

<b>10. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

<b>11. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

<b>12. Does your medical school curriculum address the unique climate and environmental health challenges that have impacted and are impacting Indigenous communities?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.

1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

<b>13. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalized populations such as those with low SES, women, communities of color, children, homeless populations, and older adults?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

*Curriculum: Sustainability*

<b>14. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

<b>15. Does your medical school curriculum highlight the waste generated by the healthcare system and identify ways to advocate for and implement sustainable best practices in health care?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>

*Curriculum: Clinical Applications*

<b>16. In training for patient encounters, does your medical school’s curriculum introduce strategies to have conversations with patients about the health effects of climate change?</b>	
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2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	<b>No, there are not strategies introduced for having conversations with patients about climate change</b>

<b>17. In training for patient encounters, does your medical school’s curriculum introduce strategies for taking an environmental history or exposure history?</b>	
2	<b>Yes, the core curriculum includes strategies for taking an environmental history.</b>
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.
<i>Score explanation: Covered in the clinical skills module.</i>	

*Curriculum: Administrative Support for Planetary Health*

<b>18. Is your medical school currently in the process of improving Education for Sustainable Healthcare (ESH)/planetary health education?</b>	
4	<b>Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.</b>
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.
<i>Score explanation: The school will be undertaking a curriculum review in the near future and this has been earmarked for inclusion.</i>	

<b>19. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?</b>	
6	Planetary health/ESH topics are well integrated into the core medical school curriculum.

4	<b>Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.</b>
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).
0	There is minimal/no education for sustainable healthcare.
<i>Score explanation: Such as in the Global Health module and the Parasitology module.</i>	

<b>20. Bonus: Does your medical school have a program that offers incentives for faculty/departments to develop new planetary health/ESH courses and/or incorporate planetary health/ESH into existing courses?</b>	
1*	Yes, the medical school has an incentive program.
0	<b>No, the medical school does not have an incentive program.</b>
<i>Score explanation: No, not within the School of Medicine but at an institutional level, there have been awards to develop new courses which could include climate change but are not specifically for that.</i>	

<b>Section Total (20 out of 58)</b>	<b>20</b>
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# Interdisciplinary Research

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

<b>1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?</b>	
4	Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health <b>and</b> healthcare sustainability.
3	Yes, there are faculty members at the School of Medicine who have a primary research focus in a planetary health <b>or</b> healthcare sustainability.
2	Yes, there are individual faculty members at the School of Medicine who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	<b>There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the medical school.</b>
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation: TCD as an institution has researchers engaged in Interdisciplinary Research in Health and the Environment in many departments such as school of natural sciences, school of engineering, but none of the researchers affiliated with the SOM are actively engaged in planetary health research and healthcare sustainability research.</i></p>	

<b>2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?</b>	
3	<b>There is at least one dedicated department or institute for interdisciplinary planetary health research.</b>
2	There is not currently a department or institute for interdisciplinary planetary health research, but there are plans to open one in the next 3 years.
1	There is an Occupational and Environmental Health department, but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.

*Score explanation: TCS has several departments for such causes e.g 'The Trinity Centre for the Environment (TCE)', The Trinity Centre for Biodiversity Research (TCBR) and Trinity Centre for Environmental Humanities.*

*The Trinity Centre for Environmental Humanities (TCEH) aims to raise levels of environmental consciousness, perception and action through multi-disciplinary (history, literature, media and culture studies, anthropology, sociology, geography, to name a few) research and education. Global climate change is a complex issue requiring intelligent solutions to its social and environmental dilemmas. Drawing upon expertise from across the humanities, social and natural sciences, the Trinity Centre for Environmental Humanities provides a collaborative forum and interdisciplinary atmosphere for addressing major questions concerning how humans face pressing environmental challenges.*

<https://www.tcd.ie/provost/sustainability/research/>

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

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

**4. Does your institution have a planetary health website, or a website centralizing various campus resources related to health and the environment?**

3	There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
2	<b>There is a website that attempts to centralize various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.</b>
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.

*Score explanation: Trinity has a webpage which attempts to centralize various campus resources related to health and the environment.*

<https://www.tcd.ie/provost/sustainability/research/>

<b>5. Has your institution recently hosted a conference or symposium on topics related to planetary health?</b>	
4	Yes, the institution has hosted more than one conference or symposium on topics related to planetary health in the past year, including at least one on climate change.
3	Yes, the institution has hosted one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	<b>No, the institution has not hosted a conference on topics related to planetary health in the past three years.</b>

<b>6. Has your institution or medical school joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education?</b>	
2	Yes, the medical school has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education.
1	Yes, the institution has joined the Planetary Health Alliance and/or the Global Consortium on Climate and Health Education, but the medical school specifically has not.
0	<b>No, the institution has not joined the Planetary Health Alliance or the Global Consortium on Climate and Health Education.</b>

<b>Section Total (6 out of 19)</b>	<b>6</b>
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## Community Outreach and Advocacy

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

<b>1. Does your medical school partner with community organizations to promote planetary and environmental health?</b>	
3	Yes, the medical school meaningfully partners with multiple community organizations to promote planetary and environmental health.
2	Yes, the medical school meaningfully partners with one community organization to promote planetary and environmental health.
1	<b>The institution partners with community organizations, but the medical school is not part of that partnership.</b>
0	No, there is no such meaningful community partnership.
<p><i>Score explanation: Trinity partners with several community organisations that promote planetary and environmental health. Some examples include Innovation for the Global Arctic, Climate Innovation Leadership Programme UNI-ECO and CHARM-EU. However, the medical school has no specific role in these partnerships.</i></p>	

<b>2. Does your medical school offer community-facing courses or events regarding planetary health?</b>	
3	The medical school offers community-facing courses or events at least once every year.
2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	<b>The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.</b>
0	The medical school has not offered such community-facing courses or events.
<p><i>Score explanation: The institution has offered an opportunity to take part in small projects with the UNI-ECO Green Challenges for 2021.</i></p>	

*The UNI-ECO project team are delighted to announce the UNI-ECO “Green Challenges” for 2021 and to invite you to propose small projects to address these challenges  
Do you have a great idea for climate action/ biodiversity action/ sustainability? Would you like to see this implemented in real time?*

*As part of the UNI-ECO project, in collaboration with our European partners (CHARM-EU partners), we are launching a call for students and staff to submit mini-projects under the following four headings:*

- Practices that will bring the university closer to Zero Waste*
- Reducing the carbon footprint related to transport at the university*
- Reducing the environmental footprint of catering at the university*
- Actions to support and enhance biodiversity*

*The college careers service along with the Green campus committee has offered events and talks regarding opportunities in ‘Green Careers’. This was organised as part of Trinity Green Week.*

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

2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	<b>Students do not regularly receive communications about planetary health or sustainable healthcare.</b>

**4. Do hospitals affiliated with your medical school have accessible educational materials for patients about environmental health exposures?**

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
0	<b>No affiliated medical centers have accessible educational materials for patients.</b>

*Score explanation: The hospitals have environmental services, but they focus on promoting health and safety among staff. It is not a service for the patients of the hospital.*

**5. Do hospitals affiliated with your medical school have accessible educational materials for patients about climate change and health impacts?**

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
<b>0</b>	<b>No affiliated hospitals have accessible educational materials for patients.</b>
<i>Score explanation: The hospitals have environmental services, but they focus on promoting health and safety among staff. It is not a service for the patients of the hospital.</i>	

<b>Section Total (2 of 12) *Adjusted score</b>	<b>2</b>
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# Support for Student-Led Planetary Health Initiatives

***Section Overview:*** This section evaluates institutional support for student-led planetary health initiatives, such as funding, fellowships, programming, and student groups. Planetary health is a young field and, as young people facing a future deeply shaped by climate change, students are often some of the first at an institution to engage with it. Institutions should provide support for students to engage in sustainability quality improvement (QI) initiatives, discover mentors in their area of interest, and receive funding for planetary health projects.

<b>1. Does your institution offer support for medical students interested in enacting a sustainability initiative?</b>	
2	Yes, the institution offers grants available to medical students for students to enact sustainability initiatives.
1	The medical school encourages sustainability QI projects (to fulfill clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available.
0	<b>No, the institution does not offer opportunities or support for sustainability initiatives.</b>

<b>2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?</b>	
2	The institution offers paid research opportunities for students and planetary health/sustainable healthcare projects would be considered eligible.
1	<b>There are unfunded research opportunities for students to perform research related to planetary health/sustainable healthcare.</b>
0	There are no opportunities for students to receive funding for planetary health/sustainable healthcare research.
<p><i>Score explanation: Students can be assigned research in the form of essays where we may choose an option related to planetary health. An example of such an option is “Excluding SARS viruses, what are the biggest threats posed by pathogens transmissible to humans from non-human vertebrates”. The research involved in this essay would incorporate climate change as a factor in transmissible diseases.</i></p>	

<b>3. Does the medical school have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.</b>	
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2	The medical school has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	There is a medical school webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
<b>0</b>	<b>There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.</b>
<i>Score explanation: Updates such as this may appear on the School of Medicine Twitter page - @TrinityMed1</i>	

<b>4. Does your medical school have funded, registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?</b>	
2*	Yes, there is a funded student organization with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organization at my medical school dedicated to planetary health or sustainability in healthcare, but it lacks faculty support and/or funding.
<b>0</b>	<b>No, there is not a student organization at my institution dedicated to planetary health or sustainability in healthcare.</b>

<b>5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for sustainability best practices?</b>	
1	Yes, there is a student representative that serves on a medical school or institutional decision-making council.
<b>0</b>	<b>No, there is no such student representative.</b>

<b>6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)</b>	
1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
<b>1</b>	<b>Panels, speaker series, or similar events related to planetary health that have students as an intended audience.</b>

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	<b>Cultural arts events, installations or performances related to planetary health that have students as an intended audience.</b>
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	<b>Wilderness or outdoors programs (e.g., that organize hiking, backpacking, kayaking, or other outings for students) that follow Leave No Trace principles.</b>

*Score explanation:*

*(b) Trinity Events will often run panels and talks for students and staff relating to planetary health. Green week is always full of speaker events for students.*

*One example is a talk from Barry Jones, designer of domestic wind turbines, yachtsman and teacher.*

*(d) Trinity Ball ran a competition last year where they asked students to submit installation ideas titled 'Paradise Lost', relating to planetary health and climate change.*

*(f) There is a Trinity Hiking society who organise weekly hikes in the Wicklow mountains and the Greater Dublin area.*

**Section Total (4 of 14)**

**4**

# Campus Sustainability

***Section Overview:*** *This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavor, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinizing 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 minimizing environmental impact.*

<b>1. Does your medical school and/or institution have an Office of Sustainability?</b>	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital and/or medical school.
2	<b>There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of medical school and/or hospital sustainability.</b>
1	There are no salaried sustainability staff, but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation: The Provost’s Advisory Committee on Sustainability and Low Carbon Living was established in February 2017, with staff and student representation. It is tasked with providing leadership in advancing the sustainability objectives in the College’s current Strategic Plan, especially on environmental and carbon footprint topics. The Provost has appointed both a sustainability champion and sustainability advisor to encourage and link behaviours, projects and initiatives throughout the university.</i></p>	

<b>2. Does your medical school and/or institution have a stated goal of carbon neutrality by 2050?</b>	
4*	The medical school is already carbon neutral.
3	<b>Yes, there is a stated carbon neutrality goal, and the medical school has a well-defined and adequate plan in place to achieve this goal.</b>
2	Yes, there is a stated carbon neutrality goal, but the medical school has not created a plan to reach that goal, or the plan is inadequate.
1	There is a CO2 emission reduction goal, but it is not one of carbon neutrality.
0	There is no stated goal for reduction of CO2 emissions.

*Score explanation: TCD has in its sustainability report of 2018 the goal of 80% Reduction in Greenhouse Gas Emissions by 2050. Linda Hogan, a provost candidate, highlighted her efforts to work for a carbon neutral university by 2030 in her manifesto.*

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

3*	Yes medical school buildings are 100% powered by renewable energy
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	<b>Medical school buildings source &gt;20% of energy needs from off-site and/or on-site renewable energy.</b>
0	Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.

*Score explanation: TCD sustainability report of 2018 states the goal of 14% Increase in Renewable Energy Use Until 2020 vs 2006-2008 which was achieved.. 99.5% of renewables used by Trinity is from increased renewables penetration on the grid, with 0.5% generated by on-site solar thermal panels to provide hot water at 4 locations (Pavillion, Lir Centre, New Square houses 33 and 28), and 0.03% from transport biofuels (excluding weightings)*

**4. Are sustainable building practices utilized for new and old buildings on the medical school campus, with design and construction of new buildings and remodeling of old buildings conforming to a published rating system or sustainable building code/guideline?**

3	Yes, sustainable building practices are utilized for new buildings on the medical school campus and the majority of old buildings have been retrofitted to be more sustainable.
2	<b>Sustainable building practices are utilized for new buildings on the medical school campus, but most old buildings have not been retrofitted.</b>
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.

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

2	<b>Yes, the medical school has implemented strategies to encourage and provide environmentally-friendly transportation options such as safe active transport, public</b>
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	<b>transport, or carpooling and these options are well-utilized by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.</b>
1	The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.
<p><i>Score explanation:</i></p> <p><i>Trinity has adopted five sustainable transport objectives:</i></p> <ol style="list-style-type: none"> <li><i>1) Increase Use of Sustainable Transport</i></li> <li><i>2) Increase Renewable Energy Use in College Transport</i></li> <li><i>3) Reduce Car Use</i></li> <li><i>4) Increase use of bikes by 10%</i></li> </ol> <p><i>TCD promotion for sustainable transport:</i></p> <p><i>Remote Conferencing options</i></p> <p><i>Trinity has a variety of remote conferencing options, to participate in meetings, conferences and workshops. The carbon footprint of travel is one of our biggest footprints, and in many cases travel can be avoided, saving the cost involved, the time involved, and the carbon footprint impact.</i></p> <p><i>97% of Trinity staff and students use sustainable transport options, which ranks us as one of the world's top universities for use of sustainable transport.</i></p> <p><i>Free showers are available between 7am and 9am Monday to Friday, at the Sports Centre for college staff who cycle to work.</i></p> <p><i>Trinity is promoting the use of zero emission vehicles by providing two electric vehicle charge points for staff to charge their vehicles.</i></p>	

<b>6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminum/paper/plastic/glass)?</b>	
2	<b>Yes, the medical school has both compost and recycling programs accessible to students and faculty.</b>
1	The medical school has either recycling or compost programs accessible to students and faculty, but not both.
0	There is no compost or recycling program at the medical school.

<b>7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections?</b>	
3	<b>Yes, the medical school has adequate sustainability requirements for food and beverages and is engaged in efforts to increase food and beverage sustainability.</b>

2	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.
<p><i>Score explanation:</i></p> <p><i>Student led talks on sustainable food and food waste. Support for trinity start-up FoodCloud. OneStepCloser, a social engagement platform used to engage students and staff on elimination of disposable plastics on campus and vegetarian choices of food at the Buttery Café (23% participation rate).</i></p> <p><i>Free water available in cafeterias/ cafes etc.</i></p>	

<b>8. Does the medical school or associated institution apply sustainability criteria when making decisions about supply procurement?</b>	
3	<b>Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.</b>
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.
<p><i>Score explanation: The Sustainable Procurement Working Group (established by the Provost) created a Sustainable Procurement Policy which was approved by the College Board in 2019. Sustainable Procurement guidelines are available here for all staff involved in procurement of services and goods for Trinity.</i></p> <p><i>Collectively, Trinity's purchasing choices support the implementation of the UN Sustainable Development Goals; reduce our environmental footprint; and affect market change by increasing demand for fairly priced and socially responsible products.</i></p> <p><a href="https://www.tcd.ie/provost/sustainability/initiatives/sustainableprocurement/">https://www.tcd.ie/provost/sustainability/initiatives/sustainableprocurement/</a></p>	

<b>9. Are there sustainability requirements or guidelines for events hosted at the medical school?</b>	
2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required.

0	There are no sustainability guidelines for medical school events.
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10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	<b>Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.</b>
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.
<p><i>Score explanation:</i></p> <p><i>LabCup was trialled in the campus to help reduce hazardous waste generation and improve safety in 2018. Hazardous biological and chemical waste down 4.5% for two consecutive years. TCD Facilitates living labs &amp; supports sustainable start-ups.</i></p> <p><i>Labcup trial rolled out to help prevent purchase of chemicals already in stock. Training on reducing contamination in hazardous waste bins.</i></p>	

11. Does your institution's endowment portfolio investments include fossil-fuel companies?	
4	<b>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.</b>
3	No, the institution is entirely divested from fossil fuels.
2	The institution has partially divested from fossil-fuel companies.
1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organized advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.
<p><i>Score explanation: Trinity College Dublin has decided to sell off all of its investments in companies whose primary business is in the extraction of fossil fuels. It is the first university on the island of Ireland to divest its oil, coal and gas investments. Trinity 's decision to divest was in response to an impressive 15 month student campaign 'Fossil Free TCD' and was made last November.</i></p>	

Section Total (24 out of 29)	24
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## Grading

### Section Overview

This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

Letter Grade	Percentage
A	80% - 100%
B	60% - 79%
C	40% - 59%
D	20% - 39%
F	0% - 19%

### Planetary Health Grades for the Trinity College Dublin School of Medicine

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

Section	Raw Score	Grade
<b>Planetary Health Curriculum (30%)</b>	20 / 58 = 34%	D
<b>Interdisciplinary Research (17.5%)</b>	6 / 19 = 31%	D
<b>Community Outreach and Advocacy (17.5%)</b>	2 / 12 = 17%	F +
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	4 / 14 = 28%	D
<b>Campus Sustainability (17.5%)</b>	24 / 29 = 83%	A -
<b>Institutional Grade</b>	<b>40%</b>	<b>C -</b>